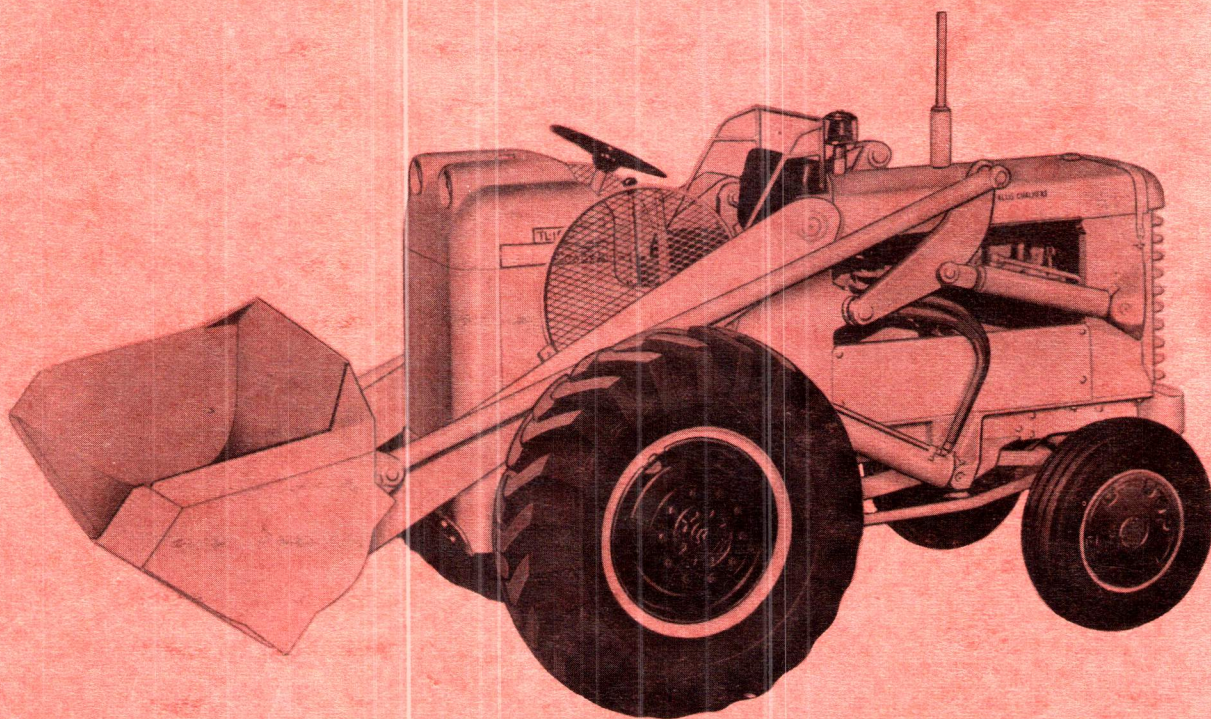


**OPERATORS MANUAL
AND
PARTS LIST
MODEL TL-10
TRACTOR LOADER
(PRIOR TO SERIAL NO. 2502)**



**ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WISCONSIN, U. S. A.**

LITHO. IN U. S. A.

33037
(7-61)

FOREWORD

This Parts and Instruction Book contains all the necessary information for the ordering of parts for the Model TL-10 Tractor Loader. It also contains the essential operating instructions which will enable the operator to accomplish what the unit has been designed to do and to gain the maximum in trouble-free operation and long life.

The Model TL-10 Tractor Loader has two distinct features which greatly improve its operation and output. They are:

- A. The HYDRAULIC TORQUE CONVERTER between the engine and transmission.
- B. A CLUTCH TYPE TRANSMISSION for reversing the direction of the unit without shifting gears.

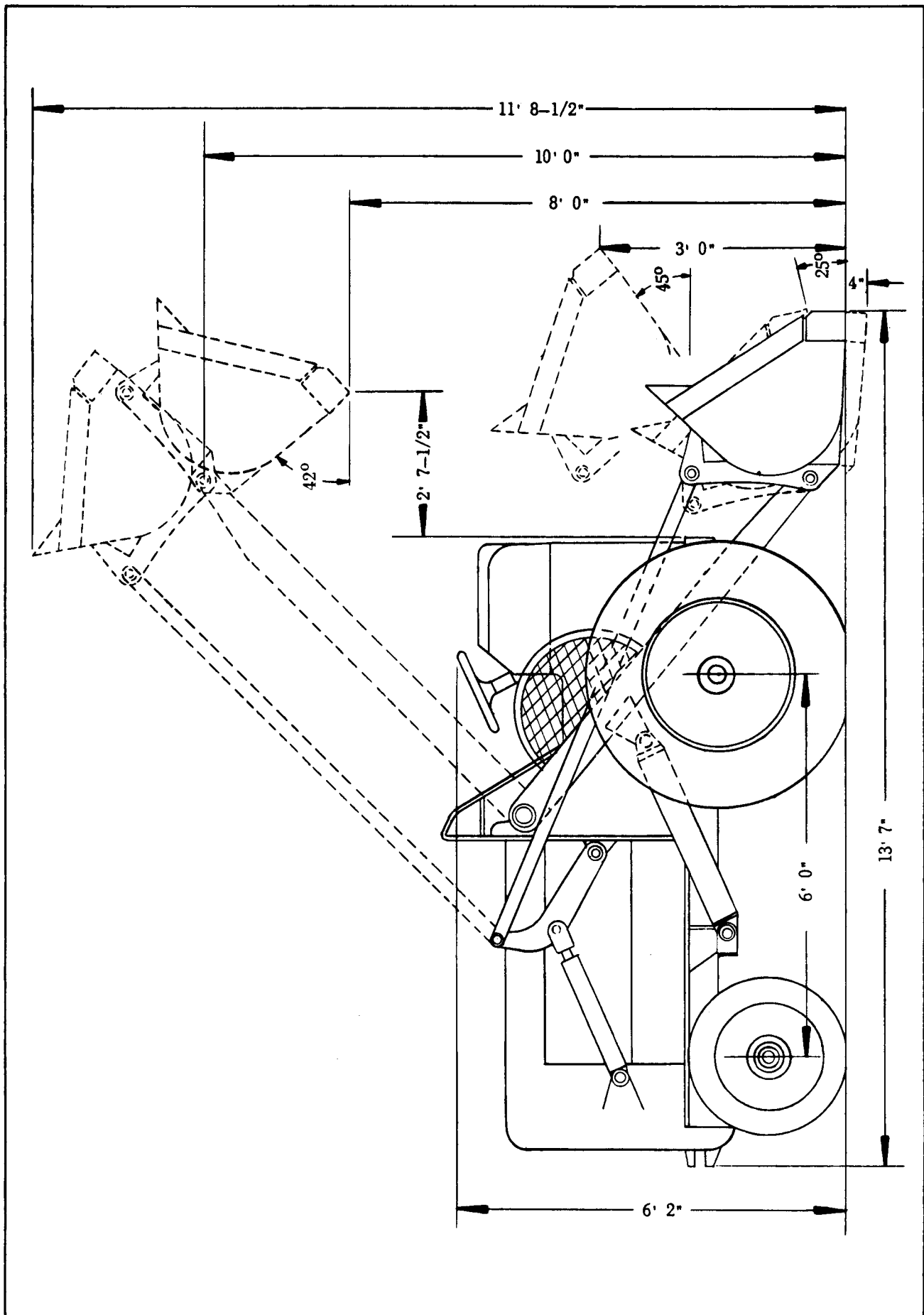
Torque Converter Operating Advantages

- 1. The converter provides a very flexible hydraulic connection between the engine and the transmission, permitting smooth, shockless flow of power.
- 2. Prevents stalling of the engine when unit is overloaded.
- 3. Less wheel slippage because converter automatically adjusts the speed of the drive wheels to the load.
- 4. The converter allows the machine to crowd forward into the pile at the same time the bucket is raising without lugging the engine down. This eliminates slipping the clutch to load the bucket.
- 5. Increases life of clutches because they are engaged at practically no torque.
- 6. The torque converter permits the machine to maneuver safely in close quarters because the machine will stop with the clutch still engaged by removing your foot from the accelerator pedal.

The practice of going to your Allis-Chalmers Dealer for all repair parts and repair work, other than routine care and adjustments, is encouraged as the dealers will be kept informed by the factory regarding repair parts and advanced methods of servicing.

TABLE OF CONTENTS

Name	Page	Name	Page
Specifications	3	Forward and Reverse Clutches	21
Alphabetical Index	4	Steering Gear	22
Preparation of Machine for Use	6	Rear Steering Wheels	26
General Operating Instructions	7	Front Wheels	27
Routine Service (Quick Reference List) ..	8	Brakes	27
General Maintenance	13	Electrical System	27
Hydraulic System	13	Storage of Machine	29
Power System	16	Warranty	30
Torque Converter	19	Ordering of Repair Parts	31



DIMENSION CHART

SPECIFICATIONS

ENGINE:

Make Allis-Chalmers W-226
 Type Vertical, Valve in Head
 Number of Cylinders 4
 Brake H.P. at Governed R.P.M. (1800)
 With Accessories 58.7
 Without Accessories 63.0
 Fuel Gasoline
 Bore and Stroke 4" x 4-1/2"
 Firing Order 1-2-4-3
 Piston Displacement 226 Cu. In.
 Rated R.P.M. (Governed at
 Full Load) 1800
 Ignition - Magneto Impulse Coupling
 Air Cleaner Oil Bath
 Oil Filter Allis-Chalmers
 Governor Limit Speed Type

WEIGHT: (Bucket at 3' Carry)

Front Wheels 6980 Lbs.
 Rear Wheels 4720 Lbs.
 Shipping Weight (Approx.) 11,700 Lbs.

SPEEDS: (At rated Engine speed)

	Forward
1st	0-1.9
2nd	0-3.5
3rd	*0-9.2
4th	*0-18.0
	Reverse
1st	0-3.5
2nd	0-6.5
3rd	*0-14.5
4th	*0-28.5

(* Road Speeds)

DIMENSIONS:

Wheelbase 6' 0"
 Overall Length, Bucket down 13' 7"
 Overall Width - Drive Wheel Hub 6' 1-1/2"
 Tread - Large Wheels 4' 10-1/2"
 Overall Height - Bucket down (Top of
 Steering Wheel highest point) 6' 2"
 Height to Hinge Pin Center Line
 (Max. Raise) 10' 0"
 Height to Cutting Edge - Bucket Up
 Dumped 8' 0"

BUCKET:

Capacity 1 Cu. Yd.
 Width 6' 3-1/2"
 Lifting Time 7 Sec.
 Lowering Time 6 Sec.
 Angle, Dumped 42°

TURNING RADIUS:

Tip of Bucket (at 3' Carry) 11' 0"
 Outer Steering Tire
 (Wheel or Hub) 9' 9"
 Inner Drive Tire
 (Wheel or Hub) 3' 2"

TIRE SIZE:

Rear (Steering Wheels) 7.50-16
 Front (Driving Wheels) 13.00-24

TIRE PRESSURE:

Rear (Steering Wheels) 45 PSI
 Front (Driving Wheels) 30 PSI

CAPACITIES:

Cooling System (Oil) 3-1/2 Gals.
 Crankcase 6 Qts.
 Transmission and Converter
 (including Power Steering) 20-1/2 Qts.
 Differential 3 Qts.
 Steering Gear 1 Pound
 Final Drive Each 1 Gal.
 Fuel Tank 22 Gals.
 Hydraulic System 12 Gals.
 Hydraulic Brake System 1/2 Pint

STANDARD EQUIPMENT:

Electric Starter	Torque Converter and
Lights	Clutch Type Transmission
Horn	Power Steering
Pre-Cleaner	Generator
Oil Filter	
Muffler	
Hydraulic Brakes	
Parking Brake	
Oil Bath Air Cleaner	
Drawbar	

ALPHABETICAL INDEX

NAME	PAGE	PART NAME	PAGE
Accelerator Pedal	101	Crank	244
Air Cleaner	102,104	Crankcase	64
Ammeter	215 thru 231	Crankshaft and Flywheel	38,40
Axle Assembly, Front	164	Cross Link Assembly	233
Axle, Steering	194	Cutting Edge	282
Axle, Steering Support	194	Cylinder Block	33 thru 37
Battery and Box	214 thru 229	Cylinder Head	47 thru 49
Battery Cables	214 thru 229	Cylinder Liner	42,44
Belt, "V" (Converter Pump)... ..	268 thru 274	Cylinder, Power Steering	202
Boom Assembly	233	Cylinder Repair Kit	179 thru 251
Brake Assembly, Left and Right (Hyd.)	174,176	Differential Carrier and Housing (Front) ...	164
Brake System (Hydraulic)	179,183,187	Drag Link	197,202
Brakes (Parking)	141,300	Drive Wheels	190
Breather Assembly	255	Drive Shaft Group	162,163
Breather Cap, Engine	52,55,57	Dump Cylinder Assembly	247,251
Breather, Differential	164	Dump Link Assembly	233
Breather, Transmission	141,145	Electrical Fuel Pump	288
Buckets	282	Electrical System	213 thru 229
Bulldozer Moldboard	284	Engine Controls	101
Camshaft	45,46	Engine Support	237
Carburetor	93 thru 99	Exhaust Manifold and Muffler	88 thru 91
Check Valve Assembly		Fan	85,86
(Parking Brakes)	179 thru 187	Fan Belt	86,87
Clutch Assembly	151,157	Filter, Converter Oil	107 thru 128
Clutch Control	151,157	Filter, Oil	69 thru 73
Clutch Housing Kit	151,157	Filter, Fuel	205,209
Clutch Instruction Plate	234	Final Drive	167,171
Clutch Lever	151,157	Floor Plate Weld Assembly	206,209,210
Clutch Repair Kit	151,157	Flywheel	38,40
Clutch Shafts and Pilot Bearings	151,157	Flywheel Housing	131 thru 138
Control Valve Assembly, Hydreco .	257 thru 263	Forward and Reverse Clutch Group	151,157
Converter Cooling and Lines	121,125	Frame and Seat Group	237
Converter Cooling and Power		Front Wheels	190
Steering Lines	121 thru 128	Fuel Filter	205,209
Converter System Pump		Fuel Pump (Electrical)	288
Assembly	267 thru 275	Fuel System and Cowl	205,209
Crane Hook	283	Fuel System (Starting)	286

ALPHABETICAL INDEX - CONTINUED

PART NAME	PAGE	PART NAME	PAGE
Generator	213 thru 227	Radiator, Oil Cooler	107 thru 117
Governor	60,62	Rear Steering Axle	194
Guard Group	235	Relief Valve, Engine Oil.....	34 thru 37
Guard, Radiator Shell	239,243	Rheostat Switch	221 thru 231
Heater Group	291 thru 297	Rocker Arms, Valve	51 thru 57
Hood and Counterweight Group	239,243	Seat Cushions	237
Horn Assembly	215 thru 230	Shifter Assembly	147
Hoses, Hydraulic System	253 thru 256	Shifter Control Assembly	147
Housing and Differential Carrier	164	Spark Plugs and Cables	74 thru 79
Hydraulic Brake System	179,183,187	Starting Fuel System	286
Hydraulic Power Steering	121,125	Starting Motor	214 thru 229
Ignition	74 thru 79	Starting Switch, Solenoid	214 thru 230
Intake and Exhaust Manifold	88,90,91	Steering Arm Assembly	194,202
Lever, Gear Shift	147	Steering Axle	194
Lift Cylinder	245	Steering Gear Assembly	197,199
Lift Fork	283	Support Radius Rod	237
Linkage Group	233	Tank, Hydraulic System	253
Magneto and Drive	74	Temperature Sender	225
Main Bearing Caps and Shims.....	33 thru 37	Thermostat	81 thru 84
Manifold, Intake and Exhaust.....	88 thru 91	Tie Rods	195
Manifold, Water.....	81 thru 84	Timing Gear	45,46
Mechanical Drive Assembly	137	Timing Gear Cover	58,59
Oil Filter and Lines	69 thru 73	Tire and Wheel Group (Front)	190
Oil Pressure Gauge	221 thru 231	Tools (Special)	303
Oil Pump, Engine.....	65 thru 68	Torque Converter and Flywheel Housing	130,135
Pins, Loader Linkage	233	Transmission Assembly	139,143
Piping and Tank Group	253	Transmission Control	147
Piston and Connecting Rods	42,44	Valve, Float (Carburetor)	93 thru 99
Power Steering, Hydraulic	121,125	Valve Push Rod	45,46
Pre-Cleaner and Air Cleaner	102,104	Valve Rocker Arms and Shaft	51 thru 57
Pressure Sender	215 thru 224	Valve, Steering Gear Assembly (Hyd.)	199
Pump Assembly, Hydraulic System..	279,281	Valve Tappets	45,46
Pump Assembly, Converter		Valves	51,54,57
System	267 thru 275	Water Manifold	81 thru 84
Pump, Engine Oil	65 thru 68	Water Pump and Fan	85,86
Pump, Water	85,86	Water Temperature Gauge	225,231
Radiator , Water	105,106	Wheel and Axle Steering	193

PREPARATION OF MACHINE FOR USE

Make a complete inspection of machine to make sure no parts have been lost or damaged while in transit.

Inspect oil level in engine crankcase.

Inspect oil level in air cleaner cup.

Check and lubricate all points where fittings are provided for a pressure grease gun.

Lubricate clutch roller and lever assemblies and splines of clutch shafts with several drops of engine oil.

Check level of electrolyte solution in the

battery.

Fill water cooling system with clean water.

Fill fuel tank with gasoline.

Check oil level in transmission.

Check oil level in final drives.

Check oil level in loader hydraulic system.

Check all bolts to be sure they are tight.

By tightening these bolts at this time and again at the end of 10 hours, the possibility of their becoming loose and enlarging the bolt holes will be eliminated.

STARTING AND STOPPING THE ENGINE

A. STARTING ENGINE

Place clutch lever in the neutral position. Turn ignition switch to "ON" position. Depress the foot throttle pedal about half way. Pull out choke control located left of the valve control levers on the right hand side of the operator's compartment. Push on the starter button located on the instrument panel. When the engine has turned over two compression strokes, push in choke control. As soon as engine starts, release the starter button. If weather is cool, more choking may be necessary.

When the engine is started, see that the oil gauge is registering pressure. Do not operate

engine unless the oil gauge registers. While operating the unit, look at the oil pressure gauge at regular intervals to make sure oil is being circulated by the pump. The normal operating pressure is 10-20 psi when the engine is heated to operating temperature and running at normal governed speed.

B. STOPPING ENGINE

Release foot throttle pedal and turn ignition switch to "OFF" position.

Cover the exhaust pipe at the end of each days operation to prevent rain from entering while the engine is idle.

GENERAL OPERATING INSTRUCTIONS

BEFORE STARTING THE ENGINE, MAKE SURE THERE IS SUFFICIENT OIL IN THE HYDRAULIC SYSTEM.

It is important that the operator familiarize himself with the various controls and instruments provided for operation of this unit. Although many of these controls are similar to other loaders, there are important differences, and it is not wise, regardless of previous experiences, to operate the loader before fully understanding the purpose of each control and instrument.

The two multiple disc clutches located on the transmission are controlled by means of a hand lever, which is moved ahead to go forward and back for reverse; with neutral at the center position. The accelerator pedal is located under the right foot so that the operator can keep his left foot ready for the brake and his right foot on the accelerator at all times. This is a distinct advantage in positioning and holding the machine, and also permits keeping the engine speed up for snappier bucket action. The parking brake is a check valve connected to the hydraulic brake master cylinder and is operated by a hand lever which is located on the front of the seat frame in the lower righthand side of the operators compartment. Push foot pedal and hold, turning hand lever up to set parking brake. Efficiency of the parking brake is dependent upon proper adjustment of the service brakes.

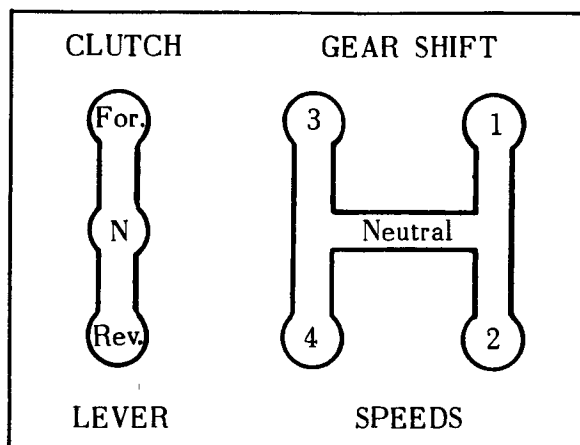


PLATE 260 - SHIFTING DIAGRAM

To operate the loader, place the clutch lever in the neutral position and start the engine. Move the gear shift lever to select the desired speed range and engage the hand clutch lever for either forward or reverse travel. A diagram showing shift lever positions appears on the instrument panel.

A FEW SUGGESTIONS FOR LOADING THE BUCKET AND MANEUVERING THE MACHINE.

1. Clutch slippage should be avoided. It is not necessary to slip the clutch in order to properly load the bucket. Instead of releasing the clutch when the bucket starts to stall out, release the accelerator pedal momentarily to reduce the crowding action. When the bucket starts to raise, depress the accelerator to full throttle. (Quite frequent adjustment of the clutches may be expected during the first few hours of operation; or until the action parts wear in.)
2. The operator will find in most material, that the second gear forward and the corresponding second gear reverse will be the most satisfactory gears for loading and maneuvering.
3. The operator can safely control the machine when approaching a truck by keeping his right foot on the accelerator and his left foot ready for the brake at all times.
4. The brake pedal has purposely been placed under the left foot, which leaves the right foot free to operate the accelerator pedal. This arrangement permits the operator to hold the unit in position at the side of a dump truck and at the same time accelerate the engine to quickly dump the bucket.
5. The torque converter permits the tractor-loader to maneuver safely in close quarters because the machine will stop with the clutch still engaged by removing your foot from the accelerator.

GENERAL OPERATING INSTRUCTIONS – CONTINUED

6. Return the Raise Control Lever to neutral position immediately after the lift cylinders reach the end of the stroke. Otherwise, the hydraulic pump is unnecessarily subjected to excessive load.
7. Double acting lift cylinders are used on the Model TL-10 because:
 - a. A limited amount of “down pressure” can be provided for clean-up work.
 - b. Field adjustment and repairs are easier to make.
 - c. The bucket may be returned to the ground faster.

This machine is equipped with 13.00-24 tires on the drive wheels and 7.50-16 tires on the steering wheels. Both sets of tires are completely filled with calcium chloride solution for additional traction, which reduces the tendency for the driving wheels to spin during loading. This added traction, in conjunction with the converter, makes it possible to almost completely eliminate wheel spinning. However, short tire life will result if driving wheels are allowed to spin excessively.

The bucket is lifted by pulling back on the outer control lever. It is lowered by pressure when the control lever is moved forward from the neutral position. When the end of the cylinder stroke is reached, either up or down, the control lever should immediately be returned to its neutral position. The bucket can be “Float-

ed” down by moving the control lever to its extreme forward position.

The bucket is dumped by pushing forward on the inner control lever. The speed of dumping can be controlled by this lever. If material has a tendency to stick in the bottom of the bucket, it can be jarred loose by bumping the stops. This is done by moving the control lever back and forth rapidly. This should be done only under extreme sticking conditions.

The bucket, in addition to the automatic tip-back, during the boom raising cycle, can be tipped back at ground level to increase the payload of loose material handling. This means that the dump cylinder piston rods must be extended to level the cutting edge when penetrating the pile, and can be retracted during the loading cycle to attain a full load in the bucket. because of the break-away effect of this controllable tip-back.

When loads are carried for any appreciable distance, the bucket should be carried as close to the ground as practical since the best overall balance is obtained in this position, and with the tip-back bucket feature, the load can be carried low with less spillage.

THE BUCKET SHOULD ALWAYS REST ON THE GROUND WHEN THE UNIT IS NOT IN OPERATION. DO NOT ATTEMPT TO SERVICE OR ADJUST ANY PART OF THE LOADER WHEN THE BUCKET IS IN A RAISED POSITION - UNLESS IT IS SUITABLY SUPPORTED BY MEANS OTHER THAN THE HYDRAULIC LIFT CYLINDERS.

ROUTINE SERVICE

(Quick Reference List)

This quick reference outline is prepared in addition to the more detailed discussion of the Routine Service that appears on the following pages. The accompanying Lubrication and Service Chart is to show the general location of the points to be serviced.

TEN (10) HOUR SERVICE

LUBRICATE:

Spindle Pins
Steering Axle Pivot Pin
Drag Link
Power Steering Pivot Pins

ROUTINE SERVICE - CONTINUED

TEN (10) HOUR SERVICE (CONTINUED)

Tie Rod
Loader Linkage
a. Booms
b. Dump Cylinders
c. Cross Links
d. Lift Cylinders
e. Bucket Pins

CHECK:

Water Pump
Engine Oil Level
Radiator
Fuel Filter
Hydraulic System Suction Line
Screen and Magnet

SERVICE:

Hydraulic Tank Breather
Engine Breather
Transmission Breather
Drive Axle Housing Breathers
Air Cleaner - Change Oil
Air Pre-Cleaner

SIXTY (60) HOUR SERVICE

LUBRICATE:

Clutch Throwout Socket
Clutch Release Bearings - Do not over grease.
Clutch Roller and Lever Assembly - Several drops of light oil
Transmission Shift Control

CHECK:

Battery
Oil and Water Radiators - Cores for plugging
Transmission
Differential
Final Drives
Loader Hydraulic System
a. Oil Level

b. Connections for leaks
c. Adjustment of Cylinder Piston Rod Packing

SERVICE:

Torque Converter Filter - Clean

Note: It may be necessary to clean more often the first few hours of operation.

ONE HUNDRED (100) HOUR SERVICE

LUBRICATE:

Drive Shaft (Universal Joint)
Generator
Starting Motor

SERVICE:

Engine Crankcase - Drain and refill
Engine Oil Filter - Replace element
Spark Plugs - Clean and adjust Gap

FIVE HUNDRED (500) HOUR SERVICE

CHECK:

Steering Gear

SERVICE:

Hydraulic System - Drain, flush, refill
Steering Wheels (small) - Repack bearings

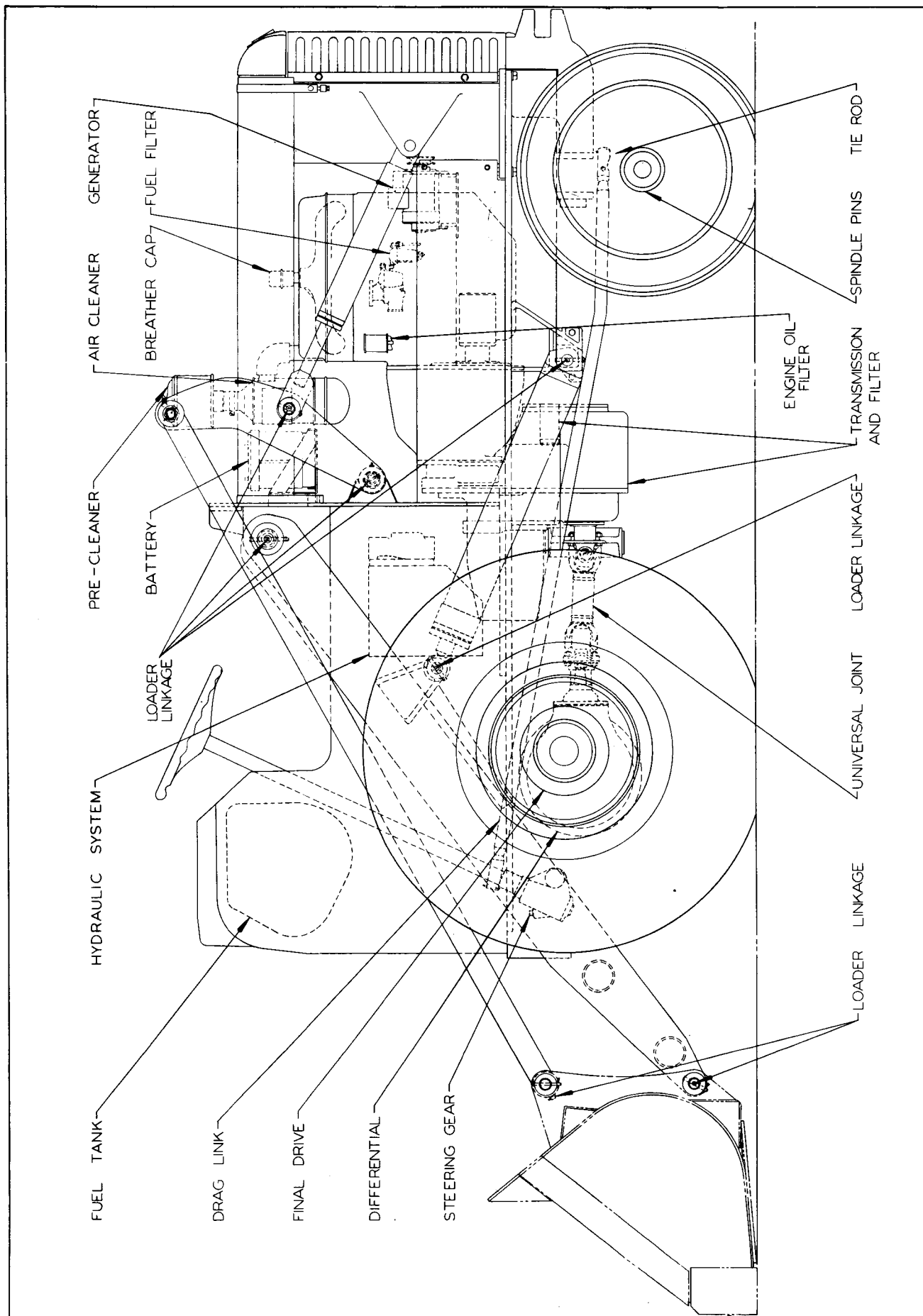
ONE THOUSAND (1000) HOUR SERVICE

SERVICE:

Transmission - Drain and refill
Differential - Drain and refill
Final Drives - Drain and refill

PERIODIC SERVICE

Clutch Adjustment	Air Cleaner
Brake Adjustment	Pre-Cleaner
Fan Belt Adjustment	
Tires - pressure	
Drive Wheel Nuts	
Converter Pump, Belt Adjustment	



MAINTENANCE CHART

ROUTINE SERVICE – CONTINUED

The operating life of a machine can be materially increased and fewer shut-downs experienced if the unit is properly serviced at regular intervals. Periodic lubrication and inspection of certain parts of the unit will often avoid costly shut-down periods and major repairs.

A list of points to be serviced regularly at each inspection period is outlined below:

10 HOUR SERVICE

HYDRAULIC TANK BREATHER – Located under hood in back of seat frame.

POWER STEERING PIVOT PINS – One grease fitting each pin. Lubricate with chassis lubricant.

STEERING AXLE PIVOT PIN – One grease fitting. Lubricate with chassis lubricant.

SPINDLE PINS – Two grease fittings each. Lubricate with chassis lubricant.

DRAG LINK – Two grease fittings each. Lubricate with chassis lubricant.

TIE ROD – Two grease fittings. Lubricate with chassis lubricant.

LOADER LINKAGE – Eighteen grease fittings. Lubricate with chassis lubricant. Fittings are located as follows:

- (a) 2 at rear end of booms
- (b) 2 at rear end of dump cylinders
- (c) 2 at lower end of cross links
- (d) 2 at center of cross links
- (e) 2 at top of cross links
- (f) 2 at lower end of lift cylinders
- (g) 2 at upper end of lift cylinders
- (h) 2 at front end of booms
- (j) 2 at front end of dump links

WATER PUMP – No lubrication necessary. Pump has a sealed bearing.

ENGINE OIL LEVEL – Check level on oil level gauge rod. Add oil if necessary to bring level up to the “full” mark on rod.

RADIATOR – Check level of coolant. Keep radiator filled.

ENGINE BREATHER CAP – Located on top of rocker arm cover. Remove and wash in

gasoline. Dip in oil. Throw off excess oil before replacing.

TRANSMISSION BREATHER CAP – Located behind seat frame assembly under hood. Remove and wash in gasoline. Dip in oil. Throw off excess oil before replacing.

DRIVE AXLE BREATHERS – One in differential carrier and one in each final drive. Press cap several times to make sure breather is free to function.

AIR PRE-CLEANER – Empty inspection glass. Caution: Never allow dust level to reach above half-way mark on inspection glass.

AIR CLEANER – Remove and clean oil cup. Refill with clean oil. Use same viscosity of oil as used in engine crankcase

FUEL FILTER – Inspect bowl for presence of foreign particles. Clean if necessary.

60 HOUR SERVICE

CLUTCH RELEASE BEARINGS – Two grease fittings. Do not over grease. Lubricate with chassis lubricant. One grease fitting located in each side panel outside operator's compartment.

CLUTCH ROLLER AND

LEVER ASSEMBLIES – One on each clutch. Remove inspection covers from bottom of clutch housing and apply several drops of light oil to each roller and also splined clutch shafts.

CLUTCH THROWOUT SOCKET – One grease fitting located on left side, outside operator's compartment.

TRANSMISSION SHIFT CONTROL – One grease fitting located under rear floor plate.

TORQUE CONVERTER AND TRANSMISSION – Clean oil filter, located to the left and slightly below the flywheel housing on the left hand side in the transmission case.

Note: It may be necessary to clean this filter more often during the first few hours of operation.

ROUTINE SERVICE – CONTINUED

60 HOUR SERVICE (CONTINUED)

BATTERY – Maintain electrolyte level 3/8" above plates by adding clean distilled water. Also test specific gravity of each cell.

OIL AND WATER RADIATORS – Check cores for plugging. Clean out with air or water if necessary.

TRANSMISSION – Check oil level at lower petcock. If no oil appears, fill to upper petcock level.

DIFFERENTIAL – Check oil level and keep filled to filler plug.

FINAL DRIVES (2) – Check oil level and keep filled to level of filler plug.

LOADER HYDRAULIC SYSTEM – Check the following points:

- (a) Check oil level and keep filled to bottom of filler pipe elbow. Filler plug located in tank, under seat cushion.
- (b) Check suction line screen and magnet. See instructions under "General Maintenance".
- (c) Check all hoses, pipes and fittings for leaks. See instructions under "General Maintenance".
- (d) Check packing adjustments of lift and dump cylinder piston rods. See instructions under "General Maintenance".
- (e) Check all bolts which fasten the seat frame to the main frames. These bolts must be kept tight.

100 HOUR SERVICE

DRIVE SHAFTS – One grease fitting in each universal joint. Lubricate with a regular "Universal Joint Grease". Industries general specification for universal joint grease, according to the National Lubrication and Grease Institute is listed as follows:

N.L.G.I. #2 soda soap, fiber base grease.

ENGINE CRANKCASE – Capacity 6 quarts. Drain oil from sump and refill with new oil. Drain plug located in bottom of sump. Fill to "full" mark on oil level gauge rod. For temperatures above 90° F. use SAE 40. For lowest expected temperature of 32° F. use SAE 20. For lowest expected temperature of 10° F. use SAE 20W. For temperatures below 10° F. use SAE 10W.

GENERATOR – Lubricate with 5 drops of SAE 20 motor oil in each of the two oil cups.

STARTING MOTOR – Located on the left side of engine. Lubricate with 5 drops of SAE 20 motor oil in the rear oil cup.

ENGINE OIL FILTER – Replace element. If oil begins to darken, it may be necessary to replace element sooner than 100 hours.

SPARK PLUGS – Remove, clean and space points from .028" to .032" gap. If spark plug is in poor condition, it should be replaced.

500 HOUR SERVICE

STEERING GEAR – Check grease level and keep filled to the level of the filler plug. Use GMC-4567-M steering gear lubricant both summer and winter. This lubricant is available at the United Motors Service Stations.

HYDRAULIC SYSTEM – Capacity 12 gallons. Drain, flush and refill with new oil; use SAE 10. For extreme cold weather, dilute the oil with the best grade of kerosene. Drain plug is located in bottom of tank. See instructions under "General Maintenance".

STEERING WHEELS (SMALL) – Remove wheels, clean and repack bearings with #2 wheel bearing grease.

1000 HOUR SERVICE

TRANSMISSION – Capacity 19 quarts. Drain and refill. Drain plug located in the bottom of transmission. Refill to upper petcock level. For temperatures above 20° F. use SAE 20 oil. For temperatures from 20° F. to 0° F.

ROUTINE SERVICE - CONTINUED

use SAE 20 (diluted 25% with kerosene) and for temperatures below 0° F. use SAE 5W-20 or SAE 20 diluted 50% with kerosene.

1000 HOUR SERVICE (CONTINUED)

DIFFERENTIAL - Capacity 3 quarts. Drain and refill. For temperatures above 32° F.

use SAE 140 gear lubricant; for temperatures below 32° F. use SAE 90. Drain plug is located near the bottom of the differential housing.

FINAL DRIVES (2) - Capacity 1 gallon each. Drain and refill. For temperatures above 32° F. use SAE 150 gear lubricant. For temperatures below 32° F. use SAE 90. Drain plug is located at the bottom of final drive housings.

GENERAL MAINTENANCE

HYDRAULIC SYSTEM

Oil Specification: SAE 10, year around.

The hydraulic system consists of the following major parts:

1. **HYDRAULIC PUMP** - Located under the seat at transmission. It is mounted on the transmission and directly connected to the engine by means of a splined shaft.
2. **CONTROL VALVE** - This double valve is located on rear of the oil tank under the seat cushion.
3. **OIL RESERVOIR** - This reservoir is mounted in the seat frame weld assembly underneath the seat cushion. In operation, oil is discharged from the control valve into the top of the oil reservoir. The intake line for the pump is connected to the bottom of the oil reservoir. High pressure oil is discharged from the pump and enters the control valve through the side. The oil filler cap, located at the 90° elbow in the rear side of the reservoir, can be reached by removing the seat cushion.

Inside the reservoir is a Magnetic Filter and Suction Line Screen. The screen fits inside and the magnet fits on the outside of the suction line with a Baffle Cup held in place by a bail at the mouth of the suction line to insure that 100% of the oil leaving the tank passes through a strong magnetic field.

The suction screen will catch foreign

composition materials and keep them from circulating through the system.

To service these parts, it is important that they be cleaned daily until the amount of foreign material collected daily has practically disappeared, thereafter, the "Hydraulic System" check period, (every 60 hours) is a convenient time to clean the suction line screen and magnet. These parts are accessible for cleaning by removing the tank cover and reaching down into the tank. To clean, wash in kerosene and blow off with air, replace.

A SCREEN THAT IS PLUGGED WITH FOREIGN MATERIAL (PARTICULARLY, FIBRES WORN FROM PACKING RINGS) WILL STARVE THE PUMP, WHICH ALMOST ALWAYS RESULTS IN SERIOUS DAMAGE TO THE INTERNAL PUMP PARTS, THEREFORE, IT IS IMPERATIVE THAT THE SCREEN BE KEPT CLEAN.

TO ADD OIL TO THE HYDRAULIC SYSTEM

When periodic check (every 60 hours) is made and oil level is not visible in the bottom of filler elbow, oil should be added as follows. (Be sure tractor is standing on level ground, dump cylinders are fully retracted, and bucket is lowered to ground level.)

1. Clean off all dirt around oil filler plug in oil reservoir.
2. Remove oil filler plug.

GENERAL MAINTENANCE – CONTINUED

3. Add oil until it is visible in 90° elbow in filler neck.
4. Replace filler plug.

NOTE: When the oil level in the reservoir is too low, the action of the lifting and dumping cylinders will be sluggish because the pump is not receiving enough oil and is, to some extent, pumping air. The upward movement of the bucket during the lifting operation might be slowed to half its normal speed or it might stop entirely when there is insufficient oil in the system. The same applies to the dumping cylinders. **CONSIDERABLE DAMAGE CAN BE DONE TO THE PUMP WHEN THE OIL LEVEL IS ALLOWED TO GET SO LOW THAT THE SUCTION LINE IS NOT FULL.**

TO DRAIN AND FLUSH HYDRAULIC SYSTEM

Every 500 hours of operation, the system should be drained, flushed and refilled with oil as follows:

1. Run front wheels of tractor on 6" blocks and raise boom to limit of travel and dump bucket. Block up bucket and shut off engine.
2. Work control levers back and forth several times to relieve pressure and remove drain plug from bottom of hydraulic tank.
3. Disconnect dump line Hose Assembly #15906 at lower end of each dump cylinder and drain the oil from both cylinders.
4. Disconnect Hose Assy. #6325 from each lift cylinder and drain oil from both cylinders.
5. Attach Hose Assy. #15906 to dump cylinder and Hose Assy. #6325 to lift cylinder.
6. To flush system, add about eight gallons of kerosene to oil reservoir. Start engine, place outer valve control lever in raise position and remove block. Circulate the flushing oil through the sys-

tem by operating both control levers four or five times so that the lift and dump cylinders fill and empty several times.

7. Completely drain system as described previously, making sure that all flushing oil is removed from both lift and dump cylinders - Steps #1 through #5.
8. Refill with new oil as described previously.

TO FILL HYDRAULIC SYSTEM

To fill hydraulic system (when system is completely drained of oil), the steps given below should be followed:

1. Take out seat cushions and remove the oil filler plug.
2. Add about 10 gallons of oil and replace filler plug.
3. Raise and lower the booms and dump and retract the bucket several times so that the cylinders are completely filled with oil.
4. Fully retract the dump cylinders and lower the bucket to the ground.
5. Again remove the filler plug and add oil until it appears in the 90° elbow. (The tractor should be as level as possible.)
6. Replace the filler plug. The system is now ready to operate

IMPORTANT: Engine should never be started when the hydraulic system is empty. Damage to the pump would result because of lack of oil.

GENERAL CARE OF HYDRAULIC SYSTEM

1. Keep all pipe fittings, hose connections and tube fittings tight to eliminate oil leaks. Do not, however, excessively tighten the brass hose connections as it is not necessary to do so to keep them from leaking.

GENERAL MAINTENANCE – CONTINUED

2. If pipes or pipe fittings are removed, use such compounds as Permatex #2 or red lead on pipe threads when replacing.

BE SURE ALL THE PARTS ARE THOROUGHLY CLEANED BEFORE INSTALLATION.

3. WHEN INSTALLING A HOSE ASSEMBLY, BE SURE IT IS NOT TWISTED WHEN CONNECTIONS ARE TIGHTENED.

4. Keep hose clamps properly tightened to avoid hose chafing.

5. ADJUSTMENT OF PISTON ROD PACKING GLANDS ON THE LIFT AND DUMP CYLINDERS. The piston rod packing should be adjusted so there is a light film of oil on the rods when the unit is in operation. The packing is adjusted by means of four capscrews in the packing gland end plate. To tighten the packing, screw in on capscrews using a slight pressure on a short wrench. All capscrews must be tightened evenly.

EXCESSIVE TIGHTENING OF THESE CAPSCREWS RESULTS IN RAPID WEAR OF THE PISTON ROD PACKING RINGS AND SEVERE WIPING OF THE PISTON ROD. IF THE PACKING LEAKS AFTER BEING ADJUSTED PROPERLY, IT IS AN INDICATION THAT THE PACKING RINGS ARE WORN AND SHOULD BE REPLACED

6. TO REPLACE WORN PACKING RINGS.

- (a) Remove capscrews, end plate and packing gland bearing.
- (b) Slide end plate and bearing up on the piston rod.
- (c) Remove oil packing rings (normally, it is not necessary to replace the bottom adapter ring).
- (d) Wipe out packing gland space.
- (e) Install new packing rings in the order

indicated in Plates 173 and 498 in the Parts Book section. The replacement rings are split for easy installation. Care must be taken that each ring is properly seated and that the edges are not doubled back or ends lapped.

- (f) Replace packing gland bearing and end plate and adjust as per instructions in preceding column.

7. PISTON ROD WIPER SEALS – The wiper seals which are installed in the top of the end plate serve to wipe off dirt from the rod surface. They should be replaced when there are indications that they are no longer wiping the rod surface properly. To replace this seal, it is necessary to remove the cylinder head, pull the piston rod and piston assembly from the cylinder and remove the piston from the rod in order that the packing gland end cover can be slipped off the rod.

8. CONTROL VALVE – The relief valve for the system is incorporated in the control valve. It is properly set at the factory for 1000 psi and requires no further adjustment in the field.

NOTE: The following test can be made to determine if the hydraulic system is functioning properly. The time required to raise empty bucket from ground level to a full raised position with engine at full throttle, should be approximately 7 seconds. (The system should be at operating temperature when test is made.)

9. PUMP – The pump assembly on the TL-10 Loader should be disassembled and inspected after one year of operation, even though no noticeable decrease in operating efficiency has become apparent. Without actually inspecting the internal pump parts, it is difficult to determine from an operating test exactly

when an overhaul should be made on a “gear type pump”. On certain other types of pumps, the efficiency begins to drop when the internal parts become worn; whereas, a “gear type pump” may maintain its maximum operating efficiency to a point where some of the parts start to fail.

AIR CLEANER

The daily care of the air cleaner is covered in the “Routine Service” section. However, since the air cleaner is one of the important safeguards of the engine, it is recommended that in addition to daily care, the entire air cleaner be removed from the tractor regularly, and washed out thoroughly with gasoline.

Air cleaner hose should be checked frequently, making sure that connections are air tight and that hose is in good condition.

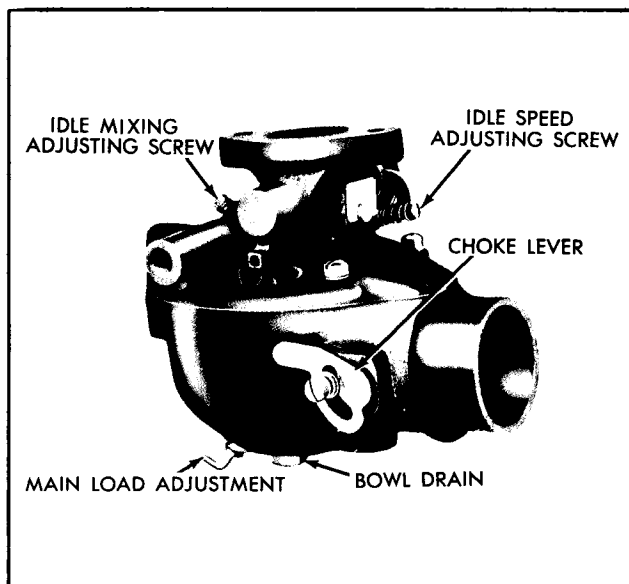
BREATHERS

Two types of breathers are provided on this machine to eliminate the pressure in a housing which would otherwise cause oil leaks and damage seals. One type of breather is used on the engine (rocker arm cover), on the hydraulic tank and on the transmission filler line in back of seat frame weld assembly. The other type of breather is located in the drive axles. It is important that these breathers be given careful attention and serviced regularly as explained in the “Routine Service” section.

1. To service the engine, hydraulic tank, and transmission breather caps, remove and wash in gasoline, dip in oil, then throw off excess oil before replacing.
2. The drive axle breathers should be checked by pressing caps several times to make sure breather is free to function. When the breather fails to function properly, it should be replaced.

CARBURETOR

The carburetor has three adjustments, one for controlling the idling speed of the engine,



CARBURETOR

and two for correcting the changes in fuels and atmospheric conditions.

1. To regulate idling speed of the engine, adjust the stop screw on the throttle valve arm on inner side of the carburetor.
2. For correct fuel mixture at idling speeds of the engine, adjust needle valve located on rear top of carburetor. Turn needle inward for richer mixture. Normal setting is approximately one and one-half turns out.
3. The main jet adjusting needle located on lower front of the carburetor body regulates the fuel mixtures at working speeds. Turn this needle outward for richer mixture. Normal setting is two to three turns out, depending on fuels and atmospheric conditions.

Do not force the main jet needle down on its seat as it will cause damage to these parts.

IGNITION

To time magneto, turn engine until number one position is nearly on top dead center of its compression stroke, and fire mark on flywheel is lined up in center of inspection opening located in bottom of flywheel housing. This opening also serves as a drain for the flywheel

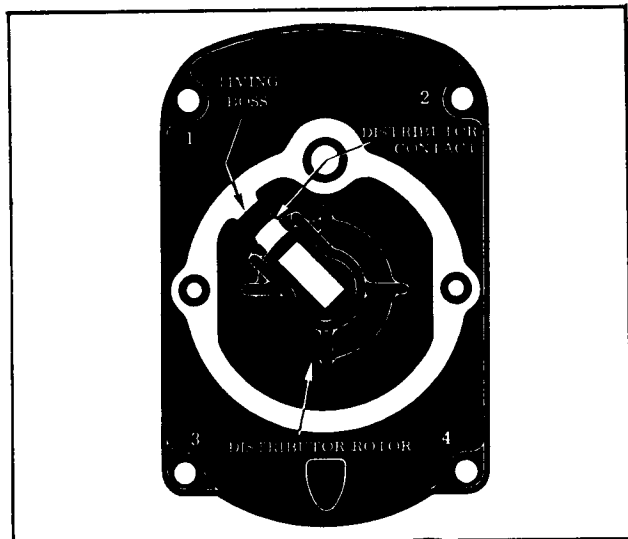


PLATE 55 - MAGNETO

housing and is sealed against dirt by a 1/2" pipe plug.

There are two methods of locating the compression stroke of number one cylinder.

1. Remove number one spark plug and place thumb in spark plug hole. Turn engine slowly until air is forced past thumb. Continue turning until fire mark is in the center of inspection opening.
2. Remove valve cover and crank engine until the number four exhaust valve is closing. Valve will be very nearly closed when fire mark on flywheel is in center of inspection opening.

Remove distributor cover, held in place by two screws and turn magneto coupling counter-clockwise until distributor contact lines up with timing boss, located in upper left hand corner of distributor compartment. Couple magneto to engine. If rotor does not line up with boss, shift on engine until it does.

Attach number one spark plug wire to upper terminal nearest block. Number two in upper terminal farthest from block. Number four in lower terminal farthest from block and number three in lower terminal nearest block.

The spark plugs and cables must be maintained in good condition, and if ignition difficulties are encountered, they should be checked

before opening up magneto. The gap at spark plug points should be from .028" to .032". Use Auto-Lite AN7, A-C 45, or Champion J-8 spark plugs.

The spark plugs should be removed every 100 hours or less depending on operation conditions, and cleaned and points spaced. If spark plug is in poor condition, it should be replaced.

In the event of difficulty in ignition system, plugs and wires having been checked, remove distributor compartment cover held in place by four screws. If contact points are pitted or pyramided, dress with a fine point file or hone.

If points are worn or badly pitted, they should be replaced. Points should be adjusted to have .020" gap at full separation.

Reassembling of distributor cap to magneto housing involves proper meshing of rotor pinion and distributor gear wheel as follows: The marked tooth on rotor pinion must mesh between the two marked teeth of the distributor gear at point marked "C".

For difficulties other than above mentioned, remove the magneto and take it to your nearest authorized service station for checkup and repair.

The magneto is permanently oiled at the factory and requires no further lubrication.

GOVERNOR

The engine r.p.m. is adjustable by the foot throttle only. The governor is of the limited speed type and will control the r.p.m. only at maximum r.p.m. range.

To insure good governor action, it is important to have all linkage, from the governor to the carburetor, working freely.

ENGINE LUBRICATION SYSTEM

The oil system needs no attention during the year, other than explained in the "Routine Service" section, except for the removal of oil sump at least once each season, cleaning it and the oil pump screen.

GENERAL MAINTENANCE - CONTINUED

FILTER - Change filter element as explained in "Routine Service" section. **CAUTION:** Install only a new element which is machine packed, to a specific density, and supplied by Allis-Chalmers Manufacturing Company for the protection of your engine. A slight decrease in oil pressure is generally noted when a new filter element is installed, until the element is thoroughly saturated with oil.

MAIN AND CONNECTING ROD BEARING ADJUSTMENT

The main and connecting rod bearings have removable shells. Shims are provided to make correct adjustment. If the shims provided will not allow the correct adjustment, do not file the bearing caps; instead new bearing shells should be installed.

Do not adjust bearings too tight. To provide for proper lubrication, the bearings should have .002" to .003" diametrical clearance. This clearance will allow crankshaft to turn freely when all bearings are adjusted.

When coupling the rods, be sure to replace the bearing cap on its original rod and in its original position; also, draw the nuts tight and lock with the proper size cotter pins.

CYLINDER LINERS, PISTON AND RINGS

The engine has renewable cylinder liners which makes reboring unnecessary.

Oversize pistons and rings are not supplied. If wear on the cylinder liners is sufficient to require oversize pistons and rings, a motor repair kit, consisting of new liners, pistons, rings, etcetera, should be installed. Your Allis-Chalmers dealer is equipped to install these parts.

VALVE TAPPET CLEARANCE AND VALVES

Correct clearance between the valve stems and rocker arms should be maintained at all times.

To adjust clearance, turn engine until valve closes and push rod is at its lowest position.

Loosen valve adjusting screw and locknut and turn screw until there is .012" clearance between the rocker arm and valve stem with engine at normal operating temperature. Use a thickness gauge for making this measurement. Tighten locknut and recheck.

Lack of compression because of leaky valves may be caused by either insufficient clearance between rocker arms and valve stems, by the collection of carbon at the valve seats, or by carbon or a gummy substance on the valve stems, preventing the closing of the valves.

If, when turning the motor over, there is a lack of resistance on one or more cylinders at the compression stroke, the pistons and rings being in good condition and there is a sufficient clearance between the rocker arms and valve stems, it indicates that the valves need re-grinding.

Because of the hardened steel exhaust valve seat inserts, in the exhaust valve positions, it is recommended that the valves be refaced on a machine made for this purpose and the seats be reground with a high speed valve seat grinder.

As a final operation, the valves and seats may be polished by lapping them in with a small amount of valve grinding compound. In this manner, a perfect seat can be obtained which will give many hours of satisfactory service.

RADIATOR AND WATER COOLING SYSTEM

NEVER POUR COLD WATER IN A HOT MACHINE.

Rain or soft water should be used in the radiator if available. Hard or alkaline water will form a scale which will impair radiation if allowed to build up in the cooling system. The use of washing soda will help to dissolve this scale. Where only hard or alkaline water is available, washing soda should be used at regular intervals and before the accumulation of scale becomes heavy enough to scale off and stop the radiator passages.

There are two places to drain the cooling system - one drain cock is located on the bottom of radiator and the other on engine block ahead of carburetor. Be sure to drain both places, removing radiator cap while draining.

In cold weather, an anti-freeze solution can be used in the radiator. The minimum operating temperature is 170° F.

FAN BELT ADJUSTMENT

To adjust fan belt, loosen capscrew holding generator brace and move generator outward until correct tension is obtained. The belt is correctly adjusted when the straight (L.H.) side of the belt can be pressed inward approximately 1" at a point half way between the crankshaft and fan pulley.

TORQUE CONVERTER

DESCRIPTION: The torque converter is a single stage unit composed of three major parts- Pump Wheel (connected to the engine), Turbine Wheel (connected to the drive wheels), and the Reaction Member (which receives the oil from the turbine and redirects it back into the Pump).

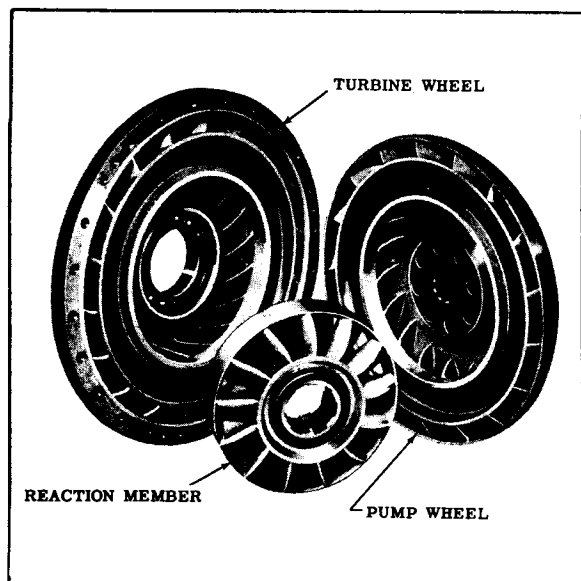


PLATE 234 - TORQUE CONVERTER

The converter is mounted in the flywheel housing and directly connected to the engine. The oil for the converter is taken from the transmission oil supply and is circulated by

means of a gear type pump mounted on frame separate from the main hydraulic system pump. Oil is picked up from the transmission case through a filter by the pump, and is discharged into the power steering valve. From the power steering system, it passes through the converter and oil cooler, and is returned to the transmission. A relief valve is located at the converter inlet to protect it from excessively high pressure. Normal seepage from the converter is handled through an oil drain line connecting the flywheel housing to the transmission. A pressure of 10 to 30 psi with the OIL AT OPERATING TEMPERATURE is maintained at the converter outlet to insure that the converter wheels are always full.

SERVICE: Ordinarily, the only service required on the converter system is the regular cleaning of the filter and oil cooler core as explained under "Routine Service". To empty the entire system, it is necessary to drain at three points; two 1/4" pipe plugs in the converter turbine cover inside the flywheel housing and drain plug at bottom of transmission. To fill the system, close all the drain points and pour the required quantity of oil (20½ quarts) into the transmission. It is not necessary to bleed the system, but the engine should be allowed to idle for several minutes after refilling before applying a load to the converter.

IMPORTANT: Engine should never be started when the converter system is empty. Damage to the pump and converter would result because of lack of oil.

If the converter fails to function, it is very likely starving for oil. The following procedure is suggested for locating the trouble in the oil circulating system.

1. Check and clean the converter filter.
2. Check the oil level in the transmission.
3. Be sure pump drive belt is tight - 1/2" slack. (TL-10 #256 & up)
4. Check tightness of suction line connections to be sure converter pump is not taking in air.

GENERAL MAINTENANCE - CONTINUED

5. Check the pressure at the output side of the converter by installing a low pressure gauge (0 to 100 psi) in the tee which is provided (see Plates 214, 346 and 426). Normally, this pressure should range between 10 to 30 psi - OIL AT OPERATING TEMPERATURE. Pressure readings consistently lower than 10 psi indicate that the converter is not receiving sufficient oil. If this is the case, the following points should be checked.

(a) Remove the inspection cover from the converter flywheel housing. Check for leaks at the two 1/4" drain plugs in the converter turbine cover. Also check for leaks at the two oil lines and fittings located inside of

the housing. NOTE: The design of the converter shaft seal is such that there is normally a noticeable spray of oil inside this housing.

(b) Check the output of the pump which supplies oil to the converter by disconnecting the discharge line at the flywheel housing and turn the engine over with the starter. If no oil appears, remove and inspect the internal relief valve in the converter pump for foreign material which may be causing it to stick open. If necessary, remove the pump and inspect the internal parts for excessive wear. Also examine the shear pin in the pump drive shaft to see if it is broken.

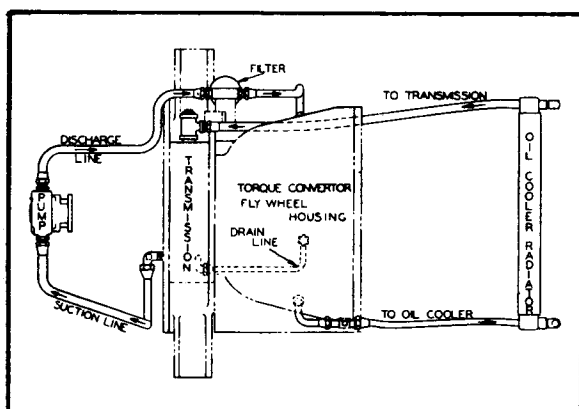


PLATE 214 - CONVERTER FLOW CHART
Used Prior TL-10 #256

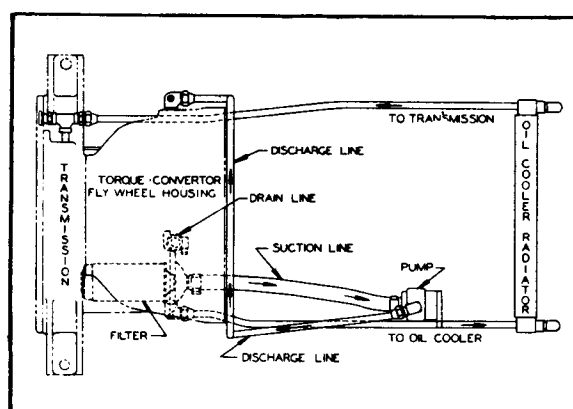


PLATE 346 - CONVERTER FLOW CHART
Used TL-10 #256 thru #1501

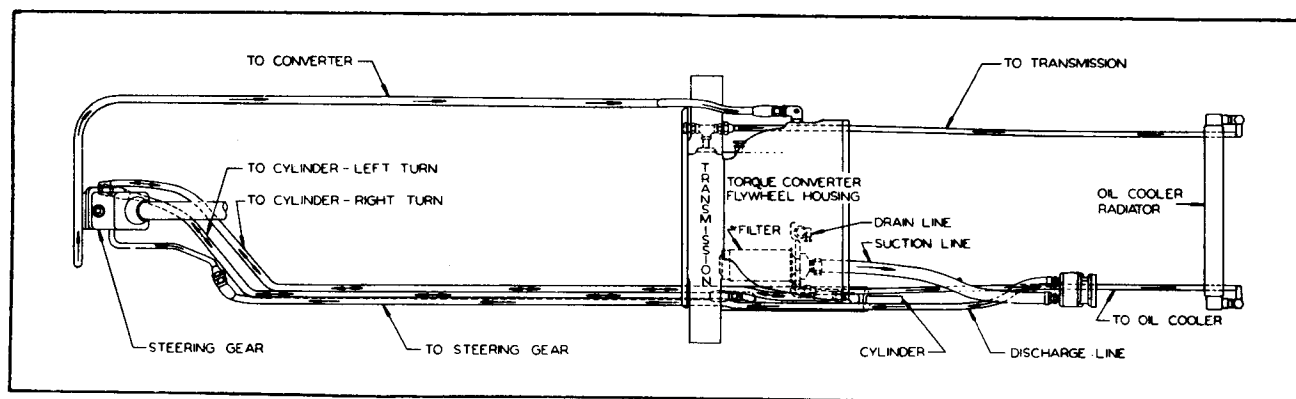


PLATE 426 - CONVERTER AND POWER STEERING FLOW CHART

Effective TL-10 #1502

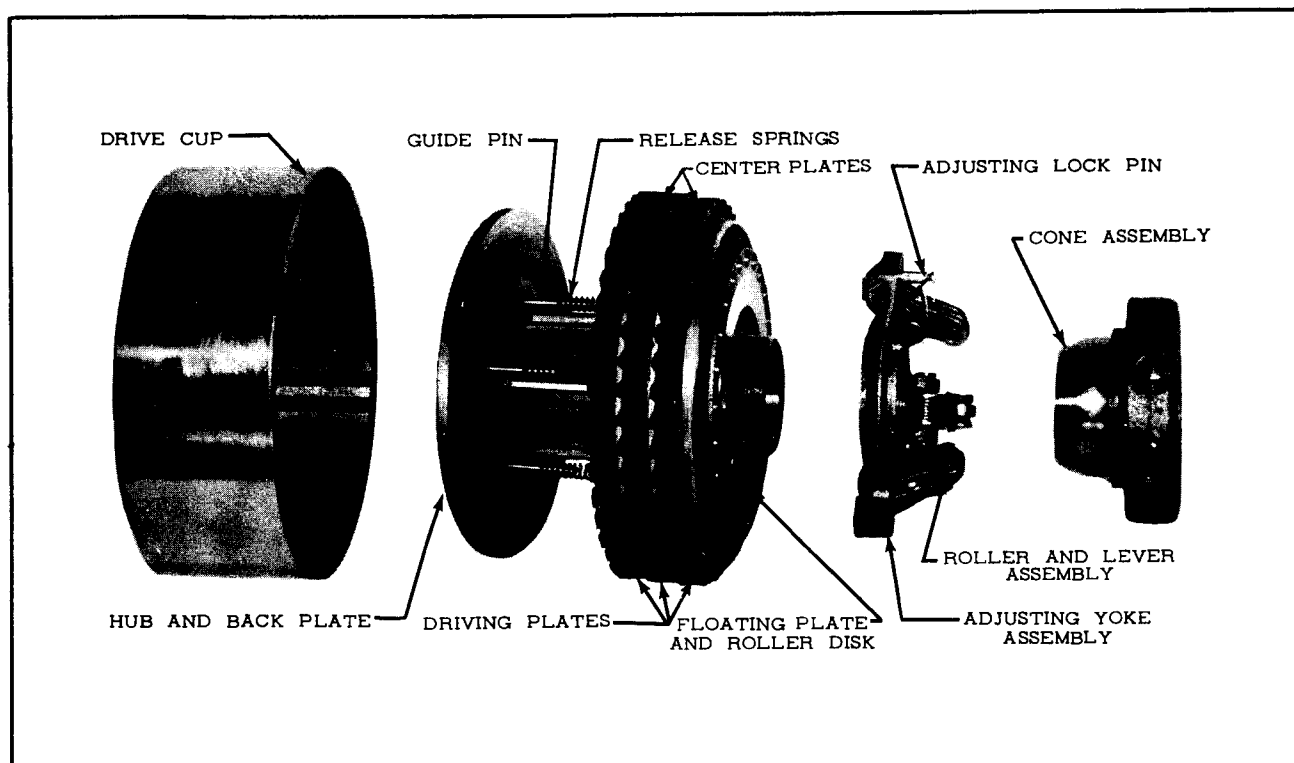
FORWARD AND REVERSE CLUTCHES

PLATE 235 - FORWARD AND REVERSE CLUTCHES

WEARING IN - A new clutch may require several adjustments when first put into operation in order to wear in the clutch plates and the action parts. After these initial adjustments, the clutch will run for a considerable period without adjustment.

DESCRIPTION: To provide for a quick change reverse on this machine, two separate clutches are used - one for forward travel and one for reverse. The clutches are identical and are of the multiple disc, dry plate type with an over-center snap action. A hand lever control is used (instead of a foot pedal) so that moving the lever forward engages the forward clutch and pulling it back engages the reverse clutch. Both clutches are released when the lever is in the center or neutral position.

The clutch is actuated by moving a cone assembly in or out of the roller-and-lever assembly located on the clutch. As the cone assembly moves in toward the clutch, the rollers on the outer end of the three clutch levers travel up the contour of the cone. This action

causes the rollers on the opposite ends of the clutch levers to apply pressure against the floating plate, which fully engages the clutch when the outer rollers snap over into the cone groove. When the cone assembly is moved out of the roller-and-lever assembly, the outer rollers travel down the contour of the cone so that the pressure against the floating plate is released and the clutch disengaged.

ADJUSTMENT

IMPORTANT: A properly adjusted clutch engages with a distinct over-center snap of 45 to 60 pounds lever pull with engine idling. If clutch slips or heats, or lever jumps out of engagement, clutch must be adjusted. Allow an over-heated clutch to cool 10 to 15 minutes before adjusting. The machine must not be operated with lever pull less than 35 pounds.

If the driving plates are scored or worn excessively, the linings must be replaced.

The adjusting yoke assembly for either clutch is accessible through hand hole covers

GENERAL MAINTENANCE – CONTINUED

located on the bottom of the clutch housing. The forward clutch is located on the right hand side of the machine and the reverse clutch is located on the left hand side. To adjust either clutch, place the hand lever in the center or neutral position. Remove the hand hole cover, pull out and hold the adjusting lock pin and turn the adjusting ring only one hole at a time until the required lever pull is obtained. (Ordinarily, one to three adjusting holes is sufficient to restore the correct lever pull.) Be sure the adjusting lock pin is securely engaged in the nearest locking hole before starting the engine to test the lever pull after each adjustment.

REPLACEMENT: Replacement of the driving plates can be accomplished by the following steps:

1. Disconnect cross shaft lever to throw-out yoke.
2. Remove four capscrews and lockwashers from clutch cover and push cover toward the front axle as far as it will go allowing it to lay on the axle housing.
3. Remove throw-out pivot pin and slide throw out yoke assembly off splined shafts.
4. Turn adjusting yoke assembly off hub and back plate assemblies.
5. Remove floating plate with roller disc, release springs, all three driving plates and two center plates from each clutch.
6. Clean drive cup thoroughly with a wire brush before inserting new or relined driving plates.

NOTE: Each driving plate must be inserted individually to check for distortion of drive cup. If the driving plate is hard to start into the drive cup or if the backlash is less than .008" at any point, the drive cup must be replaced.

7. To reassemble clutch, reverse Steps #1 through #6. When reinstalling, release

springs. It is important that the springs sit squarely on pockets machined in the floating plate. If the springs are not straight when the floating plate teeth engage the hub teeth, the spring will be bent over the guide pin preventing full release of the clutch.

Be sure that roller disc is placed in recess of floating plate before installing adjusting yoke assembly.

CONVENTIONAL STEERING GEAR

ADJUSTMENT: Correct adjustment of the steering gear is very important. The following procedure must be followed step by step in making the two adjustments necessary to this gear.

1. Disconnect drag link from pitman arm, noting relative positions of steering parts before disturbing them.
2. Loosen steering column support bracket at instrument panel to make sure there is no binding to anchorage.
3. Loosen locknut "A", Plate 232, and turn lash adjuster "B" a few turns counter-clockwise. This removes from screw bearings, the load imposed by close meshing of rack and sector teeth. Turn the steering wheel GENTLY in one direction until stopped by gear, then back away one turn. Damage to ball guides may result if steering wheel is turned hard against the stops when gear is disconnected.
4. By attaching a spring scale to the rim of the steering wheel with a piece of cord, then pulling on the spring scale to turn the wheel, the amount of pull required to keep the wheel in motion can be measured. The line of the scale should be kept tangent to wheel rim in order to correctly adjust Screw Bearing pull of from 1 to 1-1/2 pounds.

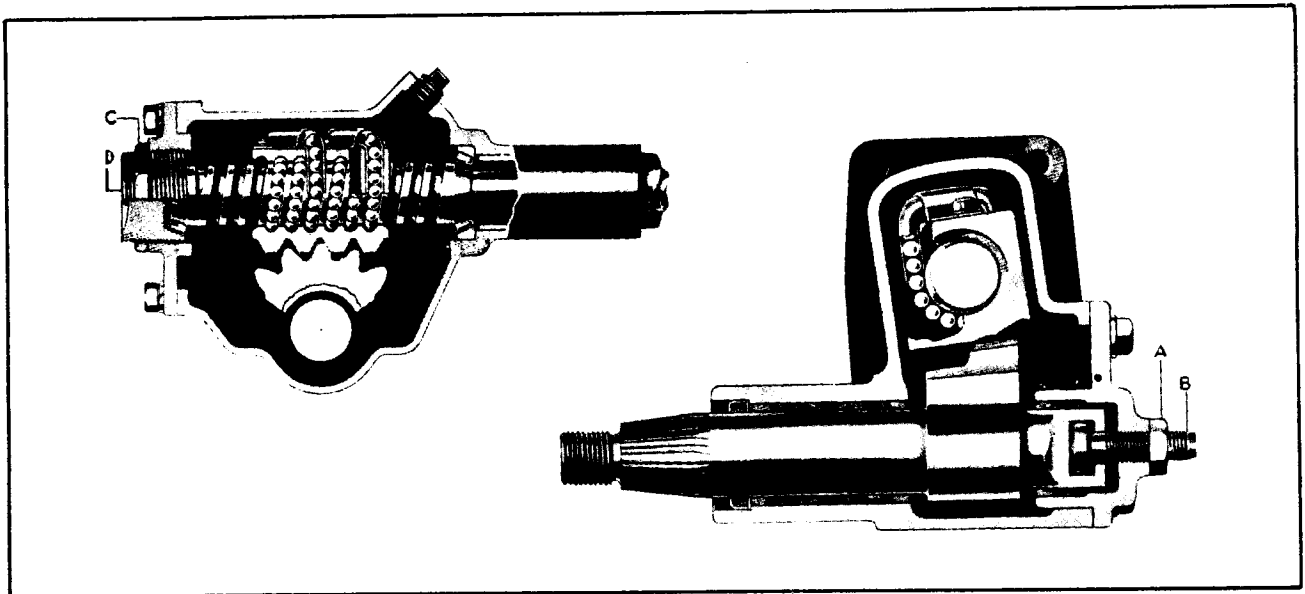


PLATE 232 - STEERING GEAR (CONVENTIONAL)

5. To adjust screw bearings, loosen locknut "C", Plate 232, and turn adjuster "D", clockwise until there is no perceptible end play in screw. Tighten locknut "C", and re-check pull as it must be within specified limits after locknut is tight. If gear feels "lumpy" after adjustment, there is probably damage in bearings due to severe impact or improper adjustment, and the gear must be disassembled for replacement of damaged parts.
6. It may be necessary to shim at both the upper and lower gear anchorages to keep from springing gear which would bind the steering column. After tightening the mounting bolts, check wheel pull to make sure adjustment is correct.
7. After the proper adjustment of screw bearings is obtained, and all the mounting bolts are securely tightened, adjust lash adjuster "B". First turn steering wheel GENTLY from one stop around to the other stop, counting the total number of turns. Turn wheel exactly half way to center position. After marking center at top or bottom of steering wheel with a piece of tape, turn lash adjuster "B" clockwise to take out all lash in gear

teeth, and tighten locknut "A". Again check wheel pull, taking highest reading of spring scales as the wheel is turned through center position. Proper adjustment of pull will be from 2 to 2-1/2 pounds after tightening locknut "A".

8. Reassemble steering drag link to pitman arm.

SERVICE: The steering gear is filled at the factory with a special lubricant (GMC-4567-M), developed for both summer and winter operation. Seasonal change of lubricant and draining of gear case is not necessary.

Gear should be kept filled to level of the filler plug with above lubricant or equivalent.

POWER STEERING GEAR

DESCRIPTION: The component parts of the power steering system are the pump, hydraulic cylinder, hydraulic valve steering gear, a two piece drag link, and an additional bell crank.

The oil for the power steering system is supplied from the transmission by the same pump that circulates oil to the converter. The pump relief valve is set at 750 psi. The two drag links are connected across the additional

GENERAL MAINTENANCE - CONTINUED

bell crank which is located on the underside of the left frame and is actuated by the hydraulic cylinder's piston rod. This system replaces the single drag link arrangement on conventional steering.

The power steering valve is a simple two grooved spool within a housing which has three grooves carefully located relative to the spool. The spool and housing are carefully machined and ground to a sliding fit while retaining high pressure oil. The spool and housing are, therefore, not considered serviceable parts.

The steering shaft, being attached to the valve spool, slides through the valve housing to direct the flow of oil as the handwheel is turned. This spool and steering shaft movement is caused by the resistance to movement of the pitman shaft, linkage and steering wheels. There are also five sets of plungers and five centering springs in the housing which act to keep the spool in the valve's neutral position (cylinder not aiding turn). These springs are compressed, or preloaded, by a thrust bearing and nut on the end of the steering shaft to 300 pounds. Therefore, unless the load at the pitman shaft represents a resistance of over 300 pounds, there is no valve movement; and the steering is not aided hydraulically. To overcome a 300 pound load, a 3 pound pull at the handwheel's rim is required.

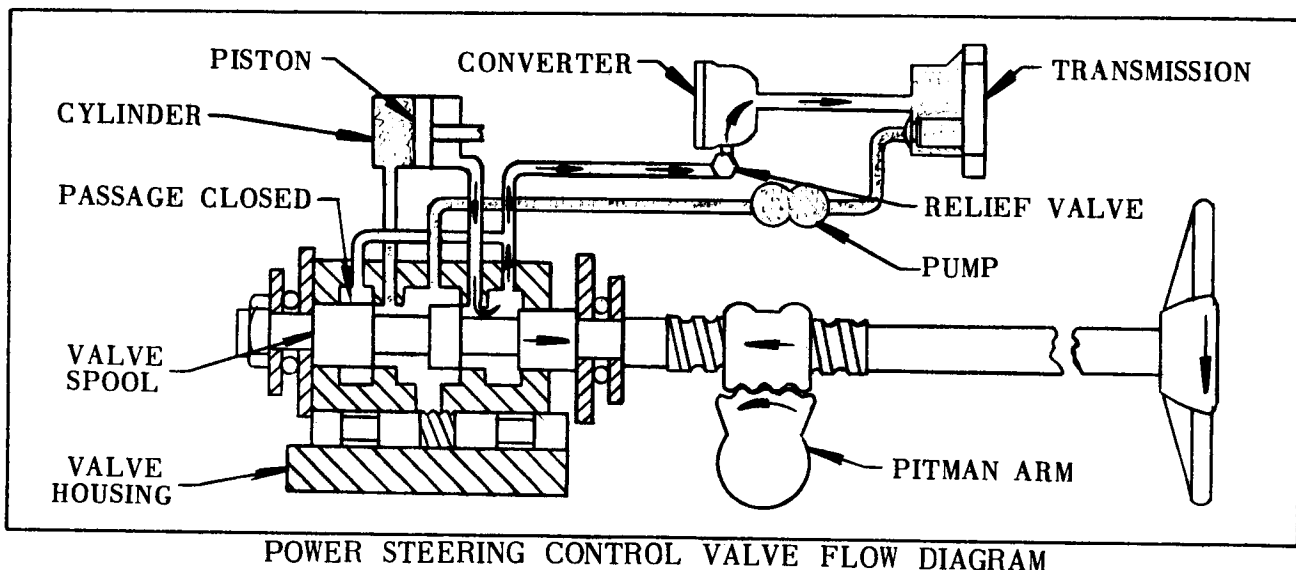
As illustrated, the handwheel is turned left actuating the spool, closing some passages, and opening others. This, in turn, redirects the circulating oil to the rear of the cylinder's piston, extending the piston rod. The displaced oil from the front side of the piston is circulated through the converter. Thus, there is a constant flow of oil to the converter until the piston has completed its stroke. A slight backing off of the handwheel will allow the centering plungers to return the spool to neutral and will eliminate the possibility of starving the converter during prolonged full turns.

Since high pressures are exerted by the power steering system, serious damage may result to the linkage if the wheels should hit stops before the cylinder piston rod completes its stroke. Therefore, before assuming that the steering valve mechanism is at fault, check the following:

- Steering wheel alignment
- Steering Gear alignment
- Steering linkage adjustment and lubrication
- Wheel bearing adjustment and lubrication
- Tire pressure and condition

Also check for:

- Low transmission oil level



GENERAL MAINTENANCE – CONTINUED

Clogged suction line filter

Clogged or leaking hoses, tubes,
connections

Worn piston packing

Pump output and Pump Relief Valve

Loose belt on pump (over 1/2" slack)

A check valve in the steering gear allows oil to circulate within the valve in the event of a power failure, or if steering is to be done with the engine off.

After the above items have been checked, the following "Hydraulic Valve Steering Gear Trouble Chart", can be used.

TROUBLE	CAUSE	REMEDY
Hard Steering	Steering lash adjustment too tight. Tight bearings.	Adjust Replace
Excessive wheel kickback or loose steering.	Lash or wear in linkage, ball nut or pitman shaft. Air in hydraulic valve.	Replace worn parts. Adjust lash. Bleed.
Gear noise.	Worn bearings. Steering lash adjustment too loose. Thrust bearing adjustment too loose.	Replace Adjust Adjust
Poor steering action.	Worn bearing. Sticky or faulty valve.	Replace Free up or replace

TROUBLE CHART

ADJUSTMENT: Correct adjustment of the steering gear is very important. The following procedure must be followed step by step in making the two adjustments necessary to this gear:

Adjust preload on ball thrust bearing on bottom end of steering shaft.

Adjust lash between teeth on steering worm gear and the pitman shaft gear.

1. Disconnect drag link from pitman arm, noting relative positions of steering parts before disturbing them.
2. Loosen steering column support bracket at instrument panel to make sure there is not binding due to anchorage.
3. Loosen locknut "A", Plate 445, and turn lash adjuster "B", a few turns counter-clockwise. This removes from

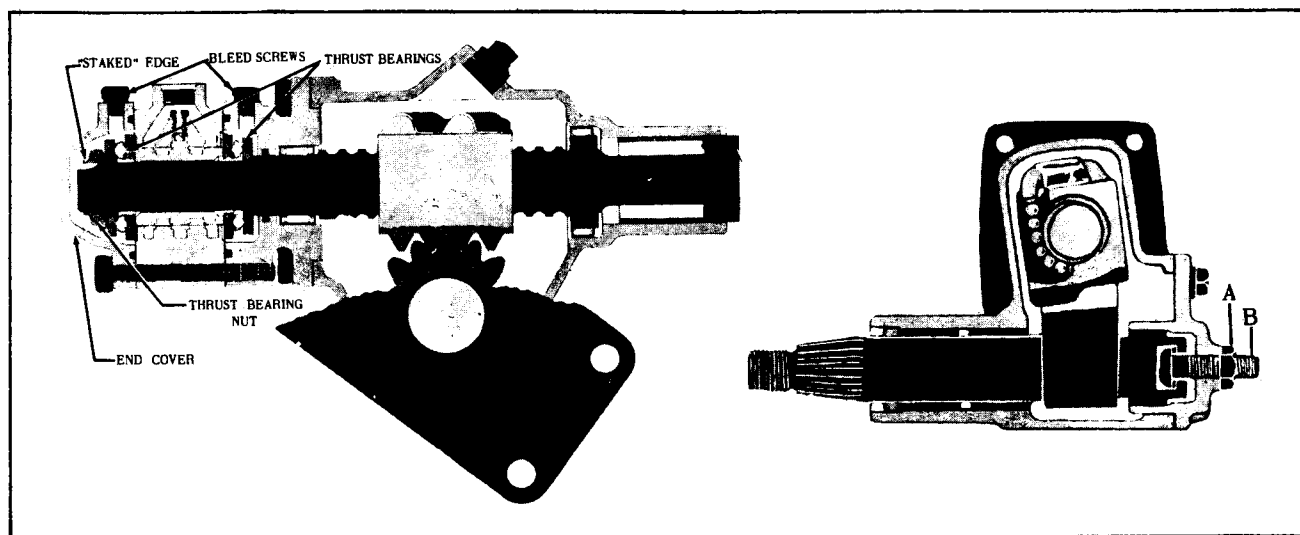


PLATE 445 – STEERING GEAR (POWER STEERING)

GENERAL MAINTENANCE – CONTINUED

thrust bearings, the load imposed by close meshing of rack and sector teeth. Turn the steering wheel GENTLY in one direction until stopped by gear, then back away one turn. Damage to ball guides may result if steering wheel is turned hard against the stops when gear is disconnected.

4. By attaching a spring scale to the rim of the steering wheel with a piece of cord, then pulling on the spring scale to turn the wheel, the amount of pull required to keep the wheel in motion, can be measured. The line of the scale should be kept tangent to wheel rim in order to correctly adjust Thrust Bearing pull of from 1-1/2 to 2 pounds.
5. To adjust thrust bearings, remove end cover and drive up "staked" edge of thrust bearing nut with new one. Turn handwheel full right and maintain pressure to compress centering springs. Tighten new thrust bearing nut against valve spool until there is no perceptible end play in screws. Check pull at wheel rim, re-adjusting if necessary to obtain proper pull. Proper pull must be determined after locking nut is set up. Release handwheel - make sure thrust bearing exerts light pressure against spring loaded plungers. Stake outer edge of nut into keyway in steering shaft. Replace end cover.

If gear feels "lumpy" after adjustment, there is probably damage in bearings due to severe impact or improper adjustment, and the gear must be disassembled for replacement of damaged parts.

6. It may be necessary to shim at both the upper and lower gear anchorages to keep from springing gear which would bind the steering column. After tightening the mounting bolts, check wheel pull, to make sure adjustment is correct.

7. After the proper adjustment of thrust bearings is obtained, and all the mounting bolts are securely tightened, adjust lash adjuster "B". First turn steering wheel GENTLY from one stop around to the other stop, counting the total number of turns. Turn wheel exactly half way, to center position. After marking center at top or bottom of steering wheel with a piece of tape, turn lash adjuster "B" clockwise to take out all lash in gear teeth, and tighten locknut "A". Again check wheel pull, taking highest reading of spring scale as the wheel is turned through center position. Proper adjustment of pull will be from 2-1/2 to 3 pounds after tightening locknut "A".

After making these adjustments, it is necessary to bleed the valve. To do this, remove two bleed screws, start engine, and run gear back and forth until oil drains from holes.

8. Reassemble drag link to pitman arm.

If it is necessary to remove the steering gear, a puller should be used to remove the handwheel. DO NOT DRIVE IT OFF, as damage to the steering gear is certain to result.

SERVICE: The steering gear is filled at the factory with a special lubricant (GMC-4567-M) developed for both summer and winter operation. Seasonal change of lubricant and draining of gear case is not necessary.

Gear should be kept filled to level of the filler plug with the above lubricant or equivalent.

WHEEL BEARING ADJUSTMENT AND TOE-IN (SMALL)

The wheels for steering are mounted on taper roller bearings. At frequent intervals, raise the rear of tractor to remove weight from the wheels. Examine side play and, if necessary, adjust bearings.

To adjust bearings, remove the hub cap and

GENERAL MAINTENANCE - CONTINUED

tighten the nut on end of spindle until side play is removed and nut is tight; back off one notch and secure with cotter pin.

The caster and camber of the steering wheels are set at the factory and do not require field adjustment. The toe-in required is 1/8". For proper alignment, measure the distance between the tire rims, both ahead and back of the steering axle. These measurements must be at spindle height. The distance between the rims at the front (toward the bucket) must be 1/8" less than the distance at the rear.

To adjust toe-in, remove hex nut holding socket assembly to spindle, and pull socket out of spindle. Loosen clamp on tie rod and turn socket in tie rod to adjust length and set toe-in. Reinstall socket assembly into spindle and secure in place with hex nut and tighten clamp in tie rod.

DRIVE WHEELS (LARGE)

The stub axle is a "live" shaft supported by roller bearings inside the final drive housing. The bearing adjustment is controlled by means of shims between the cover plate and the final drive housing.

The hub is tapered and keyed to the axle shaft and secured in place by a 2" castellated nut and cotter pin. The bearing adjustment is not affected by tightening castellated wheel nut, which carries a torque specification of 1200 to 1800 foot pounds. Check hub nut periodically and keep them tight.

The ten lug nuts on each wheel should also be checked and tightened periodically.

FOR SAFETY - - USE BLOCKS IN ADDITION TO JACK, IF REMOVING WHEELS, TIRES, ETC.

BRAKES

The machine is equipped with hydraulic brakes on the driving wheels. To adjust the brakes for normal lining wear, raise the front end of machine off the floor with a jack and

suitable supports. With the clutch lever in "Neutral" make sure the brake shoes are not dragging on either wheel.

There are two 5/8" adjusting capscrews located in the brake dust shield on each wheel. To adjust the front brake shoe, tighten the front capscrew. When the brakes begin to drag, back off the capscrew just enough to allow the wheel to turn free. Adjust the rear brake shoe by repeating the above procedure with the rear capscrew. To tighten brakes on the left wheel, turn the front capscrew clockwise and rear capscrew counter-clockwise. To tighten the brakes on the right wheel, turn the front capscrew counter-clockwise and the rear capscrew clockwise.

The parking brake used prior to TL-10 #760, is located on the drive shaft at the rear of the transmission and can be adjusted by a special nut on the bottom end of the brake adjusting rod.

The parking brake for TL-10 #760 and up, being connected to the service hydraulic brakes by a check valve, means that the proper adjustment of the service brakes is necessary for effective parking brakes.

ELECTRICAL EQUIPMENT

BATTERY: The starting and the lighting system uses a six volt battery that is located on the back of the seat frame weld assembly underneath the hood. If it becomes necessary to remove the battery, loosen the wing screw and remove the battery cover assembly #5990. Disconnect the battery cables and with an ordinary battery lifter, lift the battery upward through the hole in the hood.

After each week of operation, check the electrolyte (solution) in the battery to see that it is at the proper level. This level should be maintained 3/8" above top of separators, never higher, and never below top of separators. Never add anything to the solution except DISTILLED or RAIN water. Boiled water will not do. The supply of water should be kept in clean,

GENERAL MAINTENANCE - CONTINUED

covered vessels of glass, china, rubber or lead. Do not allow lighted matches or an open flame of any kind to come in proximity to battery cell covers.

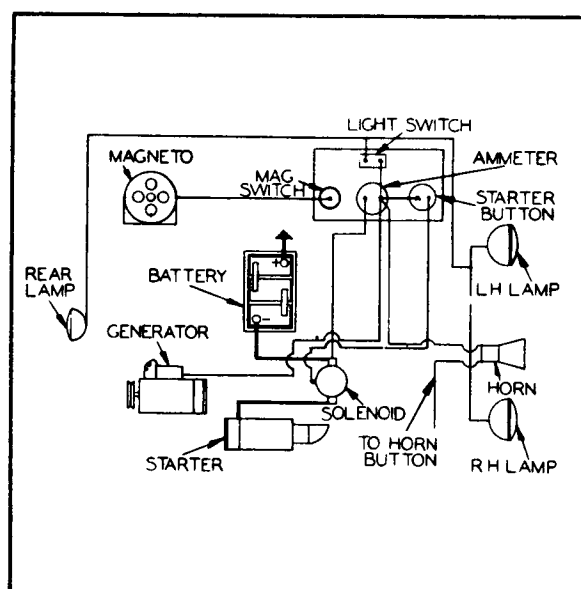


PLATE 215 - WIRING DIAGRAM

In cold weather, add water only immediately before running the engine so that the charging will mix the electrolyte and water and prevent freezing. A fully charged battery will not freeze in very cold temperatures, but if only partly charged will freeze and be ruined at much higher temperatures. A battery hydrometer may be used to determine the battery condition. The readings indicate as follows: 1.260, full charge; 1.225, half charge; 1.150, discharged.

Keep the battery clean by using a stiff bristle brush - not metal. If terminals are corroded or if the battery is acid soaked, wash with a soda solution (1/4 lb. of soda to one quart of water). Vent plug must be kept in place when cleaning battery. After washing battery, check gas escape holes in vent caps, making sure they are open.

If battery is removed from machine, disconnect the grounded positive terminal first. When re-installing, be sure the ground cable is installed last and connected to positive post.

In the event the machine is not to be used for some time, it is advisable to remove the battery, have it fully charged and stored in a

basement or some similar place where the temperature is to be as low as possible, but above freezing.

GENERATOR AND VOLTAGE REGULATOR: The generator and regulator are set to charge the battery at a variable rate up to 14 amperes. Under normal conditions, the ammeter should indicate this rate of charge for a short time after starting the engine or until the generator replaces the energy drained from the battery during starting; then it will show little or no charge. This is sufficient to keep the battery fully charged under normal conditions. Any authorized Electric Auto-Lite service station is equipped to rebuild or test the generator, regulator or cut-out when these units require service.

AMMETER: The ammeter, located on the dash, indicates the charging or discharging rate of battery.

If ammeter should register discharge with lights off, disconnect the battery cable to prevent its discharge until the difficulty is located and corrected. Such a condition is usually caused by a worn or frayed wire making a short circuit or by cut-out points being stuck.

If ammeter fails to show a charging rate one of the following may be the cause:

- (1) Loose or corroded wire connections.
- (2) Broken wires
- (3) Faulty ammeter
- (4) Oily or gummy generator brushes or commutator. (Commutator and brushes can be cleaned with grade "oo" sand paper. Do not use emery cloth.)
- (5) Worn generator brushes
- (6) Improper function of voltage regulator.

STARTING MOTOR: The starting motor seldom causes any difficulty, but if it should, any one of the following may be the cause:

- (1) Exhausted battery
- (2) Broken or loose wires
- (3) Loose or corroded battery terminals.
- (4) Starting switch making poor contact.
- (5) Starter pinion not engaging flywheel.

GENERAL MAINTENANCE - CONTINUED

HYDROMATIC TIRES

Both the front and rear tires are filled completely full (100%) of a solution of calcium chloride. The extra weight provides additional traction and gives better overall balance with the bucket loaded. The liquid used in these tires is approximately a 30% solution - 3-1/2 lbs. of calcium chloride per gallon of water. The solution may be tested with an ordinary battery hydrometer - specific gravity is 1.218 with solution at 60° F. This mixture is safe against freezing at -30° F.

With tires filled 100%, no appreciable pressure drop should be experienced for six months or longer. The tire pressure must be checked while the bucket is empty, and raised off the ground. The correct pressures are listed as follows:

Tire Size	Bucket empty
13.00-24 (driving)	30 psi
7.50-16 (steering)	45 psi

Any loss in pressure should be regained by addition of solution. However, if facilities for solution 100% filling are not immediately available, it is permissible to add air as a temporary measure in order to regain the pressure. Once air is added, pressure will be lost more rapidly and therefore, pressure checks will be required more frequently. At the very first opportunity, the tire should be taken into a tire service station and refilled 100% full of the solution. Before refilling, the tube must be completely drained of all air and solution. This opportunity should be taken for testing for leaks. Goodyear tire stores have been instructed and have the necessary equipment for 100% liquid filling.

An air-water type gauge is recommended for checking these tire pressures. A Schrader gauge #9350 is satisfactory. The gauge should be flushed out with water after being used with calcium chloride.

TO REPLACE BUCKET CUTTING EDGE

Burn out weld at both the front and rear of the cutting edge by directing the flame through the weld into the cutting edge so as not to burn the back plate or other parts of the bucket proper. Remove all rough weld from cutting edge area, and clamp new cutting edge into place with the cutting edge extending approximately 1-5/8" forward of the bucket bottom and side plates. Using 1/4" Low Hydrogen Rod (American Welding Society #E-6015) weld cutting edge into place. Weld three inches and skip three inches at both front and rear with a 3/8" fillet weld at rear of cutting edge and 1/4" fillet weld at front and at ends.

STORAGE OF MACHINE

If the machine is stored for any length of time, a few precautionary measures are helpful in preserving various parts, also in avoiding future difficulty.

- (a) Store machine under cover. If impossible to place machine under cover, be sure to cover air and exhaust pipes.
- (b) Drain radiator and motor block.
- (c) To avoid gum content collections, drain both fuel tank and carburetor.
- (d) Leave radiator and fuel tank caps slightly loose to protect gaskets.
- (e) Block machine up to remove weight from tires and to keep them from contact with moist floor.
- (f) Remove battery and store as recommended under "Electrical Equipment".
- (g) Remove spark plugs and pour a small quantity of light motor oil on piston tops. Crank engine over a few times and replace spark plugs.
- (h) When machine is removed from storage it should be serviced throughout, including draining and refilling the oil sump and transmission (converter) with fresh oil.

ALLIS-CHALMERS WARRANTY

"ALLIS-CHALMERS MANUFACTURING COMPANY warrants that it will repair F.O.B. its factory, or furnish without charge F.O.B. its factory, a similar part to replace any material in its machinery which within six months, or 1500 hours of use, whichever occurs first, (except six months on utility wheel tractors sold for non-farm use) after the date of delivery by the Dealer, is proven to the satisfaction of the Company to have been defective at the time it was delivered, provided that all parts claimed defective shall be returned properly identified to the Company's factory, charges prepaid.

"This warranty is the only warranty, express, implied or statutory, upon which said machinery is purchased. No other warranty has been made or exists either expressly, or by implication, all statutory and implied warranties being hereby expressly waived and excluded from this transaction, and the Company's liability in connection with this transaction is expressly limited to the repair or replacement of defective parts, all other damages, statutory or otherwise, being hereby expressly waived.

"This warranty applies only to new and unused machinery, which after shipment from the factory of the Company, has not been altered, changed, repaired or treated in any manner whatsoever. No warranty of any kind, statutory, implied, or otherwise, shall apply to trade accessories, attachments, tools, or implements not manufactured by the Company, though sold or operated with the Company's machinery, or to second-hand machinery, or to new and unused machinery, which, after shipment from the factory of the Company, has been altered, changed, repaired, or treated in any manner whatsoever.

"No representative of the Company has authority to change this warranty or this contract in any manner whatsoever, and no attempt to repair or promise to repair or improve the machinery covered by this contract by any representative of the Company shall waive any consideration of the contract or change or extend this warranty in any manner whatsoever.

"Allied or Companion equipment not manufactured by the Company is covered only by the standard warranty of the manufacturer of such allied or companion equipment though sold or operated with the Company's machinery."

* * *

LIST OF ABBREVIATIONS

ASA	American Standard Association	M.I.	Malleable Iron
Assy.	Assembly	Mach.	Machine
Blk.	Black	Med.	Medium
Brz.	Bronze	NC (Thread)	National Coarse
Cont.	Continued	NF (Thread)	National Fine
Ctsk.	Countersunk	NPT	National Pipe Thread
Cu.	Cubic	O.D.	Outside Diameter
Cyl.	Cylinder	Oz.	Ounce
Dia.	Diameter	psi	pounds per square inch
Eng.	Engine	Rd.	Round
Fil.	Filister	rpm	revolutions per minute
Ft.	Foot or Feet	SAE	Society of Automotive Engineers
Ga.	Gauge	Skt.	Socket
Gal.	Gallon	Sq.	Square
Hex.	Hexagonal	St.	Straight
Hd.	Head	Std.	Standard
I.D.	Inside Diameter	Sub-Assy.	Sub-Assembly
In.	Inches	Thk.	Thick
Incl.	Included	USS	United States Standard
Int.	Internal	w/	with - - -
JIC	Joint Industrial Congress	Yd.	Yard
Lb.	Pound		

ORDERING OF REPAIR PARTS

IMPORTANT

ALWAYS GIVE THE APPROPRIATE SERIAL NUMBERS WHEN ORDERING PARTS.

a. **LOADER NO.** — Located on the name plate attached to the left rear face of the seat frame in the operator's compartment.

b. **ENGINE NO.** — Located on the left side of the engine block.

All numbers shown in the extreme right hand column entitled "Package No." are listed numerically in the back of this catalog with the quantity and description of the various parts that make up the package.

The terms "Right" and "Left" as they are used throughout this book are applied as viewed looking forward from the driver's seat.

To obtain parts promptly, give part name and part number.

Order parts from the Allis-Chalmers dealer for your territory.

Repairs for standard motor accessories such as generators and starting motors should be ordered from authorized Service Stations maintained by manufacturers of these units throughout the country.

Always state post office address, town, county and state where parts are to be shipped. Also specify whether material is to be shipped by freight, express or parcel post.

Confirm all telephone or telegraph orders in writing.

Parts interchangeable with O.T.C. may be ordered from Owatonna Tool Company.

No credit will be allowed on parts unless they are returned to the dealer from whom they were purchased; from there they will be returned, at the customers expense, to the factory for inspection.

Unless claims for shortages or errors are made immediately upon receipt of goods, they will not be considered.

When broken goods are received, a full description of the damage should be made by the carrier agent on the freight bill. If this description is insisted upon, full damage can always be collected from the transportation company.

No responsibility is assumed for delay or damage to merchandise while in transit. Our responsibility ceases upon delivery of shipment to the transportation company from whom a receipt is received showing that shipment was in good condition when delivered to them; therefore, claims (if any) should be filed with the transportation company and not with the Allis-Chalmers Manufacturing Company.

The right is reserved to change the construction or material of any parts where it seems desirable to do so, without incurring the obligation of installing such changes on loaders already delivered.

TELEGRAPHIC CODE

In sending wire orders, it is important that a one-word description of part wanted be specified after each part number. In event the message is received with incorrect part number, it will help us to ascertain the part actually required. Confirm each telegraphic order by mail in order that it may be checked and if not correctly transmitted, the error detected.

Shipping or other instructions in the body of a telegram which normally consists of many words, can be condensed into one of the use of the proper code word as given below:

AIRYX — Ship by Air Express

SONST — Ship to me (us) by Express

SOOTY — Ship by Express

SOYON — Ship to me (us) by Mail

SOBOS — Ship by Mail to

SORAT — Ship to me (us) by Freight

SAPAT — Ship by Freight to

SPLAT — When and how did you ship parts on my (our) order

SPATS — When and how will you ship parts on my (our) order

STAUB — Cancel my (our) order

STUFE — Add to my (our) parts order

SOMOR — Duplicate shipment of my (our) order

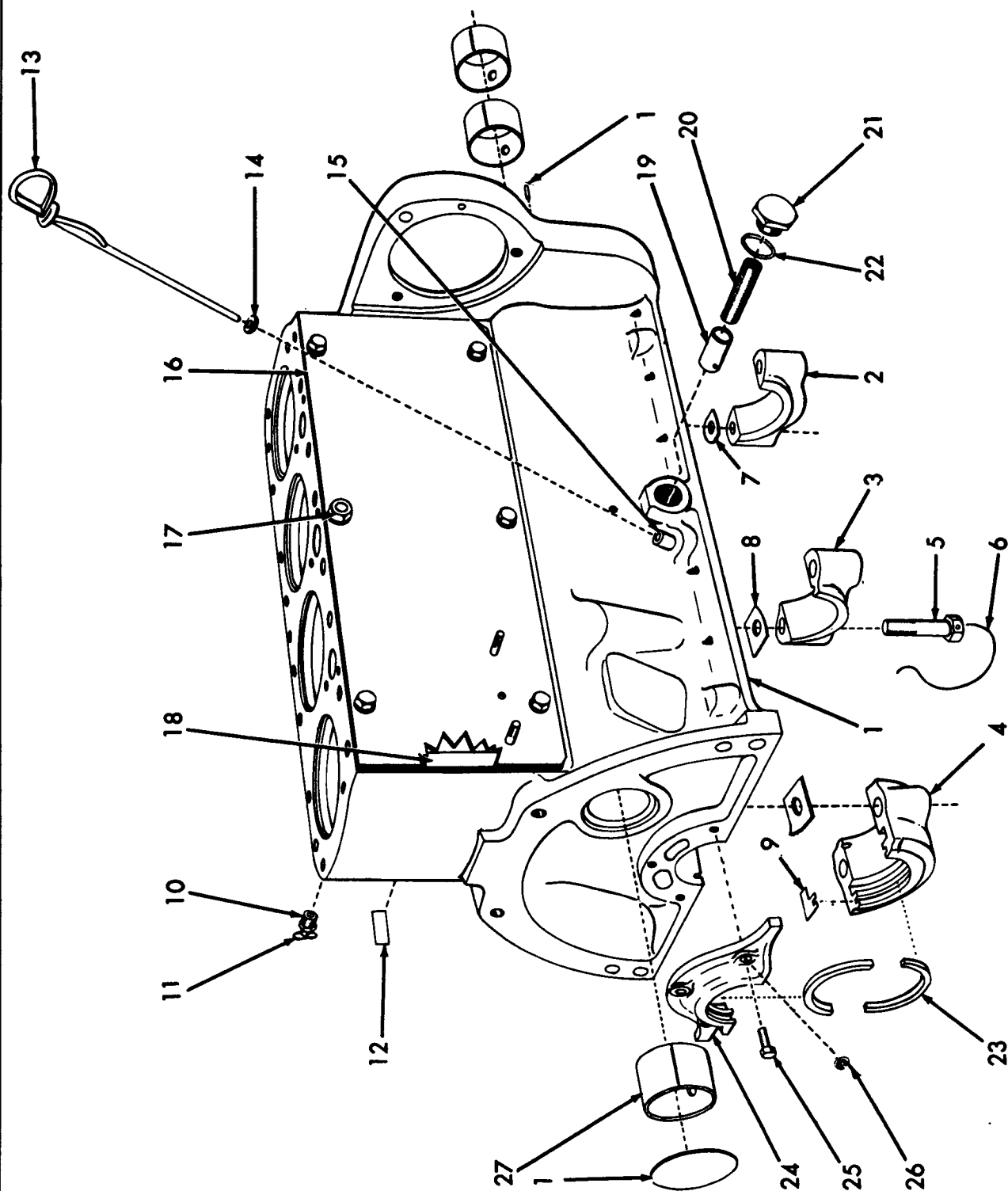


PLATE 186 - CYLINDER BLOCK

CYLINDER BLOCK – USED PRIOR ENGINE #45-1001-G

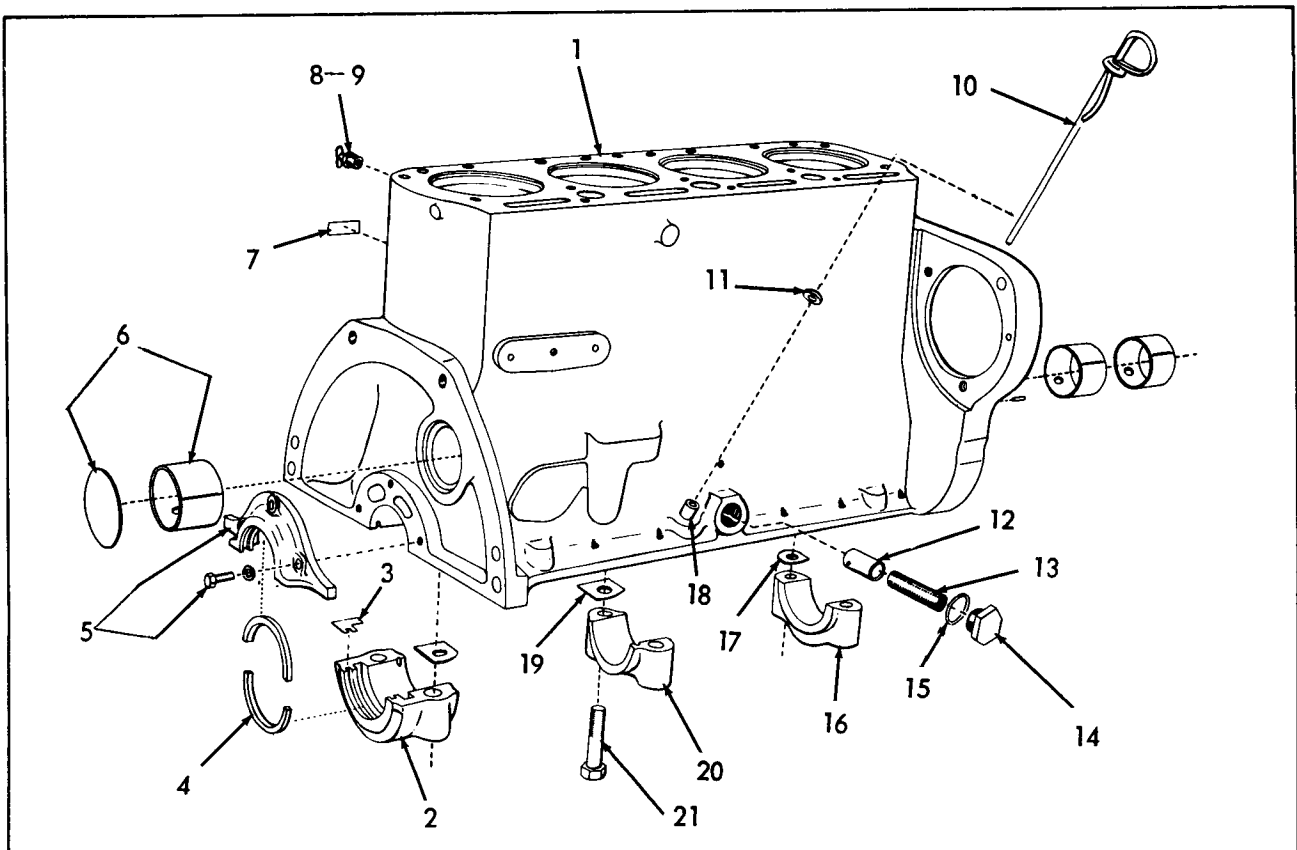
(See Plate 186)

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	U-3644	1	Block Assy., Cylinder	U-3644
	910011	1	Plug, Expansion, 2-1/2" Diameter	
	910121	1	Pin, Taper Groove, 5/32" x 1/2"	
2	U-3157	1	Cap, Bearing, Front	
3	U-3021	1	Cap, Bearing, Center	
4	U-3020	1	Cap, Bearing, Rear	
5	U-3025	6	Capscrew, Bearing Cap (Used prior Engine #231695, except 222552 thru 231514)	
	224574	6	Bolt, Bearing Cap (Used Engine #222552 thru 231514 and 231695 thru 309771)	
	225799	6	Bolt, Bearing Cap (Used Engine #309771 and up)	
6	----	3	Wire, Lock, Bearing Cap Bolt (Furnish 11" of 910549 for each) (Used prior Engine #231695 except 222552 thru 231514 with U-3025 only)	212092
7	204722	2	Shim, Front Bearing Cap	
8	204721	4	Shim, Center and Rear Bearing Cap	
9	U-3036	2	Gasket, Rear Bearing Cap	
10	U-1671	1	Cock, Drain, Water Jacket (Includes Plug)	
11	209359	1	Plug, Drain Cock	
12	----	1	Transfer, Instruction, Water Drain	223680
13	U-3183	1	Rod, Oil Gauge Level (Includes Item #14) (Used prior Engine #45-20637)	
	226541	1	Rod, Oil Gauge Level (Includes Item #14) (Used Engine #45-20637 and up)	
14	U-4014	1	Seal, Oil Gauge Rod	
15	U-3118	1	Bushing, Oil Gauge Rod	
16	U-3904	1	Cover Assy., Push Rod (Includes two Oil Filter Studs)	
	903629	5	Capscrew, 3/8" x 3/4"	
	904206	5	Lockwasher, 3/8" ASA Med.	
17	U-3201	1	Stud, Push Rod Cover to Block	
	900367	1	Nut, 3/8"	
	904206	1	Lockwasher, 3/8" ASA Med.	
18	218604	1	Gasket, Push Rod Cover	(Continued)

CYLINDER BLOCK - USED PRIOR ENGINE #45-1001-G - CONTINUED

(See Plate 186)

ITEM	PART NUMBER	QTY.	PART NAME
19	U-3129	1	Plunger, Oil Pressure Relief Valve
20	U-3144	1	Spring, Oil Pressure Relief Valve
21	225657	1	Plug, Oil Pressure Relief Valve
22	U-3130	1	Gasket, Relief Valve Plug (Used prior Engine #329900)
	226012	1	Gasket, Relief Valve Plug, (Used Engine #329900 and up)
23	----	2	Seal, Oil (Half) (See Crankshaft Section)
24	U-3042	1	Retainer, Oil Seal, Rear
25	903772	3	Capscrew, Oil Seal, Retainer, Rear
26	904205	3	Lockwasher
27	----	3	Bushing, Camshaft. (See Camshaft Section)



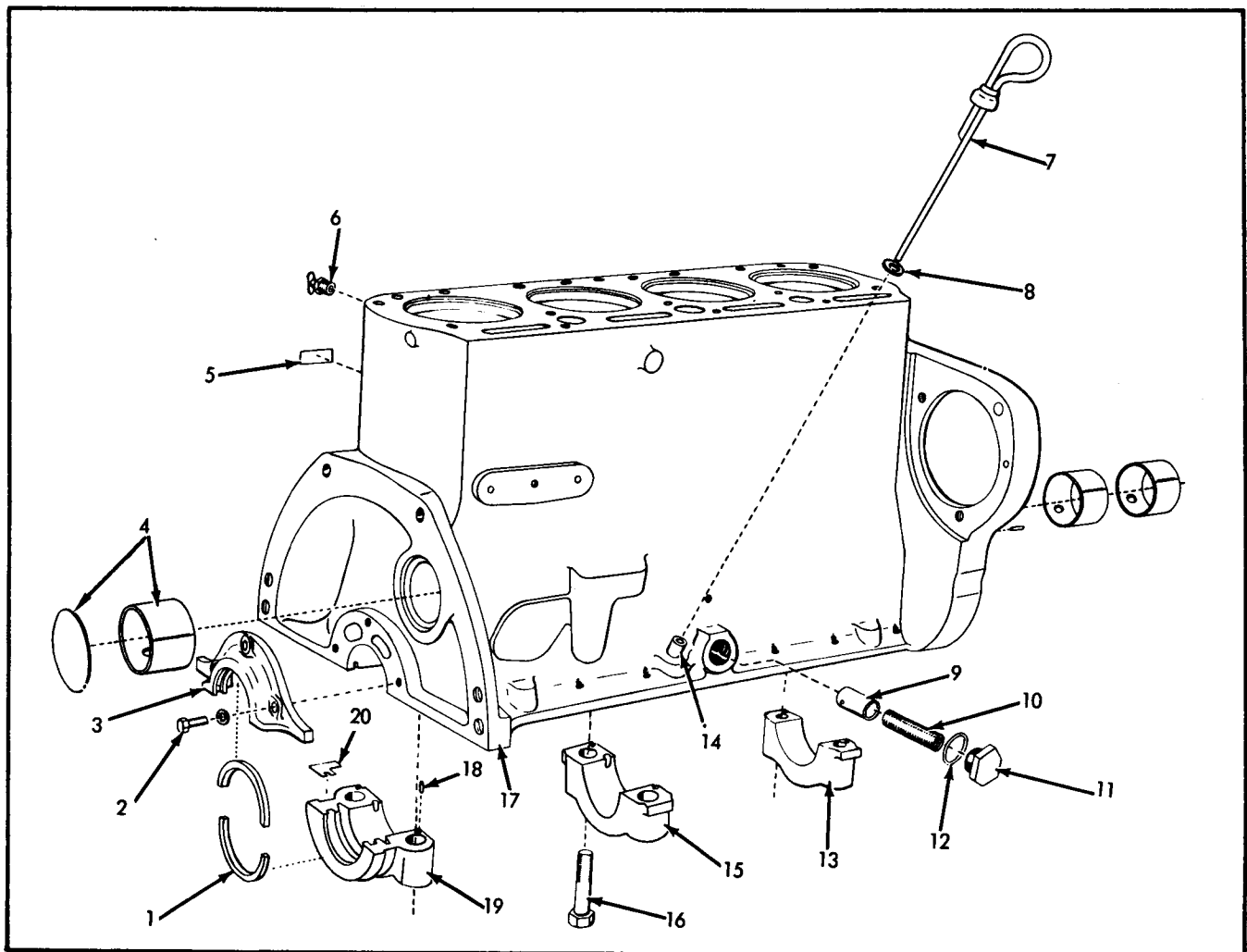
CYLINDER BLOCK - EFFECTIVE ENGINE #45-1001-G

CYLINDER BLOCK – EFFECTIVE ENGINE #45-1001-G & UP

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	7397	1	Engine Assy., Complete, Gas. (6.45:1 Ratio)	<p>These Engine Assemblies include parts as listed on pages 35 thru 51, 53 thru 55, 58 thru 79 and Items #44 thru #48 on pages 111 and 112</p> <p>NOTE CHANGES CAREFULLY</p>
	13705	1	Engine Assy., Complete, Gas. (6.45:1 Ratio) For machines equipped with Power Steering	
	20430	1	Engine Assy., Complete, Kero. (4.75:1 Ratio)	
	20431	1	Engine Assy., Complete, Kero. (4.75:1 Ratio) For machines equipped with Power Steering	
			<u>HIGH ALTITUDE ENGINES</u>	
	19743	1	Engine Assy., Complete, Gas. (7.2:1 Ratio) (Altitude 5000 ft. and above)	
	19746	1	Engine Assy., Complete, Gas. (7.2:1 Ratio) (Altitude 5000 ft. For machines equipped with Power Steering and above)	
	19744	1	Engine Assy., Complete, Kero. (5.25:1 Ratio) (Altitude 3000 to 6000 ft.)	
	19747	1	Engine Assy., Complete, Kero. (5.25:1 Ratio) (Altitude 3000 For machines equipped with Power Steering to 6000 ft.)	
	19745	1	Engine Assy., Complete, Kero. (5.83:1 Ratio) (Altitude 6000 ft. and above)	
	19748	1	Engine Assy., Complete, Kero. (5.83:1 Ratio) (Altitude 6000 ft. For machines equipped with Power Steering and above)	
	226248	1	Block Assy., Cylinder (Includes Plug and Items #2, #6, #8, #9, #16, #17 and #19 thru #21)	226248
	910011	1	Plug, expansion	
	910121	1	Pin, taper groove	
2	U-3020	1	Cap, bearing, rear	226364
3	U-3036	2	Gasket, rear bearing cap	
4	----	2	Seal, oil, half (See Crankshaft Group)	
	U-3042	1	Retainer, rear oil seal	
5	903772	3	Capscrew	
	904205	3	Lockwasher	
6	----	3	Bushing, Camshaft (See Camshaft Group)	223680
7	----	1	Transfer, Instruction, water	
8	209359	1	Stem, drain cock	
9	U-1671	1	Cock, drain, water jacket	
10	U-3183	1	Rod Assy., Oil Level Gauge (Includes Item #11) (Used prior Engine #45-20637)	
	226541	1	Rod Assy., Oil Level Gauge (Includes Item #11) (Used Engine #45-20637 & Up)	(Continued)

CYLINDER BLOCK – EFFECTIVE ENGINE #45-1001-G & UP – CONTINUED

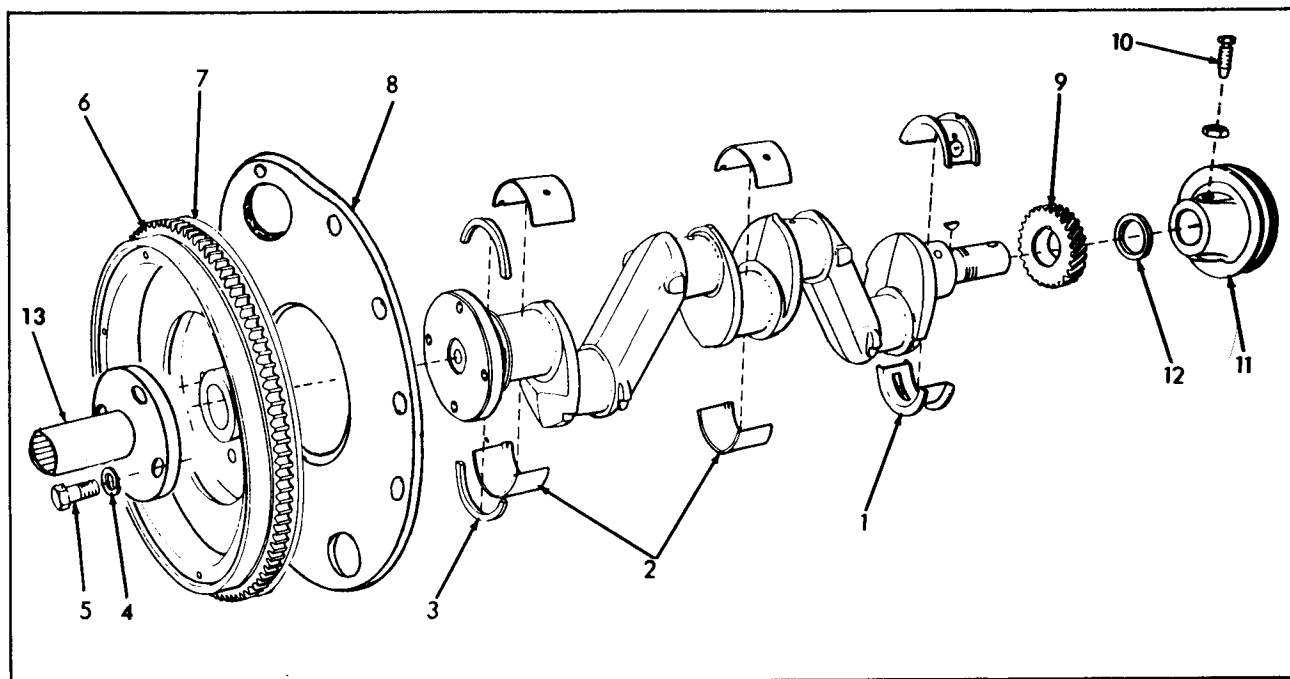
ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
11	U-4014	1	Seal, oil level gauge	226533
12	U-3129	1	Plunger, oil pressure relief valve	
13	U-3144	1	Spring, oil pressure relief valve	
14	226408	1	Plug, oil pressure relief valve	
15	226012	1	Gasket, plug	
16	U-3157	1	Cap, bearing, front	
17	204722	2	Shim, front bearing cap	
18	U-3118	1	Bushing, oil level gauge	
19	204721	4	Shim, center and rear bearing cap	
20	U-3021	1	Cap, bearing, center	
21	226152	6	Bolt, main bearing cap	226533



CYLINDER BLOCK

CYLINDER BLOCK – EFFECTIVE with ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
-	23101	1	Engine Assy., Complete, Gas. (7.25:1 Ratio)	
	18594	1	Engine Assy., Complete, Gas. (8.25:1 Ratio) Altitude 4000 ft. and above	
	18596	1	Engine Assy., Complete, Kero. (4.75:1 Ratio)	
	18595	1	Engine Assy., Complete, Kero. (:1 Ratio) Altitude 4000 ft. and above	
1	229180	2	Seal, Crankshaft, front (See Crankshaft group)	
2	229715	3	Capscrew, rear seal retainer	
	904205	3	Lockwasher	
3	229179	1	Retainer, rear oil seal	
4	----	3	Bushing, camshaft (See Camshaft group)	
	910011	1	Plug, expansion, 2-1/2" diam.	
5	206289	1	Transfer, cylinder block drain	230280
6	918849	1	Cock, drain	
7	230066	1	Rod, oil level gauge (Includes Item #8)	
8	U-4014	1	Seal, oil level gauge rod	
9	U-3129	1	Plunger, oil pressure relief valve	Used Prior to engine #17-20628-M
10	229181	1	Spring, oil pressure relief valve	
11	226408	1	Plug, oil pressure relief valve	
12	226012	1	Gasket, plug	
13	229173	1	Cap, bearing, rear	229866, 229860 230280
14	230331	1	Bushing, oil level gauge	
15	229172	1	Cap, bearing, center	
16	229174	6	Capscrew, main bearing cap	
17	230424	1	Block Assy., cylinder (Includes Items #4, #13, #15, #16 & #19)	
18	229370	6	Pin, dowel, bearing cap	
19	229171	1	Cap, bearing, front	
20	229178	2	Gasket, front bearing cap	
-	----	1	Transfer, engine designation "Power Crater"	



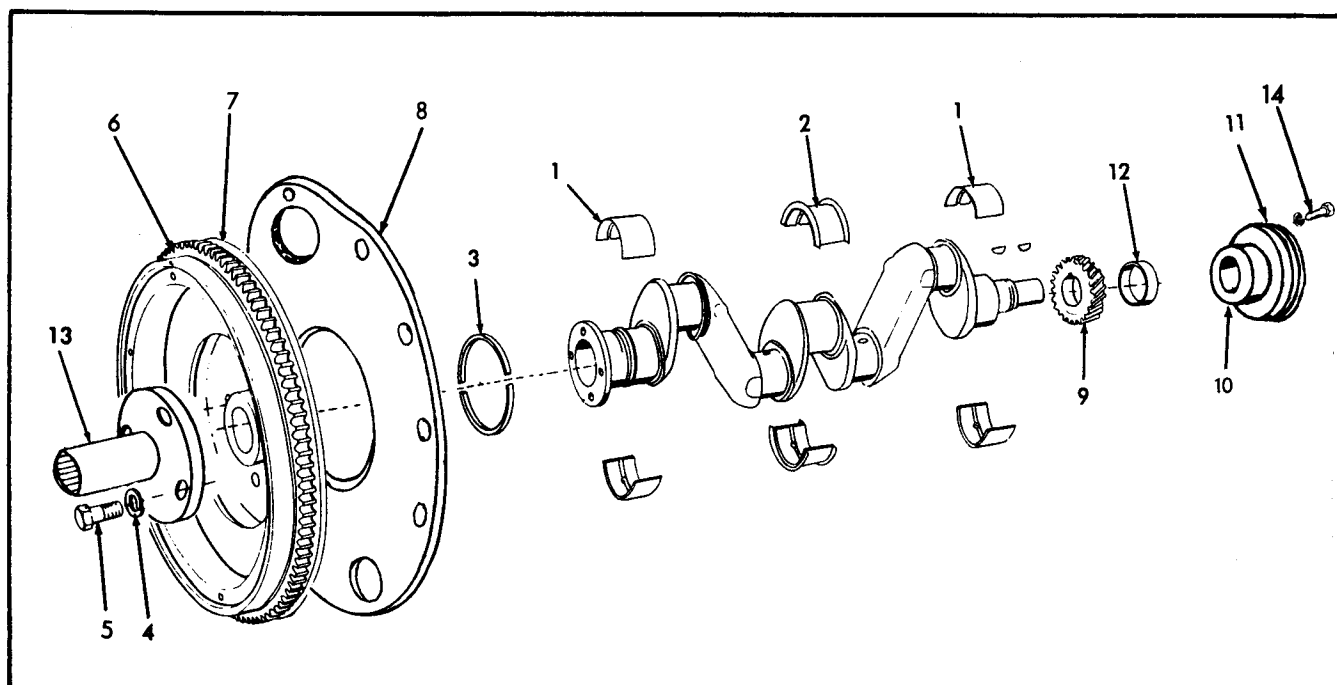
CRANKSHAFT AND FLYWHEEL – USED PRIOR TO ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
–	226533	1	Crankshaft Kit (Std.) (Eff. Eng. #45-11050 and up with 226542 Gear)	226533
–	226358	1	Crankshaft Kit (Std.) (Used Eng. #45-1001-G thru #45-11049 with U-3033 Gear)	226358
–	224932	1	Crankshaft Kit (Std.) (Used prior Eng. #45-1001-G)	224932
–	281986	1	Crankshaft Kit (.040" Undersize) (Used prior Eng. #269166)	281986
1	U-3158	2	Bearing, Half, front (Std.)	209868
	211853	2	Bearing, Half, front (.0025" Undersize)	215279
	213354	2	Bearing, Half, front (.040" Undersize)	213556
	223550	2	Bearing, Half, front (.0425" Undersize)	223561
	223551	2	Bearing, Half, front (.45" Undersize)	223562
2	U-3024	4	Bearing, Half, center and rear (Std.)	209868
	211857	4	Bearing, Half, center and rear (.0025" Undersize)	215279
	213355	4	Bearing, Half, center and rear (.040" Undersize)	213556
	215276	4	Bearing, Half, center and rear (.0425" Undersize)	223561
	215275	4	Bearing, Half, center and rear (.045" Undersize)	223562
3	U-3041	2	Ring, Seal, Oil, rear (Half) (Used prior to Eng. #269166)	209870
	224945	2	Seal (Half) Crankshaft, rear (Used on Eng. #269166 and up)	
4	904208	4	Lockwasher, 1/2" ASA Med.	
5	7795	4	Capscrew, Flywheel, 1/2" – 20 NF x 1-1/2"	
6	4806	1	Gear, Ring, Flywheel (120 T)	
7	7420	1	Flywheel Assy. (Includes Ring Gear)	

(Continued)

CRANKSHAFT AND FLYWHEEL – CONTINUED
USED PRIOR TO ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
8	204061	1	Wick, Oil (For Clutch Pilot Bearing) (Used prior Eng. #253200)	Not Illustrated
	----	1	Stopper, Crankshaft (Cork) Note: Use No. 2 U.S. Std. Cork Stopper (Used Eng. #253200 thru 253489)	
9	U-3033	1	Gear, Timing (27 T) (Used w/226358 Crankshaft prior Eng. #45-11050)	
	226542	1	Gear, Timing (Used w/226533 Crankshaft on Eng. #45-11050 & up)	
10	207872	1	Setscrew, Fan Drive Pulley (Used prior TL - 10 #256)	
	903574	1	Nut, 5/8"	
	9538	1	Setscrew (Eff. TL - 10 #256 w/9528 Pulley)	
	9537	1	Setscrew	
11	U-3088	1	Pulley, Fan Drive (Used prior TL-10 #256)	
	9528	1	Pulley (Eff. TL-10 #256)	
	12989	1	Pulley (For machines equipped with Power Steering)	
12	U-3040	1	Ring, Seal, Oil, Front (Used prior to Eng. #269166)	209870
	224929	1	Seal, Crankshaft, front (Used on Eng. #269166 thru 45-16650)	224946
	226620	1	Seal, Crankshaft, front (Eff. Eng. #45-16650)	226640
13	7708	1	Shaft Flange	
14	4804	1	Adapter Plate	

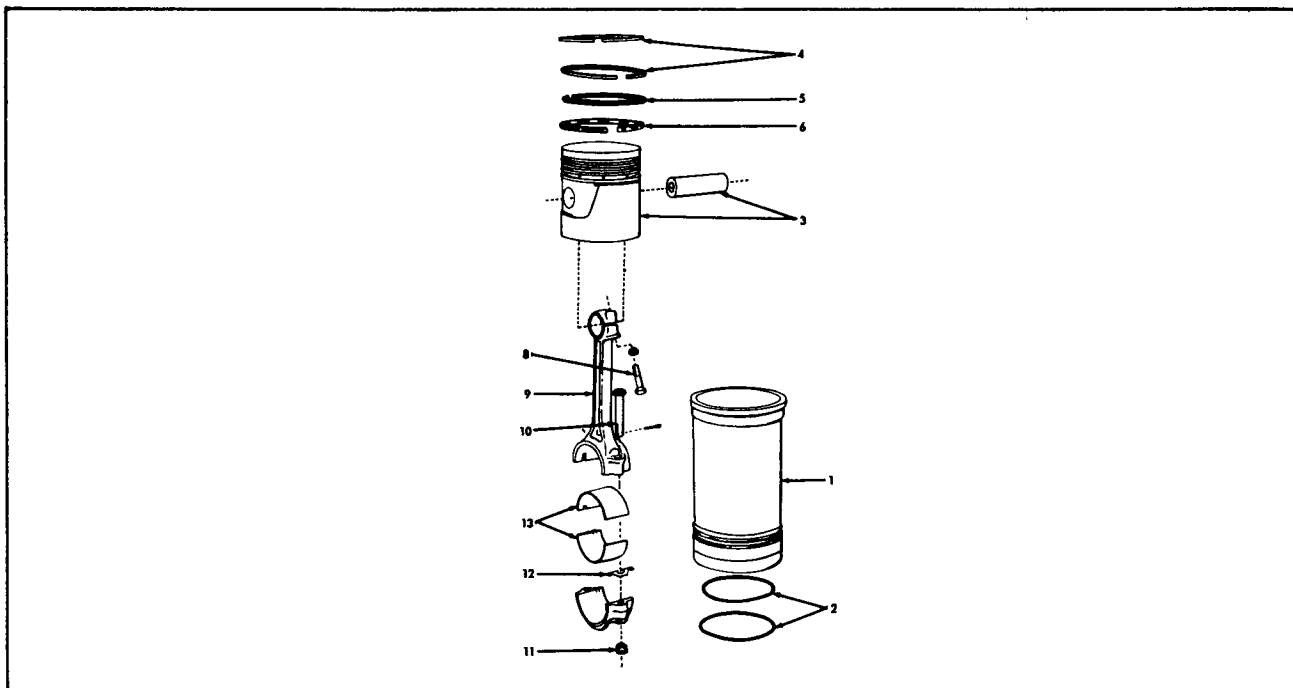


CRANKSHAFT AND FLYWHEEL – EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
–	– – – – –	1	Crankshaft (Std.)	229092
1	229888	4	Bearing, half, front and rear (Std.)	
	229885	4	Bearing, half, front and rear (.001" u/size)	Use Prior to engine #17-20628-M
	229886	4	Bearing, half, front and rear (.0025" u/size)	
	231452	4	Bearing, half, front and rear (Std.)	
	231924	4	Bearing, half, front and rear (.001" u/size)	Effective with engine #17-20628-M
	231925	4	Bearing, half, front and rear (.0025" u/size)	
2	229862	2	Bearing, half, center (Std.)	
	229881	2	Bearing, half, center (.001" u/size)	Use Prior to engine #17-20628-M
	229882	2	Bearing, half, center (.0025" u/size)	
	231451	2	Bearing, half, center (Std.)	
	231922	2	Bearing, half, center (.001" u/size)	Effective with engine #17-20628-M
	231923	2	Bearing, half, center (.0025" u/size)	
3	229180	2	Seal, half, crankshaft, front (See Cylinder Block Group)	
4	904208	4	Lockwasher, 1/2" ASA Med.	
5	7795	4	Capscrew, flywheel, 1/2" – 20 NF x 1/2"	
6	4806	1	Gear, ring, flywheel (120T)	
7	7420	1	Flywheel Assy. (Includes Ring Gear)	
8	4804	1	Adapter Plate (See Torque Converter & Flywheel Housing Group)	(Continued)

CRANKSHAFT AND FLYWHEEL - CONTINUED
EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
9	230217	1	Gear, timing, 27T	
	910184	1	Key, Woodruff	
10	23516	1	Hub	
	9537	1	Setscrew	
11	23517	1	Pulley	
	910184	1	Key, Woodruff	
12	226620	1	Seal, Crankshaft, rear	226640
13	7708	1	Shaft Flange	
14	23531	4	Capscrew, 7/16" - 14NC x 2-1/2"	
	904207	4	Lockwasher, 7/16" ASA Med.	

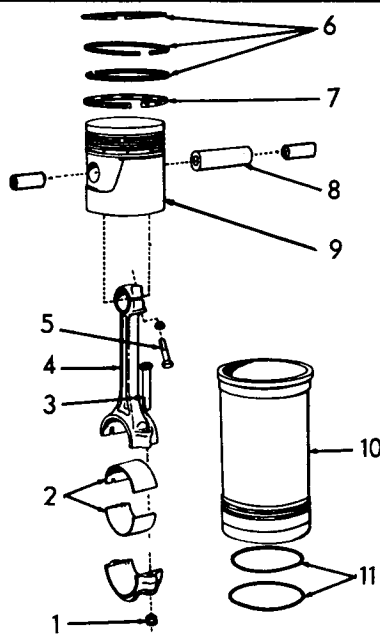


PISTON AND CONNECTING ROD – USED PRIOR TO ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
–	217312	1	Motor Kit (Aluminum Pistons) (5.5:1 Ratio, Gas.) (Used prior Eng. #283022)	217312
–	283064	1	Motor Kit (Aluminum Pistons) (5.7:1 Ratio, Gas.) (Used Eng. #283022 to 45-1001)	
–	283201	1	Motor Kit (Aluminum Pistons) (6.45:1 Ratio, Gas.) (Eff. Eng. #45-1001 & Up)	
–	282901	1	Motor Kit (7.2:1 Ratio, Gas.) (Altitude, 5000 ft. and above)	283229
–	283200	1	Motor Kit (4.75:1 Ratio, Kero.)	
–	283229	1	Motor Kit (5.25:1 Ratio, Kero.) (Altitude 3000 to 6000 ft.)	
–	283248	1	Motor Kit (5.83:1 Ratio, Kero.) (Altitude 6000 ft. and above)	
1	207435	4	Liner, Cylinder	
2	207436	8	Ring, Packing, Cylinder Liner	
3	217311	4	Piston Assy., Aluminum (Includes Pin) (5.5:1 Ratio, Gas.) (Used prior Eng. #283022)	217312
	224917	4	Piston Assy., Aluminum (Includes Pin) (5.7:1 Ratio, Gas.) (Used Eng. #283022 to #45-1001)	283064
	226346	4	Piston Assy., Aluminum (Includes Pin) (6.45:1 Ratio, Gas.) (Eff. Eng. #45-1001 & Up)	283201
	223507	4	Piston Assy., Aluminum (Includes Pin) (7.2:1 Ratio, Gas.) (Altitude 5000 ft. and above)	282901
	226268	4	Piston Assy., Aluminum (Includes Pin) (4.75:1 Ratio, Kero.)	283229 (Continued)
	226537	4	Piston Assy., Aluminum (Includes Pin) (5.25:1 Ratio, Kero.) (Altitude, 3000 to 6000 ft.)	

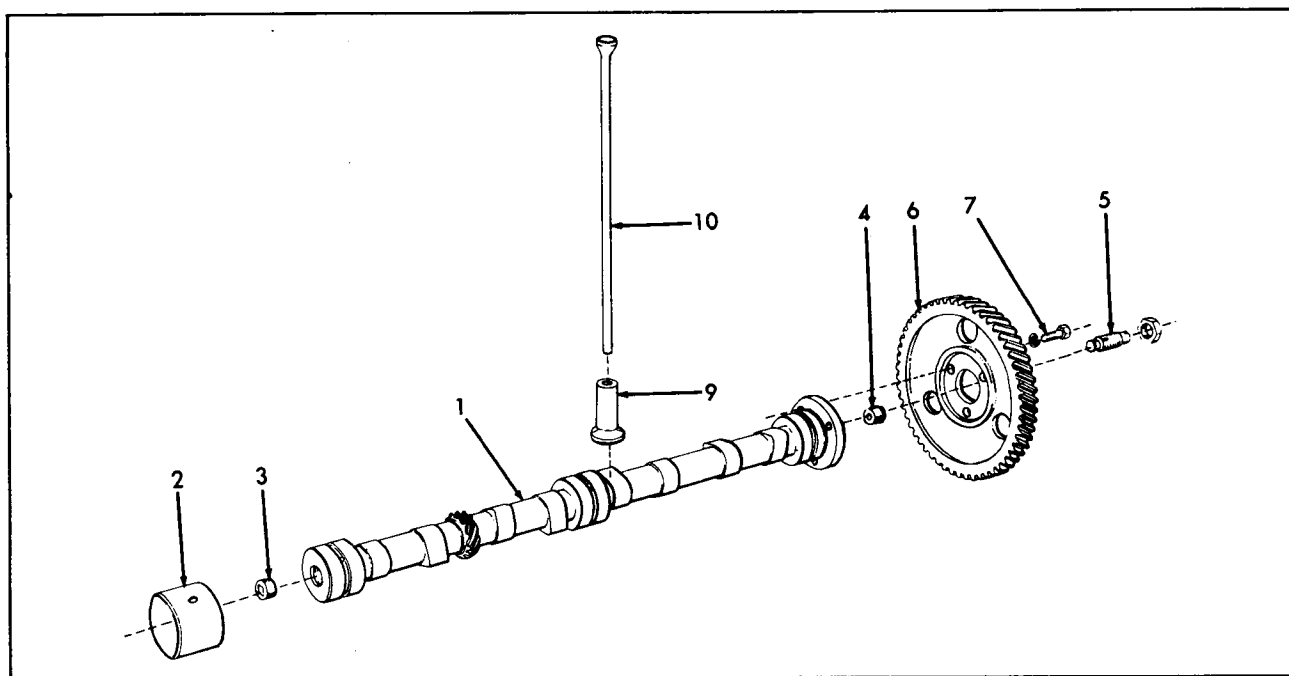
PISTON AND CONNECTING ROD – CONTINUED
USED PRIOR TO ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
3	226622	4	Piston Assy., Aluminum (Includes Pin) (5.83:1 Ratio, Kero.) (Altitude, 6000 ft. and above)	283248
	U-3052	4	Pin, Piston	
4	U-3050	8	Ring, Piston, Compression	208354
	227170	4	Ring, Piston, Compression, Top (Expander Type)	227168
	227171	4	Ring, Piston, Compression, 2nd (Expander Type)	227168
	227172	8	Expander Ring	227168
5	U-3809	4	Ring, Piston, Scraper	208354
	227173	4	Ring, Scraper (Expander Type)	227168
6	U-4000	4	Ring, Piston, Oil	208354
	227174	4	Ring, Oil (Expander Type)	227168
8	U-3188	4	Capscrew, Piston Pin	
	904206	4	Lockwasher, 3/8" ASA Med.	
9	280006	4	Rod Assy., Connecting (Includes Items #8, #10, #11, #12 & #13)	280006
10	224620	8	Bolt, Connecting Rod	
11	915652	8	Nut, Connecting Rod Bolt	
12	204720	8	Shim, Connecting Rod Cap	226533
13	223622	4	Bearing, Connecting Rod (Std.)	226533
	228473	4	Bearing, Connecting Rod Insert (.001" Undersize)	
	223623	4	Bearing, Connecting Rod (.0025" Undersize)	
	223624	4	Bearing, Connecting Rod (.005" Undersize)	
	223626	4	Bearing, Connecting Rod (.040" Undersize)	
	223627	4	Bearing, Connecting Rod (.0425" Undersize)	
	223628	4	Bearing, Connecting Rod (.045" Undersize)	
			<p>NOTE: In view of the removable-sleeve construction of these engines, oversize pistons or rings are not supplied. When appreciable wear occurs, new standard size parts should be installed.</p> <p>Oversize piston pins are not available. New pistons should be installed when appreciable wear causes loose pin fits.</p>	



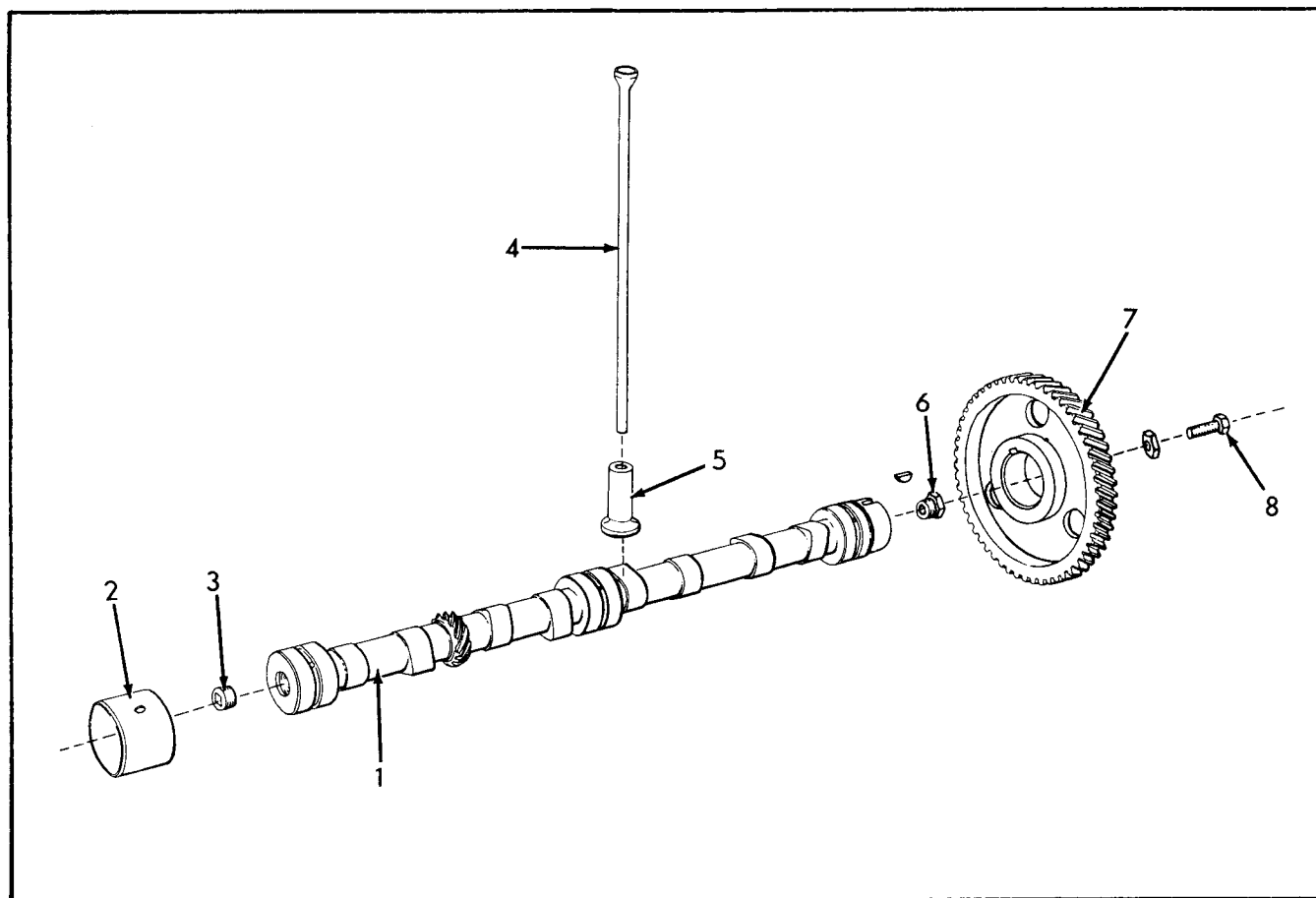
PISTON AND CONNECTING ROD – EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
–	–	1	Motor Kit, 4.75:1 ratio, low octane fuel (Std.)	283617
–	–	1	Motor Kit, 7.25:1 ratio, gasoline (Std.)	283605
–	–	1	Motor Kit, 5.83:1 ratio, low octane fuel (Std.)	283619
–	–	1	Motor Kit, 8.25:1 ratio, L.P.G. and gas (Std.)	283730
1	915652	8	Nut, connecting rod bolt	
	228611	8	Bearing, half, connecting rod (Std. size)	229092
2	228612	8	Bearing, half, connecting rod (.001" u/size)	
	229876	8	Bearing, half, connecting rod (.0025" u/size)	
3	224620	8	Bolt, connecting rod	
4	229861	4	Rod Assy., connecting (Includes Items #1, #3 and #5)	Used Prior to eng. #17-20628-M
	232561	4	Rod Assy., connecting (Includes Items #1, #3 and #5)	Eff. with engine #17-20628-M
5	U-3188	4	Capscrew, clamping, piston pin	
	904206	4	Lockwasher, 3/8" ASA Med.	
6	229537	12	Ring, compression, piston	230091, 229863
7	229538	4	Ring, oil (Segment type) (Chrome faced)	283605, 283617, 284362
8	U-3052	4	Pin, piston	283605, 283617
	226268	4	Piston Assy., 4.75:1 ratio, low octane fuel (Includes Items #8)	283617
9	229718	4	Piston Assy., 7.25:1 ratio, gasoline (Includes Item #8)	283605
	230577	4	Piston Assy., 8.25:1 ratio (Altitude 4000 ft. and above)	Used Prior to eng. #17-20628-M
	233625	4	Piston Assy., 8.01:1 ratio (Includes Item #8)	284361
				Eff. with engine #17-20628-M
10	207435	4	Liner, cylinder	283605, 283617
11	227500	8	Packing Ring, cylinder liner	283605, 283617



CAMSHAFT - USED PRIOR TO ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	227032	1	Camshaft (Effective with engine #45-48556)	
	U-3027	1	Camshaft (Used prior to engine #45-48556)	
2	U-3865	3	Bushing, Camshaft (Std.)	U-3644
	211850	3	Bushing, Camshaft (.0025" Undersize)	
3	204833	1	Plug, Camshaft (Rear) (Used prior Engine #45-1001-G)	
	904260	1	Plug, Camshaft (Rear) 5/16" Steel, Ctsk., 13/32" Sq. (Eff. Eng. #45-1001-G)	
4	U-3031	1	Plug, Camshaft (Front) (Used prior Engine #301543)	
	225689	1	Plug, Camshaft (Front) (Eff. Engine #301543 and up)	
5	205807	1	Screw Assy., Thrust (Includes Screw, Plunger, Spring, Pin and Nut) (Used prior Engine #301543)	
	225688	1	Screw, Thrust (Eff. Engine #301543 and up)	
	910345	1	Nut, 5/8"	
6	U-3028	1	Gear, Timing (54T) (Used prior to engine #45-48556)	
	227038	1	Gear, Timing (Effective with engine #45-48556)	
7	224568	3	Capscrew, Timing Gear	
	904206	3	Lockwasher, 3/8" ASA Med.	
9	U-3017	8	Tappet, Valve	
10	U-3018	8	Rod, Push, Valve	



CAMSHAFT – EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	227032	1	Camshaft	
	910184	1	Key, Woodruff	
2	229953	2	Bushing, camshaft (Std.) Front and rear	(Use Prior to engine #17-20628-M)
	229670	3	Bushing, camshaft (Std.)	(Effective with engine #17-20628-M)
	229955	2	Bushing, camshaft (.0025" u/size) front and rear	(3 Used effective with engine #17-20628-M)
	229952	1	Bushing, camshaft (Std.) Center	} Use prior to engine #17-20628-M
	229954	1	Bushing, camshaft (.0025" u/ size) Center	
3	227302	1	Plug, camshaft, front	
	917148	1	Ball, steel, 9/16" diam.	(Effective with engine #17-20628-M)
4	U-3018	8	Rod, push valve	
5	U-3017	8	Tappet, valve	
6	225689	1	Plug, camshaft, rear	
7	227038	1	Gear, timing, 54T	
8	225688	1	Screw, thrust	
	910345	1	Hex Nut, 5/8"	

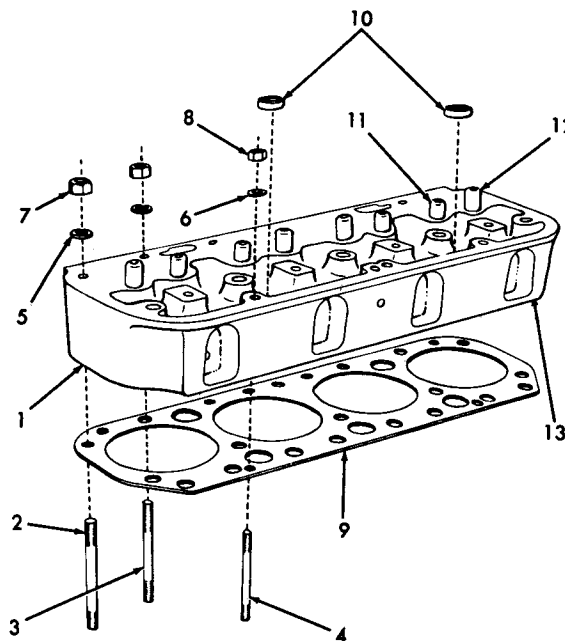
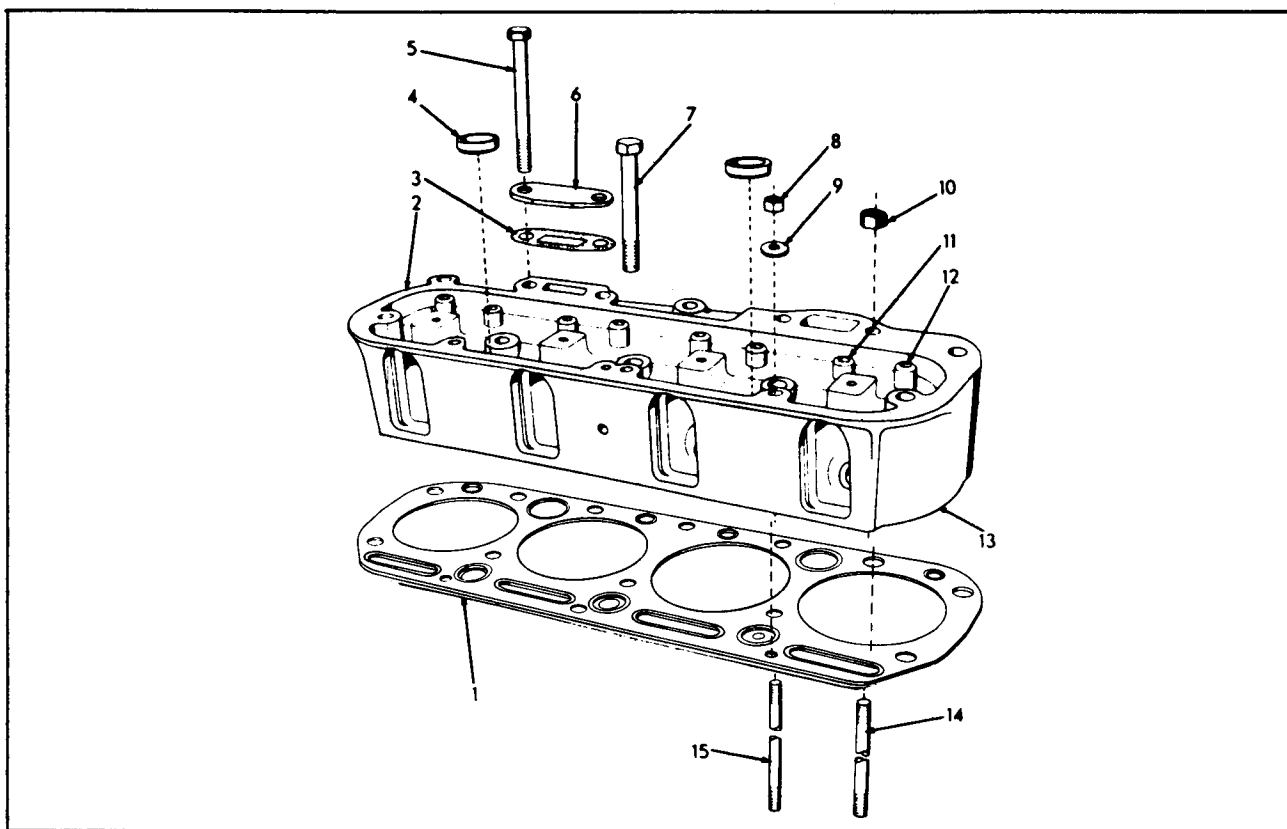


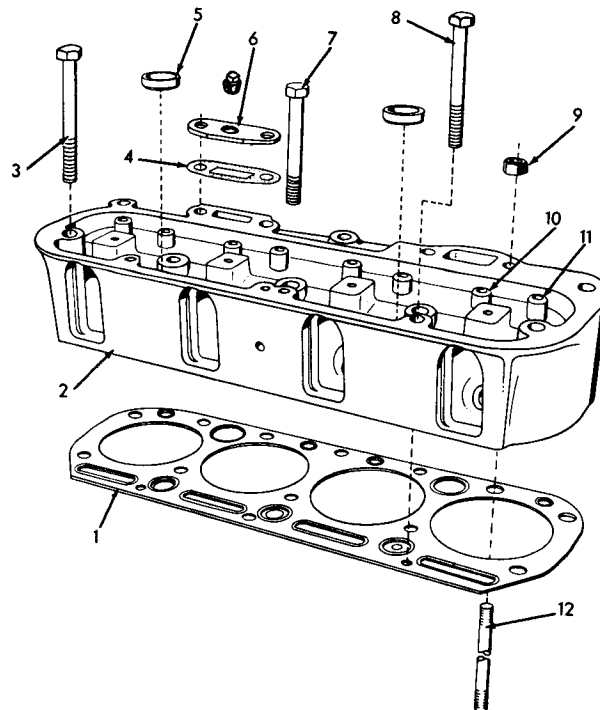
PLATE 190 - CYLINDER HEAD - USED PRIOR ENGINE #289000

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	205826	1	Head Assy., Cylinder (Used prior Engine #253200 and 253490 thru 288999)	205826
	224735	1	Head Assy., Cylinder (Used Engine #253200 thru 253489)	
2	U-3003	4	Stud, Long (1/2" Dia.) (Used prior Engine #253200 and on 253490 and up)	
	224729	4	Stud (1/2" Dia.) (Used Engine #253200 thru 253489)	
3	U-3004	8	Stud, Short (1/2" Dia.) (Used prior Engine #253200 & on 253490 and up)	
	224730	5	Capscrew (1/2" Dia.) Long (Used on Engine #253200 thru 253489)	
	224731	3	Capscrew (1/2" Dia.) Short (Used Engine #253200 thru 253489)	
4	207151	3	Stud (3/8" Dia.) (Used prior Engine #253200 and on 253490 and up)	
	224732	3	Capscrew (3/8" Dia.) (Used Engine #253200 thru 253489)	
5	AM-9021	12	Washer (f/1/2" Dia. Stud) (Four used Engine #253200 thru 253489)	210145
6	207152	3	Washer (f/3/8" Dia. Stud) (Used prior Engine #253200 and on 253490 and up)	
7	U-3461	12	Nut (f/1/2" Dia.) Stud) (Four used Engine #253200 thru 253489)	
8	207132	3	Nut (f3/8" Dia. Stud) (Used prior Engine #253200 and on 253490 and up)	
9	U-3198	1	Gasket, Cylinder Head	
10	224526	2	Plug, Core Hole	
11	U-3142	4	Guide, Intake Valve (See Valve and Rocker Arm Section)	
12	205215	4	Guide, Exhaust Valve (See Valves and Rocker Arm Section)	
13	U-3164	4	Seat, Exhaust Valve (See Valves and Rocker Arm Section)	



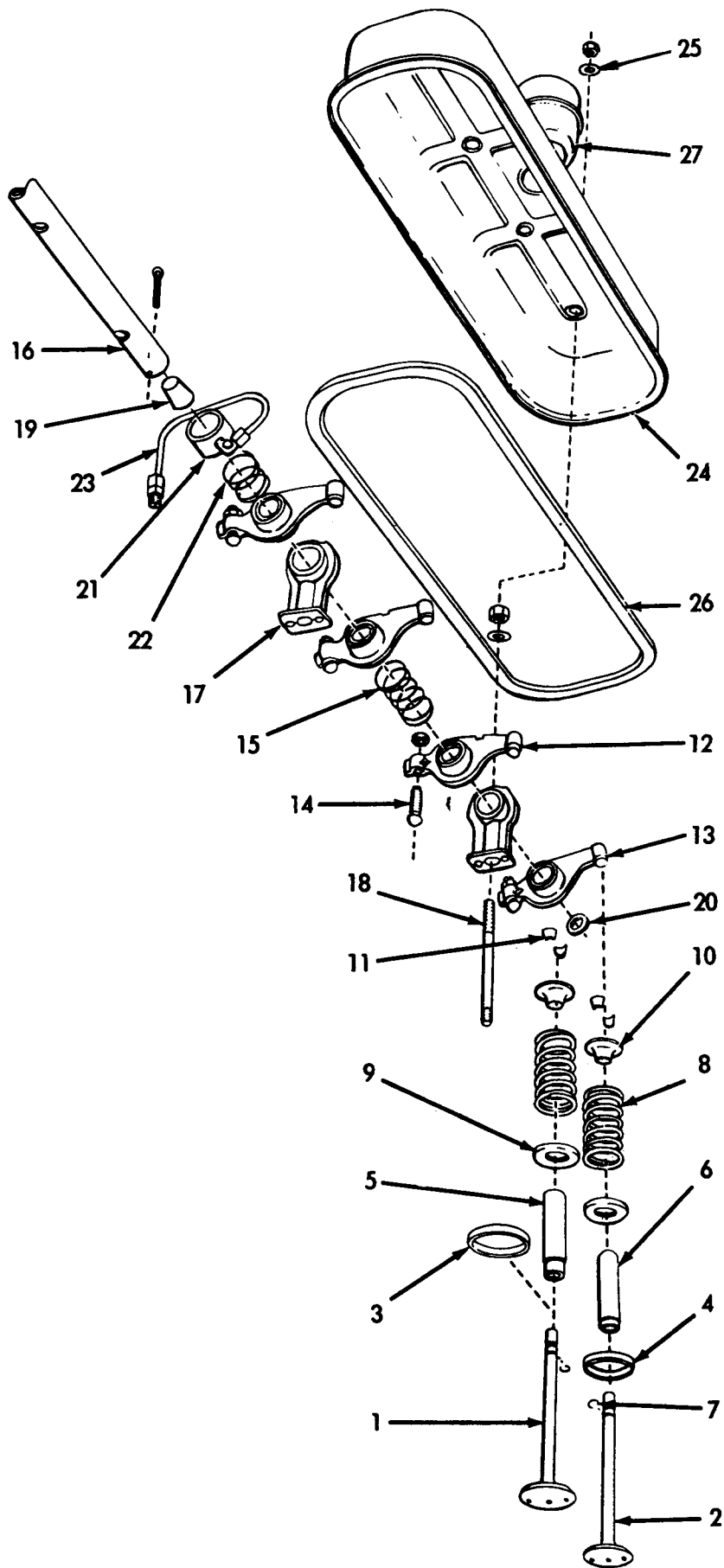
CYLINDER HEAD – EFFECTIVE ENGINE #289000 AND UP AND MODEL #45 ENGINES

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	226244	1	Gasket, Cylinder Head	226363 226364
2	225014	1	Cylinder Head Assy. (Includes Items 3, 10, 11 and 12)	
3	U-3077	1	Gasket, Core Hole Cover	225023 225024
4	224526	2	Plug, Core Hole	
5	224730	7	Capscrew, Long	
6	225021	1	Cover, Core Hole	
7	224731	3	Capscrew, Short	
8	207132	3	Nut, for 3/8" Diameter Stud	
9	207152	3	Washer, for 3/8" Diameter Stud	
10	U-3461	2	Nut, for 1/2" Diameter Stud (Also in Water Manifold Group)	
11	U-3142	4	Guide, Intake Valve (Also in Valves and Rocker Arms Group)	
12	205215	4	Guide, Exhaust Valve (Also in Valves and Rocker Arms Group)	
13	U-3164	4	Seat, Insert, Exhaust Valve (Also shown in Valves and Rocker Arms Group)	
14	224729	2	Stud, 1/2" Diameter (Also in Water Manifold Group)	
15	224998	3	Stud, 3/8" Diameter	



CYLINDER HEAD - EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	229406	1	Gasket, cylinder head	229865, 229866
2	230359	1	Head Assy., cylinder (Includes Items #5, #10, #11 and Exhaust Valve Seats) (Used prior to engine #17-20628-M)	
	232447	1	Head Assy., cylinder (Includes Items #5, #10, #11 and Exhaust Valve Seats) (Effective with engine #17-20628-M)	
3	224730	5	Capscrew, long	
4	U-3077	1	Gasket, core hole cover (Used prior to engine #17-20628-M)	229865, 229866
	233216	1	Gasket, core hole cover (Effective with engine #17-20628-M)	
5	230357	2	Plug, core hole	
6	229409	1	Cover, core hole	
	905261	1	Pipe Plug, 1/2" Sq. Hd.	
7	224731	3	Capscrew, short	
8	229410	3	Capscrew, 4-9/16" long	
9	U-3461	4	Nut (f/1/2" diam. stud) (Also in Water Manifold Group)	
10	U-3142	4	Guide, intake valve (Also in Valves & Rocker Arms Group)	(Used prior to engine #17-20628-M)
	207259	4	Guide, intake valve (Effective with engine #17-20628-M)	
11	229911	4	Guide, exhaust valve & Rocker Arms Group)	(Used prior to engine #17-20628-M)
	229522	4	Guide, exhaust valve (Effective with engine #17-20628-M)	
12	224729	4	Stud, 1/2" diam. (Also in Water Manifold Group)	
13	233155	2	Plug Assy., clean out (Serviced only as a unit) (Not Ill.) (Effective with engine #17-20628-M)	



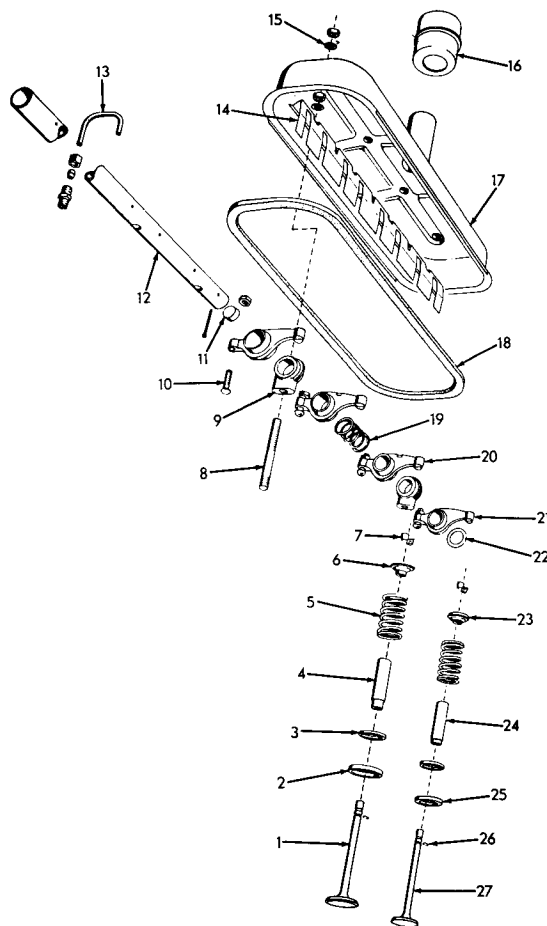
VALVE AND ROCKER ARMS - USED PRIOR ENGINE #289000

VALVES AND ROCKER ARMS - USED PRIOR ENGINE #289000

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	209132	4	Valve, Intake	209888
2	209134	4	Valve, Exhaust	209888
3	220476	4	Seat, Insert, Intake Valve (For Service Only)	
4	U-3164	4	Seat, Insert, Exhaust Valve (Std.)	
	220473	4	Seat, Insert, Exhaust Valve (Oversize) (For Service Only)	
5	U-3142	4	Guide, Intake Valve	
6	205215	4	Guide, Exhaust Valve	
7	204801	8	Ring, Snap, Valve Stem	
8	206879	8	Spring, Valve	209888
9	206876	8	Seat, Valve Spring	209888
10	209099	8	Retainer, Valve Spring	209888
	224926	4	Roto-Cap, Exhaust Valve (Used Engine #262650 thru #263225)	
11	209103	16	Lock, Half, Valve Spring Retainer	209888
12	209862	4	Arm Assy., Rocker Intake Valve (Includes Bearing, Adjusting Screw and Jam Nut)	
13	208049	4	Arm Assy., Rocker, Exhaust Valve (Includes Bearing, Adjusting Screw and Jam Nut)	
14	U-3132	8	Screw, Adjusting, Rocker Arm	
	912794	1	Nut, 3/8"	
15	U-3011	2	Spring, Spacing, Rocker Arm	
16	212957	1	Shaft Assy., Rocker Arm (Includes two Plugs and two C-Pins) (Used prior Engine #289000)	
	900807	2	Pin, Cotter, 1/8" x 1-1/4"	
17	211413	4	Support, Rocker Arm Shaft (Not used Engine #253200 thru #253489)	
	225019	4	Support, Rocker Arm Shaft (Used Engine #253200 thru #253489 and #289000 and up)	
18	U-3014	4	Stud, Rocker Arm Shaft Support (4-5/8" Long) (Not used Engine #253200 thru #253489)	
	224733	4	Stud, Rocker Arm Shaft Support (3-7/8" Long) (Not used Engine #301394 thru #305569)	
	910123	4	Nut, 3/8"	
	911115	4	Plain Washer, 3/8"	
19	212004	2	Stopper, Rocker Arm Shaft (Cork)	(Continued)

VALVES AND ROCKER ARMS - USED PRIOR ENGINE #289000 - CONTINUED

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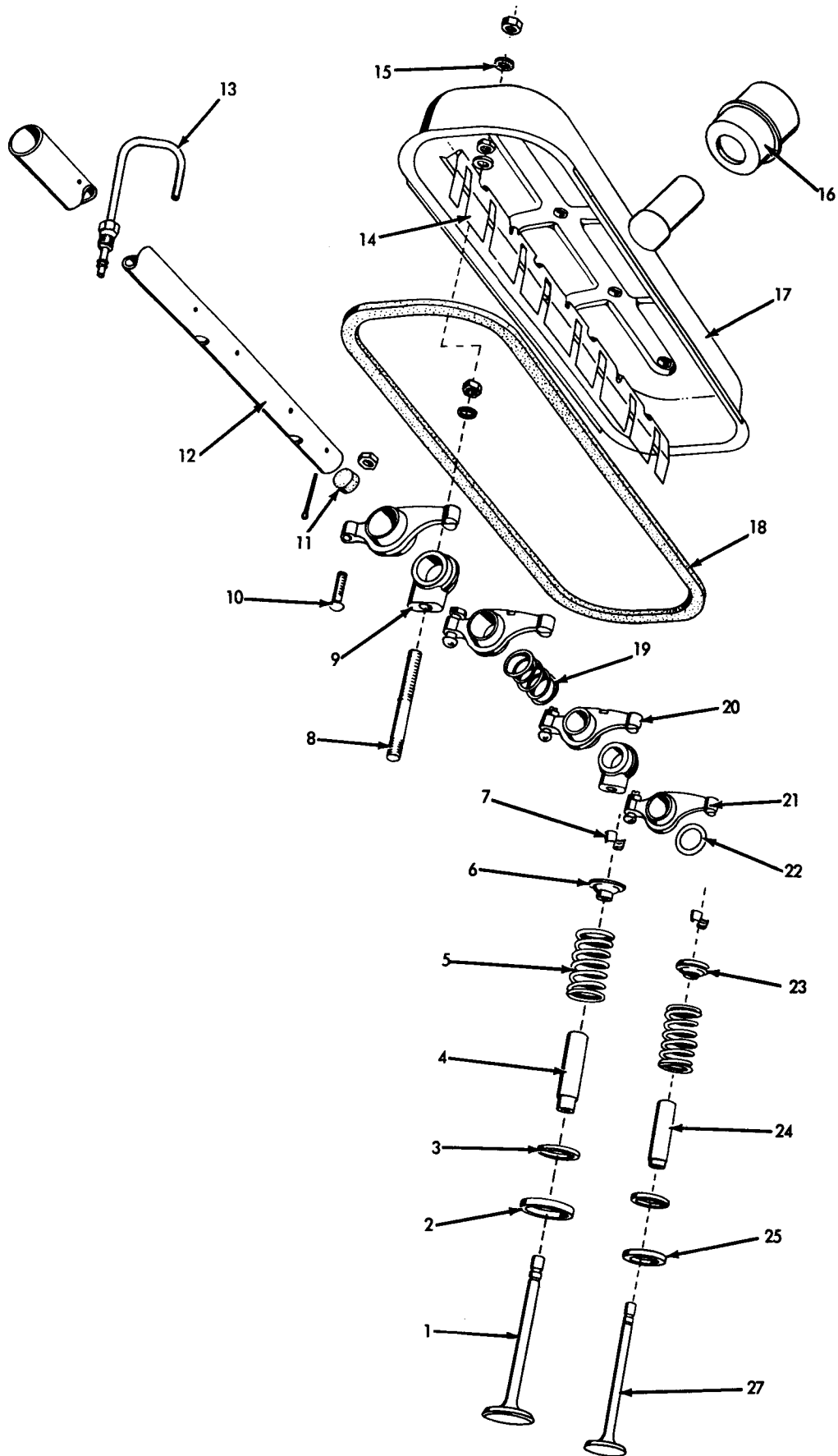
VALVES AND ROCKER ARMS – USED ON ENGINE #289000 AND UP AND MODEL 45 ENGINES

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	209132	4	Valve, Intake	209888
2	220476	4	Seat, Insert, Intake Valve (For Service Only) (Cylinder Head must be counterbored)	
3	206876	8	Seat, Valve Spring	209888
4	U-3142	4	Guide, Intake Valve (Also in Cylinder Head Group)	
5	206879	8	Spring, Valve	209888
6	209099	4	Retainer, Intake Valve Spring (Eight used prior to Engine #299173)	209888
7	209103	16	Lock, Valve Spring Retainer, Half	
8	224733	4	Stud, Rocker Arm Shaft Support (3-7/8" Long) (Not used Engine #301394 thru #305569)	
	910123	2	Nut	
	911115	1	Plain Washer	
	225728	4	Stud, Rocker Arm Shaft Support (4-13/16" Long) (Used on Engine #301394 thru #305569)	

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VALVES AND ROCKER ARMS – USED ON ENGINE #289000 AND UP AND MODEL 45 ENGINES
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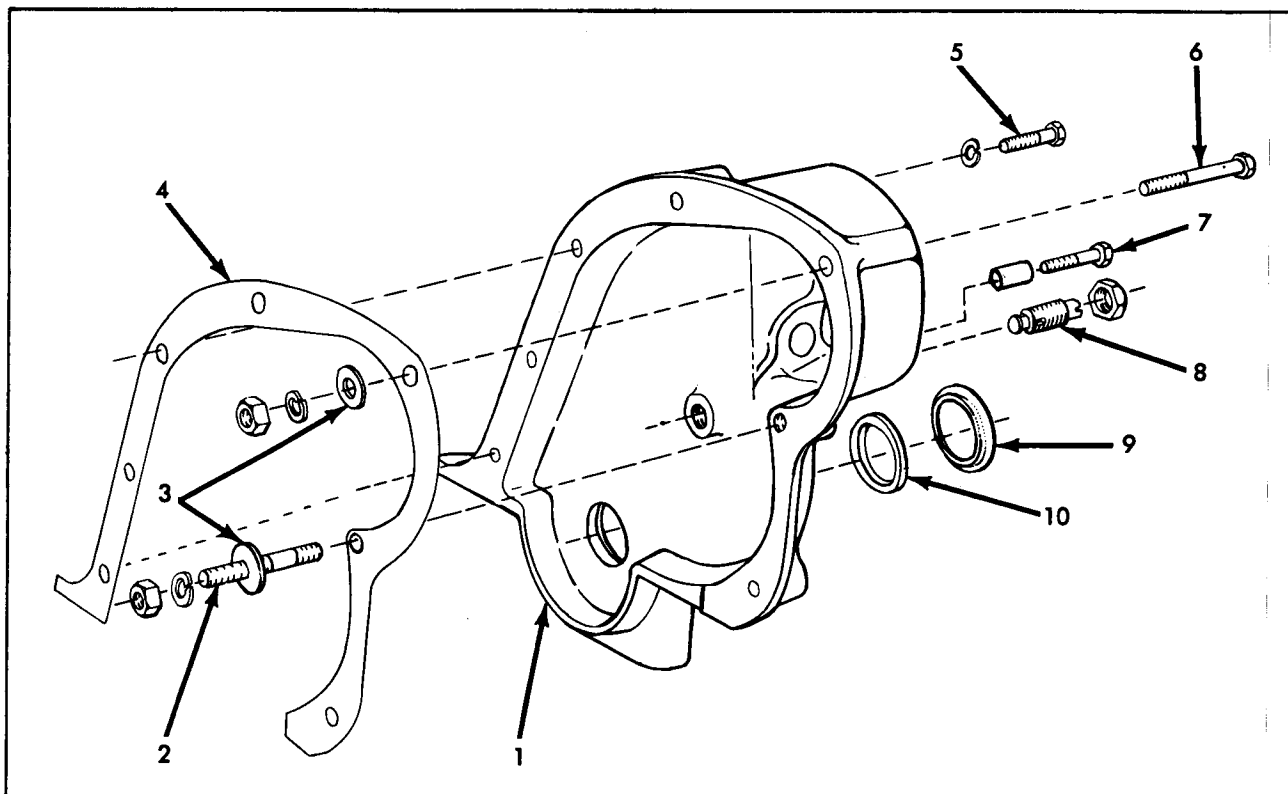
ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
9	225019	4	Support, Rocker Arm Shaft	
10	U-3132	8	Screw, Adjusting, Rocker Arm	
	912794	1	Nut	
11	212004	2	Stopper, Rocker Arm Shaft (Cork)	
12	225893	1	Shaft Assy., Rocker Arm (Includes two Item #11 and Cotter Pins)	
	900807	2	Cotter Pin	
13	225020	1	Tube, Oil Rocker Arm Shaft (Also use on Sleeve 912367 and one Nut 912064)	
	910126	1	Connector (Includes one Sleeve 912367 and Nut 912064)	
14	226721	1	Baffle, Rocker Arm (Used on Engine #45-13087 thru #45-28420) (Can be used on earlier WD-45 Engines)	
	914393	4	Nut	
	226761	1	Baffle, Rocker Arm (Used on Engine #45-28420 and up)	
15	U-4013	4	Washer, Rocker Arm Cover Stud (Copper)	
	226477	4	Packing, Rocker Arm Cover Stud	
16	U-3196	1	Cap, Breather	
17	225017	1	Cover Rocker Arm (Not used on Engine #301394 thru #305569)	
	U-3155	1	Cover, Rocker Arm (Used on Engine #301394 thru #305569)	
	225032	1	Cover, Rocker Arm (W-201 Only)	
	910123	4	Nut	
18	U-3006	1	Gasket, Rocker Arm Cover	225023
19	U-3011	3	Spring, Spacing Rocker Arm	
20	209862	4	Arm Assy., Rocker, Intake Valve (Includes Bushing, Adjusting Screw, Item 10 and Jam Nut) (Bushing is not serviced)	
21	208049	4	Arm Assy., Rocker, Exhaust Valve (Includes Bushing, Adjusting Screw, Item 10 and Jam Nut) (Bushing is not serviced)	
22	U-3009	2	Washer, Rocker Arm Shaft	
23	224926	4	Roto-Cap, Exhaust Valve	
24	205215	4	Guide, Exhaust Valve (Also in Cylinder Head Group)	
25	U-3164	4	Seat, Insert, Exhaust Valve, Std. (Also in Cylinder Head Group)	
	220473	4	Seat, Insert, Exhaust Valve, Oversize	
26	204801	8	Ring, Snap, Valve Stem	
27	209134	4	Valve, Exhaust	209888



VALVES AND ROCKER ARMS - EFFECTIVE WITH ENGINE #17-1001-M

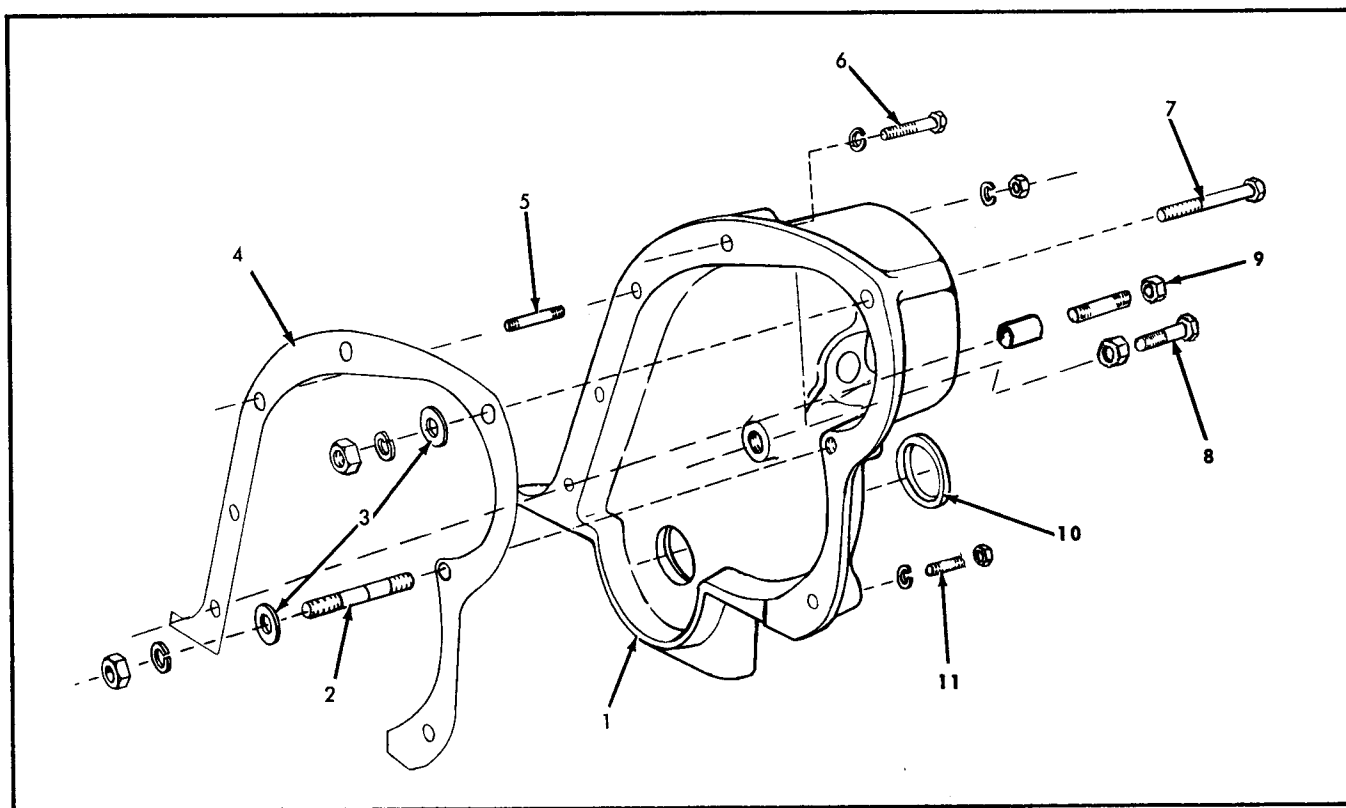
VALVES AND ROCKER ARMS - EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	229405	4	Valve, intake	
2	229904	4	Seat, insert, intake valve (For service only) (Cyl. head must be counterbored)	
3	206876	8	Seat, valve spring	
4	U-3142	4	Guide, intake valve (Also in Cylinder Head Group)	
5	206879	8	Spring, valve	
6	209099	4	Retainer, intake valve spring	
7	209103	16	Lock, valve spring retainer, half	
8	224733	4	Stud, rocker arm shaft support, 3-7/8" long	
	910123	8	Nut	
	911115	8	Plain Washer	
9	225019	4	Support, rocker arm shaft	
10	U-3132	8	Screw, adjusting, rocker arm	
	912794	8	Nut	
11	212004	2	Stopper, rocker arm shaft (Cork)	
12	225893	1	Shaft Assy., rocker arm (Includes Item #11 & Cotter Pins)	
	900807	2	Cotter Pin	
13	227636	1	Tube, oil, rocker arm shaft (Also use one 913526 Nut)	
	913526	1	Nut	
14	226761	1	Baffle, rocker arm (Used prior to engine #17-20628-M)	
	232926	1	Baffle, rocker arm (Effective with engine #17-20628-M)	
15	226477	4	Packing, cover stud	
16	U-3196	1	Cap, breather	
17	229408	1	Cover, rocker arm	
	910123	4	Nut	
18	U-3006	1	Gasket, rocker arm cover	
19	U-3011	3	Spring, spacing, rocker arm	
20	209862	4	Arm Assy., rocker, intake valve	(Each includes Bushing and item #10- Bushing not serviced)
21	208049	4	Arm Assy., rocker, exhaust valve	
22	U-3009	2	Washer, rocker arm shaft	
23	224926	4	Rotor-Cap, exhaust valve	
24	229911	4	Guide, exhaust valve (See Cylinder Head Group) (Used prior to engine #17-20628-M)	
	229522	4	Guide, exhaust valve (See Cylinder Head Group) (Effective with engine #17-20628-M)	
25	229403	4	Seat, insert, exhaust valve, std. (See Cylinder Head Group)	
	229903	4	Seat, insert, exhaust valve, (Oversize)	
27	229143	4	Valve, exhaust	



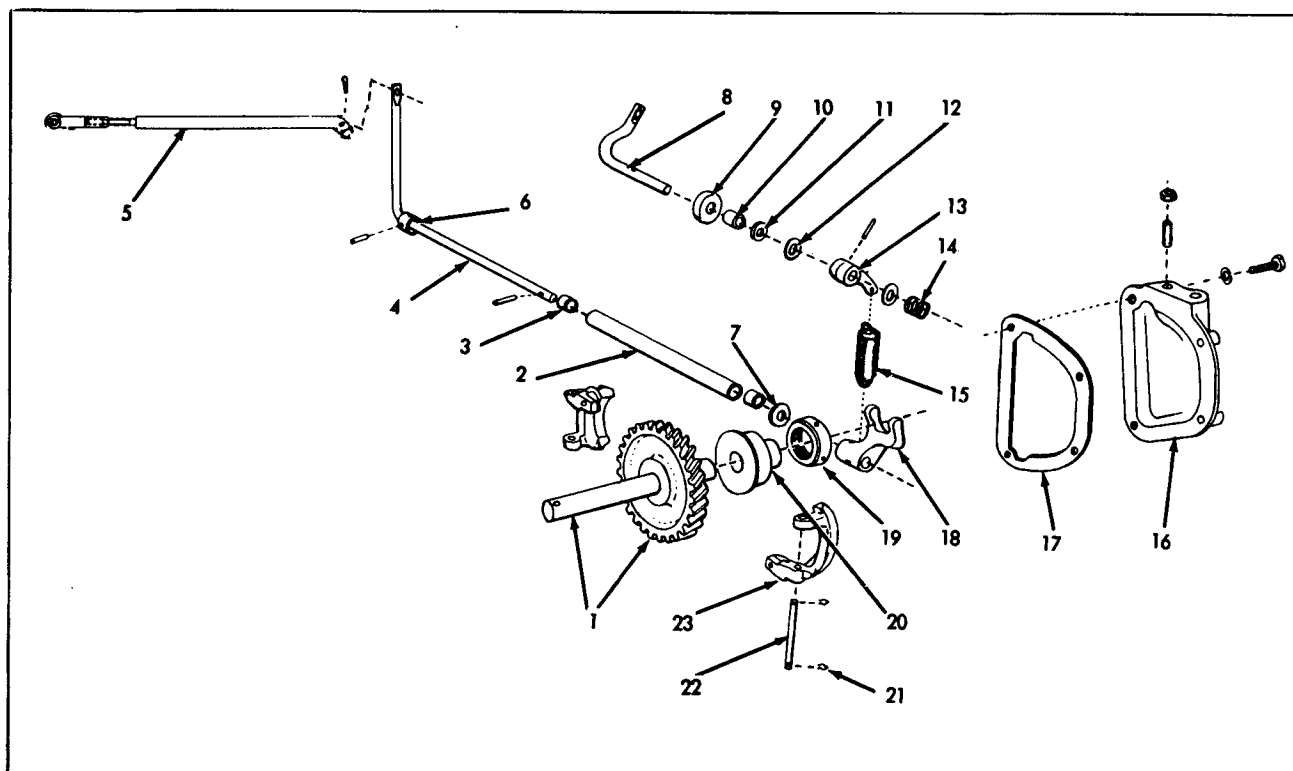
TIMING GEAR COVER – USED PRIOR TO ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	224915	1	Cover, Timing Gear (Used on Eng. #269166 and up) (Same Hardware as #223176)	
	223176	1	Cover, Timing Gear (Used prior to Eng. #269166)	
	911115	1	Plain Washer, 3/8"	
	904206	6	Lockwasher, 3/8"	
	900367	1	Nut, 3/8"	
2	U-1852	1	Stud, Cover to Cylinder Block (Used prior Eng. #333453)	
	226115	1	Stud, Cover to Cylinder Block (Eng. #333453 & up)	
	904206	1	Lockwasher, 3/8"	
	900367	1	Nut, 3/8"	
3	225771	2	Washer (Used with Items #2 and #6)	226364
4	U-3054	1	Gasket, Cover to Cylinder Block	
5	053616	4	Capscrew, 3/8" x 1-3/4"	
6	222783	1	Capscrew, 3/8" x 3-1/4"	
7	056320	1	Capscrew, 3/8" – 16 NC x 3" (Use w/Generator Bracket-See Electrical System)	
	227309	1	Spacer, 1-1/8" (Eff. Eng. #45-2337)	
	29917	1	Spacer, 9/16" (Used prior Eng. #45-2337 Shim as required)	
8	----	1	Screw Assy. (See Camshaft Section)	
9	U-3038	1	Retainer, Front Seal (Used prior to Eng. #269166)	
10	----	1	Seal, Oil (See Crankshaft and Flywheel Section)	



TIMING GEAR COVER – EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME
1	224915	1	Cover, timing gear
	904206	6	Lockwasher, 3/8"
	900367	1	Nut, 3/8"
2	229706	1	Stud, Cover to Cylinder Block
	904206	1	Lockwasher, 3/8"
	900367	1	Nut, 3/8"
3	225771	2	Washer (Used with Items #2 and #7)
4	229228	1	Gasket, cover to Cylinder Block (Used prior to engine #17-20628-M)
	233214	1	Gasket, cover to Cylinder Block (Effective with engine #17-20628-M)
5	228394	1	Stud
6	227307	2	Capscrew
7	919015	1	Capscrew
8	-----	1	Screw (See Camshaft section, item 8)
9	230393	1	Stud (long)
	910324	1	Nut, 3/8" NC (Used with Generator bracket, see Electrical System)
	227309	1	Spacer, 1-1/8"
10	-----	1	Seal, oil (See Crankshaft and Flywheel Section)
11	230392	1	Stud (Short)
	910324	1	Nut, 3/8" NC
	233668	1	Spacer (Effective with engine #17-20628-M)

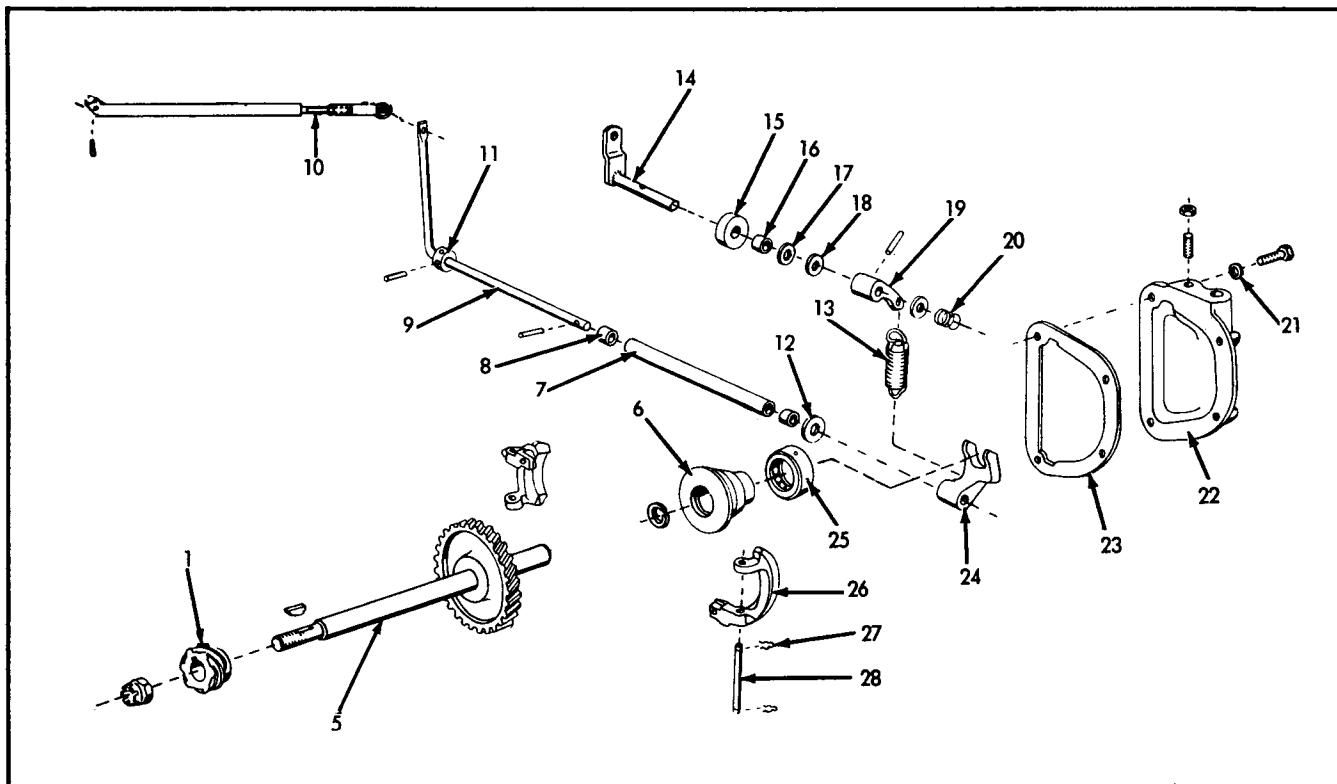


GOVERNOR-USED PRIOR ENG.#17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME
A	217050	1	Governor Assy. (Consists of Items #1, #2 and #20 thru #23)
1	217051	1	Shaft Assy. (Includes Gear and Pin, serviced only as a unit)
	910188	1	Pin, 1/4" x 1-5/16"
2	U-3096	1	Tube, cross shaft
3	U-3097	2	Bushing, cross shaft
4	U-3095	1	Lever shaft, operating
5	U-3099	1	Link, carburetor (Used prior TL-10 #1000)
	16296	1	Link (Adjustable) (Effective TL-10 #1000)
	6563	1	Yoke End
	910267	1	Hex Jam Nut, 1/4" - 28 NF
	2217	1	Pin
	900970	2	Cotter Pin, 1/16" x 1/2"
6	U-3098	1	Collar, cross shaft
	901357	1	Pin, taper, #0 x 3/4"
7	218445	-	Washer, spacing, forked lever (.018" thick, use as required)
	208566	-	Washer, spacing, forked lever (.037" thick, use as required)
	218444	-	Washer, spacing, forked lever (1/16" thick, use as required)
			(Continued)

GOVERNOR - USED PRIOR ENG. #17-1001-M - CONTINUED

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
8	223138	1	Lever Shaft, control	
9	206072	1	Seal, oil, control shaft	
10	U-3097	1	Bushing, control shaft	
11	208564	1	Washer, control shaft (leather)	
12	208566	2	Washer, control shaft (steel)	
13	208817	1	Lever, control	
	901357	1	Pin, taper, 3/4"	
14	208662	1	Spring, control shaft	For service prior to TL-10 #843, order also item #23
15	228429	1	Spring Assy. (Includes plunger, serviced only as a unit)	
16	226254	1	Cover, governor	
	905658	2	Capscrew, 1/4" NC x 1-1/4"	226364
	905818	2	Capscrew, 1/4" NC x 1-1/2"	
	904204	4	Lockwasher, 1/4" ASA Med.	
	906852	1	Set Screw, Hex, cup point, 5/16" - 18 NC x 3/4"	
	914321	1	Jam Nut, 5/16" - 18 NC	
17	U-3083	1	Gasket, cover	
18	U-3094	1	Lever, forked	
	901357	1	Pin, taper, 3/4"	
19	215242	1	Bearing, ball, weight thrust	
20	217054	1	Carrier, thrust bearing	
21	207719	4	Clip, spring	
22	211368	2	Pin, weight pivot	
23	227060	2	Weight Assy. (Includes wear pin, serviced only as a unit)	
				For service prior to TL-10 #843 order also item #15



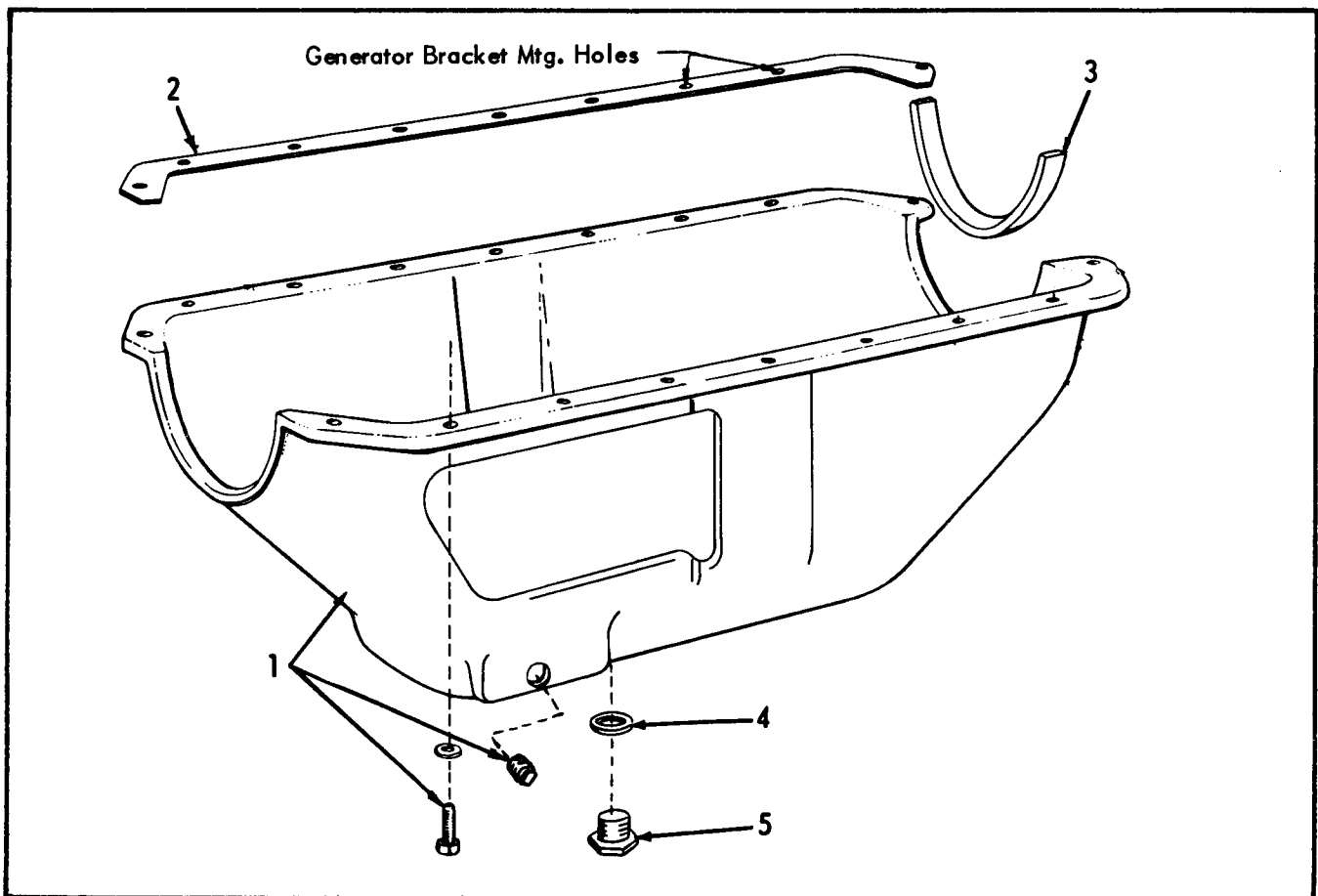
GOVERNOR - EFFECTIVE ENG. #17-1001-M & UP

ITEM	PART NUMBER	QTY.	PART NAME
1	225078	1	Gear, distributor drive
	910173	1	Key, Woodruff
	915652	1	Nut
			(Also see Ignition Group)
5	225074	1	Shaft Assy., governor (Includes Gear)
6	226237	1	Carrier, thrust bearing
7	U-3096	1	Tube, cross shaft
8	U-3097	2	Bushing, cross shaft
9	U-3095	1	Shaft, cross, lower
10	16296	1	Link, carburetor (Adjustable)
	900970	2	Cotter Pin
	6563	1	Yoke End
	910267	1	Hex Jam Nut
	2217	1	Pin
11	U-3098	1	Collar, cross shaft
12	218445	-	Washer, cross shaft, .018" thick
	208566	-	Washer, cross shaft, .037" thick (Use as required)
	218444	-	Washer, cross shaft, 1/16" thick

(Continued)

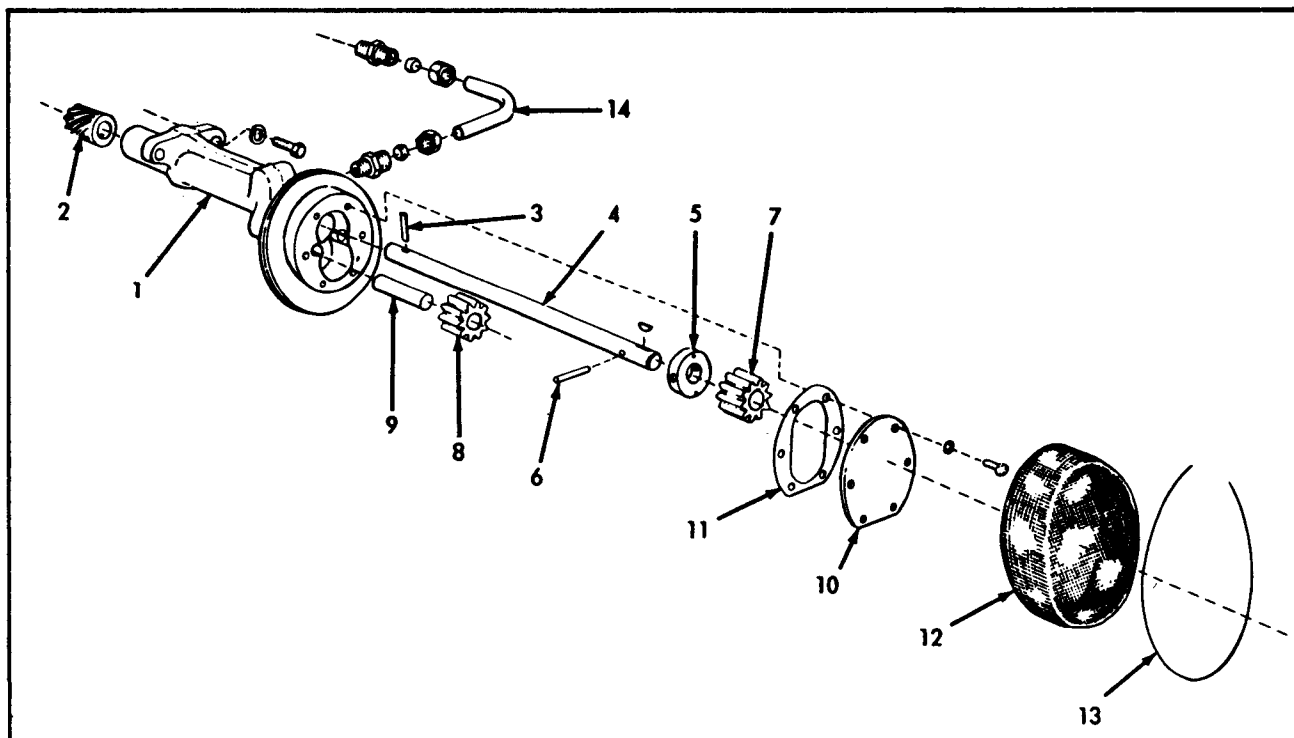
GOVERNOR - EFFECTIVE ENG. #17-1001-M & UP - CONTINUED

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
13	228429	1	Spring, with plunger (Used prior to engine #17-20628-M)	
	233627	1	Spring, with plunger (Effective with engine #17-20628-M)	
14	229231	1	Shaft	229866
15	206072	1	Seal, oil, control shaft	
16	U-3097	1	Bushing, control shaft	
17	208564	1	Washer, control shaft (Leather)	
18	208566	2	Washer, control shaft (Steel)	
19	208817	1	Lever, control	
	901357	1	Pin, taper	
20	208662	1	Spring, control shaft	
21	230308	4	Washer, cover capscrew (Copper)	
22	229230	1	Cover, governor	
	905818	2	Capscrew	
	905658	2	Capscrew	
	906852	1	Setscrew	
	914321	1	Jam Nut	
23	U-3083	1	Gasket, governor cover	229866
24	U-3094	1	Lever, forked	
	901357	2	Pin, taper	
25	215242	1	Bearing, ball, thrust	
26	227060	2	Weight Assy., governor (Includes Riser Pin)	
27	207719	4	Clip, weight pivot pin	
28	211368	2	Pin, pivot, weight	



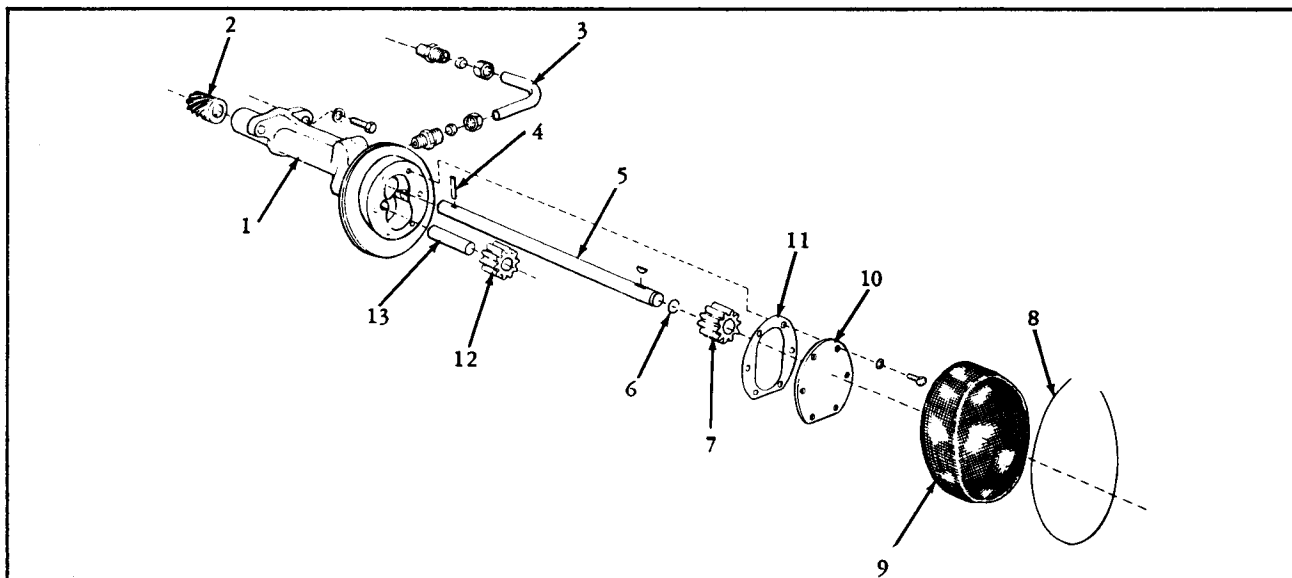
CRANKCASE

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	U-3810	1	Crankcase, (Used prior to Engine #274626)	
	224988	1	Crankcase, (Used on Engine #274626 to #45-1001-G)	
	227236	1	Crankcase, (Used on Engine #45-1001-G to #17-1001-M)	
	230081	1	Crankcase, (Effective with Engine #17-1001-M)	
	901653	1	Plug, 3/8", sq. hd.	
	903626	16	Capscrew, 5/16" - 18 NC x 3/4" (Eighteen used prior to Engine #45-2337)	
	905662	2	Capscrew, 5/6" - 18 NC x 1-1/8" (Effective with Engine #45-2337)	(Used w/Generator bracket - see Electrical System Grp.)
	213314	2	Square Washer (Effective with Engine #45-2337)	
	904205	18	Lock washer, 5/16" ASA Med.	
2	U-3187	2	Gasket, side	212092, 224765, 224948
3	U-3138	2	Gasket, end	225023, 226148
4	226012	1	Gasket, drain plug	
5	226408	1	Plug, drain	



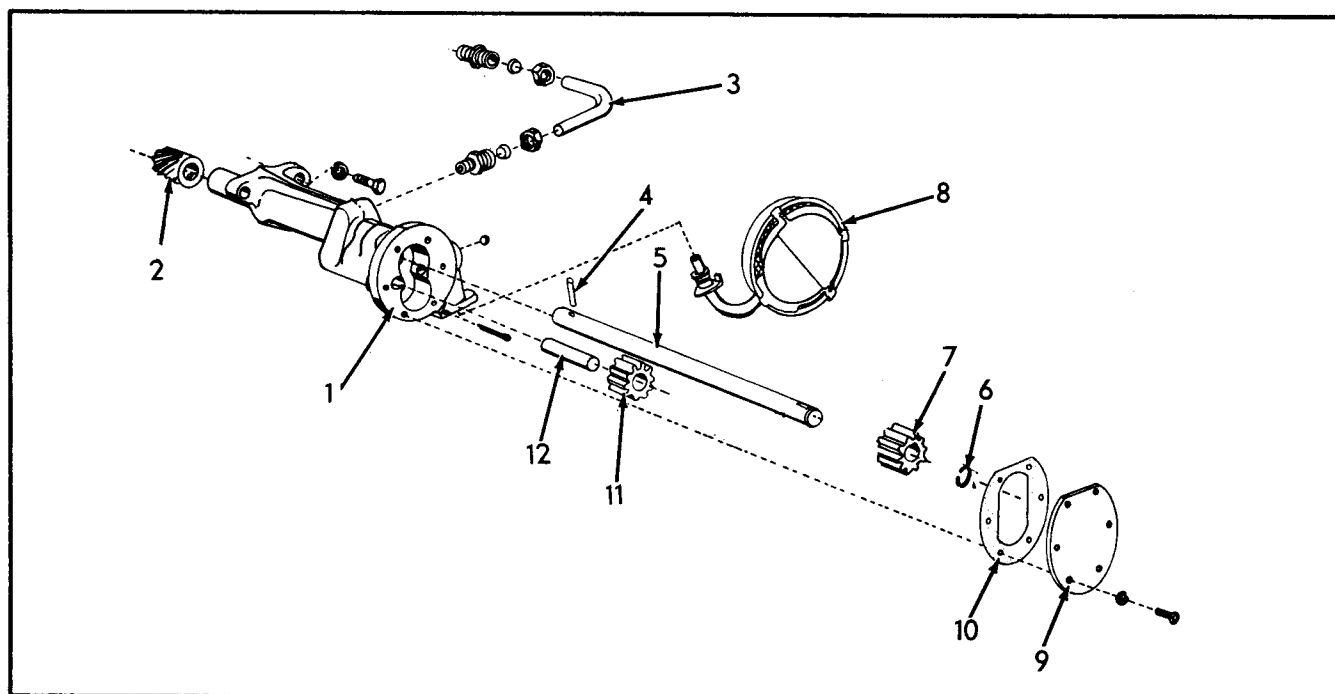
OIL PUMP - USED PRIOR ENGINE #45-1001-G

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
-	U-3186	1	Pump Assy., Oil (Includes Items #1 thru Item #13)	
1	U-3181	1	Body, Oil Pump	
	903772	2	Capscrew, 5/16" x 1"	
	904205	2	Lockwasher, 5/16"	
2	U-3100	1	Gear, Drive (10T)	
3	U-3174	1	Pin, Drive Gear	
4	U-3168	1	Shaft, Drive	
5	U-3173	1	Collar, Thrust, Drive Shaft	
6	U-3172	1	Pin, Thrust Collar	
7	U-3169	1	Gear, Drive (10T)	
	910173	1	Key, Woodruff, #2	
8	U-3170	1	Gear, Idler (10T)	
9	U-3171	1	Shaft, Idler Gear	
10	U-3175	1	Cover	
	901781	6	Screw, Machine #10 x 1/2"	224948
	904203	6	Lockwasher, 3/16"	224765
11	U-3176	1	Gasket, Cover	226148
12	U-3182	1	Screen, Oil Pump	225023
13	- - - -	1	Wire, Pump Screen (Furnish 15" of #910548)	
14	U-3107	1	Tube, Discharge (Also furnish two each of Sleeve#911436 and Nut #912844)	
	915263	2	Connector, 7/16" Tube x 1/4" (Includes Sleeve #911436 and Nut #912844)	



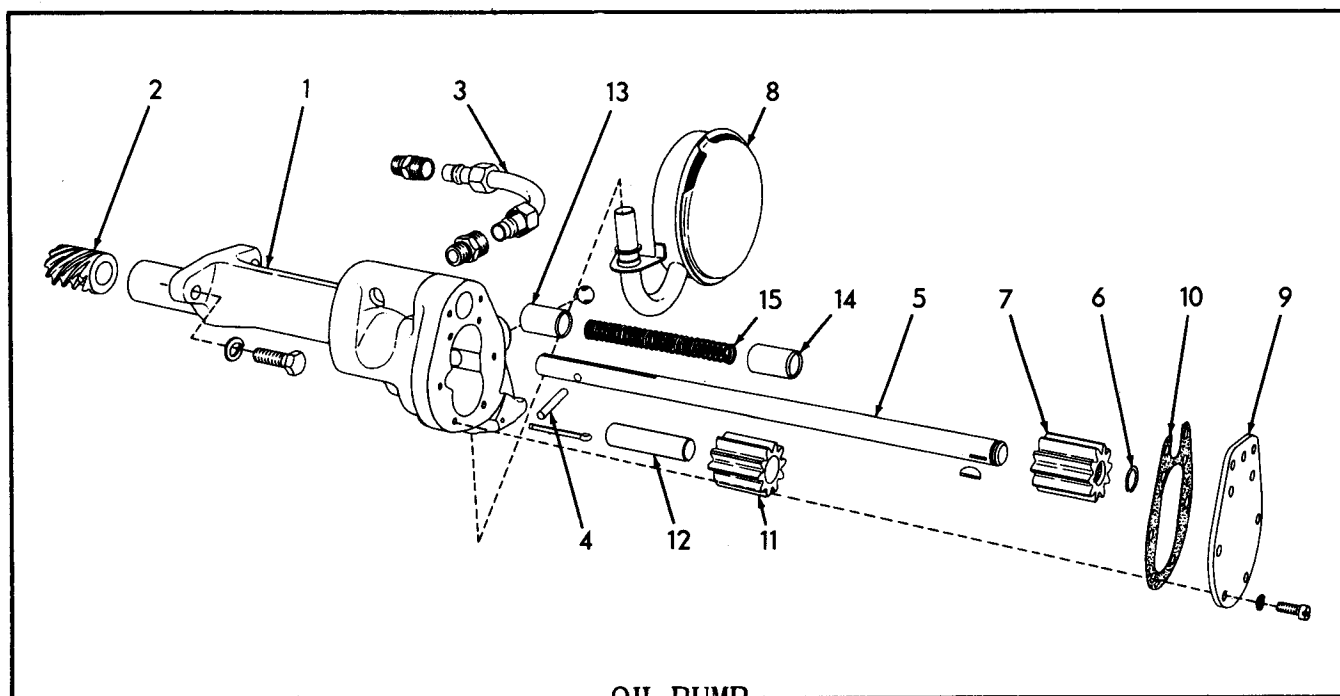
OIL PUMP - EFFECTIVE ENGINE #45-1001-G

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO
-	226259	1	Pump Assy., Oil (Includes Items 1, 2 and 4 thru 13)	
-	903772	2	Capscrew	
-	904205	2	Lockwasher	
1	226260	1	Body, Oil Pump	
2	U-3100	1	Gear, Drive (10T)	
3	U-3107	1	Tube, Discharge (Also use 2 of 911436 and 912844)	
	915263	2	Connector (Includes 911436 and 912844)	
4	U-3174	1	Pin, Drive Gear	
5	226389	1	Shaft, Drive	
6	226388	1	Ring, Snap, Drive Shaft	
7	212435	1	Gear, Driven (10T)	
	910173	1	Key, Woodruff	
8	----	1	Wire, Screen (Use 14-1/4" of 910549)	
9	U-3182	1	Screen, Oil	
	U-3175	1	Cover, Body	
10	904203	6	Lockwasher	
	901781	6	Screw, Machine	
11	U-3176	1	Gasket, Body Cover	226364
12	212436	1	Gear, Idler (10T)	
13	212442	1	Pin, Idler Gear	



OIL PUMP - USED ENGINE #17-1001-M thru #17-20627-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	229540	1	Pump Assy., oil (Includes 1-- 917579, Items #2, #4 thru #7 and #9 thru #12)	
	903772	2	Capscrew	
	904205	2	Lockwasher	
	917579	1	Ball	
2	U-3100	1	Gear, drive, 10T	
3	U-3107	1	Tube, discharge (Also use two each 911436 Sleeve & 912844 Nut)	
	915263	2	Connector (Each includes 1-- 911436 Sleeve & 1-- 912844 Nut)	
4	U-3174	1	Pin, drive gear	
5	226389	1	Shaft, drive	
	910173	1	Key, Woodruff	
6	226388	1	Ring, snap, drive shaft	
7	212435	1	Gear, driven, 10T	
8	229541	1	Screen, floating intake	
	900807	1	Pin, cotter	
9	U-3175	1	Cover, body	
	904203	6	Lockwasher	
	901781	6	Screw	
10	U-3176	1	Gasket, body cover	229866
11	212436	1	Gear, idler, 10T	
12	212442	1	Pin, idler gear	



OIL PUMP

USAGE: Effective with engine serial no. 17-20628-M.

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	232554	1	Pump Assy., oil (Includes one body, one Ball 917579 and items 2, 4 thru 7 and 9 thru 15)	
	----	1	Body (Order 232554)	
	917579	1	Ball, steel, 7/16" diam.	
	903772	2	Capscrew, 5/16" NC x 1"	
	904205	2	Lockwasher, 5/16"	
2	232436	1	Gear, drive (9 spiral teeth)	
3	230806	1	Tube, oil discharge	
	925263	2	Connector, compression, 7/16" tube, 1/4" NPT male (Includes one 912844 & 911436)	
	912844	2	Nut, compression fitting, 7/16" tube	
	911436	2	Sleeve, compression fitting, 7/16" tube	
4	U-3174	1	Pin, drive gear	
5	226389	1	Shaft, drive	
6	226388	1	Ring, snap, drive shaft	
7	212435	1	Gear, pumping (10 teeth)	
	910173	1	Key, #2 woodruff, 3/32" x 1/2"	
8	229541	1	Screen, intake	
	900807	1	Pin, cotter, 1/8" x 1-1/4"	
9	232435	1	Cover, body	
	901781	8	Screw, machine, fil.-hd., #10-32 NF x 1/2"	
	904203	8	Lockwasher, #10	
10	232434	1	Gasket, body cover	
11	212436	1	Gear, pumping (10 teeth)	
12	212442	1	Pin, pumping gear	
13	232431	1	Plunger, pressure relief valve	
14	232432	1	Sleeve, spring retaining	
15	232433	1	Spring, relief valve	

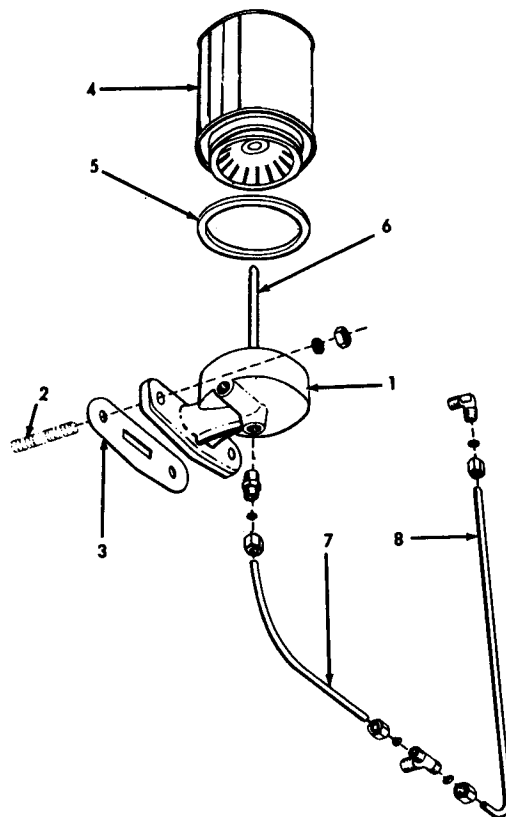
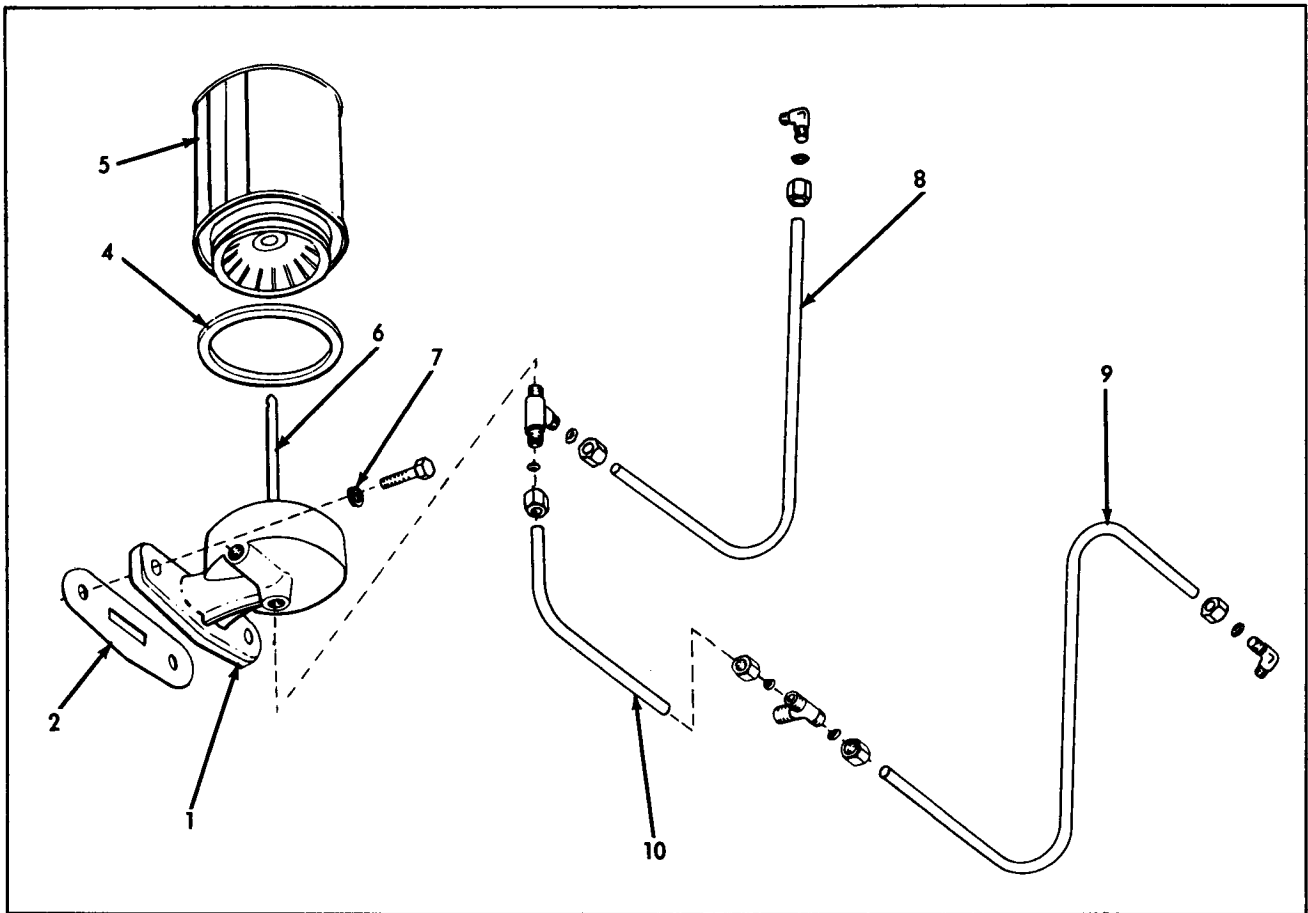


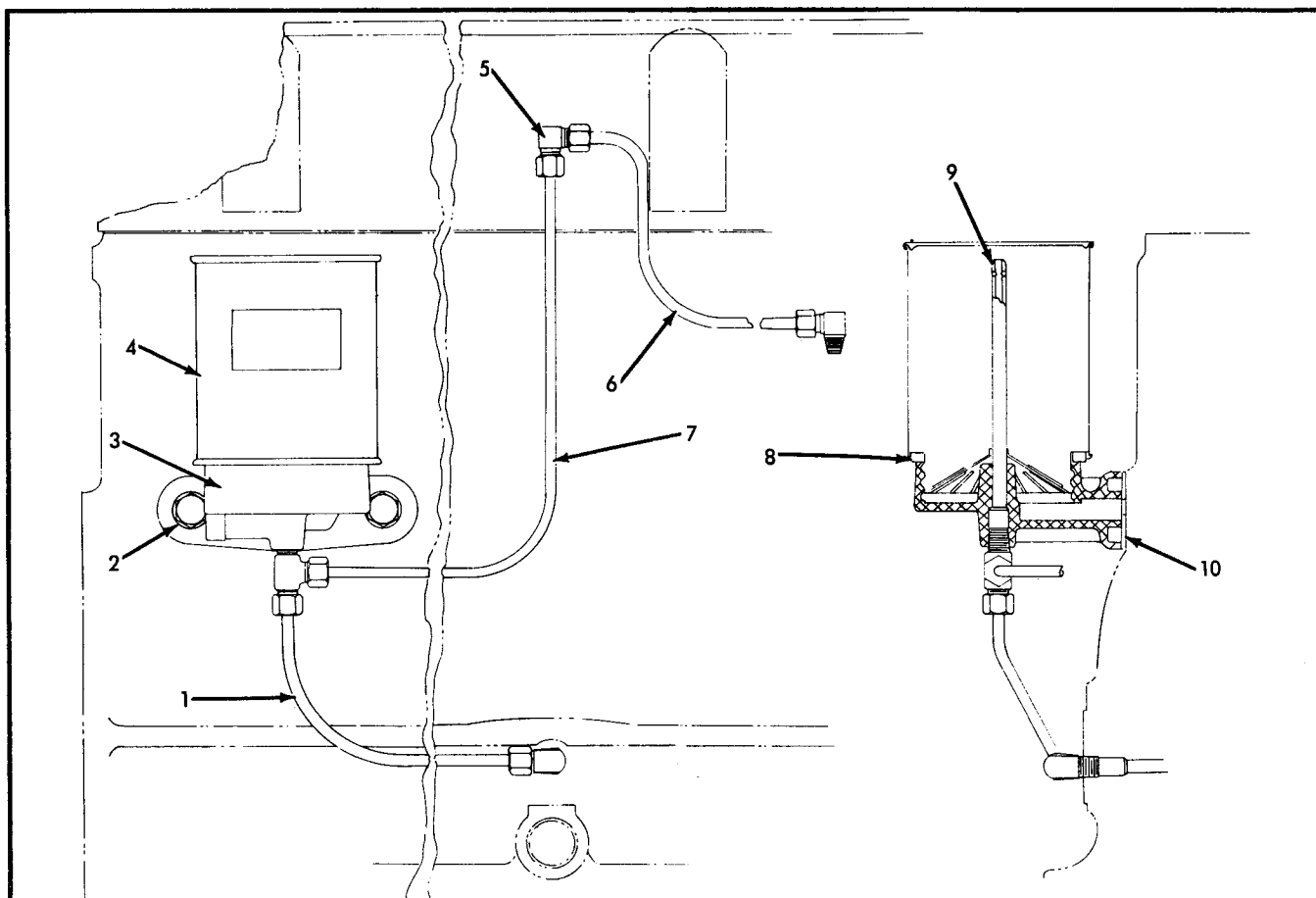
PLATE 197 - OIL FILTER AND LINES - USED PRIOR ENGINE #45-1001-G

ITEM	PART NUMBER	QTY.	PART NAME
1	213317	1	Filter Assy., Oil (Includes Base and Items #4, #5 and #6)
	U-3898	1	Base, Filter (Furnished in 204917)
2	- - - -	2	Stud, Base to Push Rod Cover (See Cylinder Block Section)
	904205	2	Lockwasher, 5/16"
	900366	2	Nut, 5/16"
3	207882	1	Gasket, Base to Push Rod Cover
4	800912	1	Element Assy. (Includes Gasket)
5	204863	1	Gasket, Element to Base
6	U-3899	1	Tube, Element
7	U-3901	1	Tube, Oil, Cylinder Block to Filter (Also furnish two each of Sleeve 912367 and Nut 912064)
	910130	1	Tee, 3/16" Tube x 1/8" (Includes two Sleeves 912367 and two Nuts 912064)
	910126	1	Connector, 3/16" Tube x 1/8" (Includes Sleeve 912367 and Nut 912064)
8	U-3902	1	Tube, Oil, Filter to Cylinder Head (Also furnish two each of Sleeve 912367 and Nut 912064)
	910129	1	Elbow, 3/16" Tube x 1/8"



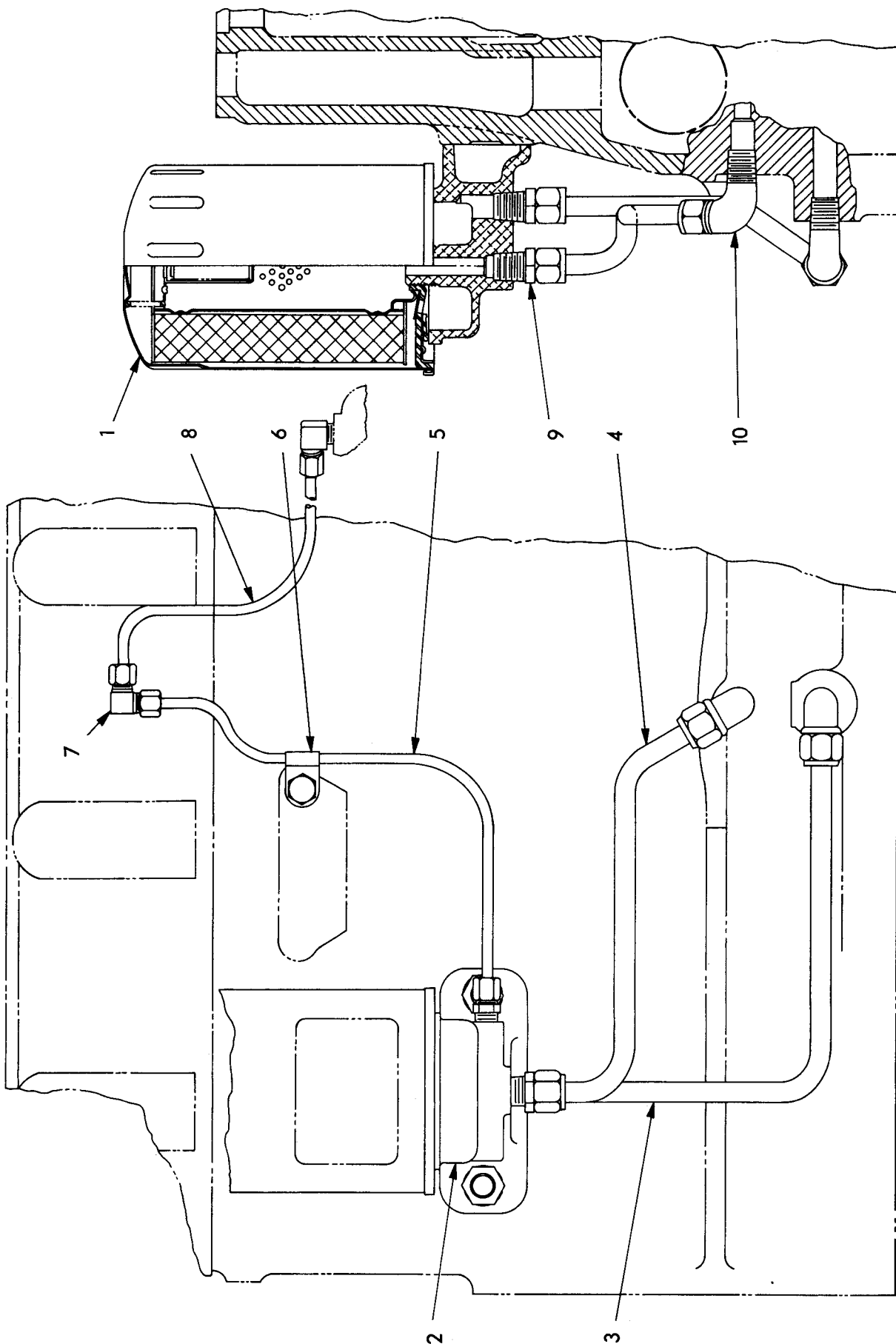
OIL FILTER AND LINES - EFFECTIVE ENGINE #45-1001-G

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
-	204917	1	Filter Assy., Oil (Includes Base and Items 4, 5 and 6)	
1	U-3898	1	Base, Filter (Furnished in 204917)	
	910961	1	Tee (Includes two Sleeves and Nuts)	
2	207882	1	Gasket, Base to Cylinder Block	226364
4	204863	1	Gasket, Element to Base	
5	800912	1	Element, Assy., (Includes Item 4)	
6	U-3899	1	Tube, Element	
7	206782	2	Washer, Copper	
	903772	1	Capscrew	
8	226251	1	Tube, Oil Filter to Cylinder Head	
	910129	1	Elbow	
9	226256	1	Tube, Tee to Governor Cover	
	910129	1	Elbow, Governor Cover	
10	226255	1	Tube, Oil Cylinder Block to Filter, Inlet	
	910130	1	Tee (Includes two Sleeves 912367 and two Nuts 912064)	



OIL FILTER AND LINES – USED ENGINES #17-1001-M thru #17-20627-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
–	228915	1	Filter Assy., Oil (Includes 1--U-3898, 1-- 240912 and Item #9)	
	226255	1	Tube, oil pump to filter	
1	910129	1	Elbow (Includes Nut and Sleeve)	
	910961	1	Tee (Includes Nuts and Sleeves)	
2	206782	2	Washer, base cap screw (Copper)	
	U-3898	1	Base, filter	
3	903772	2	Capscrew	
4	240912	1	Element Assy., filter (Includes Item #8)	
5	229720	1	Tee, governor oil tube	
	229402	1	Tube, oil, head to governor	
6	910129	1	Elbow (Includes Nut and Sleeve)	
7	226251	1	Tube, oil filter to head	
8	204863	1	Gasket, element base	
9	U-3899	1	Tube, element	
10	207882	1	Gasket, base to cylinder block	229866
–	– – – –	1	Transfer, oil filter can	230280

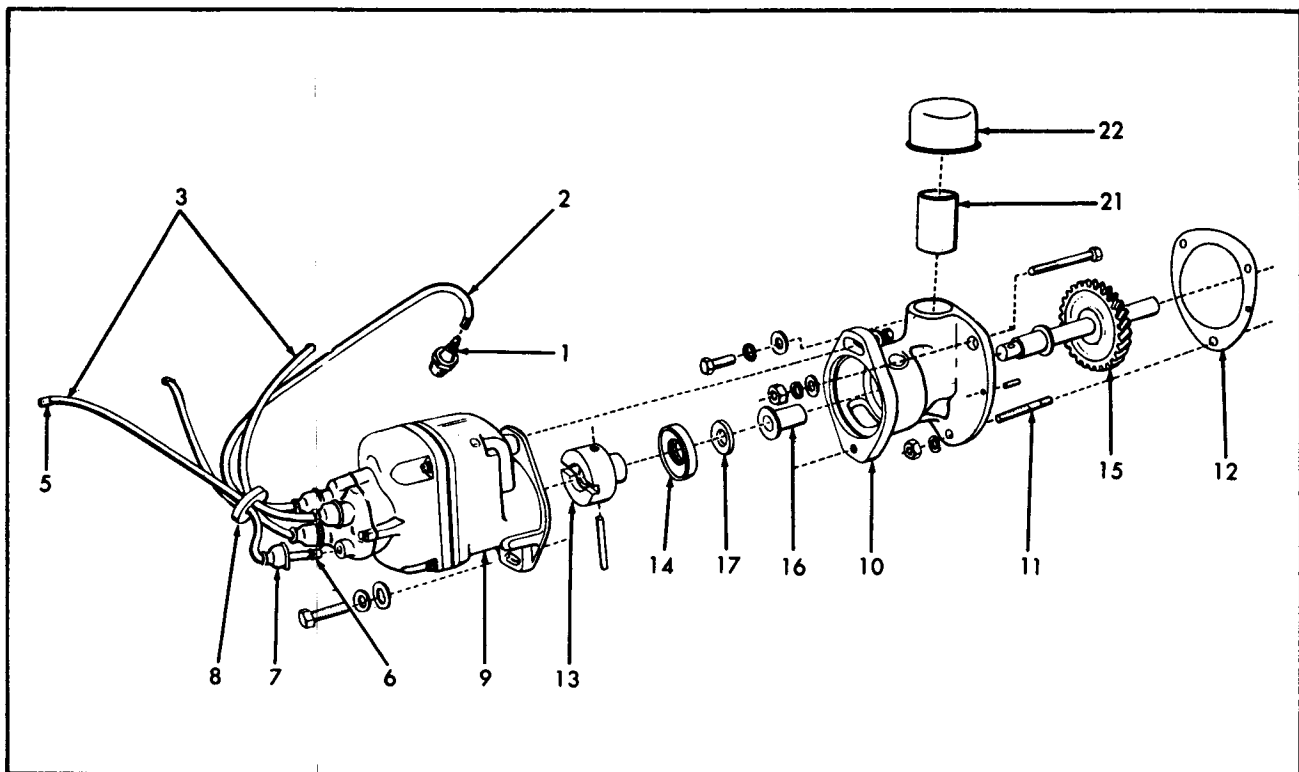


OIL FILTER AND LINES

OIL FILTER AND LINES

USAGE: Effective with engine serial no. 17-20628-M.

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	232578	1	Filter Assy., oil	
2	232426	1	Base, filter	
	229474	2	Stud	
	904207	2	Lockwasher, 7/16"	
	912201	2	Hex Nut, 7/16" NC	
3	232425	1	Tube, oil, filter supply	
	917948	1	Connector, compression, 3/8" tube, 1/4" NPT male (Includes nut and sleeve)	
	917817	1	Elbow, compression, 3/8" tube, 1/4" NPT male (Includes nut and sleeve)	
	917810	2	Nut, compression fitting, 3/8" tube	
	917807	2	Sleeve, compression fitting, 3/8" tube	
4	232423	1	Tube, oil return, filter to block	
	917948	1	Connector, compression, 3/8" tube, 1/4" NPT male (Includes nut and sleeve)	
	917817	1	Elbow, compression, 3/8" tube, 1/4" NPT male (Includes nut and sleeve)	
	917810	2	Nut, compression fitting, 3/8" tube	
	917807	2	Sleeve, compression fitting, 3/8" tube	
5	233304	1	Tube, oil, filter to head	
	910126	1	Connector, compression, 3/16" tube, 1/8" NPT male (Includes nut and sleeve)	
	912064	1	Nut, compression fitting, 3/16" tube	
	912367	1	Sleeve, compression fitting, 3/16" tube	
6	232422	1	Clip	
7	231585	1	Tee, male	
8	229402	1	Tube, oil, cylinder head to governor	
	910129	1	Elbow, compression, 3/16" tube, 1/8" NPT male (Includes nut and sleeve)	
	912064	1	Nut, compression fitting, 3/16" tube	
	912367	1	Sleeve, compression fitting, 3/16" tube	
9	917948	2	Connector, male	
10	917817	2	Elbow, 90°	

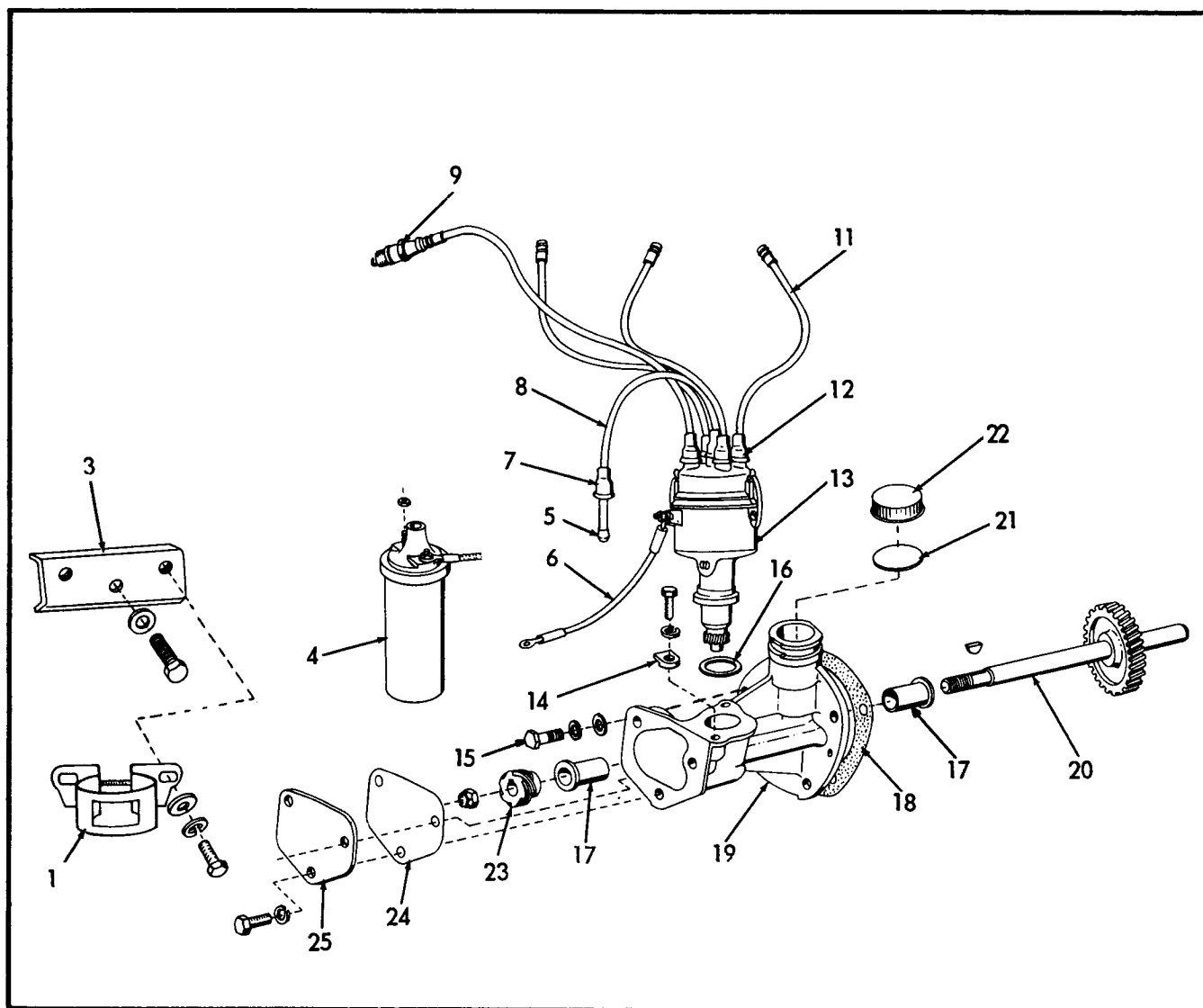


IGNITION - USED PRIOR TO ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	224990	4	Plug, Spark ("AC" #45)	
	225000	4	Plug, Spark (Champion J-8)	
	225010	4	Plug, Spark (Auto-Lite AN7)	
	224991	4	Plug, Spark ("AC")	
	225001	4	Plug, Spark (Champion)	} Low Grade Fuel
	225011	4	Plug, Spark (Auto-Lite)	
	227043	4	Plug, Spark (Auto-Lite)	
2	207551	1	Cable, Spark Plug (No. 1 Cylinder) (Includes Items 5, 6 and 7)	213506
			(Used prior to engine #289000, except #253200 thru #253489)	225039
2	225745	1	Cable, Spark Plug (No. 1 Cylinder) (Includes Items 5, 6 and 7)	225747
			(Used with engine #253200 thr #253489 and #289000 and up)	
3	207550	3	Cable, Spark Plug (No. 2, 3 and 4 Cyl.) (Includes Items 5, 6 and 7)	
			(Used prior to Engine #289000, except #253200 thru #253489)	
3	225746	3	Cable, Spark Plug (No. 2,3 and 4 Cyl.) (Includes Items 5, 6 and 7)	225747
			(Used with Engine #253200 thru #253489 and #289000 and up)	
5	206518	4	Terminal, Spark Plug	
6	912803	4	Terminal, Spark Plug Cable (Magneto End)	
7	225484	4	Nipple, Spark Plug Cable	
8	U-3203	1	Retainer, Spark Plug Cable	225747
9	210186	1	Magneto (Order Parts and Service from local Fairbanks-Morse Agency)	
	903631	2	Capscrew, 3/8" x 1-1/4"	
	904206	2	Lockwasher, 3/8"	
	911115	2	Plain Washer, 3/8"	
(Continued)				

IGNITION - USED PRIOR TO ENGINE #17-1001-M - CONTINUED

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
10	U-3526	1	Bracket, Magneto	
	903630	1	Capscrew, 3/8" x 1"	
	906695	1	Capscrew, 3/8" x 3-1/4"	
	900367	1	Nut, 3/8" (f/906695)	
	911116	2	Plain Washer, 3/8"	
	904206	2	Lockwasher, 3/8"	
	910146	1	Pin, Dowel, 1/4" x 3/4"	
11	- - - -	1	Stud, Magneto Bracket (See Timing Gear Cover Section)	224765 224948 225023 226148
	904206	1	Lockwasher, 3/8"	
	900367	1	Nut, 3/8	
12	U-3079	1	Gasket, Magneto Bracket	224948
13	U-3527	1	Coupling, Magneto Drive	
	910134	1	Pin, Straight, 1/4" x 2-1/8"	
14	205834	1	Seal Assy., Magneto Coupling	224948
15	- - - -	1	Shaft Assy., (Includes Gear) (See Governor Section)	
16	U-3124	2	Bushing, Magneto Drive Shaft	
17	U-3084	1	Washer, Magneto Drive Shaft	
21	U-219	1	Tube, Oil Filler	
22	207552	1	Cap, Oil Filler	

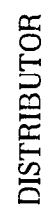


IGNITION – EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	225606	1	Clamp Assy., coil (Includes Screw) (Serviced as assy. only)	
	905661	2	Capscrew	
	904205	2	Lockwasher	
	910335	2	Plain Washer	
3	229517	1	Bracket, ignition coil	
	911115	1	Washer (Plain)	
	903629	1	Capscrew	
4	229518	1	Coil, ignition, 12 volt	
5	912803	6	Terminal, cable (Coil and distributor end)	
6	228131	1	Cable, primary, distributor to coil (Used prior to engine #17-20628-M)	229867
	229635	1	Cable, primary, distributor to coil (Effective with engine #17-20628-M)	
7	225073	1	Nipple, cable (for coil)	(Continued)

IGNITION - EFFECTIVE WITH ENGINE #17-1001-M - CONTINUED

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
8	----	1	Cable, secondary, coil to distributor	229867
9	225010	4	Plug, spark (Auto-Lite) (f/gasoline)	Used prior to eng.#17-20628-M
	224990	4	Plug, spark (AC) (f/gasoline)	
	225000	4	Plug, spark (Champion) (f/gasoline)	
	225011	4	Plug, spark (Auto-Lite) (f/low octane fuel)	
	227043	4	Plug, spark (Auto-Lite) (f/low octane fuel)	
	224991	4	Plug, spark (AC) (f/low octane fuel)	
	225001	4	Plug, spark (champion) (f/low octane fuel)	
	232428	4	Plug, spark (effective with engine #17-20628-M)	
11	-----	2	Cable, spark plug, No. 1 and 2 cyl.	229867
	-----	1	Cable, spark plug, No. 3 cyl.	229867
	-----	1	Cable, spark plug, No. 4 cyl.	229867
12	225484	5	Nipple, cable (f/distributor)	
13	229515	1	Distributor Assy. (Includes parts as listed (Used prior to engine #17-20628-M)	
	231769	1	Distributor Assy. on pages 19 & 20 (Eff. with engine #17-20628-M)	
14	225344	2	Clamp, distributor to drive housing	
	226683	2	Capscrew	
	904206	2	Lockwasher	
15	225771	1	Washer, housing capscrew	
	226683	1	Capscrew	
	904206	1	Lockwasher	
16	225345	1	Gasket, distributor base to drive housing	229866
17	226236	2	Bushing, governor shaft	
18	U-3079	1	Gasket, drive housing to cylinder block	
19	226100	1	Housing Assy., distributor drive (Includes Item #17)	
	910146	1	Pin, plain	
	903630	2	Capscrew	
	904206	2	Lockwasher	
20	225074	1	Shaft Assy., Governor (Includes Gear) (Also see Governor Group)	
21	226374	1	Gasket, oil filler cap	
22	226376	1	Cap, oil filler (Includes gasket)	
23	225078	1	Gear, distributor drive	
	910173	1	Woodruff Key (Also see Governor Group)	
	915652	1	Nut	
24	226117	1	Gasket, distributor housing cover	
25	226116	1	Cover, distributor	
	903626	1	Capscrew, 5/16" - 18 NC x 3/4"	
	905661	2	Capscrew, 5/16" - 18 NC x 5/8"	
	904205	3	Lockwasher, 5/16" ASA Med.	



DISTRIBUTOR - EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME
-	229515	1	Distributor Assy. (Includes items #1 thru #34) (used prior to engine #17-20628-M)
	231769	1	Distributor Assy. (Includes items #1 thru #21, #23 thru #34) (Effective w/engine #17-20628-M)
1	226019	1	Gear, driven, 12T
2	225797	-	Shim, driven, .005" thick (Use as required)
3	225796	2	Washer, driven shaft
4	225773	1	Bushing, driven shaft
5	225774	2	Clip, spring, cap
	225775	1	Support, cap clip (long)
6	900553	1	Machine Screw
	912739	1	Lockwasher
7	225793	1	Insulator, primary terminal stud (inside)
	225792	1	Nut, primary terminal (inside)
8	906964	1	Lockwasher
	229516	2	Spring, advance weight (Used prior to engine #17-20628-M)
9	232829	2	Spring, advance weight (Effective with engine #17-20628-M)
	225783	1	Cam Assy., circuit breaker (Serviced only as a unit) (Used prior to engine #17-20628-M)
10	232827	1	Cam Assy., circuit breaker (Serviced only as a unit) (Effective with engine #17-20628-M)
	225787	2	Weight, advance (Used prior to engine #17-20628-M)
11	232828	2	Weight, advance (Effective with engine #17-20628-M)
	225789	1	Plate, retaining, advance weight
12	910251	2	Nut
13	225790	2	Lock, advance weight plate nut
14	225785	1	Point Set, circuit breaker (Consists of Lever Assy. & Adjusting Support Assy.)
	225739	1	Condenser Kit (Includes Clamp and Attaching Screw)
15	915966	1	Screw, machine
	906964	1	Lockwasher
16	225734	1	Cover Assy., circuit breaker (Includes Seal Kit and Cover Gasket)
17	225736	1	Rotor Assy., distributor
18	225733	1	Cap Assy., distributor (Includes Center Contact Button and five Terminal Sockets)
19	225781	1	Seal Kit, cam shaft (Consists of Felt Seal and Retainer)
20	225735	1	Gasket, circuit breaker cover
21	225786	1	Screw, locking, breaker point
	225740	1	Lubricator, circuit breaker cam
22	915966	1	Screw, machine
	906964	1	Lockwasher
	225778	1	Plate Assy., circuit breaker (Includes Point Pivot Pin and Adjusting Eccentric)
23	900553	2	Screw (Long)

(Continued)

DISTRIBUTER - EFFECTIVE WITH ENGINE #17-1001-M- CONTINUED

ITEM	PART NUMBER	QTY.	PART NAME
23	912731	1	Screw (Short)
	912739	3	Lockwasher
24	225784	1	Wick, oil, cam shaft
25	226020	1	Shaft Assy., distributor (Used prior to engine #17-20628-M)
	232826	1	Shaft Assy., distributor (Serviced only as a unit) (Effective with engine #17-20628-M)
26	225776	1	Support, cap clip (Short)
	900553	1	Screw, machine
	912739	1	Lockwasher
27	225780	3	Retainer, breaker plate screw gasket
28	225779	3	Gasket, breaker plate screw
29	225777	2	Gasket, cap clip support
30	225772	1	Housing Assy. (Includes Plug and Name Plate)
	910230	1	Plug, pipe
31	225794	1	Insulator, primary terminal stud (Outside)
32	225791	1	Stud, primary terminal
	907154	1	Nut (Outside)
33	225795	1	Lock, primary terminal outside nut
34	225798	1	Pin, driven gear

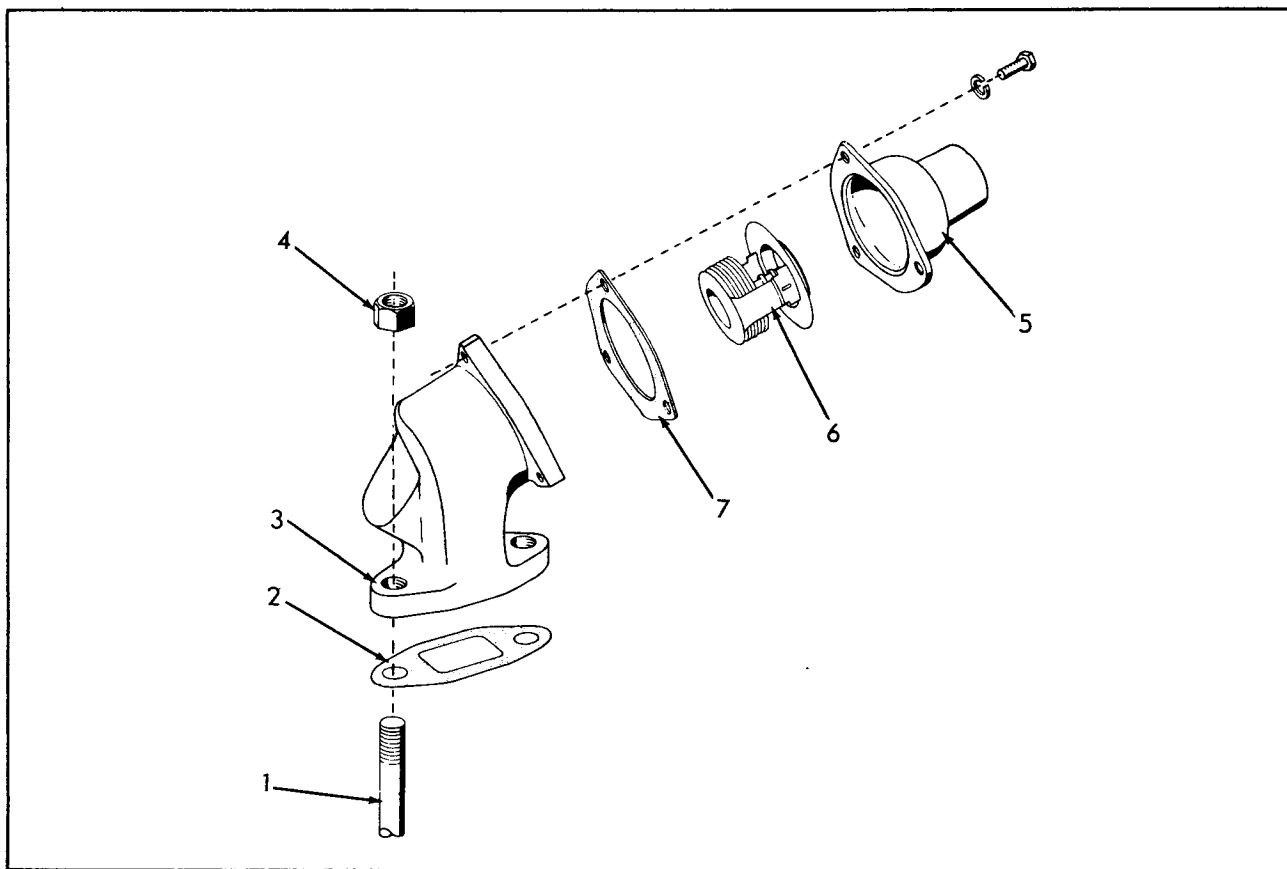
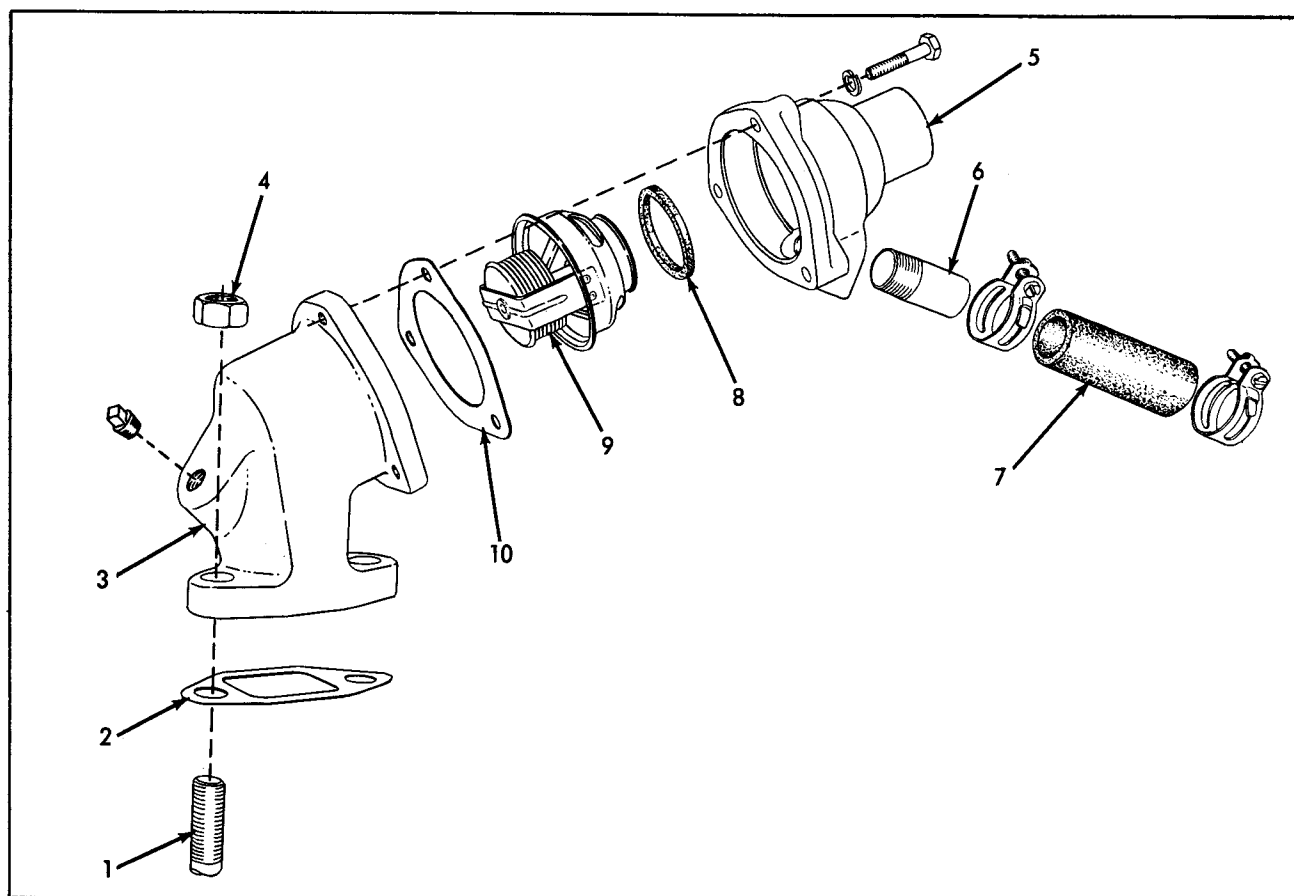


PLATE 341 - WATER MANIFOLD - EFFECTIVE TL-10 #104

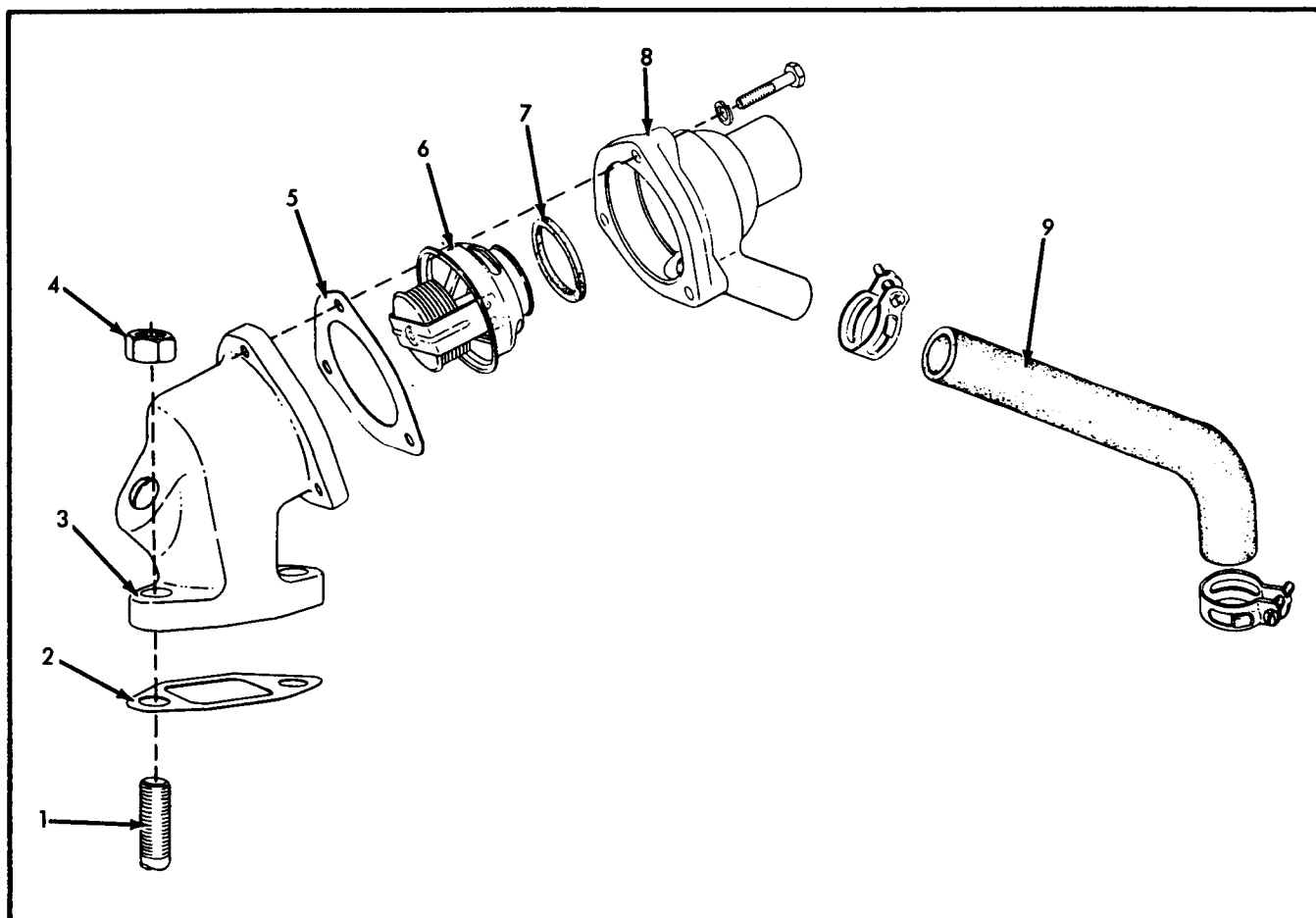
(Used on Engine #289000 to #45-1001)

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO
1	224729	2	Stud, Housing (Also in Cylinder Head Group)	
2	225013	1	Gasket, Housing	225023 225024
3	225035	1	Housing, Thermostat	
4	U-3461	2	Nut, Housing Stud (Also in Cylinder Head Group)	
5	210155	1	Cover, Thermostat Housing	
	905656	3	Capscrew	
	904204	3	Lockwasher	
6	210157	1	Thermostat	
7	210158	1	Gasket, Housing Cover	225023



WATER MANIFOLD - EFFECTIVE ENGINE #45-1001-G

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	224729	2	Stud, Water Manifold (See Cylinder Head Group)	
2	225013	1	Gasket, Water Manifold to Cylinder Head	226363 226364
3	225035	1	Housing, Thermostat	
	905261	1	Pipe Plug	
4	U-3461	2	Nut, Water Manifold Stud (See Cylinder Head Group)	
5	226319	1	Cover, Thermostat Housing	
	905658	3	Capscrew	
	904204	3	Lockwasher	
6	226315	1	Pipe, Cover, By-pass	
7	226316	1	Hose, By-pass	
	911301	2	Clamps, Hose	
8	226317	1	Gasket, Thermostat	226364
9	226372	1	Thermostat Kit (Includes Gasket) (160°)	
10	210158	1	Gasket, Thermostat Housing Cover	226364



WATER MANIFOLD – EFFECTIVE WITH ENGINE #17-1001-M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	224729	2	Stud	
2	225013	1	Gasket, water manifold (Used prior to engine #17-20628-M)	229865, 229866
	233 218	1	Gasket, water manifold (Effective with engine #17-20628-M)	
3	225035	1	Housing, thermostat	229866
4	U-3461	2	Nut	
5	210158	1	Gasket, thermostat cover	
6	228543	1	Thermostat Assy. (Includes Item #7) (182°) (Gasoline)	
	229927	1	Thermostat Assy. (Includes Item #7) (200°) (Kerosene)	
7	228542	1	Gasket, thermostat	229866
8	227017	1	Cover, thermostat	
	905658	3	Capscrew	
	904204	3	Lockwasher	
9	227018	1	Hose, water by-pass	
	911301	2	Hose Clamp	

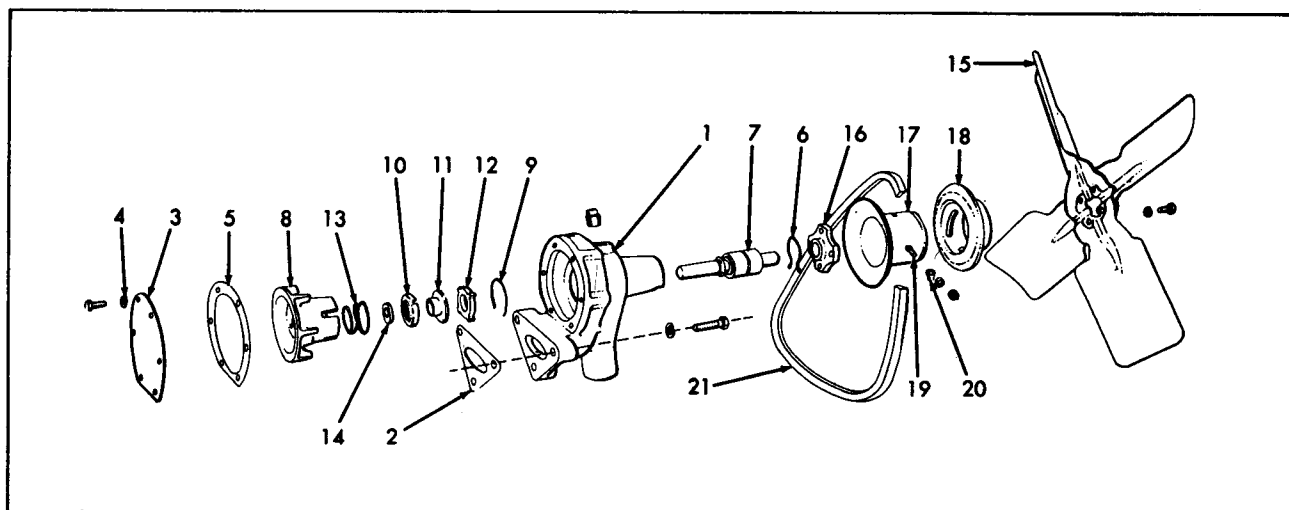


PLATE 207 - WATER PUMP AND FAN - USED PRIOR ENGINE #45-1001-G

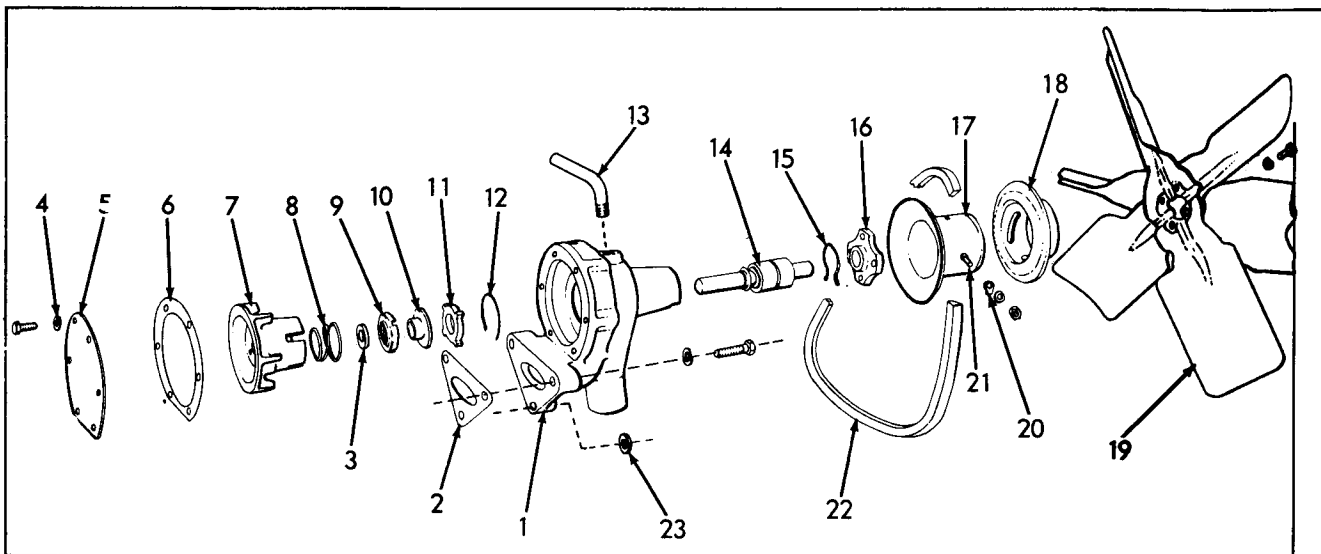
ITEM	PART NUMBER	QTY.	PART NAME
-	210758	1	Pump Assy., Water (Includes all Items except 2, 15 and 21)
1	210828	1	Body, Water Pump
	901653	1	Plug, Pipe, 3/8"
	910245	3	Capscrew, 3/8" x 1-3/8"
	904206	3	Lockwasher, 3/8"
2	U-3061	1	Gasket, Body to Cylinder Block
3	210829	1	Cover, Body
	906692	6	Capscrew, 1/4" x 3/8"
4	209518	6	Washer, Cover Capscrew, Copper
5	210830	1	Gasket, Body Cover
6	207829	1	Ring, Snap, Body Shaft Bearing
7	207822	1	Shaft Assy. (Includes Ball Bearing)
8	210831	1	Impeller, Water Pump
9	207828	1	Ring, Snap, Impeller
10	207823	1	Seal, Shaft, Rubber
11	207824	1	Ring, Clamp, Shaft Seal
12	207827	1	Washer, Shaft Seal, Carbon
13	207825	1	Spring, Shaft Seal
14	207826	1	Guide Shaft Seal Spring
15	209946	1	Fan, Radiator Cooling (Blades)
	905661	4	Capscrew, 5/16" x 5/8"
	904205	4	Lockwasher, 5/16"

(Continued)

WATER PUMP AND FAN – USED PRIOR ENGINE #45-1001 – CONTINUED

(See Plate 207)

ITEM	PART NUMBER	QTY.	PART NAME
16	207833	1	Hub, Fan
17	207830	1	Flange, Rear, Pulley
18	207831	1	Flange, Adjusting, Pulley
	U-3141	2	Screw, Lock, Pulley Hub
19	904204	2	Lockwasher, 1/4"
	900365	2	Nut, 1/4"
20	U-3135	2	Washer, Hub Lock Screw
21	5828	1	Belt, Fan (Used with Generator)



WATER PUMP AND FAN – EFFECTIVE ENGINE #45-1001-G

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
-	226320	1	Pump Assy., Water (Includes Items #1, #3 thru #12, #14 thru #18 and 4--904205)	
	230302	3	Stud	
	910324	3	Hex Nut, 3/8" – 16 NC	
	904206	3	Lockwasher, 3/8" ASA Med.	
1	226314	1	Body, Water Pump	
2	U-3061	1	Gasket, Body to Cylinder Block	
3	207824	1	Ring, Clamp, Shaft Seal	226364
4	209518	6	Washer, Cover Capscrew (Copper)	224524
5	210829	1	Cover, body	
	906692	6	Capscrew	

WATER PUMP AND FAN – CONTINUED
EFFECTIVE – #45 1001-G

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
6	210830	1	Gasket, cover	224524
7	210831	1	Impeller, water pump	
8	207825	1	Spring, seal	224524
9	207826	1	Guide, seal spring	224524
10	207823	1	Seal, Shaft (Rubber)	224524
11	207827	1	Washer, Seal (Carbon)	224524
12	207828	1	Ring, snap, impeller	224524
13	226321	1	Pipe, pump body, by-pass (Used prior Eng. #17-1001-M)	
	226315	1	Pipe, pump body, by-pass (Effective Eng. #17-1001-M)	
14	207822	1	Shaft Assy., water pump and fan (Includes ball bearing and slinger)	224524
15	207829	1	Snap Ring (f/Shaft bearing)	224524
16	207833	1	Hub, fan	
17	207830	1	Flange, sheave (fixed) (Used prior Eng. #17-1001-M)	
	229840	1	Flange, sheave (fixed) (Effective Eng. #17-1001-M)	
18	207831	1	Flange, sheave (adjustable)	
19	17682	1	Blade Assy., fan	
	905661	4	Capscrew, 5/16" – 18 NC x 5/8" (Used prior Eng. #17-1001-M)	
	23532	1	Blade Assy., fan	
	915813	4	Capscrew, 5/16" – 18 NC x 7/8" (Effective Eng. #17-1001-M)	
	904205	4	Lockwasher, 5/16" ASA Med.	
20	U-3135	2	Washer, flange lock screw	
21	U-3141	2	Screw, lock, pulley flange	
	904204	2	Lockwasher	
	900365	2	Nut	
22	226935	1	Belt, fan (Used w/Generator) (Effective Eng. #17-1001-M)	
	5828	1	Belt, fan (Used w/Generator) (Used prior Eng. #17-1001-M)	
23	U-4013	1	Plain Washer (Used prior Eng. #17-1001-M)	

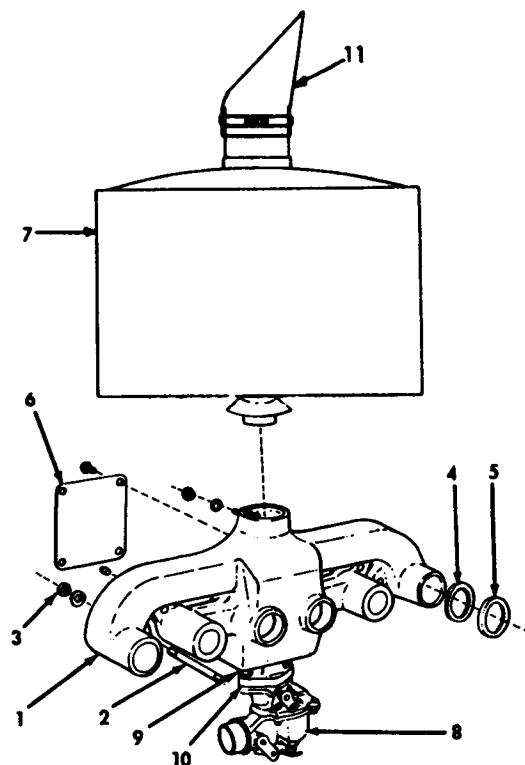


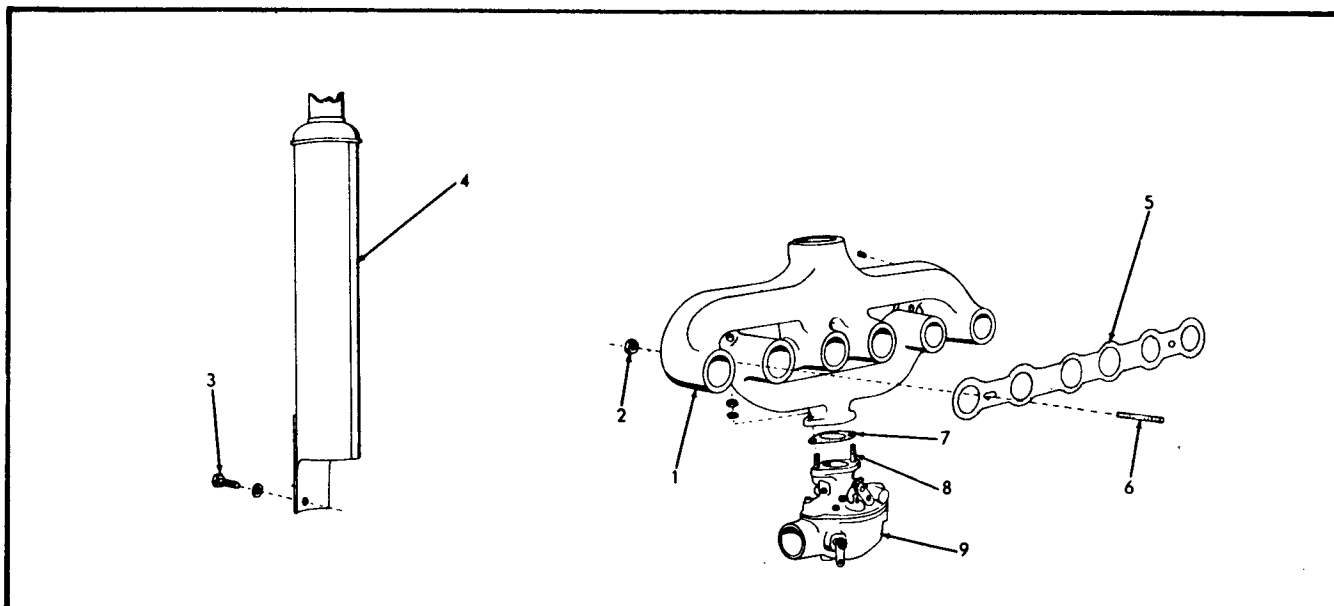
PLATE 198 - INTAKE AND EXHAUST MANIFOLD - USED ON ENGINE #201220 TO #45-1001-G

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	212283	1	Manifold Assy., Intake and Exhaust (Includes Pipe Plug) (Used prior Engine #263951, except 262081 thru 262103)	
	224782	1	Manifold Assy., Intake and Exhaust (Includes Pipe Plug) (Used Engine #262081 thru 262103 and 263951 and up)	
	901651	1	Plug, Pipe, 1/8"	
2	U-3072	6	Stud, Manifold to Cylinder Head	
	911115	6	Washer, Plain, 3/8"	
3	U-3441	6	Nut, Manifold Stud, Bronze	208356
4	----	6	Gasket, Manifold	
5	----	6	Retainer, Manifld Gasket	208356
6	212767	1	Cover, Exhaust Manifold (Used prior Engine #263951 except 262081 thru 262103)	
	900591	4	Screw, Machine, 3/8" x 1/2" (Used only w/212283 Manifold Assy.)	
	903629	4	Capscrew (Used w/224782 Manifold Assy.)	
	904206	4	Lockwasher	(Continued)

INTAKE AND EXHAUST MANIFOLD - USED ON ENGINE #201220 TO #45-1001-G - CONTINUED

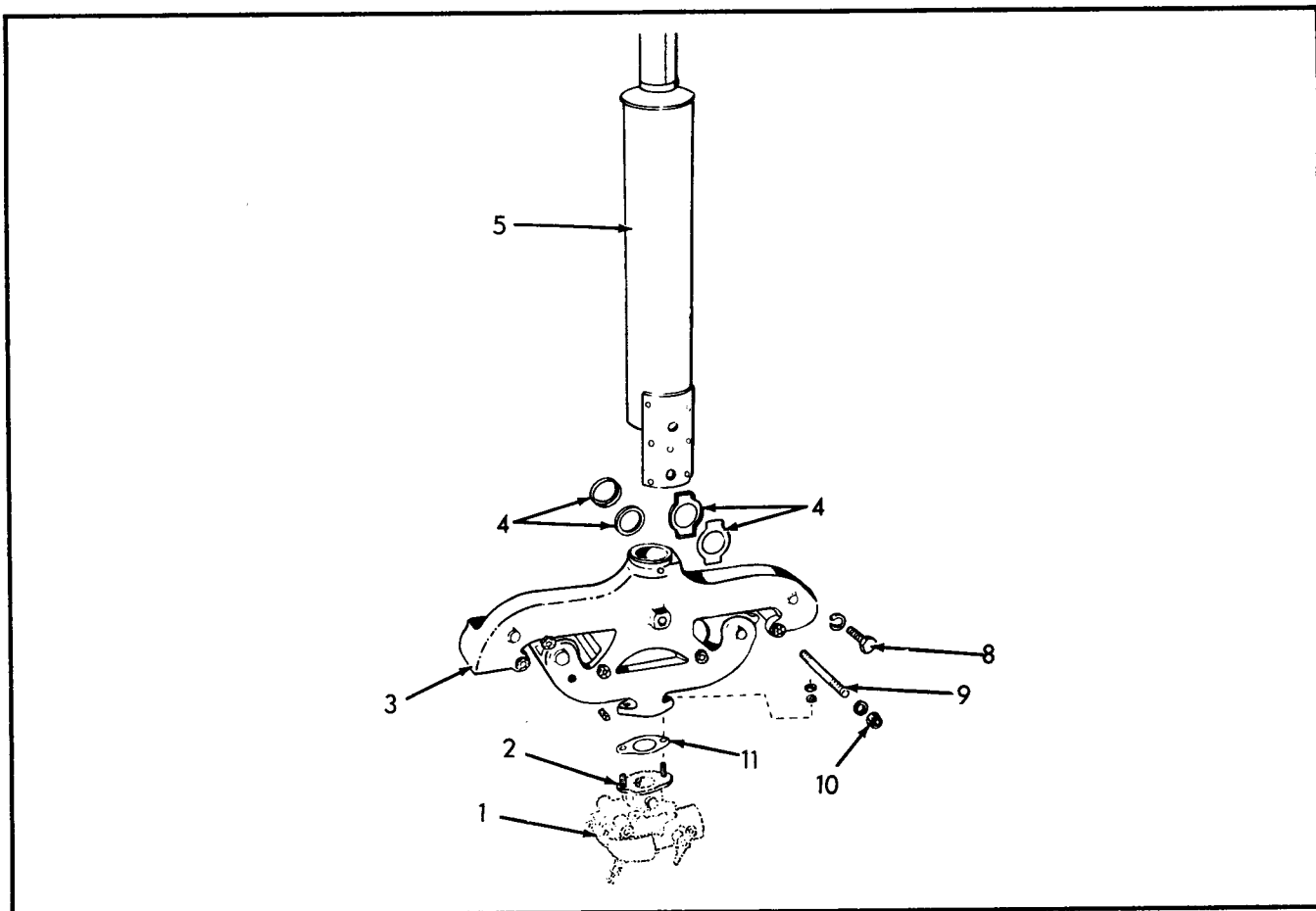
(See Plate 198)

ITEM	PART NUMBER	QTY.	PART NAME
7	210137	1	Muffler, Exhaust
	910574	1	Bolt, 3/8" x 1"
	904206	1	Lockwasher, 3/8"
8	205152	1	Carburetor (Zenith)
9	U-3204	2	Stud, Carburetor to Manifold
	900366	2	Nut, 5/16"
	904205	2	Lockwasher, 5/16"
10	U-3205	1	Gasket, Carburetor to Manifold
11	4548	1	Exhaust Deflector
	913848	1	Clamp



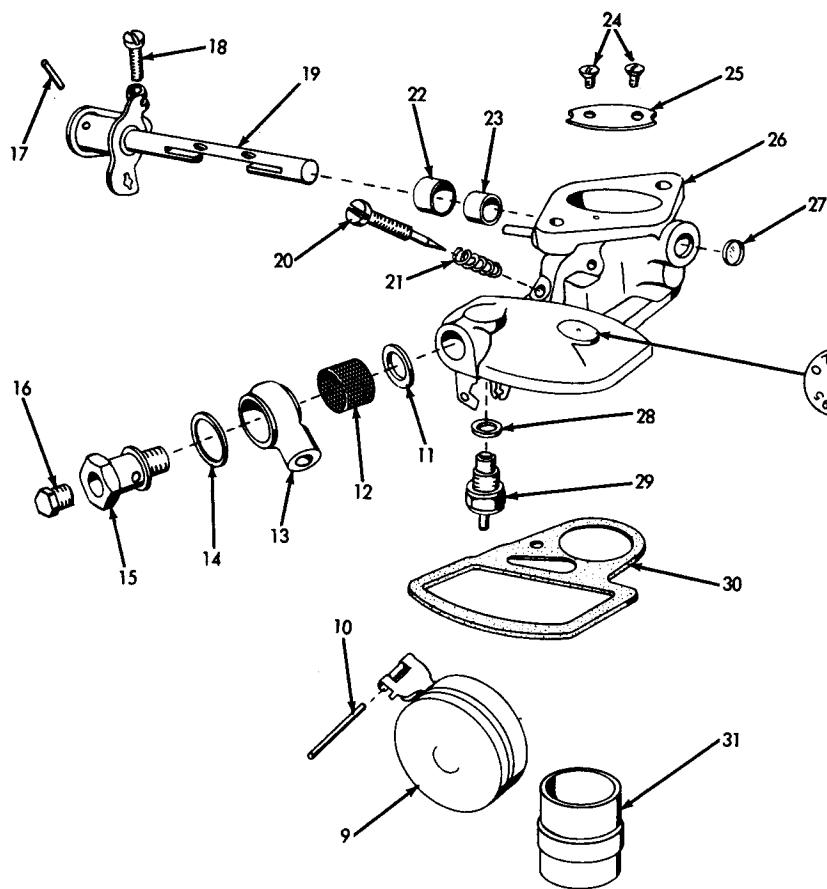
INTAKE AND EXHAUST MANIFOLD – EFFECTIVE ENGINE #45-1001 & UP

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	226350	1	Manifold Assy., intake and exhaust (Gasoline)	
	226313	1	Manifold Assy., intake and exhaust (Kerosene)	
	901651	1	Pipe Plug, 1/8", steel, 9/32" sq. hd. (Kerosene)	
	910231	1	Pipe Plug, 1/8", steel, ctsk., 3/16" hex (Gasoline)	
2	U-3441	6	Nut, special (Ten used w/kerosene engine)	
3	226169	2	Capscrew (Brass)	
	904206	1	Lockwasher, 3/8" ASA Med.	
4	227300	1	Muffler, exhaust (Gasoline)	
	226693	1	Cover, exhaust manifold (Kerosene)	
	AM-8692	4	Stud (Kerosene)	
5	229958	1	Gasket, manifold (One Set)	226363
	U-3162	1	Gasket, manifold (Kerosene)	
	U-3163	6	Retainer, gasket manifold (Kerosene)	226364
6	U-3072	6	Stud, manifold to cylinder head	
	U-3161	4	Spacer (Kerosene)	
	911115	4	Washer, 3/8" SAE (Kerosene)	
7	U-3205	1	Gasket, carburetor to manifold	226470, 226371 226363, 226364
8	U-3204	2	Stud, carburetor	
	900366	2	Nut, 5/16" – 18 NC	
	904205	2	Lockwasher, 5/16" ASA Med.	
9	226725	1	Carburetor (Marvel-Schebler) (For repair parts see Carburetor Group)	

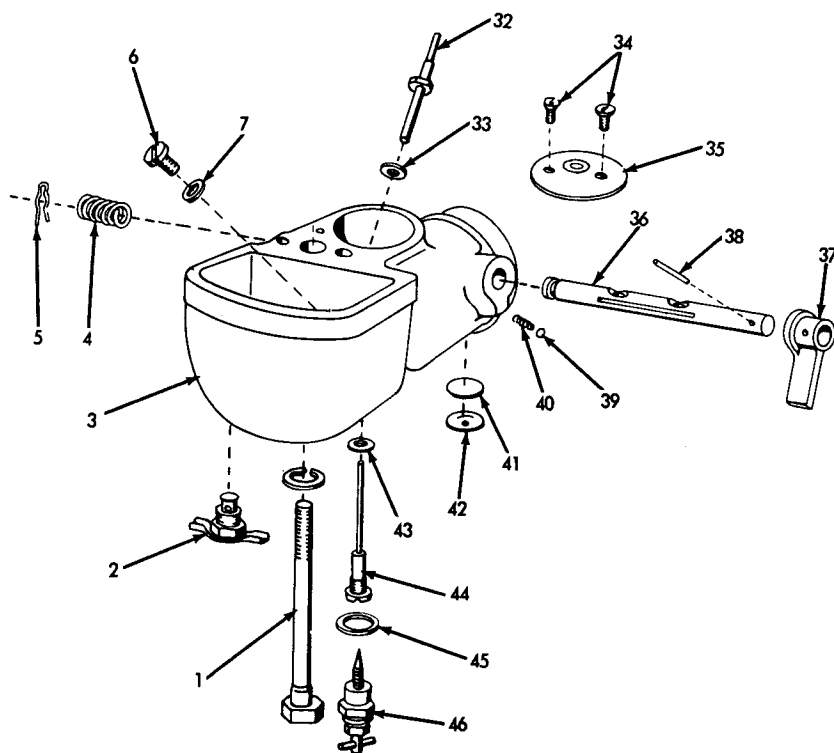


INTAKE AND EXHAUST MANIFOLD – EFFECTIVE WITH ENGINE #17-1001– M

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
1	226275	1	Carburetor Assy. (For parts see Carburetor Group)	
2	U-3204	2	Stud, carburetor	
	904205	2	Lockwasher	
	900366	2	Nut	
3	229416	1	Manifold Assy., intake & exhaust (Gasoline) (Includes Pipe Plug)	
	229949	1	Manifold Assy., intake & exhaust (Kerosene) (Includes Pipe Plug)	
	901651	1	Pipe Plug	
4	- - - -	1	Gasket Set, manifold	229958 229865,229866
5	229531	1	Muffler, exhaust (Gasoline)	
	229950	1	Cover, exhaust manifold (Kerosene)	
	229969	4	Capscrew (Special)	
	904206	4	Lockwasher, 3/8" ASA Med.	
8	229922	2	Capscrew, muffler	
	904207	2	Lockwasher	
9	229339	6	Stud, manifold	
	911381	2	Plain Washer	
10	229340	6	Nut, manifold stud	
11	U-3205	1	Gasket, carburetor flange	229865,229866



IMPORTANT
GIVE OUTLINE No.
STAMPED ON DISC ON
THROTTLE BODY WHEN
ORDERING CARBURETOR
PARTS.



USED PRIOR ENGINE #45-1001-G

PLATE 200 - CARBURETOR (ZENITH)

CARBURETOR - USED PRIOR ENGINE #45-1001-G

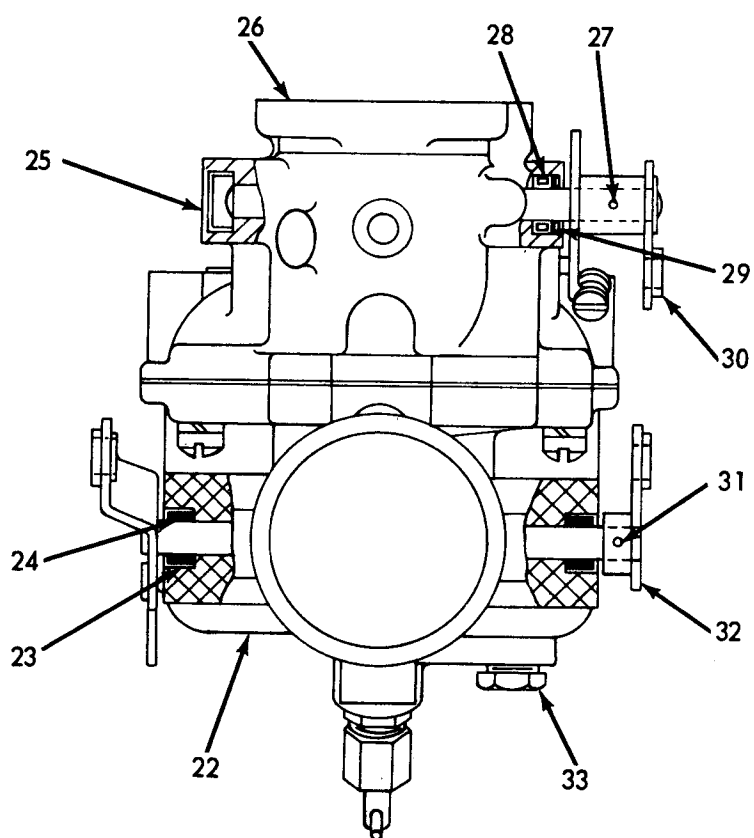
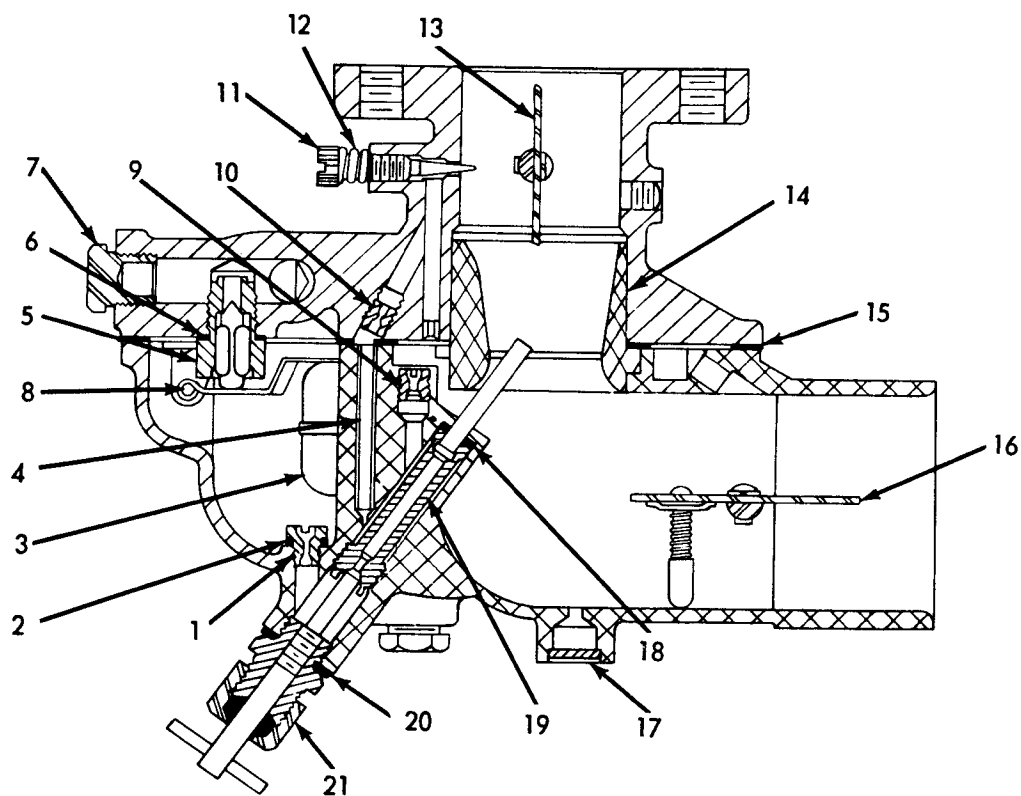
Zenith, Model 124 1/2 TOP

(See Plate 200)

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
-	205152		Carburetor Assy. (Zenith 0-7971) f/High Speed Power Unit Only	
1	223985	1	Bolt, Fuel Bowl to Throttle Body	
	904205	1	Lockwasher	
2	915514	1	Cock, Drain, Fuel Bowl	
3	223765	1	Bowl Assy., Fuel (Includes Stop Pin, Channel Plug and Items 26 and 27)	223765
4	223952	1	Spring, Choke Shaft	
5	224056	1	Clip, Choke Shaft	
6	223844	1	Jet, Compensating (Size 22)	
7	224153	1	Gasket, Compensating Jet (Red Fibre)	224005
9	223923	1	Float Assy.	
10	223967	1	Pin, Pivot, Float	
11	224148	1	Gasket, Filter Body to Throttle Body (Gray Fibre)	224005
12	224001	1	Screen, Fuel Filter	
13	223994	1	Body, Fuel Filter	
14	224159	1	Gasket, Filter Body Plug (Red Fibre)	224005
15	223998	1	Plug, Fuel Filter Body	
16	224061	1	Plug, Hex-Head 1/8" NPT (f/ Filter Plug, Gasoline Tractors Only)	
17	224059	1	Pin, Throttle Lever	
18	915662	1	Screw, Fil-Head (Throttle Stop)	
19	223792	1	Shaft Assy., Throttle (Includes Shaft Lever, Pin and Screw)	
20	223813	1	Screw, Adjusting, Idling	
21	223947	1	Spring, Adjusting Screw, Idling	
22	223955	1	Retainer, Throttle Shaft Packing	
23	224051	1	Packing, Throttle Shaft	
24	223977	2	Screw, Throttle Plate, Oval-Head #5-40 x 3/16"	
25	223776	1	Plate, Throttle	
26	223753	1	Body Assy., Throttle (Includes Items 2 thru 8)	
27	224047	1	Plug, Throttle Shaft Hole	
28	224152	1	Gasket, Float Valve Seat (Grey Fibre)	224005
29	223915	1	Valve Assy., Float (Size 44) (Includes Needle and Seat)	
30	224112	1	Gasket, Fuel Bowl to Throttle Body	

(See Plate 200)

(See Plate 200)				
ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
31	223805	1	Venturi (Size 20)	224005
32	223874	1	Jet, Cap (Size 18)	
33	224153	1	Gasket, Cap Jet (Red Fibre)	
34	223977	2	Screw, Choke Plate	
35	223925	1	Plate Assy., Choke (Includes Poppet Valve, Spring and Retainer)	
36	223931	1	Shaft, Choke	
37	224033	1	Lever, Choke	
38	224059	1	Pin, Choke Lever, Tapered	
39	915816	1	Ball, Ratchet, Choke Lever	
40	223950	1	Spring, Ratchet, Choke Lever	
41	224418	1	Packing, Intake Drain	224005
42	224063	1	Plug, Expansion Air, Intake Drain	
43	224153	1	Gasket, Main Jet (Red Fibre)	
44	223819	1	Jet, Main (Size 20)	224005
45	224152	1	Gasket, Adjusting Needle Body, Main Jet (Gray Fibre)	
46	224431	1	Needle Assy., Adjusting Main Jet	



CARBURETOR GROUP

CARBURETOR

(Zenith Model 267-8, Outline O-11588)

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
—	226275	1	Carburetor Assy.	
1	227112	1	Jet, Main (Size 29)	227122
2	224153	1	Washer, Main Jet	227122
3	227103	1	Float Assy., fuel level	
4	223961	1	Pin, Float	227122
5	223909	1	Valve Assy., fuel (Size 40) (Includes Seat and Gasket)	227122
6	224152	1	Gasket, fuel valve seat	227122
7	224061	1	Plug, inlet drain	
8	227121	1	Plug, idle channel	
9	227116	1	Jet, well vent (Size 28)	227122
10	227113	1	Jet, idle (Size 16)	227122
11	227119	1	Needle, idle adjusting	227122
12	223946	1	Spring, idle adjusting needle	
	227099	1	Plate, throttle	
13	915663	2	Screw, mach.	227122
	915664	2	Lockwasher	227122
14	227111	1	Venturi, #21	
15	227104	1	Gasket, bowl to body	227122
	227108	1	Plate, choke	
16	915663	2	Screw, mach.	227122
	915664	2	Lockwasher	227122
17	227106	1	Plug, intake drain	227122
18	224144	1	Washer, discharge jet	227122
19	227114	1	Jet, main discharge (Size 65)	
20	224152	1	Gasket, main jet needle	227122
21	227110	1	Needle Assy., main jet	
				(Continued)

CARBURETOR – CONTINUED
(Zenith Model 267-8, Outline O-11588)

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
	227105	1	Bowl Assy., fuel (Includes Channel Plug, Intake Drain Plug and two each Items #23 and #24)	
22	917074	4	Screw, mach.	227122
	906965	4	Lockwasher	227122
23	223974	2	Retainer, choke shaft packing	227122
24	224053	2	Packing, choke shaft	227122
25	224027	1	Plug, throttle shaft hole	227122
26	227096	1	Body Assy., throttle (Includes Items #7, #11 thru #13, #25 & #27 thru #30)	
27	224059	1	Pin, taper, throttle lever	
28	227097	1	Seal, throttle shaft	227122
29	227098	1	Retainer, throttle shaft seal	227122
30	227101	1	Shaft Assy., throttle (Includes Lever, Mach. Screws and Items #31 and #32)	
31	224059	1	Pin, taper, choke lever	
32	227107	1	Shaft, choke (Includes Friction Lever)	
33	224061	1	Plug, fuel bowl drain	

CARBURETOR - CONTINUED

(Marvel-Schebler)

ITEM	PART NUMBER	QTY.	PART NAME	ASSEMBLY OR PACKAGE NO.
9	226457	1	Shaft, float lever	226471
10	226448	1	Venturi	
11	226452	1	Gasket, fuel bowl	226470 226471
12	226458	1	Valve Assy., float (Includes Seat and Gasket)	226471
13	219998	1	Gasket, valve float	226470 226471
14	220006	1	Jet, idling	226471
15	219978	1	Spring, idle adjusting needle	
16	219987	1	Needle, idle adjusting	226471
17	226444	2	Screw, throttle plate (Includes Lockwasher)	
18	226443	1	Plate, throttle	
19	226445	1	Shaft Assy., throttle (Includes Lever, Pin, Spring, Screw & Bushing)	226471
20	219977	1	Spring, throttle stop	226471
21	220000	1	Screw, stop, throttle	226471
22	226447	1	Retainer, seal-throttle shaft	226471
23	226446	1	Seal, throttle shaft	226471
24	226451	4	Screw, bowl (Includes Lockwasher)	
25	800465	1	Plug, drive (Date Plate)	
26	226442	1	Body Assy., Throttle (Includes Items #17 thru #23, #25, Name Plate and Float Bracket with Screws)	
27	226456	1	Float and Lever Assy.	
28	219968	2	Retainer, packing, choke shaft	226471
29	219698	2	Packing, choke shaft	226471
30	226453	1	Plate Assy., Choke (Includes Poppet Valve, Spring & Retainer)	
31	226444	2	Screw, Choke Plate (Includes Lockwasher)	226471
32	226455	1	Shaft Assy., Choke	
33	219997	1	Washer, choke friction lever	
34	219979	1	Spring, Choke friction lever	226471
35	219975	1	Screw, Choke friction lever	
36	219967	1	Strainer	
37	915514	1	Cock, drain, fuel bowl	
-	226470	1	Gasket Set, Carburetor	226470 226471
-	226471	1	Repair Kit, Carburetor	226470

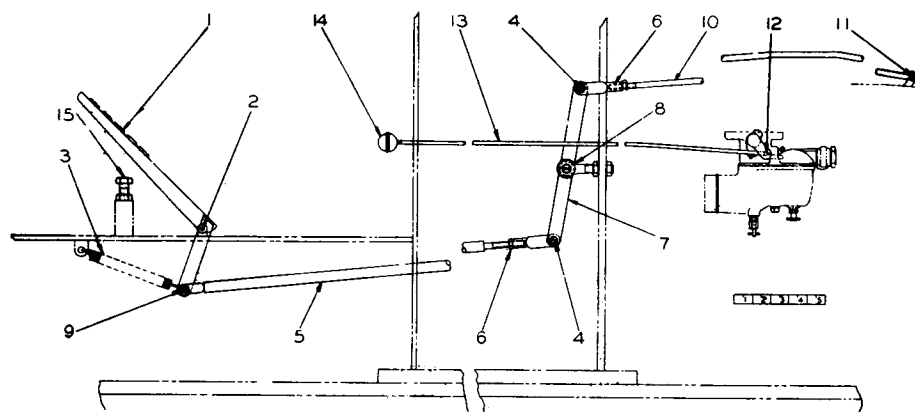


PLATE 205 - ENGINE CONTROLS

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	6061	1	Pedal Assy. (Accelerator)	Used prior TL-10 #1801 Effective TL-10 #1801
	21664	1	Pedal Assy. (Accelerator)	
2	2212	1	Pin	Used prior TL-10 #1801 Effective TL-10 #1801
	21696	1	Pin	
	904001	2	Cotter Pin, 3/32" x 1/2"	
3	6568	1	Spring	Used prior TL-10 #638 Effective TL-10 #638
	14226	1	Spring	
4	2208	2	Yoke Pin	
	900942	2	Cotter Pin, 3/32" x 5/8"	
5	6294	1	Throttle Rod Assy.	
6	2207	2	Yoke End	
	910980	2	Hex Jam Nut, 5/16" - 24NF	
7	6064	1	Shaft Assy.	Used prior TL-10 #1801 Effective TL-10 #1801
	23921	1	Shaft Assy,	
8	6063	2	Rod End Assy. (Each includes 1--5652)	
	5652	2	Bushing	
	913177	4	Hex Jam Nut, 1/2" - 20 NF	
	910967	1	Cotter Pin, 1/8" x 7/8"	
	910244	1	Plain Washer, 1/2" SAE	
9	2217	1	Pin	Used prior TL-10 #1801
	900970	1	Cotter Pin, 1/16" x 1/2"	
	2208	1	Pin	Effective TL-10 #1801
	900942	1	Cotter Pin, 3/32" x 5/8"	
10	6065	1	Rod	Used prior TL-10 #638 Used TL-10 #638 thru #1800
	13670	1	Rod	
	6563	1	Yoke End	Used prior TL-10 #1801
	910267	1	Hex Jam Nut, 1/4" - 28NF	
	23918	1	Rod	Effective TL-10 #1801
11	900970	1	Cotter Pin, 1/16" x 1/2"	
	910335	1	Plain Washer, 5/16" SAE	
12	911062	1	Cotter Pin, 1/16" x 3/8"	
13	4696	1	Choke Rod	
14	8130	1	Knob	
15	913105	1	Capscrew, 1/2" - 20NF x 1-1/2"	
	913177	1	Hex Jam Nut, 1/2" - 20NF	

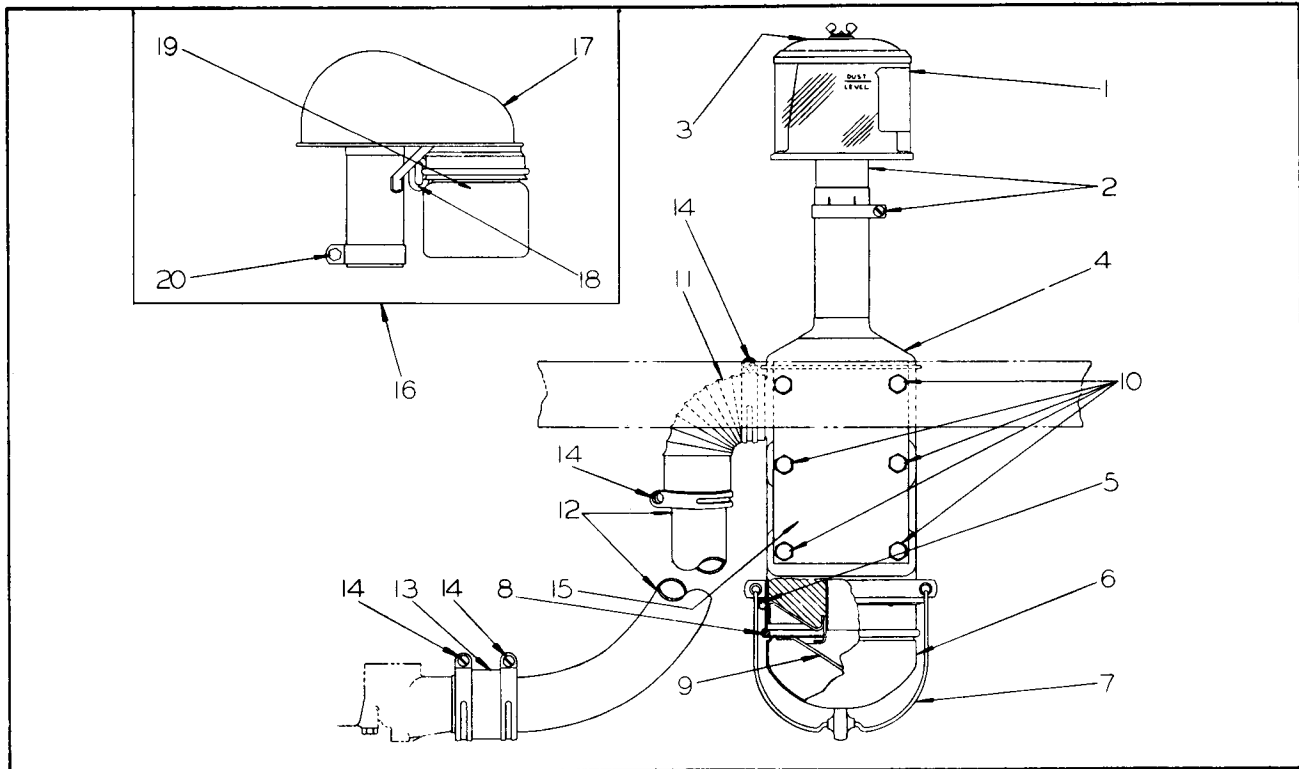


PLATE 403 – PRE-CLEANER AND AIR CLEANER – USED PRIOR TO TL-10 #1801

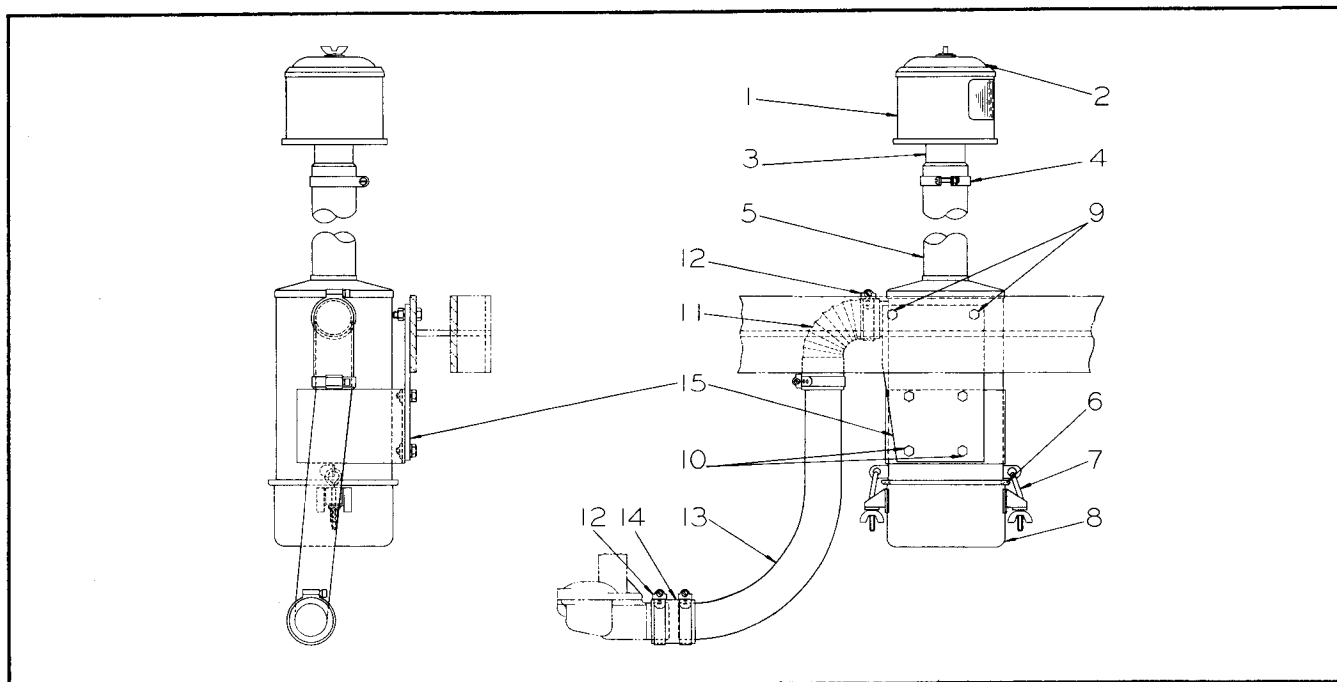
ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	6555	1	Pre-Cleaner Assy. (Includes 1-- 6974, 1-- 6975 and 1-- 6973)	
	6974	1	Body Assy. (Includes one Glass)	
2	6975	1	Base Assy. (Includes one Clamp with Capscrew and Hex Nut)	
3	6973	1	Cap Assy. (Includes one Wing Nut)	
4	6554	1	Air Cleaner Assy. (Includes one Air Cleaner Body, 1-- 6977, 1-- 6978, 1-- 6979, 1-- 6980 and 1-- 6981)	Used prior TL-10 #730
	11964	1	Air Cleaner Assy. (Includes one Air Cleaner Body, 1-- 11960, 1-- 11957, 1-- 11958 and 1-- 13162)	Eff. TL-10 #730
	----	1	Air Cleaner Body (Not Serviced)	
5	6977	1	Gasket (Air Cleaner Body)	
6	6978	1	Oil Cup	Used prior TL-10 #730
	11960	1	Oil Cup	Eff. TL-10 #730
7	6979	1	Bail Assy., Oil Cup (Includes Roller)	Used prior TL-10 #730
	11957	1	Bail Assy., Oil Cup (Includes Roller)	Eff. TL-10 #730
8	6980	1	Ring (Retaining) Oil Cup Baffle	Used prior TL-10 #730
	11958	1	Ring (Retaining) Oil Cup Baffle	Eff. TL-10 #730
9	6981	1	Baffle Oil Cup	Used prior TL-10 #730
	13162	1	Baffle, Oil Cup	Eff. TL-10 #730

CONTINUED

PRE-CLEANER AND AIR CLEANER-USED PRIOR TO TL-10 #1801 — CONTINUED

(See Plate 403)

[illegible]



PRE-CLEANER AND AIR CLEANER-EFFECTIVE WITH TL-10 # 1801

ITEM	PART NUMBER	QTY.	PART NAME
1	14939	1	Pre-Cleaner Assy. (Includes 1--6974 and Items #2 and #3)
	6974	1	Body Assy. (Includes one Glass)
2	6973	1	Cap Assy. (Includes one Wing Nut)
3	14938	1	Base Assy. (Includes Item #4)
4	14937	1	Clamp (Includes Capscrew and Hex Nut)
5	22995	1	Air Cleaner Assy. (Includes one Air Cleaner Body and Items #6 thru #8)
	----	1	Air Cleaner Body (Not serviced separately)
6	24107	1	Gasket
7	24108	2	Eye Bolt Assy. (Includes Wing Nut & Washer) Serviced as Assy. only
8	24109	1	Oil Cup
9	2084	2	Capscrew, 3/8" - 16 NC x 1-1/4"
	904206	2	Lockwasher, 3/8" ASA Med.
	910324	2	Hex Nut, 3/8" - 16 NC
10	2205	4	Capscrew, 3/8" - 16 NC x 3/4"
	904206	4	Lockwasher, 3/8" ASA Med.
11	22979	1	Flexible Hose
12	9300	4	Hose Clamp
13	22982	1	Tube
14	22980	1	Hose, 1-3/4" I.D. x 2-1/4"
15	22981	1	Plate

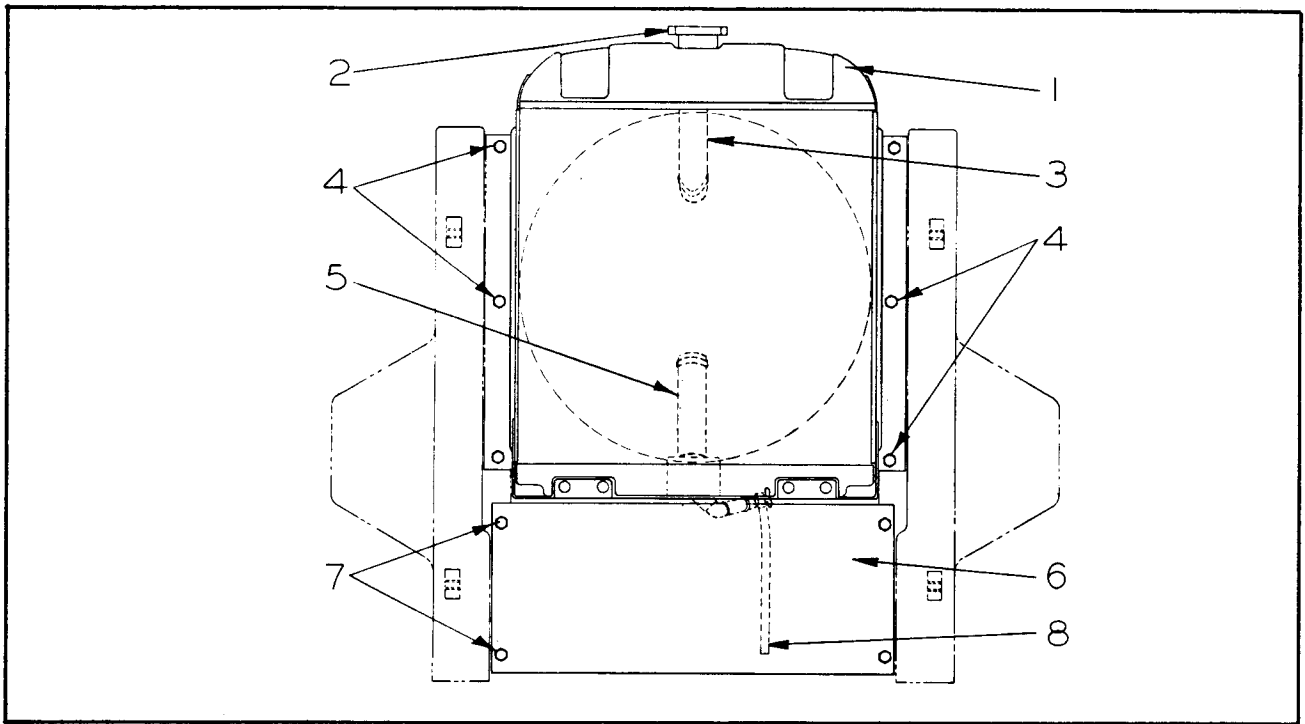


PLATE 204 - RADIATOR GROUP - USED PRIOR TL-10 #91

ITEM	PART NUMBER	QTY.	PART NAME
1	7199	1	Radiator Assy. (Includes Item #2)
2	7198	1	Cap, Radiator
3	6804	1	Hose, 1-1/2" I.D. x 10" Long
	910143	2	Hose Clamp #10 - 1-13/16" I.D.
4	1377	6	Capscrew, 3/8" -24 NF x 1-3/4"
	7008	12	Washer, Rubber
	900817	12	Plain Washer, 3/8" USS
	7009	6	Locknut, 3/8" -24 NF
5	6805	1	Hose, 1-1/2" x 5-1/2" Long
	910143	2	Hose Clamp, #10 - 1-13/16" I.D.
6	7010	1	Baffle Plate
7	1108	4	Capscrew, 3/8" -24 NF x 1-1/2"
	904206	4	Lockwasher, 3/8" ASA Med.
	911041	4	Hex Nut, 3/8" -24 NF
8	901723	1	90° Street Elbow, 3/8" M.I.
	901492	1	Nipple, 3/8" x 2-1/2", Std. Blk. Wrought Steel
	904226	1	Coupling, Reducing, 3/8" - 1/4" M.I.
	7219	1	Drain Cock
	7220	1	Hose, 1/4" I.D. x 10-3/8" Long
	911296	1	Hose Clamp, 5/8" I.D.

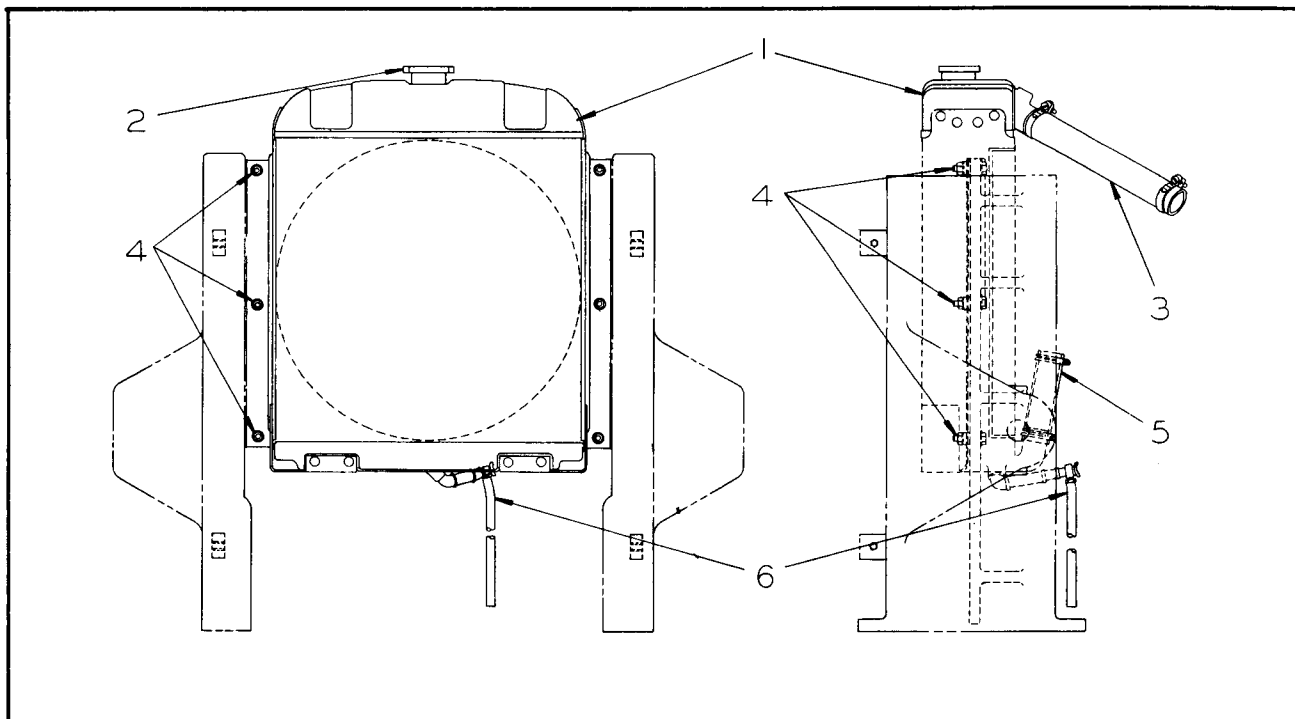


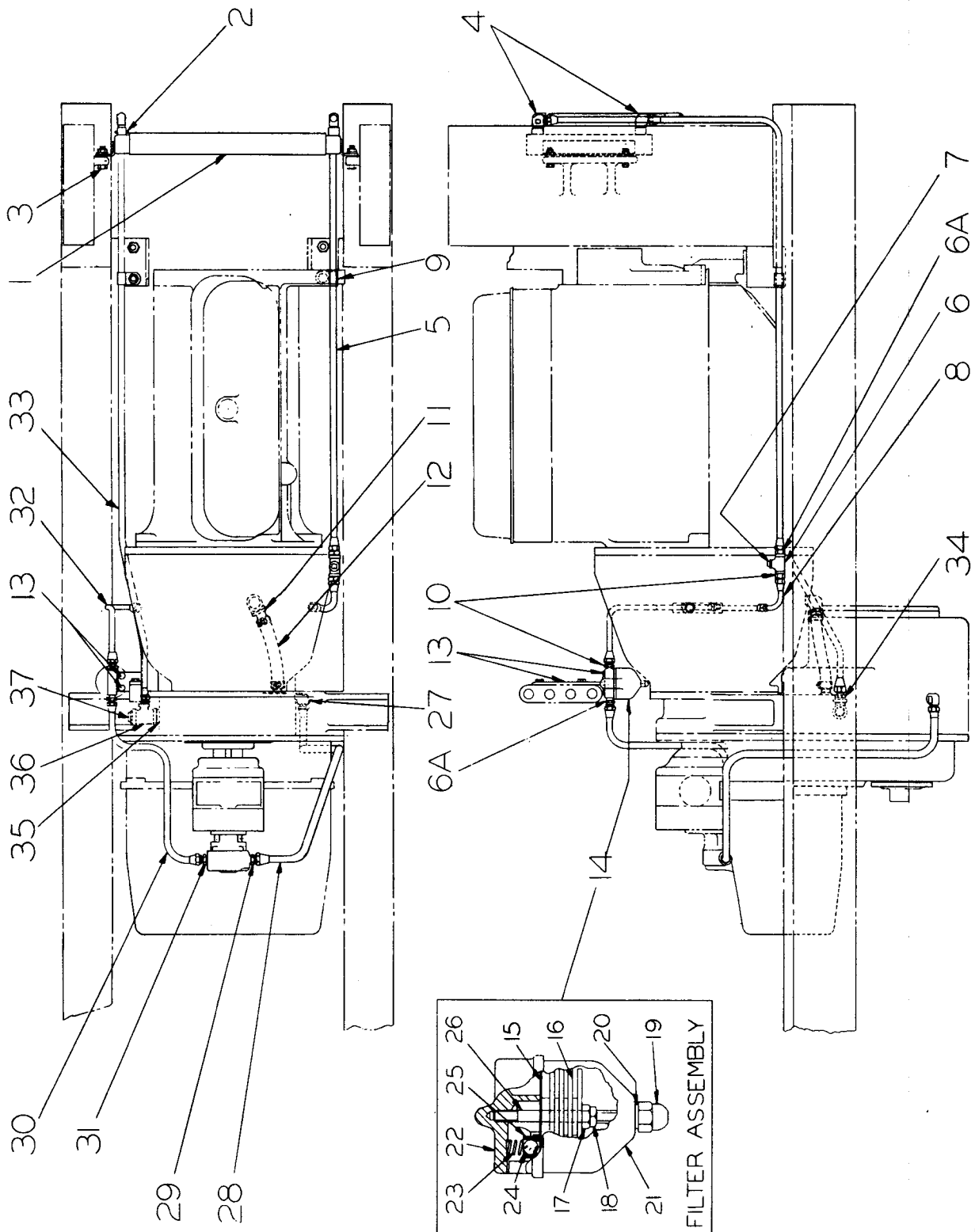
PLATE 335 - RADIATOR GROUP - EFFECTIVE TL-10 #91

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	11862	1	Radiator Assy. (Includes Item #2)	
	18982	1	Radiator Assy. (Includes Item #2) Solder Coated (Special Equip.)	
2	7198	1	Cap, Radiator	
3	6804	1	Hose, 1-1/2" I.D. x 10" long	Used prior TL-10 #106
	9302	1	Hose, 1-1/2" I.D. x 8" long	Eff. TL-10 #106
	13857	2	Hose Clamp	
4	1377	6	Capscrew, 3/8" -24 NF x 1-3/4"	
	7008	12	Washer, Rubber	
	900817	12	Plain Washer, 3/8" USS	
	7009	6	Locknut, 3/8" -24 NF	
5	6805	1	Hose, 1-1/2" x 5-1/2" Long	
	13857	2	Hose Clamp	
6	901723	1	90° Street Elbow, 3/8" M.I.	
	901492	1	Nipple, 3/8" x 2-1/2", Std. Blk. Wrought Steel	
	904226	1	Coupling, Reducing, 3/8" x 1/4" M.I.	
	7219	1	Drain Cock	
	7220	1	Hose, 1/4" I.D. x 12" Long	
	911296	1	Hose Clamp, 5/8" I.D.	

CONVERTER RADIATOR AND COOLING SYSTEM – USED PRIOR TL-10 #256

(See Plate 183)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	6705	1	Oil Cooler, Radiator	
2	912415	1	Drain Cock	
3	1377	4	Capscrew, 3/8" – 24 NF x 1-3/4"	
	900817	8	Plain Washer, 3/8" USS	
	7008	8	Washer, Rubber	
	7009	4	Locknut, 3/8" – 24 NF	
4	6837	2	90° Elbow (Special)	
5	7855	1	Tube Assy.	Eff. TL-10 #47
	6775	1	Tube Assy.	Used prior TL-10 #47
6	901703	1	Tee, Pipe, 1/4" M.I.	
6A	7365	2	Adapter, 3/4" – 16 NF x 1/4" NPT	
7	901652	1	Pipe Plug, 1/4" Steel, 3/8" Sq. Hd.	
8	7341	1	Tube Assy.	
	7771	1	Tube Assy. (Inside Flywheel Housing)	
	913223	1	Hex Jam Nut, 9/16" – 18 NF	
	7769	1	Union, Bulkhead	
	6838	1	90° Elbow (Special)	
9	6816	2	Clip (See Frame Group for Capscrews)	
10	6836	2	Adapter, 9/16" – 18 NF x 1/4" NPT	
11	901723	1	90° Elbow, Street, 3/8" Std. M.I.	
	1392	2	Pipe, 3/8" x 1-1/2" (Threaded one end)	
12	8033	1	Hose, 5/8" I.D. x 6-1/2" Long	
	911300	2	Hose Clamp, 15/16" I.D.	
13	6803	1	Bracket, Filter	
	4063	2	Capscrew, 1/4" – 20 NC x 3/4"	
	904204	2	Lockwasher, 1/4" ASA Med.	
14	6840	1	Oil Filter Assy. (Includes Items #15 thru #22)	
15	7368	1	Gasket	
16	7369	1	Filter Element	
17	911325	1	Hex Jam Nut, 1/4" – 20 NC	
18	7370	1	Nut (Palnut) 1/4" – 20 NC	
19	7371	1	Acorn Nut	(Continued)



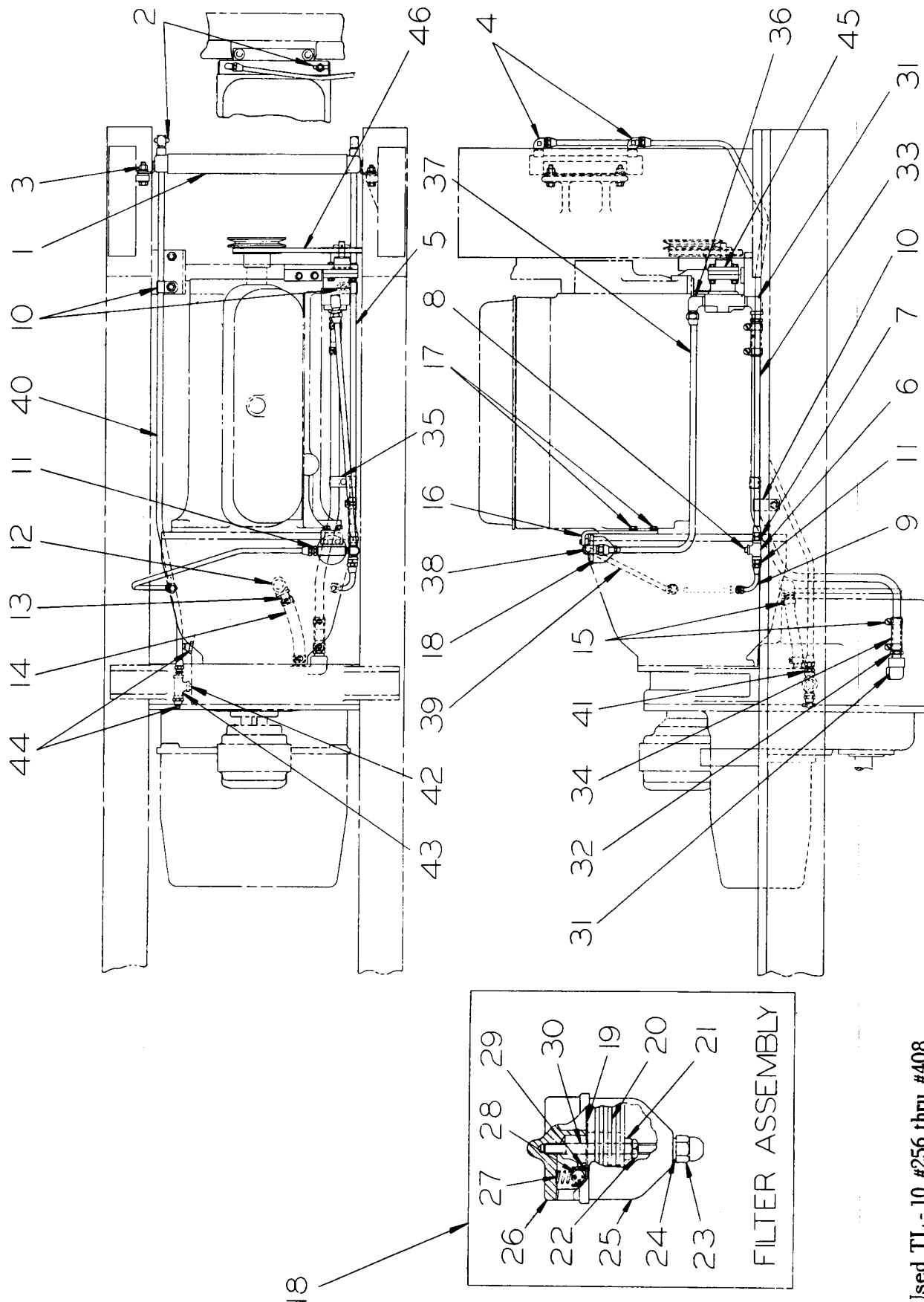
Used Prior TL - 10 #256

PLATE 183 - CONVERTER RADIATOR AND COOLING SYSTEM

CONVERTER RADIATOR AND COOLING SYSTEM – USED PRIOR TL-10 #256 – CONTINUED

(See Plate 183)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
20	7372	1	Gasket, Copper	
21	7373	1	Cup	
22	7374	1	Filter Head Assy. (Includes Items #23 thru #26)	
23	7376	1	Spring	
24	7377	1	Ball	
25	7378	1	Valve Seat	
26	7379	1	Stud	
27	7366	1	90° Elbow (Special)	
28	6767	1	Tube Assy.	
29	7221	1	Adapter, 1/2" NPT, 7/8" Tube	
30	6777	1	Tube Assy.	
31	6834	1	Adapter, 3/4" – 16 NF x 1/2" NPT	
	6764	1	Tube Assy.	
	7770	1	Tube Assy. (Inside Flywheel Housing)	
32	913223	1	Hex Jam Nut, 9/16" – 18 NF	
	7769	1	Union, Bulkhead	
	6838	1	90° Elbow (Special)	
33	7857	1	Tube Assy.	Eff. TL-10 #47
	6785	1	Tube Assy.	Used prior TL-10 #47
34	6736	1	Adapter, 3/4" – 16 NF x 3/8" NPT	
35	901491	1	Close Nipple, 3/8" NPT	Eff. TL-10 #31
	901500	1	Close Nipple, 1/2" NPT	Used prior TL-10 #31
36	901704	1	Tee, 3/8" x 3/8" x 3/8" M.I.	Eff. TL-10 #31
	8032	1	Tee, 3/8" x 3/8" x 1/2" M.I.	Used prior TL-10 #31
37	901654	1	Pipe Plug, 1/2" Steel, 9/16" Sq. Hd.	
–	6810	2	Drain Cock (Not Shown) See Plate 317)	



Used TL - 10 #256 thru #408

PLATE 317 - CONVERTER RADIATOR AND COOLING SYSTEM

CONVERTER RADIATOR AND COOLING SYSTEM - USED TL-10 #256 THRU #408

(See Plate 317)

ITEM	PART NUMBER	QTY.	PART NAME
1	6705	1	Oil Cooler, Radiator
2	912415	1	Drain Cock
3	1377	4	Capscrew, 3/8" - 24 NF x 1-3/4"
	900817	8	Plain Washer, 3/8" USS
	7008	8	Washer, Rubber
	7009	4	Locknut, 3/8" - 24 NF
4	6837	2	90° Elbow (Special)
5	7855	1	Tube Assy.
6	901703	1	Tee, Pipe, 1/4" M.I.
7	7365	1	Adapter, 3/4" - 16 NF x 1/4" NPT
8	901652	1	Pipe Plug, 1/4" Steel, Ctsk., 3/8" Sq.
9	7341	1	Tube Assy.
	7771	1	Tube Assy. (Inside Flywheel Housing)
	913223	1	Hex Jam Nut, 9/16" - 18 NF
	7769	1	Union, Bulkhead
	6838	1	90° Elbow (Special)
10	6816	3	Clip (See Frame Group for two Capscrews)
	2862	1	Capscrew, 3/8" - 24 NF x 1/2"
	911115	1	Plain Washer, 3/8" SAE
	904206	1	Lockwasher, 3/8" ASA Med.
11	6836	2	Adapter, 9/16" - 18 NF x 1/4" NPT
12	901723	1	90° Elbow, Street, 3/8" Std. M.I.
13	1392	2	Pipe, 3/8" x 1-1/2" (Threaded one end)
14	8033	1	Hose, 5/8" I.D. x 6-1/2" Long
15	911300	6	Hose Clamp, 15/16" I.D.
16	9522	1	Bracket
	4063	2	Capscrew, 1/4" - 20 NC x 3/4" (Bracket to Oil Filter)
	904204	2	Lockwasher, 1/4" ASA Med.
17	1230	1	Capscrew, 3/8" - 24 NF x 3/4" (Top of Bracket to Engine)
	904206	1	Lockwasher, 3/8" ASA Med.
	3379	1	Capscrew, 3/8" - 16 NF x 1-1/2" (Bottom of Bracket to Engine)
	904206	1	Lockwasher, 3/8" ASA Med.
18	6840	1	Oil Filter Assy. (Includes Items #19 thru #26)
19	7368	1	Gasket
20	7369	1	Filter Element
21	911325	1	Hex Jam Nut, 1/4" - 20 NC
22	7370	1	Nut (Palnut) 1/4" - 20 NC
23	7371	1	Acorn Nut

(Continued)

CONVERTER RADIATOR AND COOLING SYSTEM - USED TL-10 #256 THRU #408 - CONTINUED

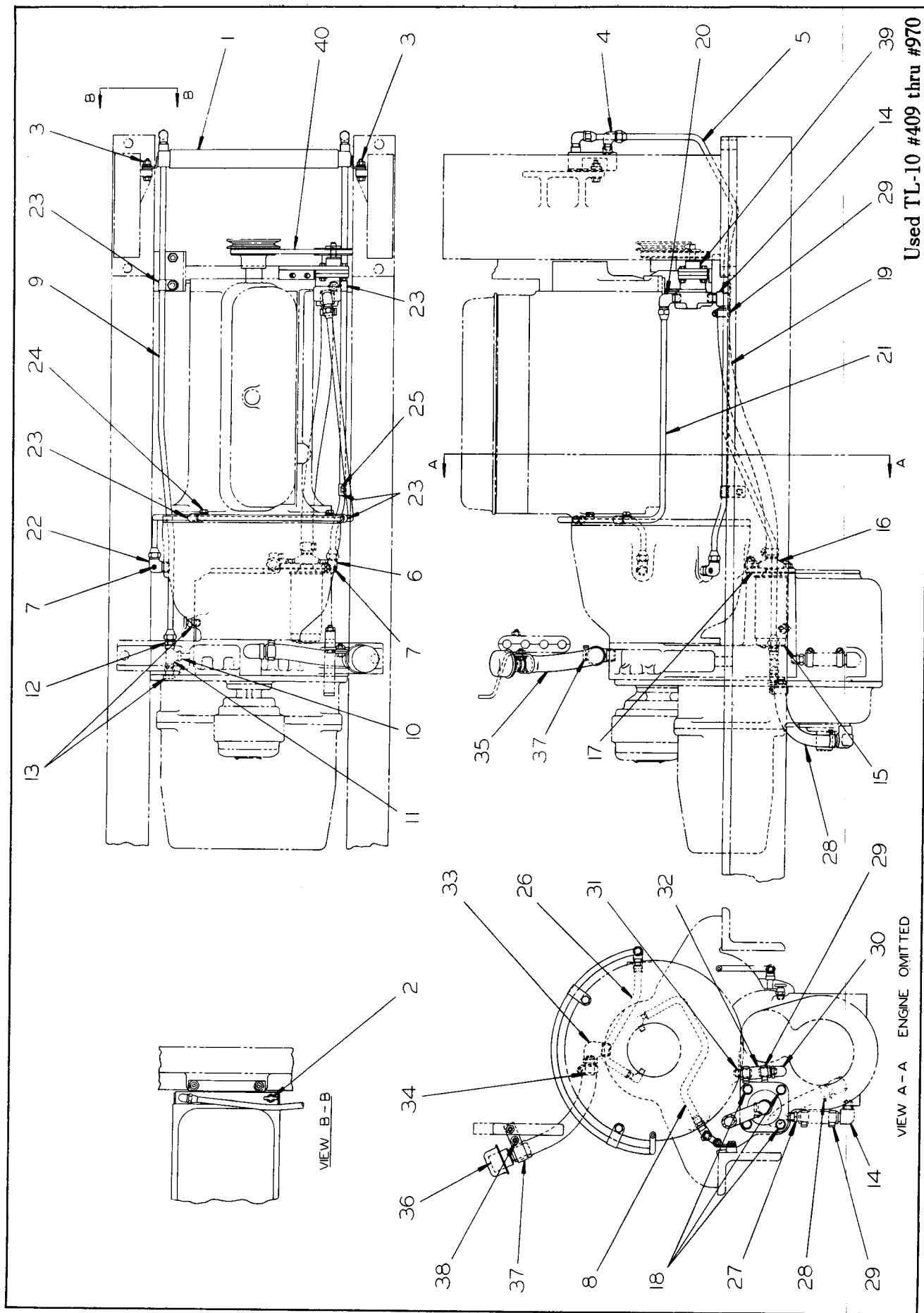
(See Plate 317)

ITEM	PART NUMBER	QTY.	PART NAME
24	7372	1	Gasket, Copper
25	7373	1	Cup
26	7374	1	Filter Head Assy. (Includes Items #27 thru #30)
27	7376	1	Spring
28	7377	1	Ball
29	7378	1	Valve Seat
30	7379	1	Stud
31	9527	2	90° Elbow, Street
32	8304	2	Adapter, 1/2" NPT
33	9523	1	Tube
34	8305	2	Hose, 3/4" I.D. x 3" Long
35	9586	2	Clamp (Half)
	1243	1	Capscrew, 3/8" - 24 NF x 1"
	904206	1	Lockwasher, 3/8" ASA Med.
	911041	1	Hex Nut, 3/8" - 24 NF
36	9526	1	90° Elbow (Special)
37	9521	1	Tube Assy.
38	9525	1	90° Elbow (Special)
39	9565	1	Tube Assy.
	7770	1	Tube Assy. (Inside Flywheel Housing)
	913223	1	Hex Jam Nut, 9/16" - 18 NF
	7769	1	Union, Bulkhead
	6838	1	90° Elbow (Special)
40	7857	1	Tube Assy.
41	6736	1	Adapter, 3/4" - 16 NF x 3/8" NPT
42	901491	1	Close Nipple, 3/8" NPT
43	901704	1	Tee, 3/8" x 3/8" x 3/8" M.I.
44	6810	2	Drain Cock
45	9530	1	Pump Assy.
	9519	1	Pump Bracket
46	9529	1	"V" Belt

CONVERTER RADIATOR AND COOLING SYSTEM - USED TL-10 #409 THRU #970

(See Plate 336)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	6705	1	Oil Cooler, Radiator	Used prior TL-10 #621
	17793	1	Oil Cooler, Radiator	Eff. TL-10 #621
2	912415	1	Drain Cock	Used prior TL-10 #621
3	1377	4	Capscrew, 3/8" - 24 NF x 1-3/4"	Used prior TL-10 #621
	900817	8	Plain Washer, 3/8" USS	
	7008	8	Rubber Washer	
	7009	4	Locknut	
	1377	2	Capscrew, 3/8" - 24 NF x 1-3/4"	Eff. TL-10 #621
	900817	4	Plain Washer, 3/8" USS	
	7008	2	Rubber Washer	
	7009	2	Locknut	
	12226	2	Rubber Strip	
4	6837	2	90° Elbow	
5	10447	1	Tube Assy.	Used TL-10 #409 thru #620
	12225	1	Tube Assy. (Oil Cooler to Converter)	Eff. TL-10 #621
6	10434	1	90° Elbow (Special)	
7	910231	2	Pipe Plug, 1/8" Ctsk., 3/16" Hex	
8	10496	1	Tube Assy. (Inside Flywheel Housing)	
	10443	1	Adapter, 9/16" - 18 NF x 1/2" NPT	
	6838	1	90° Elbow, 1/4" NPT, 3/8" Tube	
9	7857	1	Tube Assy.	Used TL-10 #47 thru #620
	12223	1	Tube Assy.	Eff. TL-10 #621
10	901491	1	Nipple, 3/8" NPT x 2"	
11	901704	1	Tee, 3/8" x 3/8" x 3/8" M.I.	
12	6736	1	Adapter, 3/4" - 16 NF x 3/8" NPT	
13	6810	2	Drain Cock	
14	10150	1	90° Elbow (Special)	
15	10096	1	Filter, Oil	
16	10093	1	Cover, Filter	
17	10094	1	Gasket	
				(Continued)



Used TL-10 #409 thru #970

PLATE 336 - CONVERTER RADIATOR AND COOLING SYSTEM

CONVERTER RADIATOR AND COOLING SYSTEM - USED TL-10 #409 thru #970 - CONTINUED

(See Plate 336)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
18	1110	4	Capscrew, 1/2" - 13 NC x 1-1/4"	
	904208	4	Lockwasher, 1/2" ASA Med.	
19	10441	1	Hose, 3/4" I.D. x 24-5/8" Long	
20	9526	1	90° Elbow	
21	10440	1	Tube Assy.	
22	10435	1	90° Elbow (Special)	
23	6816	5	Clip (See Frame Group for two Capscrews)	
24	2084	2	Capscrew, 3/8" - 16 NC x 1-1/4"	(Clip to Engine)
	904206	2	Lockwasher, 3/8" ASA Med.	
25	2862	1	Capscrew, 3/8" - 24 NF x 1/2"	
	911115	1	Plain Washer, 3/8" SAE	
	904206	1	Lockwasher, 3/8" ASA Med.	
26	10494	1	Tube Assy. (Inside Flywheel Housing)	
	10443	1	Adapter, 9/16" - 18 NF x 1/2" NPT	
	6838	1	90° Elbow, 1/4" NPT, 3/8" Tube	
27		1	Suction Line Assy., Filter (Includes 1--10150, 1--8304, 2--10151 and 2--10411)	Used prior TL-10 #760
	10150	1	90° Elbow (Special)	
	8304	1	Adapter, 1/2" NPT	
	10151	1	Hose, 3/4" I.D. x 4-1/8" Long	
28		1	Suction Line Assy., Filter (Includes 1--13479, 1--8304, 1--13480 and 2--10411)	Eff. TL-10 #760
	13479	1	90° Elbow (Special)	
	8304	1	Adapter, 1/2" NPT	
	13480	1	Hose, 3/4" I.D. x 9-11/16"	
29	10411	6	Hose Clamp	
30	901723	1	90° Elbow, Street, 3/8" Std. M.I.	
31	1392	2	Pipe, 3/8" x 1-1/2" (Threaded one end)	
32	10442	1	Hose, 3/4" I.D. x 2-5/8" Long	
33		1	Oil Filler Line Assy. (Includes 1--901725 and Items #34 thru #38)	
	901725	1	90° Elbow, Street, 3/4" Std. M.I.	
34	913230	1	Pipe, 3/4" x 1-1/2" (Threaded one end)	(Continued)
35	10438	1	Hose, 1" I.D. x 12-3/8" Long	

CONVERTER RADIATOR AND COOLING SYSTEM - USED TL-10 #409 thru #970 - CONTINUED

(See Plate 336)

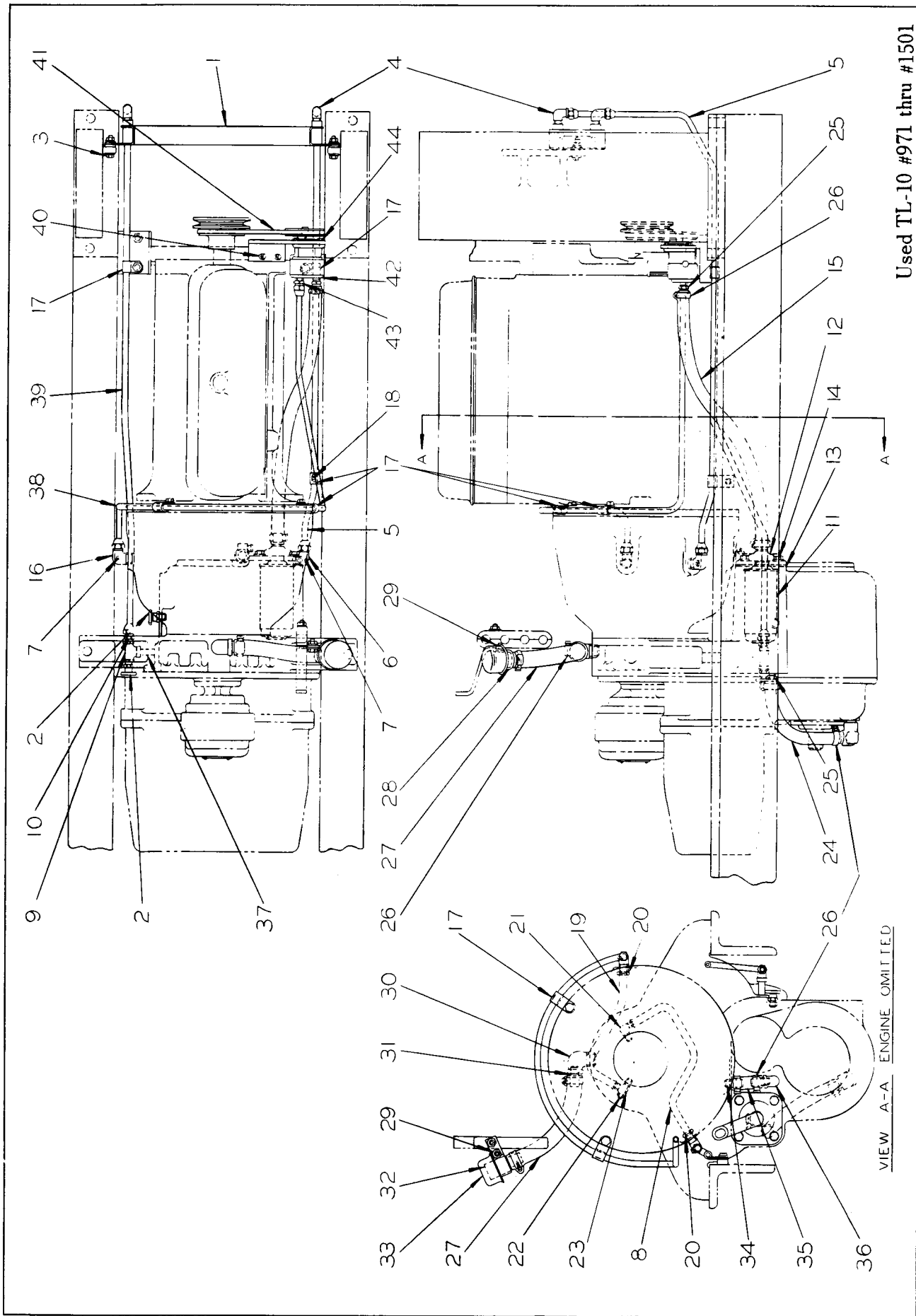
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CONVERTER RADIATOR AND COOLING SYSTEM – USED TL-10 #971 THRU #1501

(See Plate 535)

ITEM	PART NUMBER	QTY.	PART NAME
1	17793	1	Oil Cooler, Radiator
2	6810	2	Drain Cock
3	1377	2	Capscrew, 3/8" – 24 NF x 1-3/4"
	900817	4	Plain Washer, 3/8" USS
	7008	2	Rubber Washer
	7009	2	Locknut
	12226	2	Rubber Strip
4	6837	2	90° Elbow (Special)
5	12225	1	Tube Assy. (Oil Cooler to Converter)
6	10434	1	90° Elbow (Special)
7	910231	2	Pipe Plug, 1/8" Ctsk., 3/16" Hex
8	10496	1	Tube Assy. (Inside Flywheel Housing)
9	901704	1	Tee
10	6736	1	Adapter, 3/4" – 16 NF x 3/8" NPT
11	10096	1	Filter
12	10093	1	Filter Cover
13	10094	1	Gasket
14	1110	4	Capscrew, 1/2" – 13 NC x 1-1/4"
	904208	4	Lockwasher, 1/2" ASA Med.
15	10441	1	Hose, 3/4" I.D. x 24-5/8" Long
16	10435	1	90° Elbow
17	6816	5	Clip (Two each, fasteners furnished w/Torque Converter and Frame Group)
18	2862	1	Capscrew, 3/8" – 24 NF x 1/2"
	911115	1	Plain Washer, 3/8" SAE
	904206	1	Lockwasher, 3/8" ASA Med.
19	10494	1	Tube Assy.
20	10443	2	Adapter, 9/16" – 18 NF x 1/2" NPT
21	15139	1	90° Elbow (Inside Flywheel Housing)
22	901652	1	Pipe Plug, 1/4" Steel, 3/8" Sq. Hd.
23	14237	1	Tee
24	----	1	Suction Line Assy., Filter (Includes 1-- 13480, 1-- 13479, 1-- 8304 & 2-- 10411)
	13480	1	Hose, 3/4" I.D. x 9-11/16" Long
	13479	1	90° Elbow

(Continued)



Used TL-10 #971 thru #1501

PLATE 535 - CONVERTER RADIATOR AND COOLING SYSTEM

CONVERTER RADIATOR AND COOLING SYSTEM – USED TL-10 #971 THRU #1501 – CONTINUED

(See Plate 535)

ITEM	PART NUMBER	QTY.	PART NAME	
25	8304	2	Adapter, 1/2" NPT	
26	10411	8	Hose Clamp	
27	-----	1	Oil Filler Line Assy., (Includes 1-- 10438, two Item #26 and Items #28 thru #33)	
	10438	1	Hose, 1" I.D. x 12-3/8" Long	
28	10437	1	Clamp	
	1230	1	Capscrew, 3/8" – 24 NF x 3/4"	
29	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" – 24 NF	
30	901725	1	90° Elbow, St., 3/4" M.I.	
31	913230	1	Pipe, 3/4" x 1-1/2" (Threaded one end)	
32	10436	1	Filler Neck	
33	7775	1	Breather	
34	1392	2	Pipe, 3/8" x 1-1/2" (Threaded one end)	
35	10442	1	Hose, 3/4" I.D. x 2-5/8" Long	
36	901723	1	90° Elbow, St., 3/8" Std. M.I.	
37	901491	1	Nipple, 3/8" NPT x 2"	
38	15160	1	Tube Assy. (Pump to Torque Converter)	
39	12223	1	Tube Assy. (Oil Cooler to Tee)	
40	1108	2	Capscrew, 3/8" – 24 NF x 1-1/2"	Also see Plate 534
	904206	2	Lockwasher, 3/8" ASA Med.	
	911115	2	Plain Washer, 3/8" SAE	
	911041	2	Hex Nut, 3/8" – 24 NF	
41	9529	1	"V" Belt	
42	14290	1	Pump Assy.	
	15159	1	Pump Bracket Weld Assy.	
43	14291	1	Adapter, 1/2" NPT	
44	7381	4	Capscrew, 3/8" – 24 NF x 1"	
	13078	1	Lockwire, #16 W and M Ga. x 12" Long	

Used prior TL-10 #971 as Special Equipment

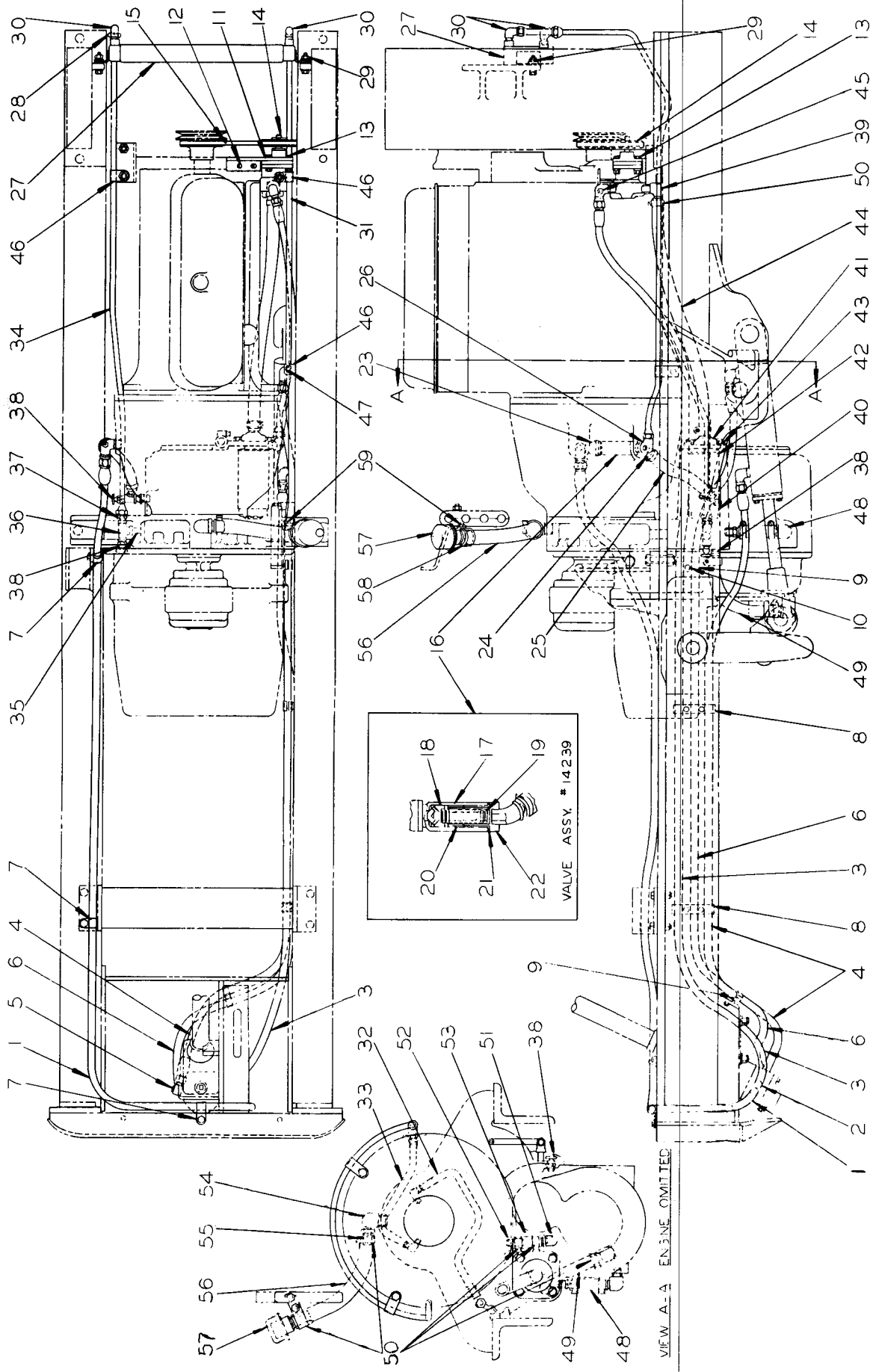


PLATE 683 - CONVERTER COOLING AND POWER STEERING LINES

CONVERTER COOLING AND POWER STEERING LINES - USED PRIOR TL-10 #971
(AS SPECIAL EQUIPMENT)

(See Plate 683)

ITEM	PART NUMBER	QTY.	PART NAME
1	11082	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-90	1	Hose (Bare Length) See Note - Page 124
	10211	2	Swivel Nut Sub-Assy.
2	10894	2	Adapter
	3975	2	Seal Ring
3	10213	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-93	1	Hose (Bare Length) See Note - Page 124
	10211	2	Swivel Nut Sub-Assy.
4	11080	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-59 $\frac{1}{4}$	1	Hose (Bare Length) See Note - Page 124
	10211	2	Swivel Nut Sub-Assy.
5	10896	2	90° Elbow
	10297	4	Seal Ring
6	11078	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-69 $\frac{1}{4}$	1	Hose (Bare Length) See Note - Page 124
	10211	2	Swivel Nut Sub-Assy.
7	12460	3	Clamp (For Fasteners, see Item #34, Page 210)
	2048	1	Capscrew, 3/8" - 24 NF x 1-1/4"
	904206	1	Lockwasher, 3/8" ASA Med. (Used with Rear Clamp only)
	911115	1	Plain Washer, 3/8" SAE
	911041	1	Hex Nut, 3/8" - 24 NF
8	1965	4	Clip
	1089	4	Capscrew, 3/8" - 24 NF x 2"
	7009	4	Locknut, 3/8" - 24 NF
9	8932	4	Clamp
	1377	1	Capscrew, 3/8" - 24 NF x 1-3/4"
	11084	5	Plain Washer, (Special)
	7009	1	Locknut, 3/8" - 24 NF
10	1243	1	Capscrew, 3/8" - 24 NF x 1"
	7009	1	Locknut, 3/8" - 24 NF
11	11018	1	Pump Assy.
	9519	1	Bracket Also see Plate 449, Page 271

(Continued)

**CONVERTER COOLING AND POWER STEERING LINES – USED PRIOR TL-10 #971
(AS SPECIAL EQUIPMENT) – CONTINUED**

(See Plate 683)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
12	1108	2	Capscrew, 3/8" – 24 NF x 1-1/2"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911115	2	Plain Washer, 3/8" SAE	
	911041	2	Hex Nut, 3/8" – 24 NF	
13	3480	4	Capscrew, 5/16" – 24 NF x 1-1/2"	Also see Plate 449, page 271
	904205	4	Lockwasher, 5/16" ASA Med.	
	913636	4	Hex Nut, 5/16" – 24 NF	
14	9524	1	Pulley Assy. (Includes 1--905564)	
	905564	1	Set Screw, 5/16" – 18 NC x 3/8"	
15	12990	1	"V" Belt	
16	----	1	Safety Valve Line Assy. (Includes 1--14239, Items #23 & #24 and 1--14245)	
	14239	1	Valve Assy. (Includes Items #17 thru #22)	
17	1830	1	Body	
18	1831	1	Plunger	
19	14232	1	Spring	
20	12263	1	Spacer Tube	
21	1833	1	Washer	
22	1832	1	Cap	
23	14238	1	Fitting, 3 Way	
	901651	1	Pipe Plug, 1/8" Steel, 9/32" Sq. Hd.	
24	910149	1	45° Elbow, Street, 3/8"	
25	14245	1	Hose, 5/8" I.D. x 8-1/4"	
	10411	2	Hose Clamp	
26	10434	3	90° Elbow (Special)	
	910231	3	Pipe Plug, 1/8" Ctsk., 3/16" Hex	
27	6705	1	Oil Cooler (Radiator)	Used prior TL-10 #621
	17793	1	Oil Cooler (Radiator)	Eff. TL-10 #621
28	912415	1	Drain Cock	Used prior TL-10 #621
29	1377	4	Capscrew, 3/8" – 24 NF x 1-3/4"	Used prior TL-10 #621
	900817	8	Plain Washer, 3/8" USS	
	7008	8	Rubber Washer	
	7009	4	Locknut	
				(Continued)

CONVERTER COOLING AND POWER STEERING LINES – USED PRIOR TL-10 #971
(AS SPECIAL EQUIPMENT) – CONTINUED

(See Plate 683)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
29	1377	2	Capscrew, 3/8" – 24 NF x 1-3/4"	Eff. TL-10 #621
	900817	4	Plain Washer, 3/8" USS	
	7008	2	Rubber Washer,	
	7009	2	Locknut	
	12226	2	Rubber Strip	
30	6837	2	90° Elbow	
31	10447	1	Tube Assy.	Used TL-10 #409 thru #620
	12225	1	Tube Assy.	Eff. TL-10 #621
32	10496	1	Tube Assy.	
	10443	1	Adapter, 9/16" – 18 NF x 1/2" NPT (Inside Flywheel Hsg.)	
	6838	1	90° Elbow, 1/4" NPT, 3/8" Tube	
33	10494	1	Tube Assy.	
	10443	1	Adapter, 9/16" – 18 NF x 1/2" NPT (Inside Flywheel Hsg.)	
	6838	1	90° Elbow, 1/4" NPT, 3/8" Tube	
34	7857	1	Tube Assy.	Used TL-10 #47 thru #620
	12223	1	Tube Assy.	Eff. TL-10 #621
35	901491	1	Nipple, 3/8" NPT x 2"	
36	901704	1	Tee, 3/8" x 3/8" x 3/8" M.I.	
37	6736	1	Adapter, 3/4" – 16 NF x 3/8" NPT	
38	6810	2	Drain Cock	
39	10150	1	90° Elbow (Special)	
40	10096	1	Filter, Oil	
41	10093	1	Cover, Filter	
42	10094	1	Gasket	
43	1110	4	Capscrew, 1/2" – 13 NC x 1-1/4"	
	904208	4	Lockwasher, 1/2" ASA Med.	
44	10441	1	Hose, 3/4" I.D. x 24-5/8"	
45	9526	1	90° Elbow	
46	6816	3	Clip (See Frame Group for two Fasteners)	
47	2862	1	Capscrew, 3/8" – 24 NF x 1/2"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911115	1	Plain Washer, 3/8" SAE	

(Continued)

**CONVERTER COOLING AND POWER STEERING LINES – USED PRIOR TL - 10 #971
(AS SPECIAL EQUIPMENT) – CONTINUED**

(See Plate 683)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
48		1	Suction Line Assy., Filter (Includes 1-- 10150, 1-- 8304, 2-- 10151 and 2-- 10411)	Used prior TL-10 #760
	10150	1	90° Elbow (Special)	
	8304	1	Adapter, 1/2" NPT	
	10151	1	Hose, 3/4" I.D. x 4-1/8" Long	
49		1	Suction Line Assy., Filter (Includes 1-- 13479, 1-- 8304, 1-- 13480 and 2-- 10411)	Eff. TL-10 #760
	13479	1	90° Elbow (Special)	
	8304	1	Adapter, 1/2" NPT	
	13480	1	Hose, 3/4" I.D. x 9-11/16"	
50	10411	6	Hose Clamp	
51	901723	1	90° Elbow, Street, 3/8" Std. M.I.	
52	1392	2	Pipe, 3/8" x 1-1/2" (Threaded one end)	
53	10442	1	Hose, 3/4" I.D. x 2-5/8"	
54		1	Oil Filler Line Assy. (Includes 1-- 901725)	
	901725	1	90° Elbow, Street, 3/4" Std. M.I.	
55	913230	1	Pipe, 3/4" x 1-1/2" (Threaded one end)	
56	10438	1	Hose, 1" I.D. x 12-3/8"	
57	10436	1	Filler Neck	
	7775	1	Breather	
58	10437	1	Clamp (Top)	
59	1230	1	Capscrew, 3/8" – 24 NF x 3/4"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" – 24 NF	
60	4230	–	Hose, 1/2" x 25 Foot Roll (For Service Stock)	
			NOTE: The factory will furnish 25 foot rolls of hose only. Dealer will furnish hose cut to proper length or in 25 foot rolls.	

CONVERTER COOLING AND POWER STEERING LINES - EFF. TL-10 #1502 & UP
(Used on TL-10 #971 thru #1501 as Special Equipment)
(See Plate 579)

ITEM	PART NUMBER	QTY.	PART NAME
1	11082	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-90	1	Hose (Bare Length) See Note - Page 129
	10211	2	Swivel Nut Sub-Assy. (JIC)
2	10894	2	Adapter, 5/8" - 18 NF x 3/4" - 16 Tube Thread
	3975	2	Seal Ring
3	10213	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-93	1	Hose (Bare Length) See Note - Page 129
	10211	2	Swivel Nut Sub-Assy. (JIC)
4	11080	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-59 1/4	1	Hose (Bare Length) See Note - Page 129
	10211	2	Swivel Nut Sub-Assy. (JIC)
5	10896	2	90° Elbow, 3/4" - 16 Tube Thread (Steel)
	10297	4	Seal Ring
6	11078	1	Hose Assy. (Includes one Hose and 2-- 10211)
	4230-69 1/4	1	Hose (Bare Length) See Note - Page 129
	10211	2	Swivel Nut Sub-Assy. (JIC)
7	12460	3	Clamp (For Fasteners, see Item #34, page 210)
	1249	1	Capscrew, 1/2" - 20 NF x 1-1/4"
	910244	1	Plain Washer, 1/2" SAE
	904208	1	Lockwasher, 1/2" ASA Med.
	911043	1	Hex Nut, 1/2" - 20 NF
8	1965	4	Clip (Half)
	1376	4	Capscrew, 3/8" - 24 NF x 2-1/4"
	7009	4	Locknut, 3/8" - 24 NF
9	8932	4	Clamp (Half)
	11084	5	Plain Washer (Special)
	1377	1	Capscrew, 3/8" - 24 NF x 1-3/4"
	7009	1	Locknut, 3/8" - 24 NF
10	1243	1	Capscrew, 3/8" - 24 NF x 1"
	7009	1	Locknut, 3/8" - 24 NF
11	14738	1	Pump Assy. (See Plate 500 - page 273
	15159	1	Bracket
(Continued)			

Eff. TL-10 #1502 & Up
(Used on TL-10 #971 thru #1501 as Special Equipment)

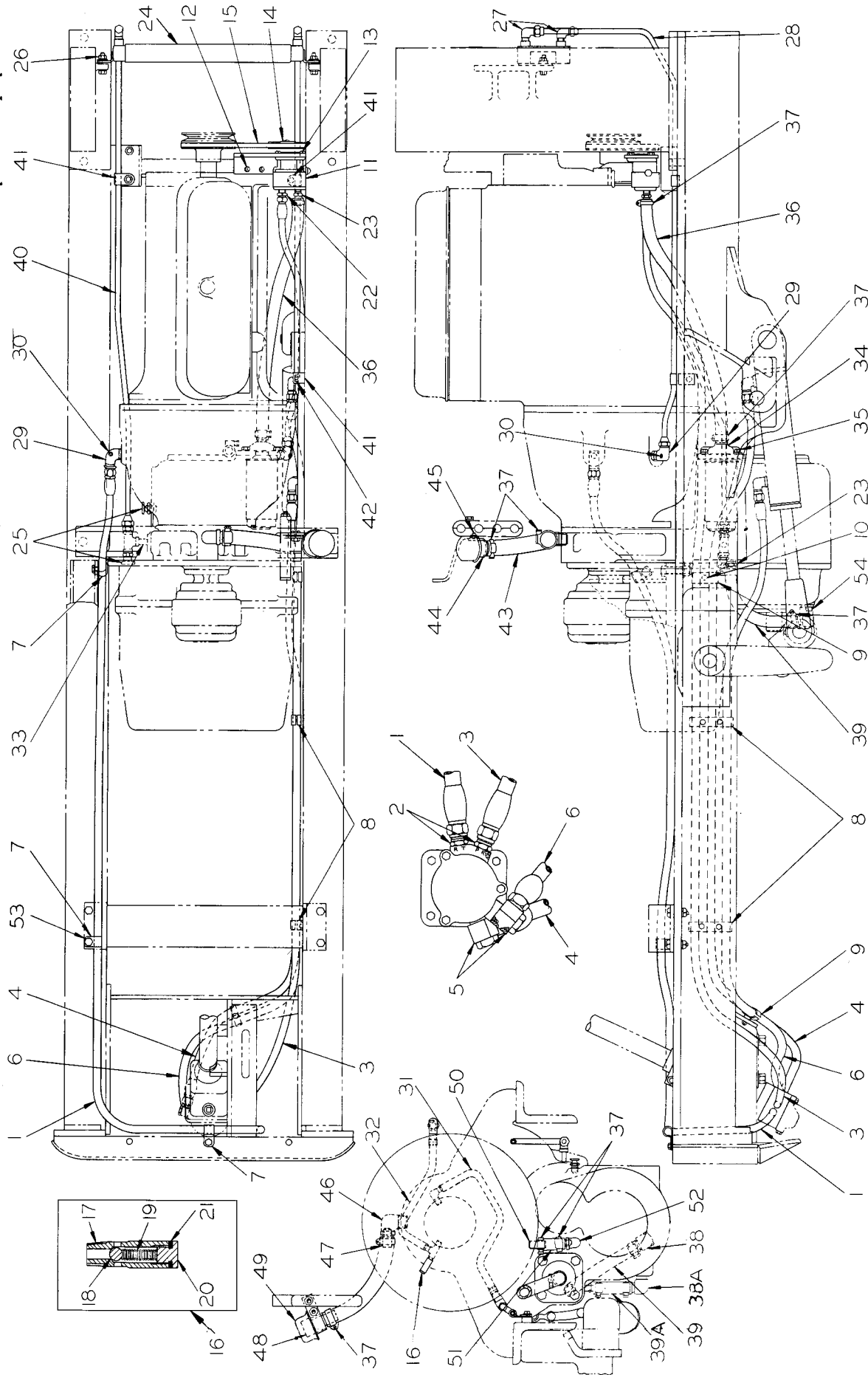


PLATE 579 - CONVERTER COOLING AND POWER STEERING LINES

CONVERTER COOLING AND POWER STEERING LINES - EFF. TL-10 #1502 & UP

(Used on TL-10 #971 thru #1501 as Special Equipment)

(See Plate 579)

ITEM	PART NUMBER	QTY.	PART NAME
12	1108	2	Capscrew, 3/8" - 24 NF x 1-1/2"
	911115	2	Plain Washer, 3/8" SAE
	904206	2	Lockwasher, 3/8" ASA Med.
	911041	2	Hex Nut, 3/8" - 24 NF
13	7381	4	Capscrew, 3/8" - 24 NF x 1"
	13078	1	Lockwire, #16 W and M Ga. x 12" Long
14	9524	1	Pulley Assy. (Includes 1--905564)
	905564	1	Set Screw, 5/16" - 18 NC x 3/8"
15	12990	1	"V" Belt
16	14277	1	Safety Valve Assy. (Includes Items #17 thru #21)
17	14272	1	Valve Seat
18	915679	1	Ball, 5/16" Dia.
19	14274	1	Spring
20	14275	1	Cap
21	14276	2	Washer
22	14291	1	Adapter, 3/4" - 16 NF x 1/2" NPT
23	8304	2	Adapter, 1/2" - 14 NPT
24	17793	1	Oil Cooler (Radiator)
25	6810	2	Drain Cock
26	1377	2	Capscrew, 3/8" - 24 NF x 1-3/4"
	900817	4	Plain Washer, 3/8" USS
	7008	2	Rubber Washer
	7009	2	Locknut, 3/8" - 24 NF
	12226	2	Rubber Strip
27	6837	2	90° Elbow, 3/4" - 16 NF x 3/8" NPT
28	12225	1	Tube Assy.
29	10434	2	90° Elbow (Special)
30	910231	2	Pipe Plug, 1/8", Ctsk., 3/16" Hex
31	10496	1	Tube Assy.
	10443	1	Adapter, 9/16" - 18 NF x 1/2" NPT Inside Flywheel Housing
	15139	1	90° Elbow, 9/16" - 18 NF x 1/4" NPT

(Continued)

CONVERTER COOLING AND POWER STEERING LINES - EFF. TL-10 #1502 & UP
(Used on TL-10 #971 thru #1501 as Special Equipment)
(See Plate 579)

ITEM	PART NUMBER	QTY.	PART NAME
32	10494	1	Tube Assy.
	10443	1	Adapter, 9/16" - 18 NF x 1/2" NPT
	14237	1	Tee
			Inside Flywheel Housing
33	901704	1	Tee, 3/8" x 3/8" NPT
	901491	1	Nipple, 3/8" NPT x 2"
	6736	1	Adapter, 3/4" - 16 NF x 3/8" NPT
34	10096	1	Oil Filter
	10094	1	Gasket
	10093	1	Cover
35	1110	4	Capscrew, 1/2" - 13 NC x 1-1/4"
	904208	4	Lockwasher, 1/2" ASA Med.
36	10441	1	Hose, 3/4" I.D. x 24-5/8" Long
37	10411	8	Hose Clamp
-	- - - -	1	Suction Line Assy., Filter (Includes one Item #23, 2- 10411 and Items #38 & #39)
38	13479	1	90o Elbow (Special) (Used Prior To TL-10 #1812)
38A	10150	1	90o Elbow (Effective With TL-10 #1812)
39	13480	1	Hose, 3/4" I.D. x 9-11/16" Long (Used Prior To TL-10 #1812)
39A	10151	1	Hose 3/4" I.D. x 4-1/8" Long (Effective with TL-10 #1812)
40	12223	1	Tube Assy.
41	6816	3	Clip
42	2862	1	Capscrew, 3/8" - 24 NF x 1/2"
	911115	1	Plain Washer, 3/8" SAE
	904206	1	Lockwasher, 3/8" ASA Med.
43	- - - -	1	Oil Filler Line Assy. (Includes 1-- 10438, two Item #37 and #44 thru #49)
	10438	1	Hose, 1" I.D. x 12-3/8" Long
44	10437	1	Clamp
44	1230	1	Capscrew, 3/8" - 24 NF x 3/4"
	904206	1	Lockwasher, 3/8" ASA Med.
	911041	1	Hex Nut, 3/8" - 24 NF

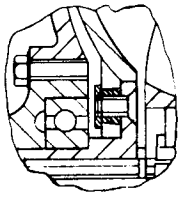
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CONVERTER COOLING AND POWER STEERING LINES - EFF. TL-10 #1502 & UP

(Used on TL-10 #971 thru #1501 as Special Equipment)

(See Plate 579)

ITEM	PART NUMBER	QTY.	PART NAME
46	901725	1	90° Elbow, St., 3/4" M.I.
47	913230	1	Pipe, 3/4" x 1-1/2" (Threaded one end)
48	10436	1	Filler Neck
49	7775	1	Filler and Breather
50	1392	2	Pipe, 3/8" x 1-1/2" (Threaded one end)
51	10442	1	Hose, 3/4" I.D. x 2-5/8" Long
52	901723	1	90° Elbow, St., 3/8" Std. M.I.
53	1239	1	Capscrew, 1/2" - 20 NF x 1-1/2"
	904208	1	Lockwasher, 1/2" ASA Med.
	911043	1	Hex Nut, 1/2" - 20 NF
	4230	-	Hose, 1/2" x 25 Foot Roll (For service stock)
<p>NOTE: The factory will furnish 25 foot rolls of hose only. Dealer will furnish hose cut to proper length or in 25 foot rolls.</p>			



(CAPSCREW)
USED ON TORQUE
CONVERTER #10000
THRU #10610

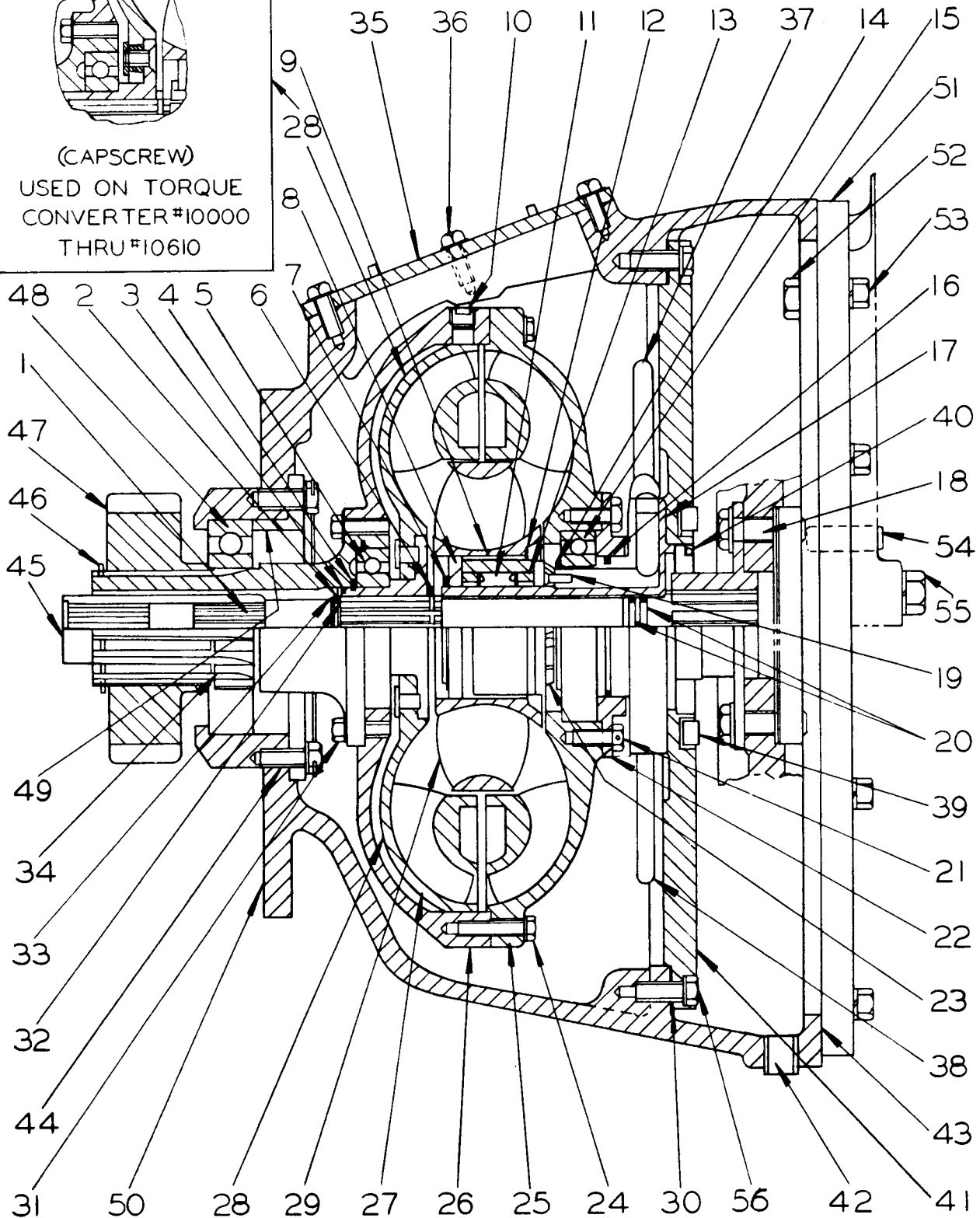


PLATE 448 - TORQUE CONVERTER AND FLYWHEEL HOUSING

Used TL-10 #904 and Prior #902

TORQUE CONVERTER AND FLYWHEEL HOUSING - USED TL-10 #904
AND PRIOR #902
(See Plate 448)

ITEM	PART NUMBER	QTY.	PART NAME
-	----	1	Torque Converter Assy. (For service order 15129 & one each 15139, 14237, & 901652 for initial installation.)
1	7696	1	Shaft, Input
	7697	-	Spacer, .093" thick
2	16174	-	Spacer, .083" thick (Use as required)
	16175	-	Spacer, .073" thick
3	7698	1	Oil Seal
4	7682	1	Snap Ring
5	7699	1	Ball Bearing Assy. (Includes Snap Ring) (Serviced as assembly only)
6	7681	1	Snap Ring
7	7683	1	Snap Ring
8	7701	1	Washer, Thrust
9	7702	1	Outer Race
10	907070	2	Pipe Plug, 1/4" Steel, Ctsk., 1/4" Sq.
11	7703	1	Sprag Assy.
12	7685	1	Snap Ring
13	11277	2	Bearing, Free Wheel (For initial installation, order also 11276)
	11276	2	Spacer, Free Wheel
14	7684	1	Snap Ring
15	7705	1	Ball Bearing
16	7706	1	Seal
17	7707	1	Sleeve, Reaction
	7708	1	Shaft Flange
18	7795	4	Capscrew, 1/2" - 20 NF x 1-1/2"
	904208	4	Lockwasher, 1/2" ASA Med.
19	7709	1	Dowel Pin
20	7710	2	Seal
	7711	6	Capscrew, 5/16" - 18 NC x 3/4"
21	1085	1	Lockwire, #16 W and M Ga. x 17" Long
22	7712	1	Turbine Hub
23	7713	1	Washer, Thrust
24	4884	24	Capscrew, 5/16" - 18 NC x 1-1/4"
	904205	24	Lockwasher, 5/16" ASA Med.

(Continued)

TORQUE CONVERTER AND FLYWHEEL HOUSING – CONTINUED

USED TL-10 #904 AND PRIOR #902

(See Plate 448)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
25	7714	1	Converter Turbine	Used prior Torque Converter #10000 and on Torque Converter #10611 and up
26	7715	1	Converter Turbine Cover	
27	10184	1	Converter Pump Assy. (Includes Pump, Hub and Rivets) (Serviced as assembly only)	
28	----	1	Converter Pump Assy. (Includes 1-- 11271, 1-- 7718, and Item #28) (Not serviced separately - order 10184)	Used on Torque Converter #10000 thru #10610 only
	----	1	Converter Pump (Not serviced separately - order 10184)	
	----	1	Pump Hub	
	11273	8	Capscrew, 5/16" – 24 NF x 5/8" Flat Head Socket	
	913707	8	Lockwasher, 5/16" Ctsk. (Used with 11275 only)	
	11272	8	Spline Nut	
29	7717	1	Reaction Member	
30	7768	1	Gasket	
31	2964	8	Capscrew, 3/8" – 16 NC x 7/8"	
	904206	8	Lockwasher, 3/8" ASA Med.	
32	7719	1	Seal Ring	
33	7680	1	Snap Ring	
34	7720	1	Shaft, Output	
35	7385	1	Inspection Cover	Used prior TL-10 #409
	7386	1	Gasket	
	12048	1	Inspection Cover	Eff. TL-10 #409
	10473	1	Gasket	
36	2422	4	Capscrew, 1/4" – 20 NC x 1/2"	Used prior TL-10 #409
	906958	4	Lockwasher, 1/4" Internal Tooth	
	6301	8	Capscrew, 5/16" – 18 NC x 3/4"	Eff. TL-10 #409
	904205	8	Lockwasher, 5/16" ASA Med.	
37	7770	1	Tube Assy. (Inside Flywheel Hsg.)	Used prior TL-10 #409
	7769	1	Bulkhead Union	
	10494	1	Tube Assy. (Inside Flywheel Hsg.)	Eff TL-10 #409
	10443	1	Adapter, 9/16" – 18 NF x 1/2" NPT	
	6838	1	90° Elbow, 1/4" NPT, 3/8" Tube	
				(Continued)

TORQUE CONVERTER AND FLYWHEEL HOUSING – CONTINUED
USED TL - 10 #904 AND PRIOR #902
(See Plate 448)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
38	7771	1	Tube Assy.	Used prior TL-10 #409
	7769	1	Bulkhead Union (Inside Flywheel Hsg.) See Converter	
	10496	1	Tube Assy. Radiator and	Eff. TL-10 #409
	10443	1	Adapter, 9/16" - 18 NF x 1/2" NPT Cooling System	
39	7763	6	Capscrew, 3/8" – 24 NF x 1", Socket Head	
	904206	6	Lockwasher, 3/8" ASA Med.	
40	7723	1	Oil Seal	
41	7725	1	Cover	
42	904223	1	Pipe Plug, 1/2" Steel, Ctsk., 3/8" Sq.	
43	7772	1	Housing, Flywheel	Used prior TL-10 #409
	904260	1	Pipe Plug, 3/8" Steel, Ctsk., 3/16" Sq.	
	10444	1	Housing, Flywheel	Eff. TL-10 #409
44	12268	6	Capscrew, 3/8" – 16 NC x 3/4", Drilled Head	
	1124	1	Lockwire, #16 W and M Ga. x 24" Long	
45	7722	1	Sleeve	
46	7764	1	Snap Ring	
47	7724	1	Gear (27 Teeth)	
48	7721	1	Ball Bearing	
49	7726	1	Bearing Cover	
50	7564	1	Gasket	
51	4804	1	Adapter Plate	
52	1114	2	Capscrew, 1/2" – 13 NC x 1-1/2"	
	904208	2	Lockwasher, 1/2" ASA Med.	
53	2084	8	Capscrew, 3/8" – 16 NC x 1-1/4"	
	904206	8	Lockwasher, 3/8" ASA Med.	
54	8078	2	Dowel Pin For service, order 11380	
55	6109	2	Capscrew, 1/2" – 13 NC x 1-3/4"	
	904208	2	Lockwasher, 1/2" ASA Med.	
56	1107	8	Capscrew, 3/8" – 16 NC x 1"	
	904206	8	Lockwasher, 3/8" ASA Med.	

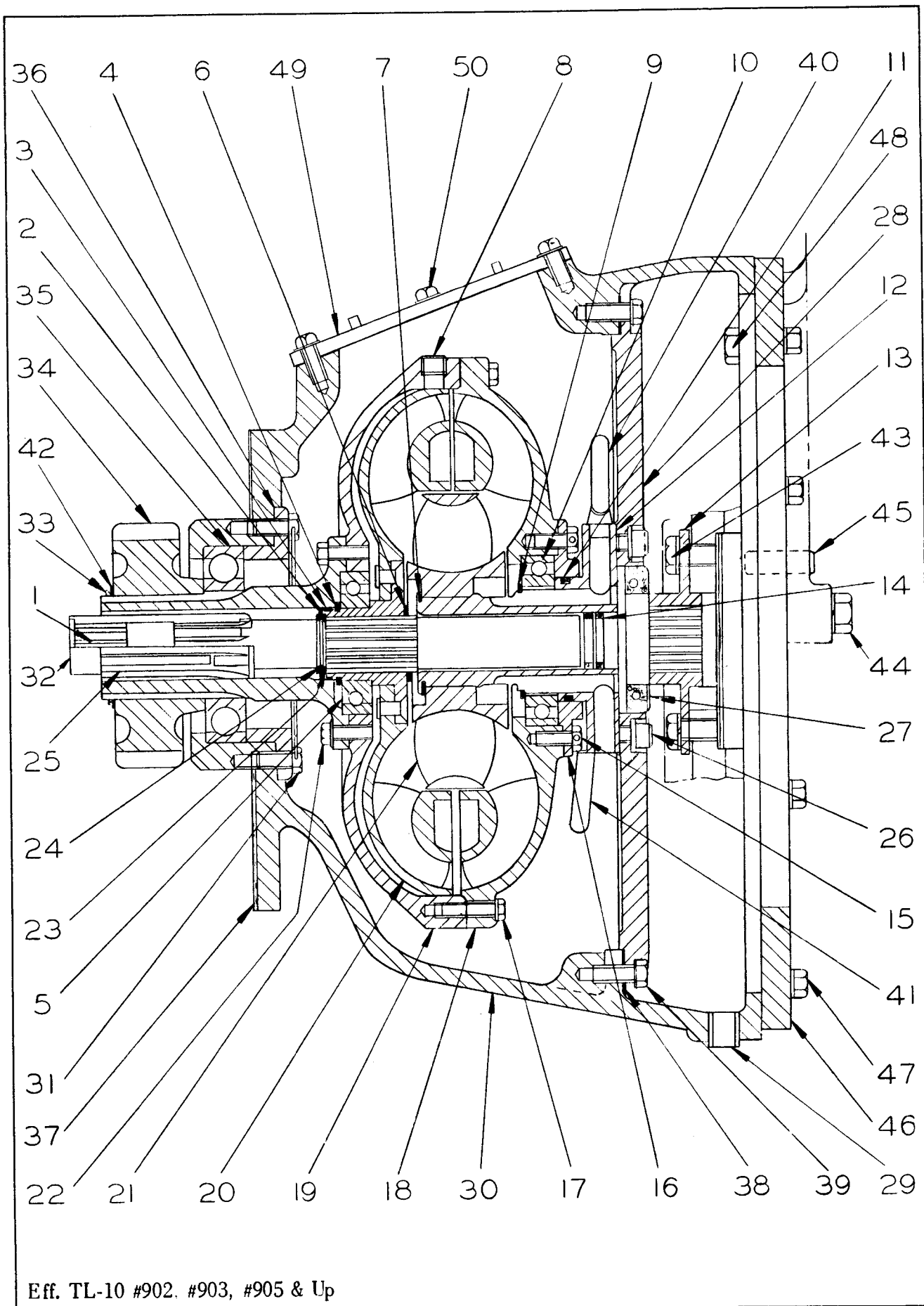


PLATE 493 - TORQUE CONVERTER AND FLYWHEEL HOUSING

TORQUE CONVERTER AND FLYWHEEL HOUSING – Effective TL-10 #902, #903, #905 & Up

(See Plate 493)

ITEM	PART NUMBER	QTY.	PART NAME
–	15129	1	Torque Converter Assy. (Includes Items #1 thru #12, #14 thru #25)
1	7696	1	Input Shaft
2	16175	–	Spacer, .073" thick
	16174	–	Spacer, .083" thick (Use as required)
	7697	–	Spacer, .093" thick
3	7698	1	Oil Seal
4	7682	1	Snap Ring
5	7699	1	Ball Bearing Assy. (Includes Snap Ring) (Serviced as assembly only)
6	7681	1	Snap Ring
7	11954	1	Snap Ring
8	907070	2	Pipe Plug, 1/4", Steel, Ctsk., 1/4" Sq.
9	7684	1	Snap Ring
10	7705	1	Ball Bearing
11	7706	1	Oil Seal
12	15134	1	Reaction Sleeve
13	7708	1	Shaft Flange
14	7710	2	Oil Seal
15	7711	6	Capscrew, 5/16" – 18 NC x 3/4", Dr. Hd.
	1085	1	Lockwire, #16 W and M Ga. x 17" Long
16	7712	1	Turbine Hub
17	4884	24	Capscrew, 5/16" – 18 NC x 1-1/4"
	904205	24	Lockwasher, 5/16" ASA Med.
18	7714	1	Converter Turbine
19	7715	1	Converter Turbine Cover
20	10184	1	Converter Pump Assy. (Includes Pump, Hub and Rivets) (Serviced as assembly only)
21	15133	1	Reaction Member
22	2864	8	Capscrew, 3/8" – 16 NC x 7/8"
	904206	8	Lockwasher, 3/8" ASA Med.
23	7719	1	Seal Ring
24	7680	1	Snap Ring
25	7720	1	Output Shaft
26	7763	6	Capscrew, 3/8" – 24 NF x 1" Skt. Hd.

(Continued)

TORQUE CONVERTER AND FLYWHEEL HOUSING – CONTINUED

Effective TL-10 #902, #903, #905 and Up

(See Plate 493)

ITEM	PART NUMBER	QTY.	PART NAME
26	904206	6	Lockwasher, 3/8" ASA Med.
27	7723	1	Oil Seal
28	7725	1	Cover
29	904223	1	Pipe Plug, 1/2" Steel, Ctsk., 3/8" Sq.
30	10444	1	Flywheel Housing
31	12268	6	Capscrew, 3/8" – 16 NC x 3/4"
	1124	1	Lockwire, #16 W and M Ga. x 24" Long
32	7722	1	Sleeve
33	7764	1	Snap Ring
34	7724	1	Gear (27 Teeth)
35	7721	1	Ball Bearing
36	7726	1	Bearing Cover
37	7564	1	Gasket
38	7768	1	Gasket
39	1107	8	Capscrew, 3/8" – 16 NC x 1"
	904206	8	Lockwasher, 3/8" ASA Med.
40	10494	1	Tube Assy.
	10443	1	Adapter , 9/16" – 18 NF x 1/2" NPT
	14237	1	Tee
	901652	1	Pipe Plug, 1/4" Steel, Ctsk., 3/8" Sq.
41	10496	1	Tube Assy.
	10443	1	Adapter , 9/16" – 18 NF x 1/2" NPT
	15139	1	90° Elbow (Special)
42	15537	–	Shim (Use as required)
43	7795	4	Capscrew, 1/2" – 20 NF x 1-1/2"
	904208	4	Lockwasher, 1/2" ASA Med.
44	6109	2	Capscrew, 1/2" – 13 NC x 1-3/4"
	904208	2	Lockwasher, 1/2" ASA Med.
45	8078	2	Dowel Pin For service, order 11380
46	905263	1	Pipe Plug, 1" Steel, Ctsk., 13/16" Sq.
	4804	1	Adapter Plate
47	2084	8	Capscrew, 3/8" – 16 NC x 1-1/4"

Inside Flywheel Housing,
also see Converter Cooling
& Power Steering Lines

(Continued)

TORQUE CONVERTER AND FLYWHEEL HOUSING – CONTINUED

Effective TL-10 #902 #903, #905 and Up

(See Plate 493)

ITEM	PART NUMBER	QTY.	PART NAME
47	904206	8	Lockwasher, 3/8" ASA Med.
48	1114	2	Capscrew, 1/2" – 13 NC x 1-1/2"
	904208	2	Lockwasher, 1/2" ASA Med.
49	10472	1	Inspection Cover
	10473	1	Gasket
50	6301	8	Capscrew, 5/16" – 18 NC x 3/4"
	904205	8	Lockwasher, 5/16" ASA Med.

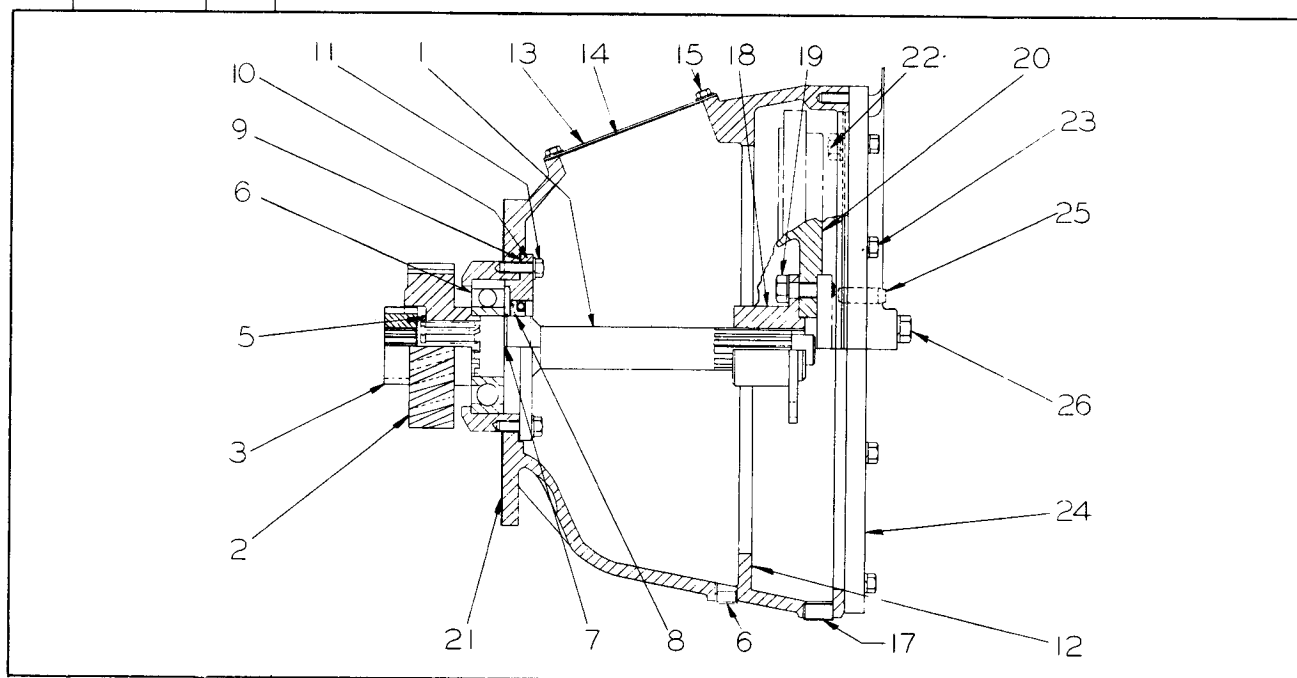


PLATE 185 – MECHANICAL DRIVE ASSEMBLY

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	7384	1	Shaft, Input	
2	8200	1	Gear, Input	Eff. TL-10 #96
	7393	1	Gear, Input	Used prior TL-10 #96
	7381	4	Capscrew, 3/8" – 24 NF x 1", Dr. Hd.	
	7380	1	Lockwire, #16 W and M Ga. x 12" Long	
3	8201	1	Drive Coupling	Eff. TL-10 #96
	7392	1	Adapter	Used prior TL-10 #96
5	7391	1	Snap Ring	
6	7389	1	Ball Bearing	
7	7390	1	Snap Ring	
8	7388	1	Oil Seal	(Continued)

MECHANICAL DRIVE ASSEMBLY – CONTINUED

(See Plate 185)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
9	7382	1	Gasket	
10	7383	1	Collar	
11	12268	6	Capscrew, 3/8" – 16 NC x 3/4" Dr. Hd.	
	1124	1	Lockwire, #16 W and M Ga. x 24" Long	
12	7394	1	Housing, Flywheel	Used prior TL-10 #96
	7772	1	Housing, Flywheel	Used TL-10 #96 thru #408 incl.
	10444	1	Housing, Flywheel	Eff. TL-10 #409
13	7385	1	Cover, Inspection	Used prior TL-10 #409
	7386	1	Gasket	
14	12048	1	Cover, Inspection	Eff. TL-10 #409
	7386	1	Gasket	
15	2422	4	Capscrew, 1/4" – 20 NC x 1/2"	Used prior TL-10 #409
	906958	4	Lockwasher, Internal Tooth	
	6301	8	Capscrew, 5/16" – 18 NC x 3/4"	Eff. TL-10 #409
	904205	8	Lockwasher, 5/16" ASA Med.	
16	904260	1	Pipe Plug, 5/16" Steel, Ctsk., 11/32" Sq. Hd.	
17	904223	1	Pipe Plug, 1/2" Steel, Ctsk., 3/8" Sq. Hd.	
18	7387	1	Coupling	
19	8072	4	Capscrew, 1/2" – 20 NF x 1-1/2", Dr. Hd. (For Flywheel)	
	1085	1	Lockwire, #16 W and M Ga. x 17" Long	
20	7420	1	Flywheel Assy. (See Crankshaft and Flywheel Group)	
21	7564	1	Gasket	
22	1114	2	Capscrew, 1/2" – 13 NC x 1-1/2"	
	904208	2	Lockwasher, 1/2" ASA Med.	
23	2084	8	Capscrew, 3/8" – 16 NC x 1-1/4"	
	904206	8	Lockwasher, 3/8" ASA Med.	
24	4804	1	Adapter Plate	
25	8078	2	Dowel Pin	
26	6109	2	Capscrew, 1/2" – 13 NC x 1-3/4"	
	904208	2	Lockwasher, 1/2" ASA Med.	

TRANSMISSION ASSEMBLY – USED PRIOR TL-10 #409

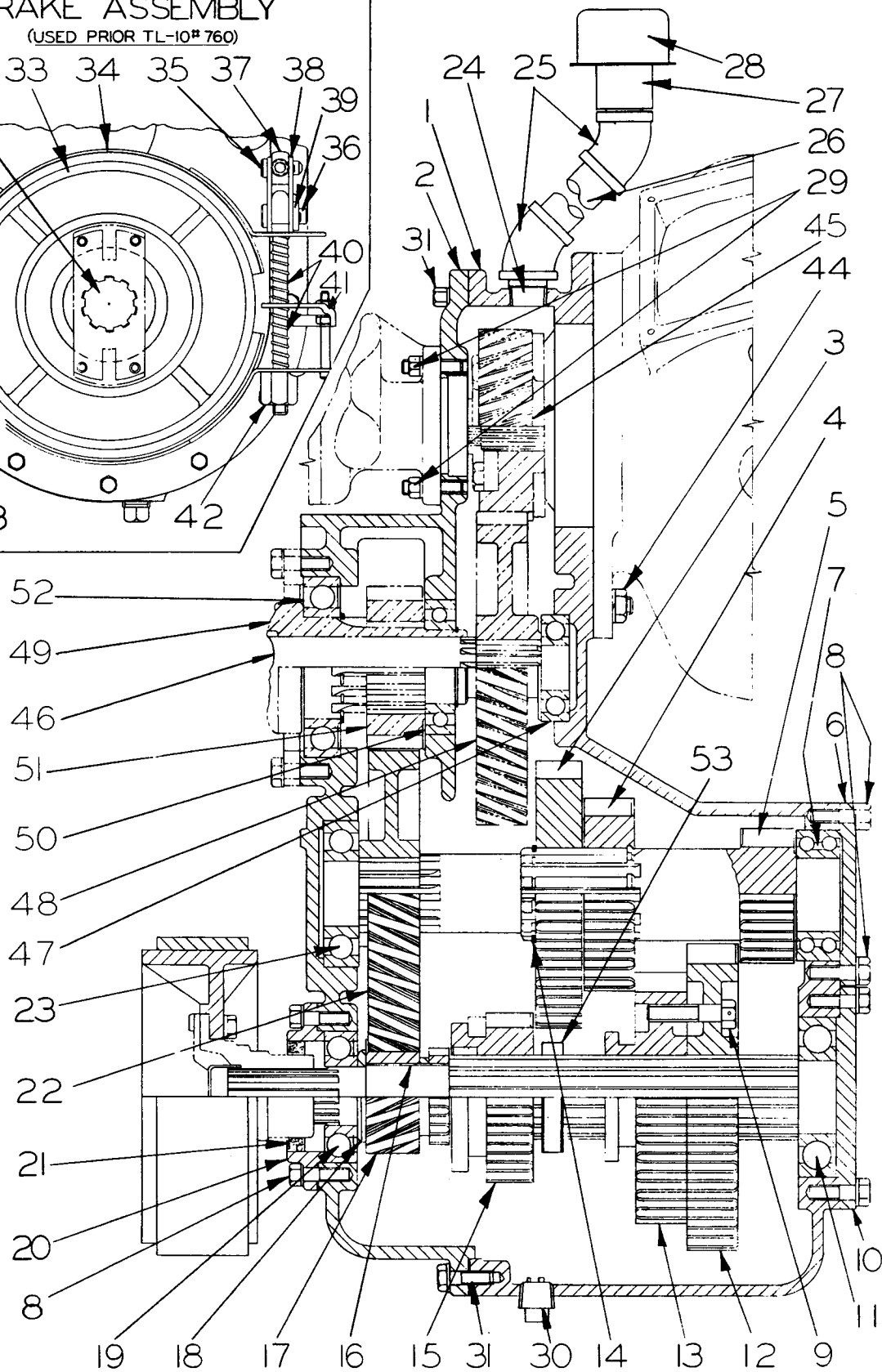
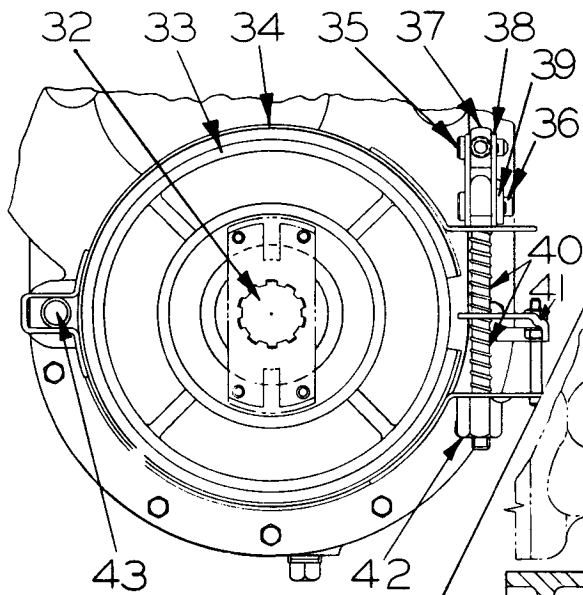
(See Plate 202)

ITEM	PART NUMBER	QTY.	PART NAME
1	12866	1	Transmission Assy. (See Item #1 - Page 143 for Includes note)
	7466	1	Transmission Housing
	7465	1	Gasket
2	7464	1	Housing Cover
3	7475	1	Gear, 34 Teeth
4	7476	1	Gear, 18 Teeth
5	7477	1	Pinion and Shaft, 12 Teeth
6	7479	1	Cover
	7478	2	Gasket
7	7480	1	Ball Bearing
8	1107	18	Capscrew, 3/8" – 16 NC x 1" Also see Forward and Reverse Clutch Group
	904206	18	Lockwasher, 3/8" ASA Med. and Transmission Control Group
9	7481	3	Capscrew, 1/2" – 20 NF x 2"
	7380	1	Lockwire, #16 W and M Ga. x 12" Long
10	7482	1	Cover
	7382	1	Gasket
11	7389	1	Ball Bearing
12	7483	1	Gear, 31 Teeth
13	7484	1	Gear, 25 Teeth
14	7485	1	Snap Ring
15	25725	1	Gear, 21 Teeth
16	7487	2	Bushing
17	10139	1	Pinion Assy. 14 Teeth (Includes 2--7487)
18	7489	1	Washer
19	7490	1	Ball Bearing
20	7491	1	Bearing Retainer
21	7492	1	Oil Seal
22	7493	1	Gear, 44 Teeth
23	7494	1	Ball Bearing
24	901511	1	Nipple, 3/4" x 1-3/8" Std. Blk. Wrought Steel
25	901694	2	45° Elbow, 3/4" Std. M.I.
26	901519	1	Nipple, 3/4" x 6" Std. Blk. Wrought Steel

(Continued)

BRAKE ASSEMBLY

(USED PRIOR TL-10# 760)



Used prior TL-10 #409

PLATE 202 - TRANSMISSION ASSEMBLY

TRANSMISSION ASSEMBLY – USED PRIOR TL-10 #409 – CONTINUED

(See Plate 202)

ITEM	PART NUMBER	QTY.	PART NAME
27	7776	1	Filler Extension
28	7775	1	Filler and Breather
29	6240	6	Stud, 3/8" – 24 NF
	904206	6	Lockwasher, 3/8" ASA Med. See Pump Group
	911041	6	Hex Nut, 3/8" – 24 NF
30	7784	1	Magnetic Pipe Plug
31	2084	22	Capscrew, 3/8" – 16 NC x 1-1/4"
	904206	22	Lockwasher, 3/8" ASA Med.
	7793	1	Dowel Pin
32	7330	1	Brake Assy. (Includes Items #34 thru #38, 1--7326, 2--7327, 1--7328, 1--905594, 1--904204, 2--910880, 1--7329, and 1--7331)
	7783	1	Shaft
33	7785	1	Brake Drum (See Drive Shaft for fasteners)
34	7282	1	Band and Lining
35	7283	1	Pin
	900970	1	Cotter Pin, 1/16" x 1/2"
36	7323	1	Pin
	904746	1	Cotter Pin, 1/16" x 5/8"
37	7324	1	Stub
38	7325	2	Cam
39	7326	1	Link
	8348	1	Stud, 3/8" – 16 NC
	900804	1	Cotter Pin, 1/8" x 1/2"
40	7327	2	Spring
41	7328	1	Bracket
	3379	2	Capscrew, 3/8" – 16 NC x 1/2" Bracket to Housing
	906960	2	Lockwasher, 3/8" Internal Tooth
	905574	1	Capscrew, 1/4" – 20 NC x 2-1/2" Bracket to Brake Band
	904204	1	Lockwasher, 1/4" ASA Med.
	910880	2	Hex Nut, 1/4" – 20 NC
42	7329	1	Adjusting Nut
	7331	1	Adjusting Rod
43	7781	1	Brake Anchor Pin

(Continued)

(See Plate 202)

142

TRANSMISSION ASSEMBLY - EFFECTIVE TL-10 #409

(See Plate 340)

ITEM	PART NUMBER	QTY.	PART NAME
1	12866	1	Transmission Assy. (Includes 1--22410, 1--7465, Items #2 thru #22, #24 thru #27, 1--7783, #40 thru #42 and #44 thru #52)
	22410	1	
	7465	1	
2	22411	1	Housing Cover
3	7475	1	Gear, 34 Teeth
4	7476	1	Gear, 18 Teeth
5	10088	1	Pinion and Shaft, 12 Teeth
6	7479	1	Cover
	10090	—	Shim, .020" thick
	10091	—	Shim, .005" thick (Use as required)
7	7480	1	Ball Bearing
8	1107	18	Capscrew, 3/8" — 16 NC x 1"
	904206	18	Lockwasher, 3/8" ASA Med. Also see Transmission Control Group
9	7481	3	Capscrew, 1/2" — 20 NF x 2", Dr. Hd.
	7380	1	Lockwire, #16 W and M Ga. x 12" Long
10	7482	1	Cover
	7382	1	Gasket
11	7389	1	Ball Bearing
12	10092	1	Gear, 31 Teeth
13	7484	1	Gear, 25 Teeth
14	7485	1	Snap Ring
15	25725	1	Gear, 21 Teeth (See Item 25, page 148)
16	10139	1	Driven Pinion, High Assy. (Includes 2--7487)
	7487	2	Bushing
17	7489	1	Washer
18	7490	1	Ball Bearing
19	10089	1	Bearing Retainer
	10090	—	Shim, .020" thick
	10091	—	Shim, .005" thick (Use as required)
20	7492	1	Oil Seal
21	7493	1	Gear, 44 Teeth
22	7494	1	Ball Bearing

(Continued)

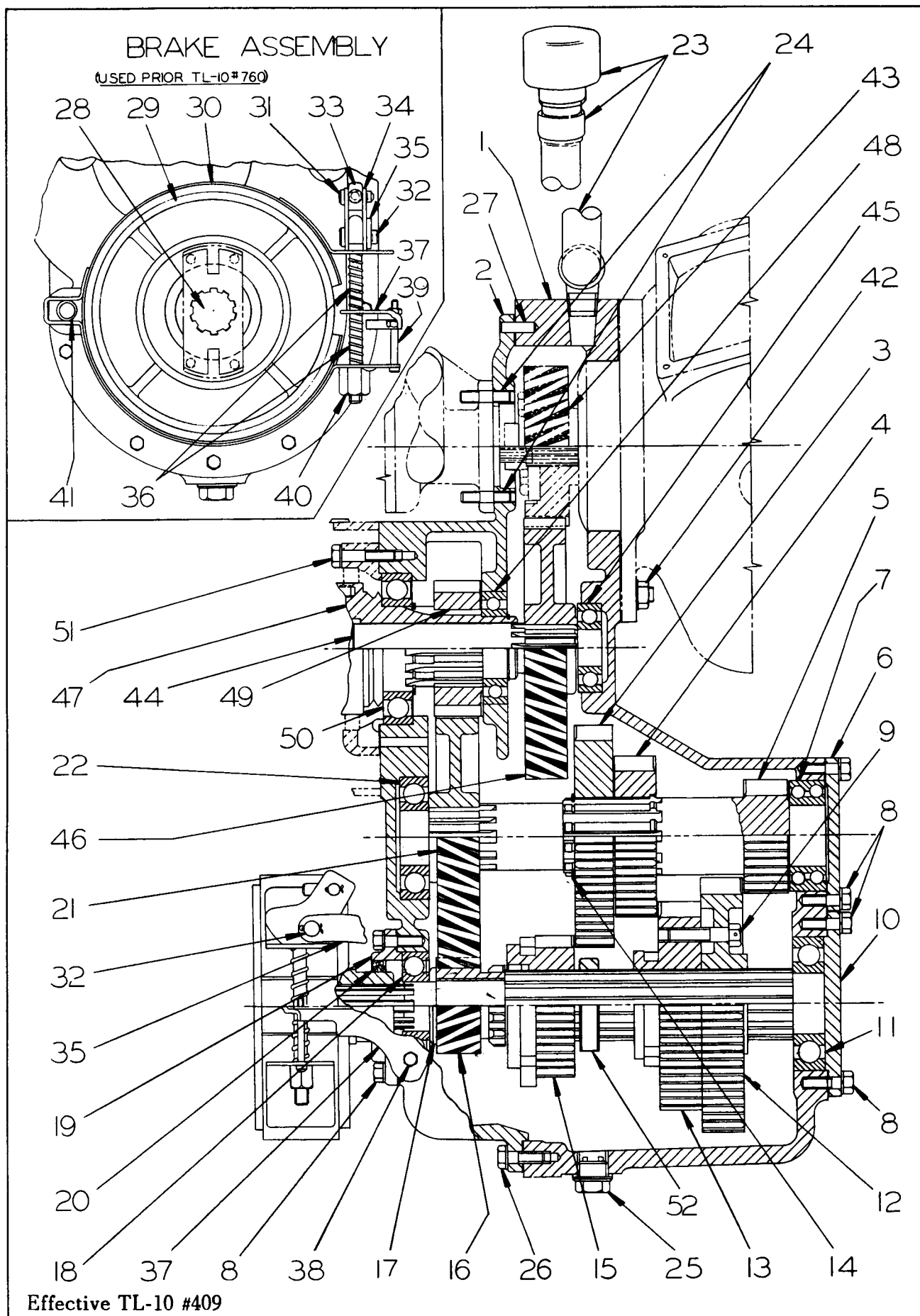


PLATE 340 - TRANSMISSION ASSEMBLY

Effective TL-10 #409

TRANSMISSION ASSEMBLY - EFFECTIVE TL-10 #409 & UP - CONTINUED

(See Plate 340)

ITEM	PART NUMBER	QTY.	PART NAME	
23		1	Oil Filler Line (Includes parts as listed in Item #23)	
	901725	1	90° Elbow, Street, 3/4" Std. M.I.	
	913230	1	Pipe, 3/4" x 1-1/2" (Threaded one end)	
	10438	1	Hose, 1" I.D. x 12-3/8" Long	
	10411	1	Hose Clamp (Bottom)	
	10436	1	Filler Neck	See Converter Radiator
	7775	1	Filler and Breather	and Cooling System
	10437	1	Clamp (Top)	
	1230	1	Capscrew, 3/8" - 24 NF x 3/4"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" - 24 NF	
24	6240	6	Stud, 3/8"	
	904206	6	Lockwasher, 3/8" ASA Med.	See Hydraulic Pump Group Page 281
	911041	6	Hex Nut, 3/8" - 24 NF	
25	10159	1	Magnetic Pipe Plug Assy. (Includes 1--10158)	
	10158	1	Bracket	
26	2084	11	Capscrew, 3/8" - 16 NC x 1-1/4" (20 Used Prior to TL-10 #1829)	
	3264	9	Capscrew, 3/8" - 16 NC x 1-3/4" (Effective with TL-10 #1829)	
	904206	20	Lockwasher, 3/8" ASA Med.	
	912267	2	Capscrew, 3/8" - 16 NC x 1"	R.H. Center
	904206	2	Lockwasher, 5/8" ASA Med.	
27	7793	3	Dowel Pin	
28	7330	1	Brake Assy. (Includes Items #30 thru #34, 1--7326, 2--7327, 1--7328, 1--905574, 1--904204, 1--910880, 1--7329 and 1--7331)	
	7783	1	Shaft	
29	7785	1	Brake Drum (See Drive Shaft for Fasteners)	
30	7282	1	Band and Lining	Used
31	7283	1	Pin	Prior
	900970	1	Cotter Pin, 1/16" x 1/2"	TL-10
32	7323	1	Pin	#760
	904746	1	Cotter Pin, 1/16" x 5/8"	
33	7324	1	Stud	
34	7325	2	Cam	
				(Continued)

TRANSMISSION ASSEMBLY – EFFECTIVE TL-10 #409 & UP – CONTINUED

(See Plate 340)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
35	7326	1	Link	Used Prior TL-10 #760
	8348	1	Stud, 3/8" – 16 NC	
	900804	1	Cotter Pin, 1/8" x 1/2" Not Shown	
36	7327	2	Spring	
37	7328	1	Bracket	
38	3379	2	Capscrew, 3/8" – 16 NC x 1-1/2"	
	904206	2	Lockwasher, 3/8" ASA Med.	
39	905574	1	Capscrew, 1/4" – 20 NC x 2-1/2"	
	904204	1	Lockwasher, 1/4" ASA Med.	
	910880	1	Hex Nut, 1/4" – 20 NC, for Locking	
40	7329	1	Adjusting Nut	
	7331	1	Adjusting Rod	
41	7781	1	Brake Anchor Pin	
42	7565	2	Stud, 1/2" – 13 NC	
	904208	2	Lockwasher, 1/2" ASA Med.	
	910325	2	Hex Nut, 1/2" – 13 NC	
43	----	1	Gear (See Torque Converter Assy.)	
	----	1	Gear (See Mechanical Drive Assy.)	
44	10120	2	Clutch Shaft	
45	7474	2	Ball Bearing	
46	7467	1	Gear, 44 Teeth (Forward Shown)	
	7468	1	Gear, 44 Teeth (Reverse Opposite)	
47	10173	2	Clutch Gear Hub	
48	7471	2	Ball Bearing	
	7472	2	Snap Ring	
49	7469	1	Gear, 22 Teeth (Forward Shown)	
	7470	1	Gear, 35 Teeth (Reverse Opposite)	
50	7462	2	Ball Bearing	
	7463	2	Snap Ring	
51	11823	12	Capscrew, 3/8" – 16 NC x 1-3/4", Dr. Hd.	See Forward and Reverse Clutch Group
	8138	2	Lockwire, #16 W and M Ga. x 19" Long	
52	----	1	Spacer (Remove when using 25725 Gear)	

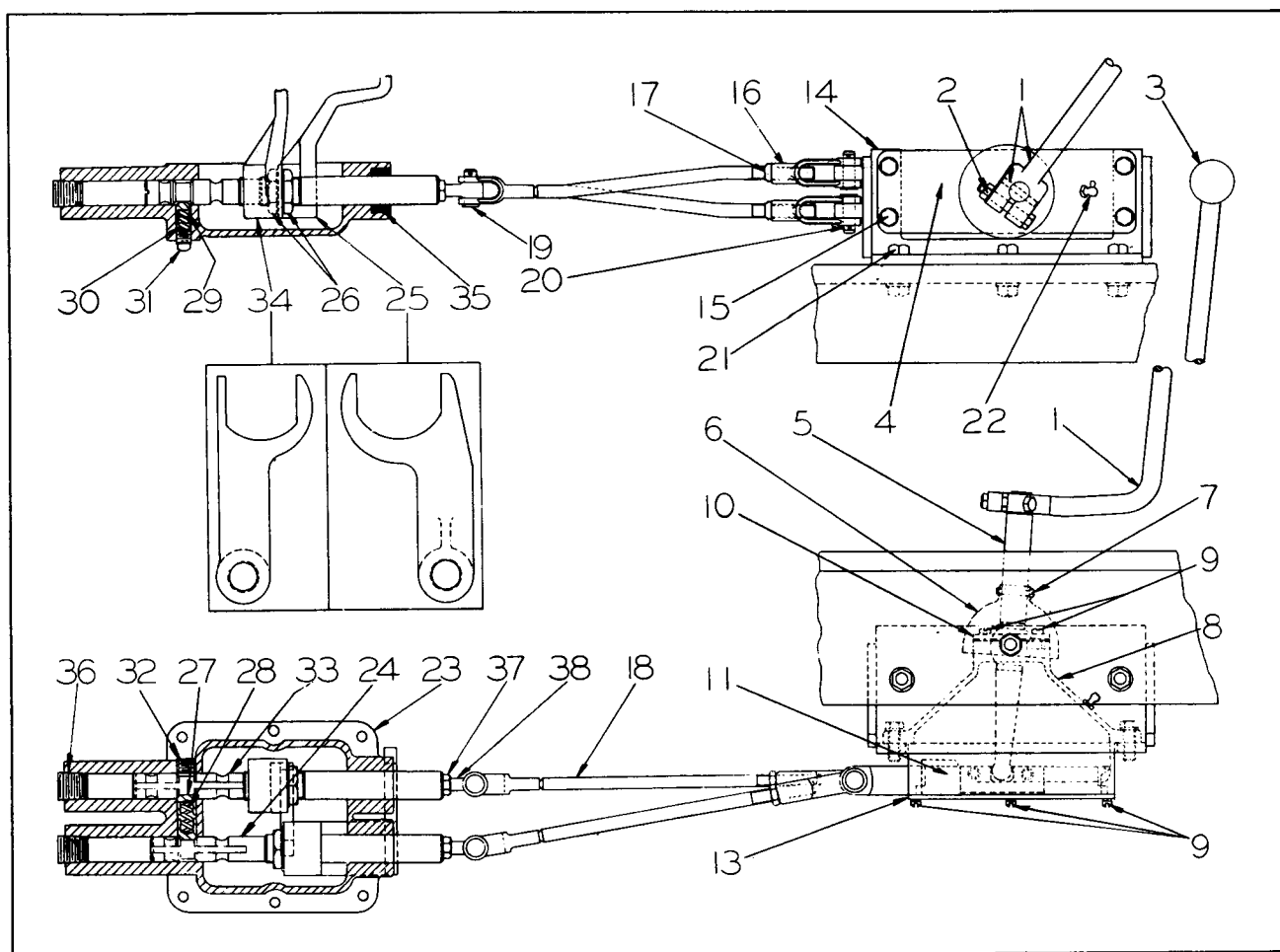


PLATE 208 - TRANSMISSION CONTROL GROUP

ITEM	PART NUMBER	QTY.	PART NAME
1	5934	1	Shift Lever Weld Assy.
	8065	1	Pin
2	1376	1	Capscrew, 3/8" - 24 NF x 2-1/4"
	904206	1	Lockwasher, 3/8" ASA Med.
	911041	1	Hex Nut, 3/8" - 24 NF
3	1171	1	Knob
4	5818	1	Shift Control Assy. (Includes Items #5 thru #13)
5	7823	1	Shift Lever
	7833	1	Pin, Lever Guide
	7834	1	Lock Pin
6	7821	1	Dome
7	911254	1	Screw, #10-24 NC x 1-1/2", Round Head
	904203	1	Lockwasher, #10 ASA Med.
	901310	1	Hex Nut, #10-24 NC

(Continued)

TRANSMISSION CONTROL GROUP – CONTINUED

(See Plate 208)

ITEM	PART NUMBER	QTY.	PART NAME
8	7822	1	Case, Shift Bar
9	901228	9	Screw, 1/4" – 20 NC x 3/4", Fil. Hd.
	904204	9	Lockwasher, 1/4" ASA Med.
10	7832	1	Gasket
	7824	1	Cover Cap
11	7825	1	Shift Bar, Left
	5931	1	Plate (Shifter Bar Spacer)
	7826	1	Shift Bar, Right
13	7831	1	Plate, Bottom
14	5942	1	Shift Control Support
15	7808	4	Capscrew, 7/16" – 20 NF x 1"
	904207	4	Lockwasher, 7/16" ASA Med.
16	5684	2	Yoke
17	913177	2	Hex Jam Nut, 1/2" – 20 NF
18	6038	2	Rod Weld Assy.
19	1565	2	Pin
	900806	2	Cotter Pin, 1/8" x 1"
20	6389	2	Pin
	900806	2	Cotter Pin, 1/8" x 1"
21	1185	3	Capscrew, 1/2" – 20 NF x 1-3/4"
	904208	3	Lockwasher, 1/2" ASA Med.
	911043	3	Hex Nut, 1/2" – 20 NF
22	915276	1	Lubricating Fitting, 90°, 1/8" – 27 NPT
23	7195	1	Shifter Assy. (Includes 1--7190, 1--7782 and Items #24 thru #38)
	7190	1	Housing, Shifter (Prior TL-10 #609 order also Items #31 & #32)
	7782	1	Gasket
	1107	6	Capscrew, 3/8" – 16 NC x 1"
	904206	6	Lockwasher, 3/8" ASA Med.
24	7186	1	Shaft, Shifter
25	7188	1	Fork, Shifter (Re-adjust 3/32" when using Gear 25725)
26	915008	2	Lockwasher, 1-1/8" Internal Tooth
	7191	2	Hex Jam Nut, 1-1/8" – 12 NF

(Continued)

(See Plate 208)

149

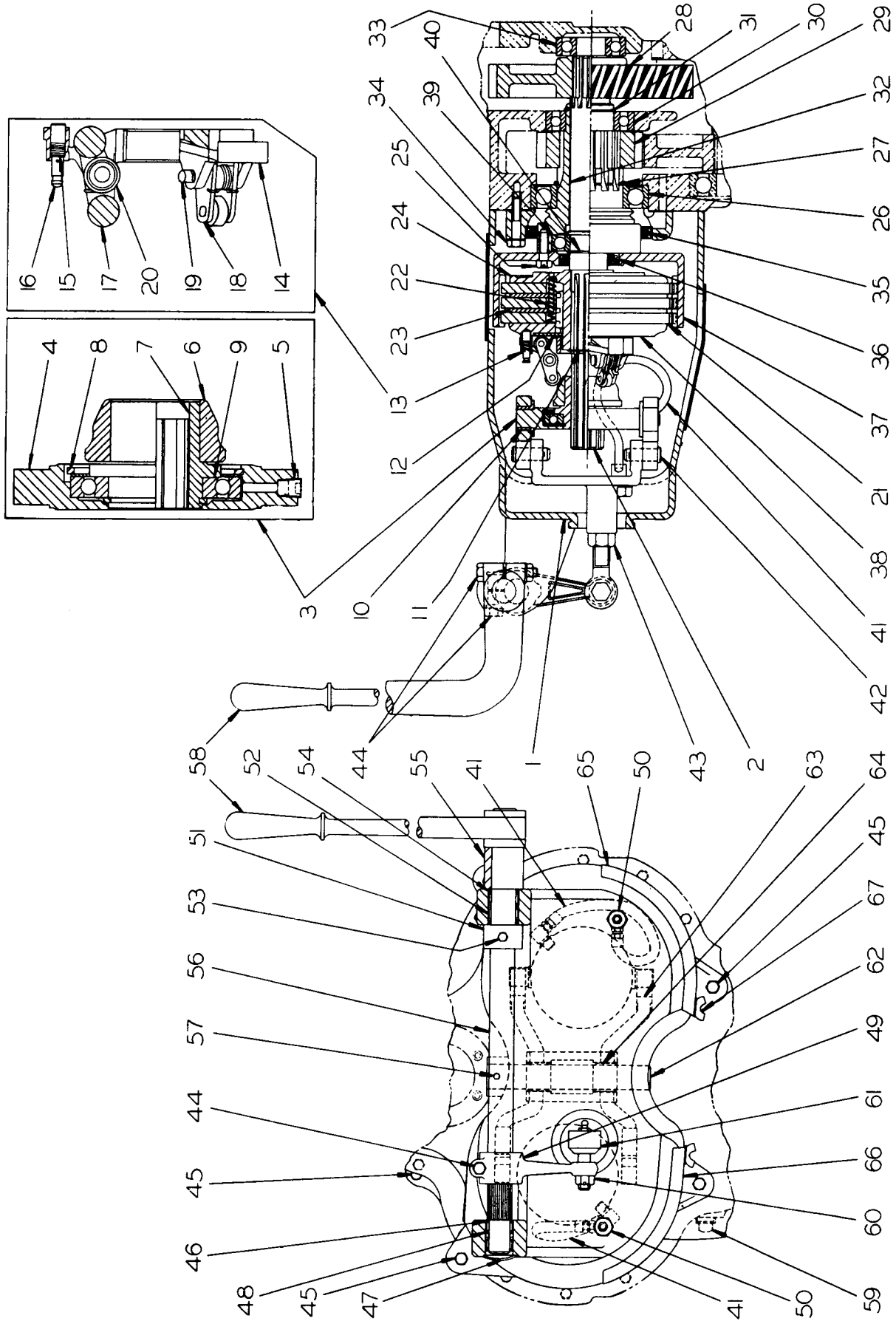


PLATE 343 - FORWARD AND REVERSE CLUTCH GROUP

FORWARD AND REVERSE CLUTCH GROUP - USED PRIOR TL-10 #613

(See Plate 343)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	11196	1	Clutch Housing Kit (See Item #1, Page 157)	
	-----	1	Clutch Housing Assy. (Not serviced, order 11196)	
2	7453	2	Clutch Shaft	Used prior TL-10 #490
	7503	2	Key (Used w/7453 only)	
	10120	2	Clutch Shaft	Eff. TL-10 #409
3	15918	2	Cone Assy. (Each includes one Item #4 and #6 thru #9)	
4	7413	2	Shifter Collar	
6	7415	2	Cone Ring	
7	15919	2	Carrier	
8	7418	2	Snap Ring	
9	7416	2	Ball Bearing	
	7414	2	Washer	
	13092	2	Snap Ring	
10	7454	4	Bushing	
11	11844	2	Snap Ring	
12	7455	2	Roller Disk	
13	7446	2	Adjusting Yoke Assy. (Each includes 1--7445, 1--7441, 1--7439 and 3--7993)	
14	7445	2	Adjusting Yoke	
15	7441	2	Compression Spring	
16	7439	2	Lock Pin	
17	7993	6	Roller and Lever Kit (Each includes 2--7442, 2--7444, and one Item #19 & #20)	
	7442	12	Roller	
18	7444	12	Lever	
19	9622	6	Pin Assy. (Each includes 1--9621)	
	9621	6	Retaining Ring	
20	7443	6	Torsion Spring	
21	7971	2	Clutch Repair Kit (Each includes 3--7457 and 4--7456)	Used prior TL-10 #497
	7457	6	Driving Plate (3 piece)	
	12205	2	Clutch Repair Kit (Each includes 3--11863 & 4--7456) (Can be used on prior machines, also order new 7423 Drive Cup)	Eff. TL-10 #497
	11863	6	Driving Plate Assy. (1 piece) (Each includes 2--12202 and 6--912380)	
22	7456	8	Release Spring	
23	7458	4	Center Plate	

FORWARD AND REVERSE CLUTCH GROUP – USED PRIOR TL-10 #613 – CONTINUED

(See Plate 343)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
24	7460	2	Hub and Back Plate Assy. (Each includes 4-- 7459)	Used prior TL-10 #409
	10644	2	Hub and Back Plate Assy. (Each includes 4-- 7459)	Eff. TL-10 #409
	7459	8	Release Spring Pin	
25	7381	12	Capscrew, 3/8" – 24 NF x 1", Dr. Hd.	
	1085	2	Lockwire, #16 W and M Ga. x 17" Long	
26	7462	2	Ball Bearing	
27	7463	2	Snap Ring	
28	7467	1	Gear, 44 Teeth (Forward Shown)	
	7468	1	Gear, 44 Teeth (Reverse Opposite)	
29	7469	1	Gear, 22 Teeth (Forward Shown)	
	7470	1	Gear, 35 Teeth (Reverse Opposite)	
30	7471	2	Ball Bearing	
31	7472	2	Snap Ring	
32	7473	2	Clutch Gear Hub	Used prior TL-10 #409
	10173	2	Clutch Gear Hub	Eff. TL-10 #409
33	7474	2	Ball Bearing	
34	7496	2	Cover, Bearing Retainer	Used prior TL-10 #409
	7495	2	Gasket	
	1107	12	Capscrew, 3/8" – 16 NC x 1"	Used prior TL-10 #409
	904206	12	Lockwasher, 3/8" ASA Med.	
	10172	2	Cover, Bearing Retainer	Eff. TL-10 #409
	10171	2	Gasket	
	11823	12	Capscrew, 3/8" – 16 NC x 1–3/4" Dr. Hd.	
	8138	2	Lockwire, #16 W and M Ga. x 19" Long	
35	7497	2	Oil Seal	Used prior TL-10 #409
	10169	2	Oil Seal	Eff. TL-10 #409
36	7498	2	Oil Seal	
37	7423	2	Drive Cup	
38	7499	2	Floating Plate	
39	7501	2	Ball Bearing	
40	7502	2	Snap Ring	
				(Continued)

FORWARD AND REVERSE CLUTCH GROUP – USED PRIOR TL-10 #613 – CONTINUED

(See Plate 343)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
41	7765	2	Grease Hose Assy., 7/16" – 24 NF	Used prior TL-10 #30
	913039	2	90° Elbow, 1/8" Male Inverter Flare (Cone Assy.)	
	8566	2	Elbow, Bulkhead (Clutch Housing	
	11330	2	Grease Hose Assy., 1/8" – 27 NF	Eff. TL-10 #30
	10279	2	Elbow, Bulkhead (Clutch Housing)	
	915399	3	90° Elbow, 1/8" – 27 NF, St. (Cone Assy.)	
	910334	2	Washer, 5/8" Internal Tooth	
	911049	2	Hex Nut, 5/8" – 18 NF	
42	1565	2	Pin	
	900806	2	Cotter Pin, 1/8" x 1"	
43	7505	1	Yoke	
	7506	1	Hex Jam Nut,	
44	5811	2	Capscrew, 3/8" – 16 NC x 2–1/4"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	910324	2	Hex Nut, 3/8" – 16 NC	
44	3379	1	Capscrew, 3/8" – 16 NC x 1–1/2" (Used with threaded	
	906960	1	Lockwasher, 3/8" Internal Tooth lever #7779)	
45	1114	8	Capscrew, 1/2" – 13 NC x 1–1/2" (Used w/Clutch and Flywheel	
	904208	8	Lockwasher, 1/2" ASA Med. Housings to Transmission)	
	910244	4	Plain Washer, 1/2" SAE (Used w/Clutch Housing only)	
46	7777	1	Seal	
47	910006	1	Plug, Welch, 1–1/4" Std.	
48	7778	2	Needle Bearing	
49	7779	1	Lever	
50	3585	2	Flexible Tube Assy.	Used prior TL-10 #30
	904209	2	Lockwasher, 5/8" ASA Med.	
	914465	2	Lubricating Fitting, St., 1/8" – 27 NPT	
	911049	2	Hex Nut, 5/8" – 18 NF	
	11347	2	Flexible Tube Assy.	Eff. TL-10 #30
	915399	2	90° Elbow, St., 1/8" NPT	
	904209	2	Lockwasher, 5/8" ASA Med.	
	911049	2	Hex Nut, 5/8" – 18 NF	
	915276	2	Lubricating Fitting, 90°, 1/8" – 27 NPT	

(Continued)

(See Plate 343)

154

Eff. TL-10 #613 & Up

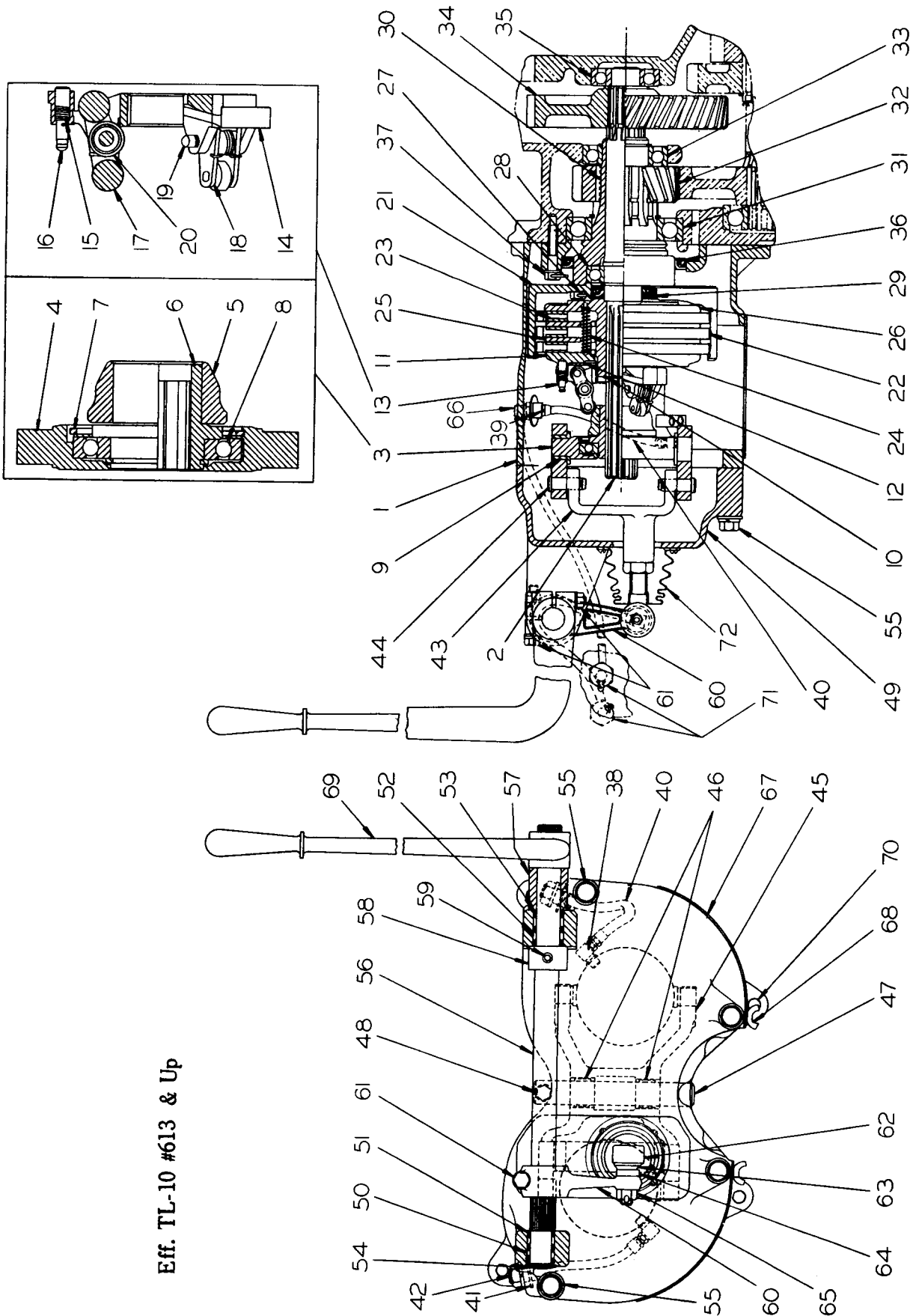


PLATE 407 - FORWARD AND REVERSE CLUTCH GROUP

FORWARD AND REVERSE CLUTCH GROUP – EFFECTIVE TL-10 #613 & UP

(See Plate 407)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	11196	1	Clutch Housing Kit (Includes 1-- 11200 and Items #39 thru #42, #48, #49, #55, #67, #68, #71, and 1-- 4282)	
	11200	1	Clutch Housing	
2	10120	2	Clutch Shaft	
3	11940	2	Clutch Assy. (Each includes 1-- 15918, one each Items #11, #12, #13, #22, two #25 & one #26)	
	15918	2	Cone Assy. (Each includes one Items #4 thru #8)	
4	7413	2	Shifter Collar	
5	7415	2	Cone Ring	
6	15919	2	Carrier	
7	7418	2	Snap Ring	
8	7416	2	Ball Bearing	
	7414	2	Washer	
	13092	2	Snap Ring	
9	7454	4	Bushing	
10	11844	2	Snap Ring	
11	7499	2	Floating Plate	
12	7455	2	Roller Disc	
13	7446	2	Adjusting Yoke Assy. (Each includes one Items #14 thru #16 and 3-- 7993)	
14	7445	2	Adjusting Yoke	
15	7441	2	Compression Spring	
16	7439	2	Lock Pin	
17	7993	6	Roller and Lever Kit (Each includes 2-- 7442, 2-- 7444, one each Items #19 and #20)	
	7442	12	Roller	
18	7444	12	Lever	
19	9622	6	Pin Assy. (Each includes 1-- 9621)	
	9621	6	Retaining Ring	
20	7443	6	Torsion Spring	
21	7423	2	Clutch Drive Cup	
	12205	2	Clutch Repair Kit (Each includes 3-- 11863 & 4-- 7456) (Can be used on prior machines, also order new 7423 Drive Cup)	
	11863	6	Driving Plate Assy. (1 piece) (Each includes 2-- 12202 and 6-- 912380)	
				(Continued)

FORWARD AND REVERSE CLUTCH GROUP - EFFECTIVE TL-10 #613 & UP - CONTINUED

(See Plate 407)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
23	12202	12	Friction Disk	
	912380	36	Rivet, Tubular, Ctsk. Hd., 9/64" x 7/16"	
24	7456	8	Release Spring	
25	7458	4	Center Plate	
26	10644	2	Hub and Backplate Assy. (Each includes 4-- 7459)	
	7459	8	Pin, Release Spring	
27	7381	12	Capscrew, 3/8" - 24 NF x 1", Dr. Hd.	
	1085	2	Lockwire, #16 W and M Ga. x 17" Long	
28	7501	2	Ball Bearing	
	7502	2	Snap Ring	
29	7498	2	Oil Seal	
30	10173	2	Clutch Gear Hub	
31	7462	2	Ball Bearing	
	7463	2	Snap Ring	
32	7469	1	Gear, 22 Teeth (Forward Shown)	
	7470	1	Gear, 35 Teeth (Reverse Opposite)	
33	7471	2	Ball Bearing	
	7472	2	Snap Ring	
34	7467	1	Gear, 44 Teeth (Forward Shown)	
	7468	1	Gear, 44 Teeth (Reverse Opposite)	
35	7474	2	Ball Bearing	
36	10169	2	Oil Seal	
37	10172	2	Bearing Retainer	
	10171	2	Gasket	
	11823	12	Capscrew, 3/8" - 16 NC x 1-3/4", Dr. Hd.	
	904206	12	Lockwasher, 3/8" ASA Med.	
	8138	2	Lockwire, #16 W and M Ga. x 19" Long	
38	915399	2	90° Elbow, 1/8" NPT (Cone Assy.)	
39	13574	2	Bulkhead Fitting (Clutch Housing)	
40	11330	2	Grease Hose	
41	911100	2	Plain Washer, 5/8" SAE	
42	904209	2	Lockwasher, 5/8" ASA Med.	
	911049	2	Hex Jam Nut, 5/8" - 18 NF	

(Continued)

FORWARD AND REVERSE CLUTCH GROUP - EFFECTIVE TL-10 #613 & UP - CONTINUED

(See Plate 407)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
43	7505	1	Yoke	
	7506	1	Hex Jam Nut (Special)	
44	1565	2	Pin	
	900806	2	Cotter Pin, 1/8" x 1"	
45	11367	1	Shifter Fork Assy. (Includes 2-- 5896)	
46	5896	2	Needle Bearing (Lettered ends must face pressing Tool)	
47	7786	1	Shaft	
48	6564	1	Capscrew, 3/8" - 16 NC x 2"	Used TL-10 #613 thru #759 incl.
	5811	1	Capscrew, 3/8" - 16 NC x 2-1/4"	Eff. TL-10 #760 & up
	904206	1	Lockwasher, 3/8" ASA Med.	
49	11202	1	Housing Cover Assy. (Includes Items #50 thru #54)	
50	7778	2	Needle Bearing (Lettered ends must face pressing tool)	
51	7777	1	Seal	
52	7789	2	Needle Bearing (Lettered ends must face pressing tool)	
53	5895	2	Seal	
54	910006	1	Welch Plug, 1-1/4" Std.	
55	11350	4	Capscrew, 1/2" - 13 NC x 3"	
	910244	4	Plain Washer, 1/2" SAE	
	904208	4	Lockwasher, 1/2" ASA Med.	
56	7791	1	Shaft	
57	7790	1	Spacer	
58	7788	1	Collar	
59	912396	1	Set Screw, 3/8" - 16 NC x 5/16" Cup Pt., Ctsk., 3/16" Hex	
60	7779	1	Lever	
61	5811	2	Capscrew, 3/8" - 16 NC x 2-1/4"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	910324	2	Hex Nut, 3/8" - 16 NC	
62	7780	1	Socket Assy. (Includes 1-- 12003 and Items #63 thru #66)	
	12003	1	Socket	
63	12004	1	Shield	
64	11968	1	Rubber Spacer	
65	910867	1	Hex Nut, 1/2" - 20 NF, Slotted	
	900806	1	Cotter Pin, 1/8" x 1"	(Continued)

FORWARD AND REVERSE CLUTCH GROUP – EFFECTIVE TL-10 #613 & UP – CONTINUED

(See Plate 407)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
66	14173	1	Lubricating Fitting (Special)	
67	11199	2	Inspection Cover	
68	904204	4	Lockwasher, 1/4" ASA Med.	
	8170	4	Wing Nut	
69	7792	1	Clutch Lever	
70	1114	4	Capscrew, 1/2" – 13 NC x 1-1/2"	
	910244	4	Plain Washer, 1/2" SAE	(Clutch Housing to Transmission)
	904208	4	Lockwasher, 1/2" ASA Med.	
71	915399	2	90° Elbow, 1/8" – 27 NPT	(To Clutch Housing)
	11348	1	Flexible Tube Assy.	(To Lever)
	11347	2	Flexible Tube Assy.	(To Clutch Housing)
	14935	1	90° Elbow	(To Lever)
	904209	3	Lockwasher, 5/8" ASA Med.	
	911049	3	Hex Jam Nut, 5/8" – 18 NF	
72	915276	3	Lubricating Fitting, 90°, 1/8" – 27 NPT	
	21881	1	Boot	
	21935	1	Washer (Special)	(Effective TL-10 #1693)
	913048	4	Machine Screw, #10–24NF, Rd. Hd.	
–	4282	1	Rod (Not Shown)	

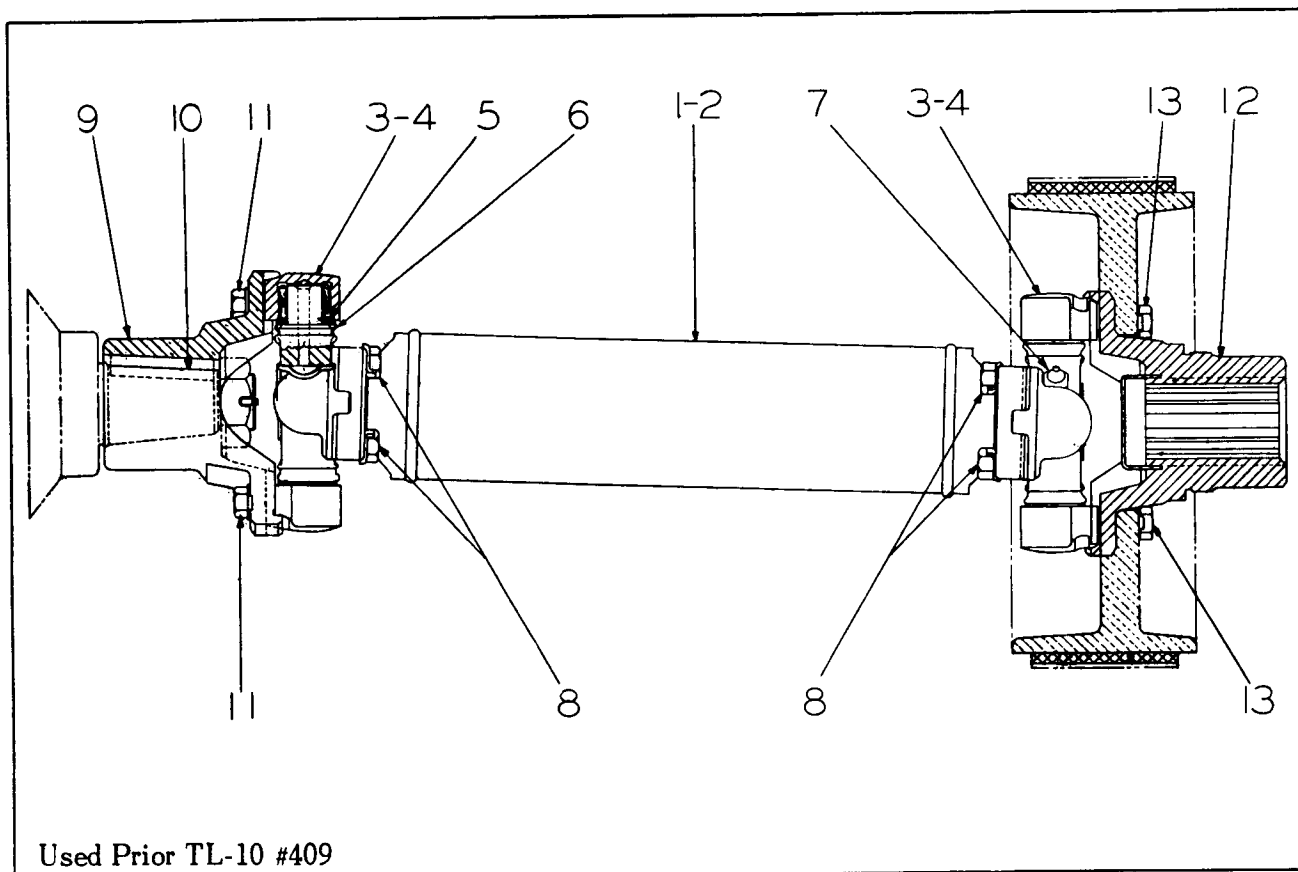
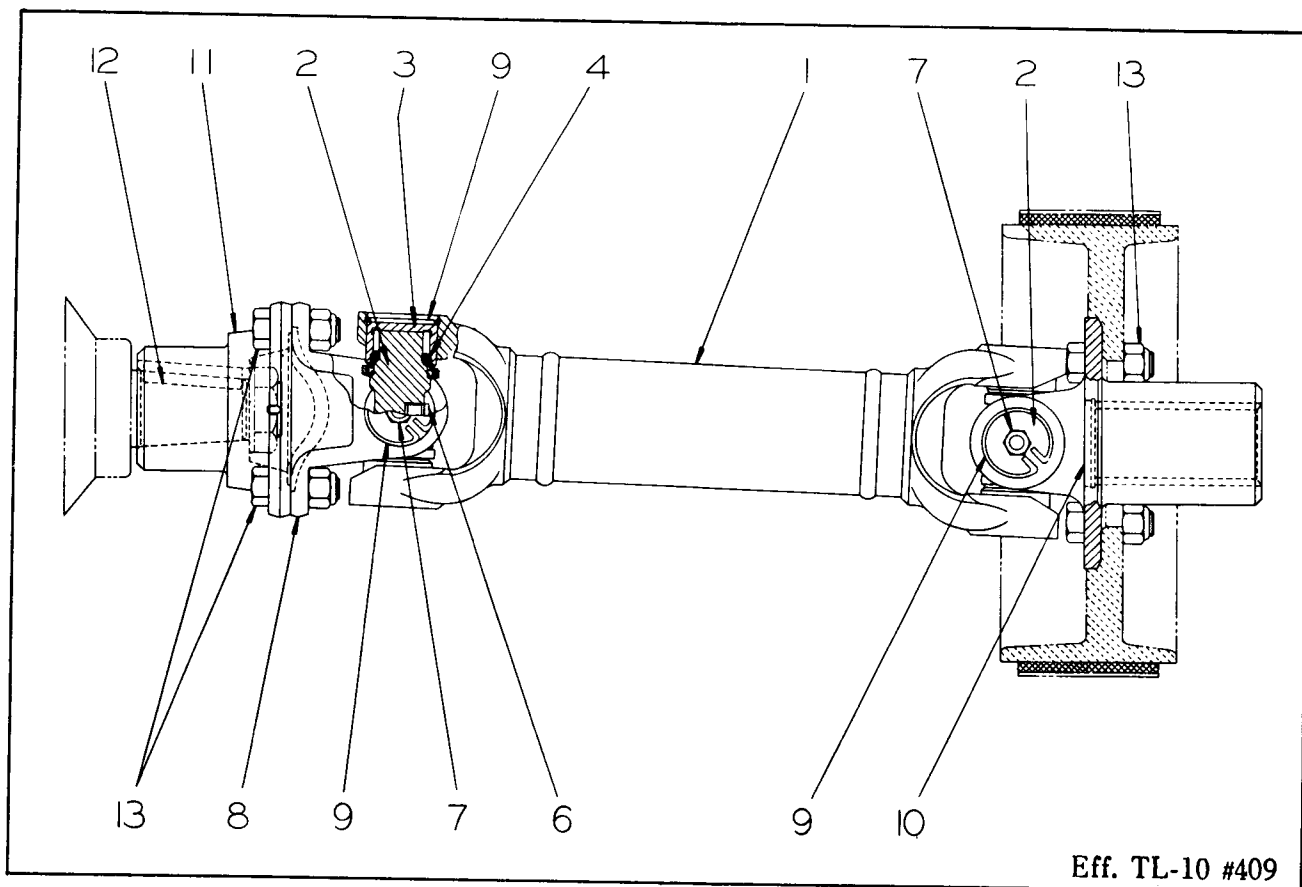


PLATE 171 - DRIVE SHAFT GROUP

ITEM	PART NUMBER	QTY.	PART NAME
1	----	1	Universal Joint Assy. (Includes Items #2, #3 and #7 thru #12) (For service order 11146, See Item #1, pg. 163)
2	5672	1	Propeller Tube
3	6595	2	Spider and Bearing Assy. (Each includes four Items #4 thru #6)
4	6593	8	Bearing Assy.
5	4693	8	Washer, Cork
6	4692	8	Dust Shield
7	915275	2	Lubricating Fitting, 67-1/2°, 1/8" - 27 NPT
8	6544	8	Capscrew, 5/16" - 24 NF x 3/4", Alloy, H.T.
9	5671	1	Fitting Yoke
10	5235	1	Key, Square
11	6544	4	Capscrew, 5/16" - 24 NF x 3/4", Alloy, H.T.
12	5670	1	Fitting Yoke, Splined
13	2687	4	Capscrew, 5/16" - 24 NF x 1-1/4"



Eff. TL-10 #409

PLATE 349 - DRIVE SHAFT GROUP

ITEM	PART NUMBER	QTY.	PART NAME
1	11146	1	Universal Joint Assy., Complete (Includes 1-- 11142, Items #2, #8, and #10 thru #13)
	11142	1	
2	11020	2	Spider and Bearing Assy. (Includes Items #3 thru #7 and #9) - First Type
	26726	2	
3	11022	8	Bearing Assy. (Used first type) (Serviced as assembly only)
	11024	2	
4	11023	16	Washer, Cork
6	910230	2	Plug, 1/8" Steel, Slotted, 3/64" - First Type
7	914465	2	Lubricating Fitting, St., 1/8" - 27 NPT
8	11026	1	Flange Yoke
9	11021	8	Lock Ring
10	11143	1	Flange Yoke
11	11144	1	Companion Flange
12	5235	1	Square Key
13	2236	4	Capscrew, 7/16" - 20 NF x 1-1/4" (Eight used prior TL-10 #760)
	11141	4	

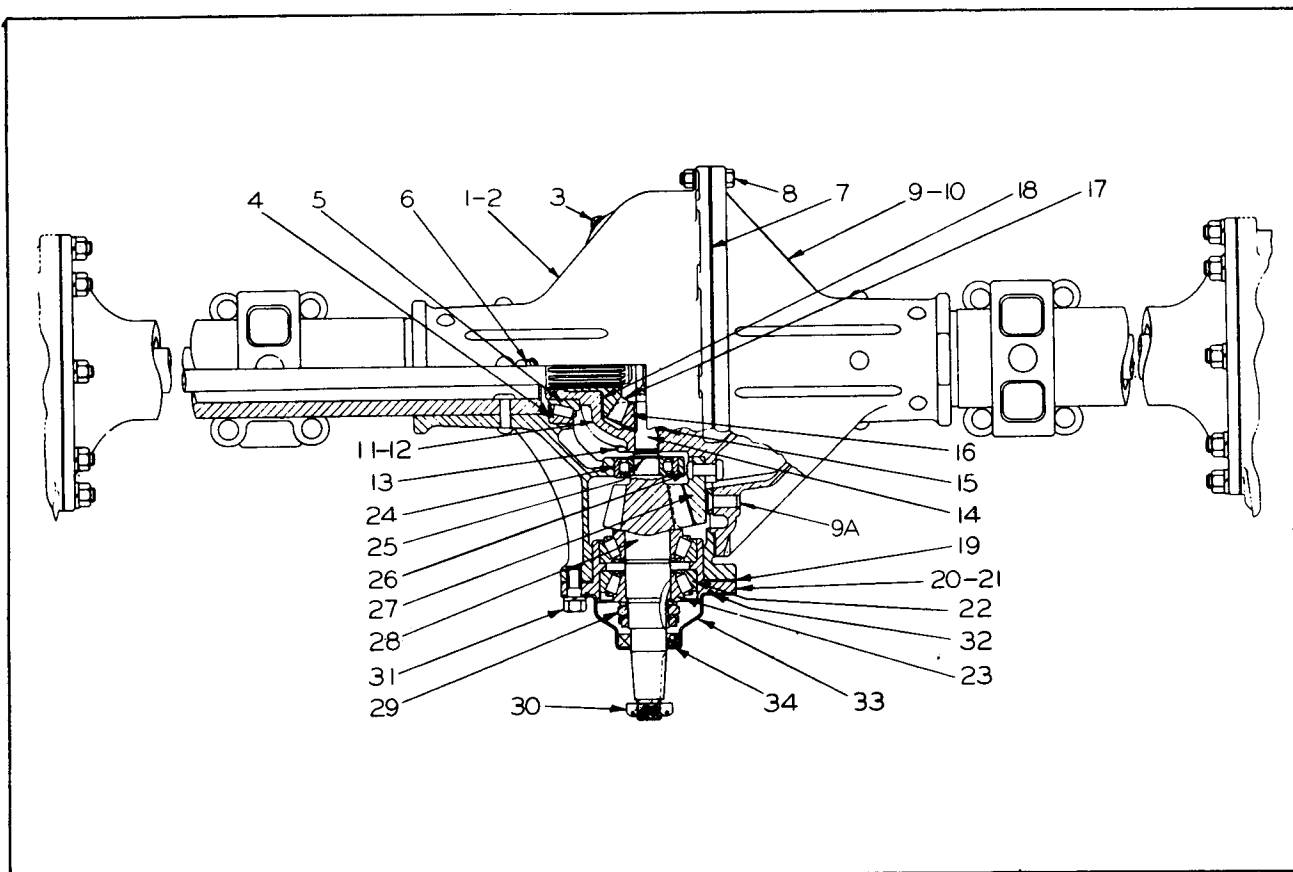


PLATE 181 – DIFFERENTIAL CARRIER AND HOUSING

ITEM	PART NUMBER	QTY.	PART NAME
–	7342	1	Front Axle Assy., Complete (Includes Parts as listed on pages 164 thru 176 Order also one Item #5)
1	7246	1	Differential Carrier Assy., Left (Includes one each Items #2 thru #4)
2	– – – –	1	Differential Carrier and Housing Tube (Not serviced, order 7246)
3	905262	2	Pipe Plug, 3/4" Steel, 5/8" Sq. Hd.
4	7247	2	Bearing Cup (For service, order both Cup and Cone)
5	7252	2	Bearing Cone
6	7145	1	Breather Assy. (Serviced as assembly only)
7	7248	1	Gasket
	2695	11	Capscrew, 7/16" – 20 NF x 1–3/4"
8	904207	11	Lockwasher, 7/16" ASA Med.
	911042	11	Hex Nut, 7/16" – 20 NF
9	7249	1	Differential Carrier Assy., Right (Includes one each Items #3, #4, #9A and #10)
9A	7250	1	Thrust Block
	7251	1	Pin (Thrust Block)
10	– – – –	1	Differential Carrier and Housing Tube (Not Serviced, order 7249)
11	7253	1	Differential Assy. (Includes Items #12 thru #18)

(Continued)

DIFFERENTIAL CARRIER AND HOUSING - CONTINUED

(See Plate 181)

ITEM	PART NUMBER	QTY.	PART NAME
12	7259	1	Differential Case Assy. (Includes one Case, Flange Half; one Case, Tongue Half; and 8--7260)
	----	1	Case, Flange Half
	----	1	Case, Tongue Half (Not Serviced, order 7259)
13	7260	8	Capscrew, 1/2" - 13 NC x 2-5/8", Dr. Hd.
	1124	1	Lockwire, #16 W and M Ga. x 24" Long
14	7254	1	Spider
15	7255	4	Washer
16	7256	4	Pinion
17	7257	2	Gear
18	7258	2	Thrust Washer
19	7261	-	Shim (.006" thick)
	7262	-	Shim (.003" thick) (Use as required)
20	7272	1	Pinion Bearing Cage and Cup Assy. (Includes Items #21 & #22) (Also order 7271)
21	----	1	Pinion Bearing Cage (Not serviced, order 7272)
	7275	1	Dowel Pin
22	7273	2	Bearing Cup
23	7271	2	Bearing Cone (For service, order both Cup and Cone)
24	7267	1	Bearing Assy.
25	7269	1	Lock Ring
26	7268	12	Rivet, .429/.434" x 1-1/2" Long
27	----	1	Gear, See Item #28
28	7806	1	Pinion & Gear Assy. (Includes Items #24 & #25)
29	7263	1	Washer
	7264	2	Nut
	7265	1	Lock
30	7176	1	Hex Nut, Slotted
	910320	1	Cotter Pin, 5/32" x 1-1/2"
31	7200	6	Capscrew, 9/16" - 12 NC x 1-1/4"
	910153	6	Lockwasher, 9/16" ASA Med.
32	7276	1	Oil Seal
33	7277	1	Cover Assy. (Includes one Cover and Item #34)
	----	1	Cover (Not serviced, order 7277)
34	7279	1	Oil Seal

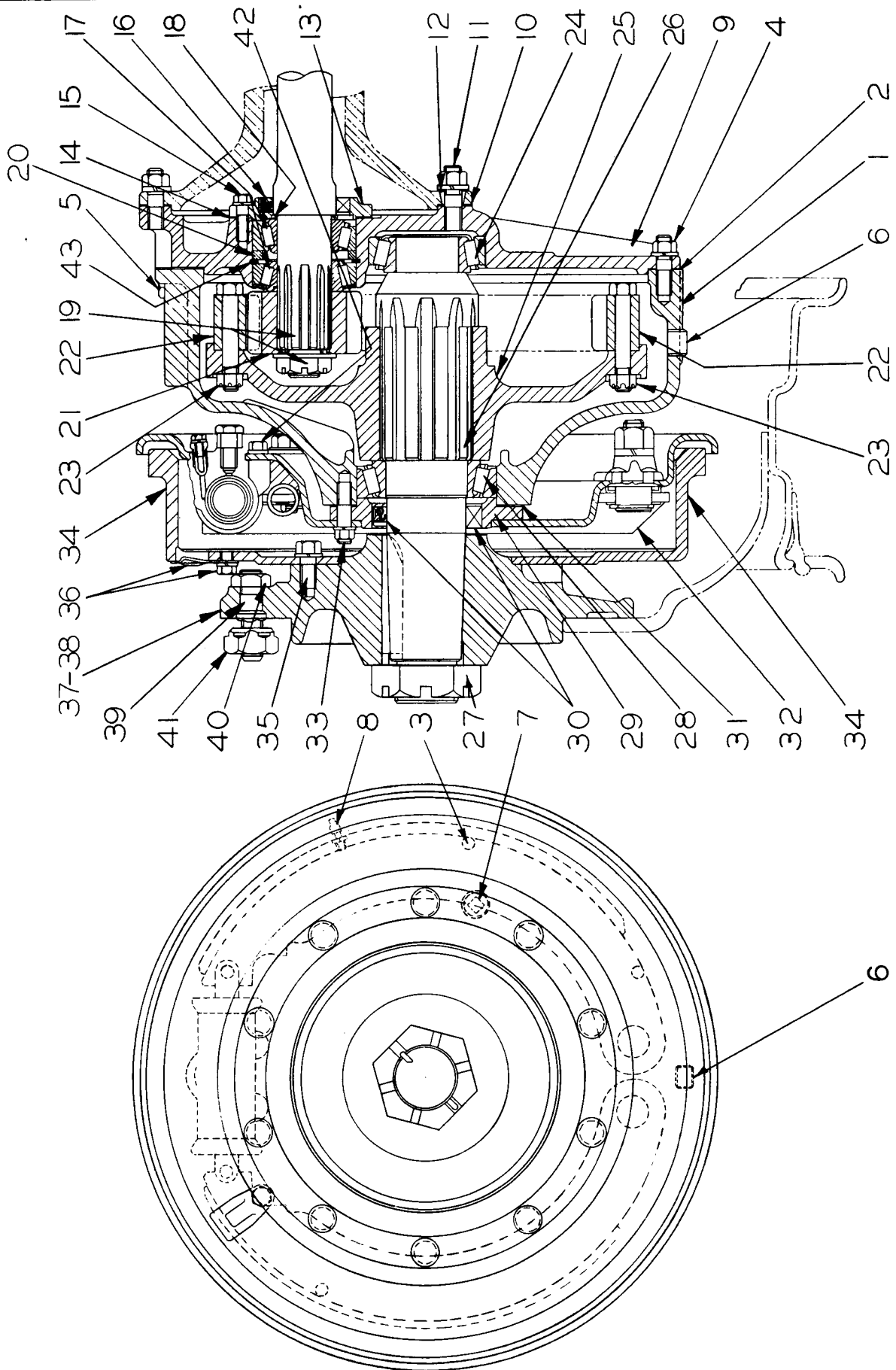


PLATE 178 - FINAL DRIVE - LEFT AND RIGHT

FINAL DRIVE – LEFT AND RIGHT – USED PRIOR TO TL-10 #2002

(See Plate 178)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	7147	1	Final Drive Case, Left (Used prior to TL-10 #1754)	
	23112	1	Final Drive Case, Left (Eff. w/TL-10 #1754)	
	7148	1	Final Drive Case, Right (Used prior to TL-10 #1754)	
	23113	1	Final Drive Case, Right (Eff. w/TL-10 #1754)	
2	7149	2	Gasket	
3	7094	6	Dowel Pin	
4	7150	22	Stud	
	904208	22	Lockwasher, 1/2" ASA Med. (Qty. 14 used effective w/TL-10 #1754)	
	911043	22	Hex Nut, 1/2" – 20 NF	
5	7049	4	Capscrew, 1/2" – 13 NC x 1-3/4", Alloy H.T.	
	904208	4	Lockwasher, 1/2" ASA Med.	
6	7146	2	Plug, 3/8" Ctsk., 11/32" Sq.	
7	905262	2	Pipe Plug, 3/4" Steel, 5/8" Sq.	
8	7145	2	Breather Assy. (Serviced as assembly only)	
9	7153	1	Cover, Left	Used prior TL-10 #937
	15894	1	Cover, Left	Eff. TL-10 #937 & Up
	7154	1	Cover, Right	Used prior TL-10 #937
	15895	1	Cover, Right	Eff. TL-10 #937 & Up
10	7167	2	Gasket	
11	7166	16	Stud	
	910153	16	Lockwasher, 9/16" ASA Med.	
	911331	16	Hex Nut, 9/16" – 18 NF	
12	7158	2	Dowel Pin	
13	7164	2	Cover, Bearing	Used prior TL-10 #937
	15893	2	Cover, Bearing	Eff. TL-10 #937 & Up
14	7168	2	Gasket	
	7169	–	Shim, .003" thick	
	7170	–	Shim, .010" thick	(Use as required)
15	7047	10	Capscrew, 3/8" – 16 NC x 1-1/8", Alloy H.T.	
	904206	10	Lockwasher, 3/8" ASA Med.	
16	7160	2	Oil Seal	
17	7165	4	Bearing Cup	
	7163	4	Bearing Cone	(For Service, order both Cup and Cone)
18	7161	2	Washer	
				(Continued)

FINAL DRIVE – LEFT AND RIGHT – USED PRIOR TO TL-10 #2002 CONTINUED

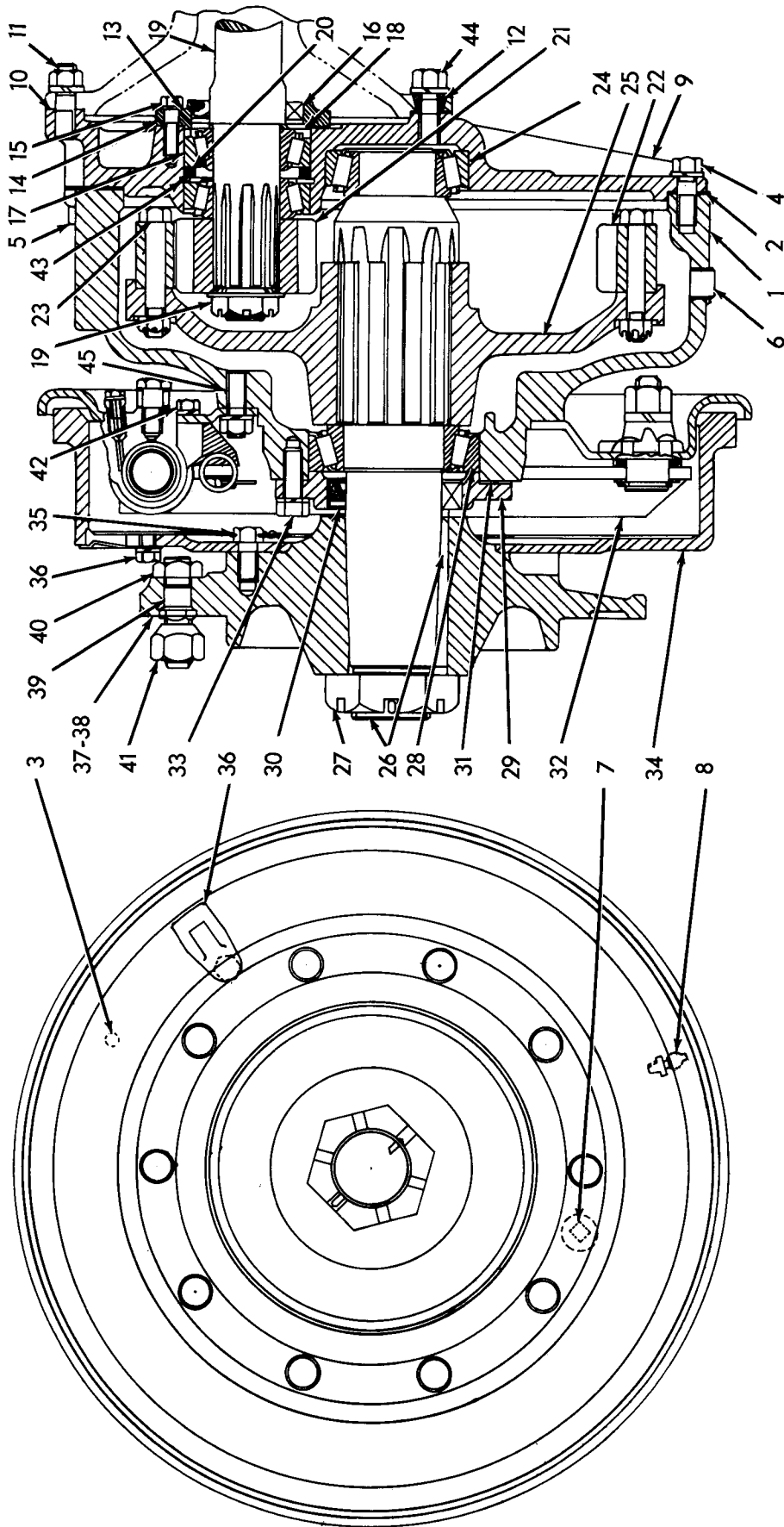
(See Plate 178)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
19	7162	2	Shaft	
	7176	2	Nut	
	900808	2	Cotter Pin, 1/8" x 1-1/2"	
	7177	2	Washer	
20	7175	2	Spacer	Used prior TL-10 #937
	15892	2	Spacer	Eff. TL-10 #937 & Up
21	7159	2	Gear, Pinion	
22	7099	2	Gear, Ring	
23	7173	20	Capscrew (Special)	
	910867	20	Hex Nut, 1/2" – 20 NF	
	7174	2	Lockwire, #16 W and M Ga. x 40" Long	
24	7156	2	Bearing Cup	(For service, order both Cup and Cone)
	7157	2	Bearing Cone	
25	7155	2	Hub	
26	7402	2	Shaft, Stub	
	7398	2	Key	
	7399	2	Spacer	Used prior TL-10 #1179
27	7116	2	Nut	
	910534	2	Cotter Pin, 1/4" x 2-3/4"	
28	7119	2	Bearing Cone	(For service, order both Cup and Cone)
	7120	2	Bearing Cup	
29	7125	2	Bearing Retainer	
	23119	2	Cap	Eff. with TL-10 #1754
30	7102	2	Oil Seal	
31	7121	–	Shim, .030" thick	Used prior to TL-10 #1754
	23117	–	Shim, .030" thick	Eff. with TL-10 #1754
	7122	–	Shim, .005" thick	Used prior to TL-10 #1754
	23116	–	Shim, .005" thick	Eff. with TL-10 #1754
	7123	–	Shim, .003" thick	Used prior to TL-10 #1754
	23115	–	Shim, .003" thick	Eff. with TL-10 #1754
	7124	2	Gasket	Used prior to TL-10 #1754
	23118	2	Gasket	Eff. with TL-10 #1754 (Continued)

FINAL DRIVE – LEFT AND RIGHT – USED PRIOR TO TL-10 #2002 CONTINUED

(See Plate 178)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
32	16994	2	Brake Assy., Left and Right (See page 174 for parts)	Used prior to TL-10 #1754
	23121	2	Brake Assy., Left and Right (See page 176 for parts)	Eff. with TL-10 #1754
33	7100	12	Stud	Used prior to TL-10 #1754
	23114	8	Stud, 9/16" NF x 1/2" NC	Eff. with TL-10 #1754
	904208	12	Lockwasher, 1/2" ASA Med.	Used prior to TL-10 #1754
	910153	8	Lockwasher, 9/16"	Eff. with TL-10 #1754
	7171	4	Bolt, 1/2" – 13 NC x 1 – 1/2"	Used prior to TL-10 #1754
	23134	4	Stud, 1/2" USF x 1/2" USS	Eff. with TL-10 #1754
	910153	4	Lockwasher, 9/16" ASA Med.	
	911043	12	Hex Nut, 1/2" NF	
	911331	8	Nut, 9/16" NF	Eff. with TL-10 #1754
34	7144	2	Brake Drum	
35	7048	18	Capscrew, 1/2" – 13 NC x 1 – 1/8", Alloy H. T.	
	904208	18	Lockwasher, 1/2" ASA Med.	
36	7101	2	Cover	
	3440	2	Capscrew, 3/8" – 16 NC x 1/2"	
	904206	2	Lockwasher, 3/8" – 16 NC	
37	7401	2	Wheel Hub Assy., Left and Right (Each includes One Hub, 10--7098 & 10--7348) (Also see Item #41) For Service of Wheel Hub Assy., Left – Prior TL-10 #1016 also order 10--7152)	
38	----	2	Wheel Hub (Not serviced separately)	
39	7097	10	Stud, left hand thread (Used w/Wheel Hub Assy., left)	Used prior to TL-10 #1016
	7098	20	Stud, right hand thread (Used w/Wheel Hub Assy., 7401 only)	
40	7348	20	Nut, 3/4" – NF	
41	7151	10	Nut, left hand thread (Used w/Wheel Hub Assy., left)	Used prior to TL-10 #1016
	7152	10	Nut, right hand thread (Used w/7401 Wheel Hub Assy.)	
	14430	20	Nut, right hand thread (Used w/7401 Wheel Hub Assy.)	Eff. with TL-10 #1016
42	2864	2	Capscrew, 3/8" NC x 7/8"	
	904206	2	Lockwasher, 3/8" ASA Med.	
43	15891	2	Snap Ring	Eff. with TL-10 #937
–	7103	2	Wheel Cylinder Assy. (See Hydraulic Brake System)	
–	7118	4	Cylinder Link Assy. (See Brake Assy.)	



FINAL DRIVE - LEFT AND RIGHT - EFFECTIVE WITH TL-10 #2002

FINAL DRIVE – LEFT AND RIGHT – EFFECTIVE WITH TL-10 #2002

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	28606	1	Final Drive Case, left	
	28607	1	Final Drive Case, right	
2	7149	1	Gasket	
3	7094	6	Dowel Pin	
4	14359	14	Capscrew, 1/2" NC x 1-3/8"	
	904208	22	Lockwasher, 1/2"	
5	7049	4	Capscrew, 1/2" NC x 1-3/4" Alloy H. T.	
	904206	4	Lockwasher, 1/2"	
6	7146	2	Plug, 3/8" Ctsk., x 11/32" Sq.	
7	905262	2	Plug, 3/4" Steel, 5/8" Sq.	
8	7145	1	Breather Assy. (Serviced as Assy. only)	
9	15894	1	Cover, left	
	15895	1	Cover, right	
10	7176	2	Gasket	
11	7166	2	Stud	
	910153	2	Lockwasher, 9/16"	
	911331	2	Nut, 9/16" NF	
12	7158	2	Dowel Pin	
13	15893	2	Cover	
14	7168	2	Gasket	
15	7047	10	Capscrew, 3/8" NC x 1 – 1/8" Alloy H. T.	
	904206	10	Lockwasher, 3/8"	
16	7160	1	Oil Seal	
17	7165	4	Bearing Cup	For Service, order both CUP and CONE
	7163	4	Bearing Cone	
18	7161	2	Washer	
19	7162	2	Shaft	
	7176	2	Nut	
	904002	2	Cotter Pin, 1/8" x 1 – 3/4"	
	7177	2	Washer	
20	15892	2	Spacer	

Continued

FINAL DRIVE – LEFT AND RIGHT – EFFECTIVE WITH TL-10 #2002 – CONTINUED

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
21	7159	2	Pinion	
22	7099	2	Gear	
23	7173	10	Capscrew (Special)	
	910867	10	Nut, 1/2" NF	
	7174	2	Lockwire	
24	7156	2	Bearing Cup	For Service, order both CUP and CONE
	7157	2	Bearing Cone	
25	7155	2	Hub	
26	7402	2	Hub Shaft	
	7398	2	Key	
27	7116	2	Nut	
	910534	2	Cotter Pin, 1/4" x 2 – 3/4"	
28	7119	2	Bearing Cone	For Service, order both CUP and CONE
	7120	2	Bearing Cup	
29	28605	2	Cap	
30	7102	2	Oil Seal	
31	28604	–	Shim (.030" thick)	
	28603	–	Shim (.005" thick)	(Use as required)
	28602	–	Shim (.003" thick)	
	29580	2	Gasket	
32	28609	2	Brake Assy., left and right (See page 176 for parts)	
33	14605	16	Capscrew, 3/8" NC x 1 – 1/4"	
	904206	16	Lockwasher, 3/8"	
34	7144	2	Brake Drum	
35	7048	18	Capscrew, 1/2" NC x 1 – 1/8"	
	904208	18	Lockwasher, 1/2"	
	7380	6	Lockwire	
36	7101	2	Cover	
	916270	2	Capscrew, 3/8" NC x 2"	
	904206	2	Lockwasher, 3/8"	
37	7401	2	Wheel Hub Assy., left and right (Each includes 1 HUB, 10-- 7097 and 10-- 7098)	Continued

FINAL DRIVE – LEFT AND RIGHT – EFFECTIVE WITH TL-10 #2002 – CONTINUED

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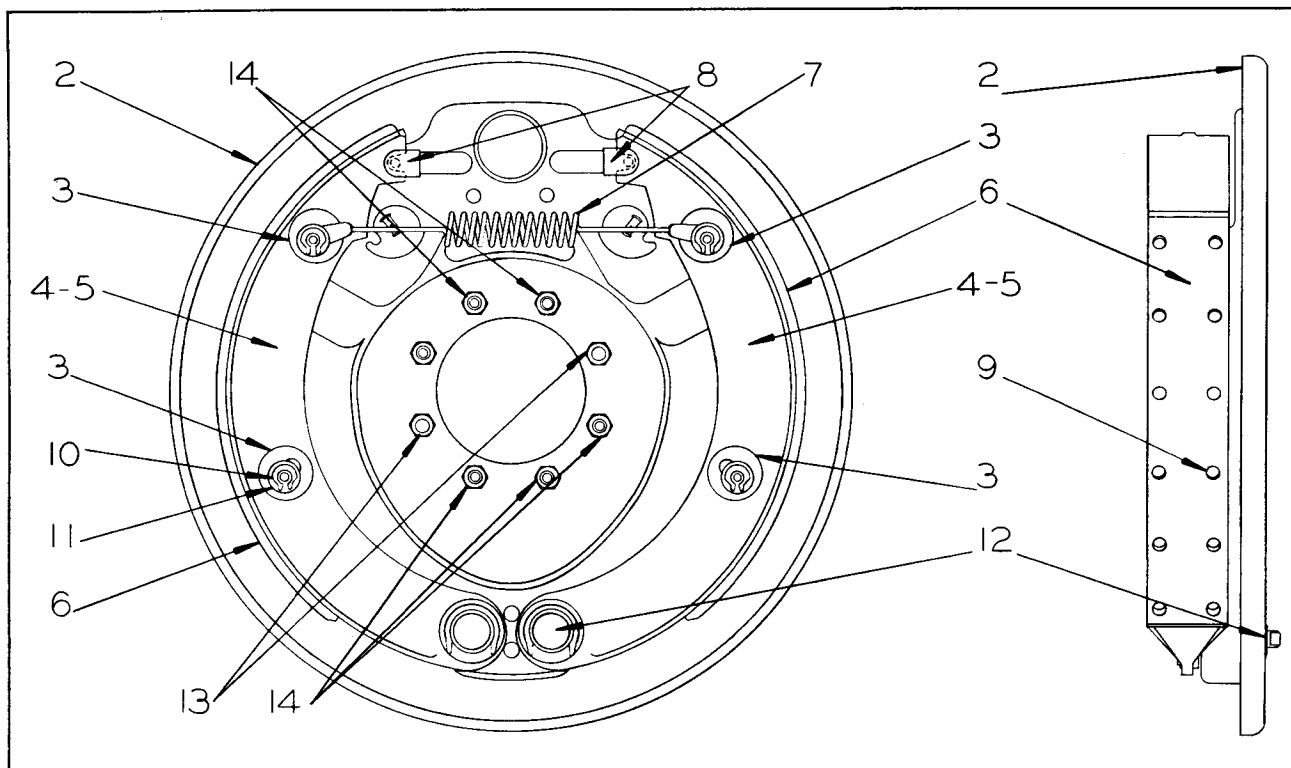


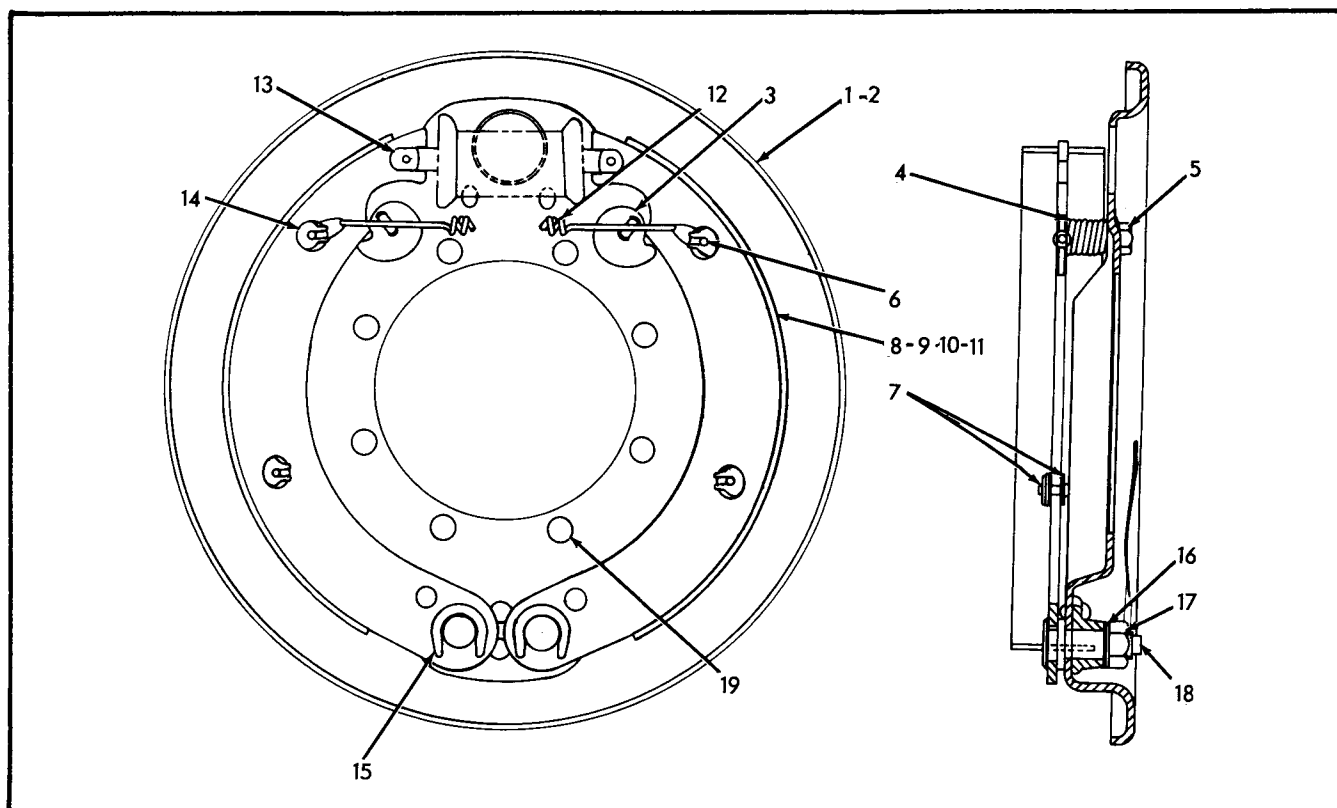
PLATE 179 – BRAKE ASSEMBLY – LEFT AND RIGHT – USED PRIOR TO TL-10 #2002

ITEM	PART NUMBER	QTY.	PART NAME
1	16994	2	Brake Assy., Left and Right (Includes Items #2 thru #7 & #9 thru #12)
2	7128	2	Dust Shield Assy. (Each includes two Item #3)
3	----	4	Adjusting Cam Assy. (Not Serviced, order 7128)
4	16993	4	Shoe Assy. (Each includes one Item #5, one #6 and sixteen Item #11)
5	----	4	Brake Shoe (Not Serviced, order 16993)
6	16992	4	Brake Lining
7	7132	2	Return Spring
8	7118	4	Cylinder Link Assy. (Each includes one Bushing and one Link) (Serviced as assy. only)
9	7131	64	Rivet
10	7133	8	"C" Washer
11	7134	—	Plain Washer
	7135	—	Plain Washer
(Use as required)			
12	7136	4	"C" Washer
	7137	4	Plain Washer
	7138	4	Pin, Anchor
	7139	4	Washer, Felt
	7140	4	Retainer, Felt
	7141	4	Lockwasher
	911045	4	Hex Nut, 3/4" – 16 NF

(Continued)

(See Plate 179)

175



BRAKE ASSEMBLY – LEFT AND RIGHT – EFFECTIVE WITH TL-10 #2002

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	28609	2	Brake Assy., left and right (Each includes ½ qty. of Items 2 thru 12 and 14 thru 18)	
2	28608	2	Backing Plate Assy. (Each includes ½ qty. of Items 3 thru 6 and 2-- 28684)	
3	22262	4	Cam	
4	24750	4	Spring	
5	24782	4	Bolt	
6	28099	4	Pin, long	
	28684	4	Pin, short	
7	24766	16	Washer	
	24767	16	Washer	
8	28610	4	Shoe Assy. (Includes one Item 9 thru 11)	
9	----	4	Brake Shoe (Not serviced, order 28610)	
10	24752	4	Lining	
11	24753	56	Rivet	
12	7132	2	Return Spring	
13	24781	4	Link	
14	7133	8	"C" Washer	
15	24764	4	"C" Washer	
16	24763	4	Washer	
17	25235	2	Nut	
18	24754	2	Anchor Pin	
19	14605	16	Capscrew, 3/8" NC x 1 – 1/4"	
	904206	16	Lockwasher, 3/8"	

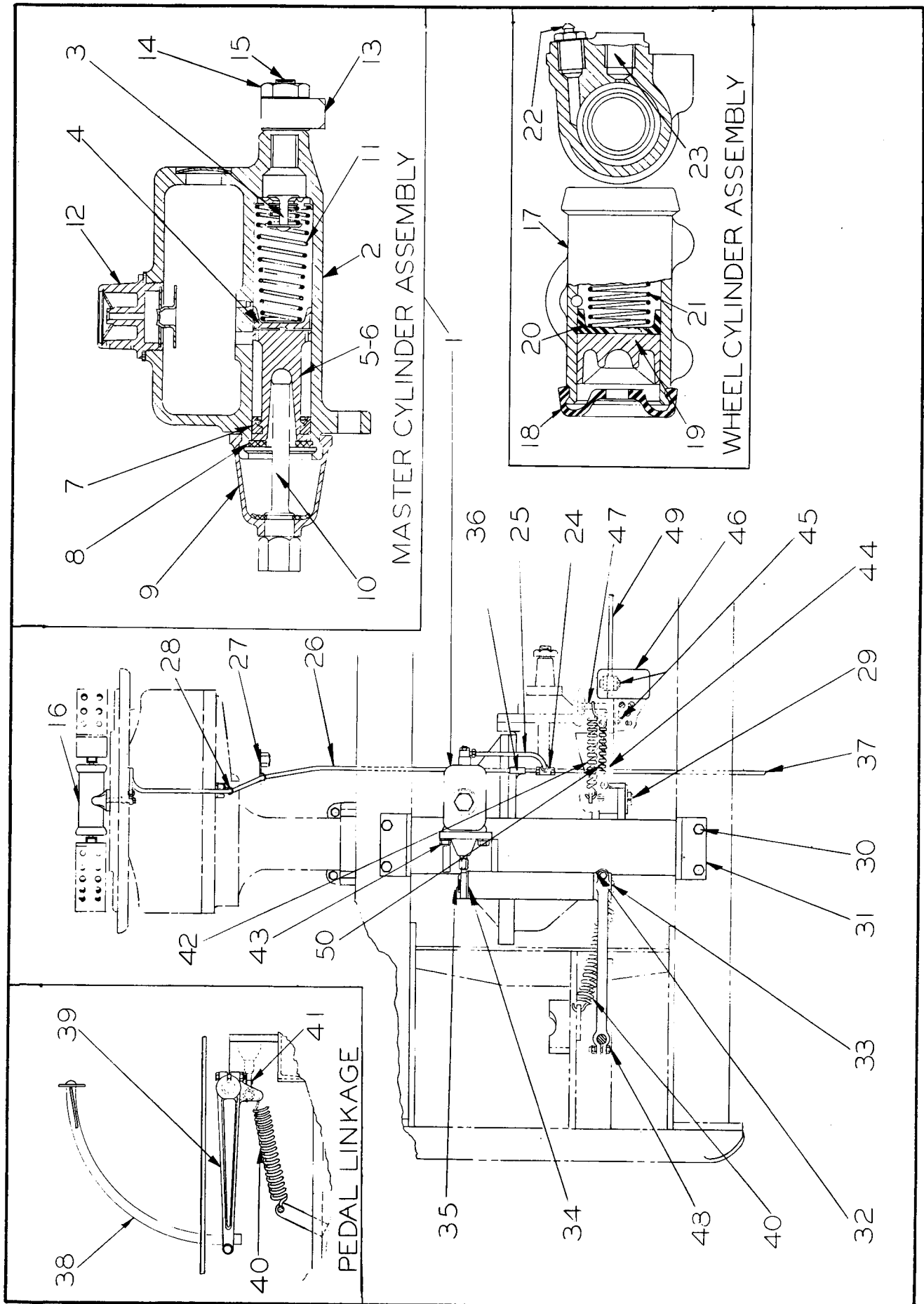


PLATE 206 - HYDRAULIC BRAKE SYSTEM

HYDRAULIC BRAKE SYSTEM – USED PRIOR TL-10 #760

(See Plate 206)

ITEM	PART NUMBER	QTY.	PART NAME
1	6162	1	Master Cylinder Assy. (Includes 1--6796 and Items #13 thru #15)
	6796	1	Master Cylinder Assy. (Includes one Housing, 1--6896 and Items #10 thru #12)
2	----	1	Housing (Not serviced separately)
—	6896	1	Repair Kit, Cylinder (Includes Items #3 thru #9)
3	7872	2	Valve Assy., Check
4	7873	1	Cup, Primary, Piston
5	7874	1	Piston Assy.
6	----	1	Piston and Cup Protector Assy. (Not serviced)
7	7875	1	Cup, Secondary, Piston
	7876	1	Ring, Cup, Piston Secondary
8	7877	1	Wire, Lock, Stop Plate
	6895	1	Piston, Stop Plate
9	7878	1	Boot
10	6894	1	Piston Push Rod
11	6897	1	Piston Return Spring Assy.
12	6898	1	Filler Plug, 1-1/8" Hex Hd.
	6899	1	Gasket, Filler Plug
13	6806	1	Fitting
	6797	1	Washer
14	6798	1	Fitting Bolt (Order #7115 for service)
	6799	1	Washer
15	910231	1	Pipe Plug, 1/8" Steel, Ctsk., 3/16" Hex (Order #7115 Fitting Bolt for service)
16	7103	2	Wheel Cylinder Assy. (Each includes 1--7104 and ½ qty. of Items #22 & #23)
	7104	2	Wheel Cylinder Assy. (Each includes ½ qty of Items #17 thru #21)
—	7110	2	Repair Kit, Cylinder (Each includes ½ qty. of Items #18 and #20)
17	7109	2	Housing, Wheel Cylinder
18	7105	4	Boot
19	7106	4	Piston
20	7107	4	Cup
21	7108	2	Spring
22	7111	2	Bleeder Screw
			(Continued)

HYDRAULIC BRAKE SYSTEM - USED PRIOR TL - 10 #760 - CONTINUED

(See Plate 206)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
23	7112	2	Inlet Connection	
	6799	2	Washer	
	6797	2	Washer	
	7115	2	Bolt	
24	6788	1	Tee, 1/4" Inverted Flare	
25	6782	1	Tube Assy., Master Cylinder to Tee	
26	6761	1	Tube Assy., Tee to R.H. Wheel Cylinder	
27	2737	2	Clip	
28	6769	2	Clamp	
29	2309	1	Pin	
	901344	2	Cotter Pin, 1/4" x 2"	
30	1185	4	Capscrew, 1/2" - 20 NF x 1-3/4"	
	904208	4	Lockwasher, 1/2" ASA Med.	
	911043	4	Hex Nut, 1/2" - 20 NF	
31	5823	1	Brake Bracket Assy. (Includes 2--5895 and 2--5896)	
	5895	2	Seal (Not shown)	
	5896	2	Bearing (Not Shown)	
	6008	1	Washer (Used to Key Shaft to Pedal)	
32	1089	1	Capscrew, 3/8" - 24 NF x 2"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" - 24 NF	
33	6751	1	Brake Shaft Assy. (Includes 1--6288)	
	6288	1	Bushing	
34	911159	1	Washer, 1" SAE	
35	1170	1	Pin	
	900801	1	Cotter Pin, 3/32" x 3/4"	
36	6780	1	Clamp	
37	6768	1	Tube Assy., Tee to L.H. Wheel Cylinder	
38	5953	1	Pedal Weld Assy.	
39	5999	1	Lever	
40	6778	2	Spring	
41	6790	1	Yoke End	
	911048	1	Hex Jam Nut, 3/8" - 24 NF	

(Continued)

HYDRAULIC BRAKE SYSTEM - USED PRIOR TL-10 #760 - CONTINUED

(See Plate 206)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
42	6779	1	Spring	
43	1108	3	Capscrew, 3/8" - 24 NF x 1-1/2"	
	904206	3	Lockwasher, 3/8" ASA Med.	
	911041	3	Hex Nut, 3/8" - 24 NF	
44	4283	1	Lever	
45	1565	2	Pin	
	900806	2	Cotter Pin, 1/8" x 1"	
46	4286	1	Pedal Weld Assy.	
47	4288	1	Brake Lock	
48	2048	1	Capscrew, 3/8" - 24 NF x 1-1/4"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" - 24 NF	
49	2685	1	Pin	
	900942	1	Cotter Pin, 3/32" x 5/8"	
	2686	1	Yoke End	
	911048	2	Hex Jam Nut, 3/8" - 24 NF	
	4282	1	Rod	
50	7818	1	Spring	

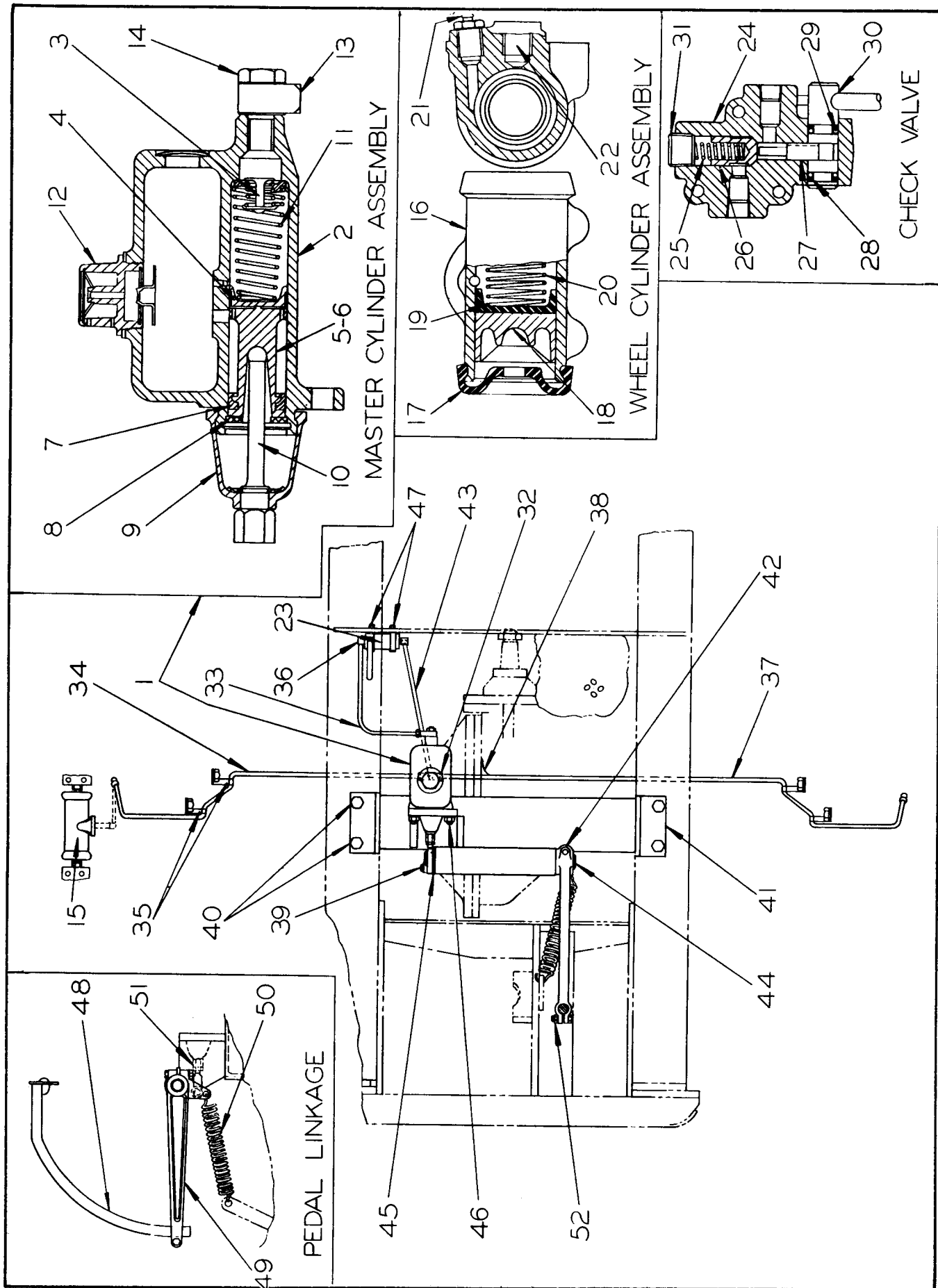


PLATE 453 - HYDRAULIC BRAKE SYSTEM

HYDRAULIC BRAKE SYSTEM - USED TL-10 #760 THRU #1422

(See Plate 453)

ITEM	PART NUMBER	QTY.	PART NAME
1	6162	1	Master Cylinder Assy. (Includes 1--6796 and Items #13 thru #14)
	6796	1	Master Cylinder Assy. (Includes one Housing, 1--6896 and Items #10 thru #12)
2	----	1	Housing (Not serviced separately)
—	6896	1	Repair Kit, Cylinder (Includes Items #3 thru #9)
3	7872	1	Valve Assy., Check
4	7873	1	Cup, Primary, Piston
5	7874	1	Piston Assy.
6	----	1	Piston and Cup Protector Assy. (Not serviced)
7	7875	1	Cup, Secondary, Piston
	7876	1	Ring, Cup, Piston Secondary
8	7877	1	Lockwire, Stop Plate
	6895	1	Stop Plate, Piston
9	7878	1	Boot
10	6894	1	Piston Push Rod
11	6897	1	Piston Return Spring Assy.
12	6898	1	Filler Plug, 1-1/8" Hex Hd.
	6899	1	Gasket, Filler Plug
13	6806	1	Fitting
	6797	1	Washer
14	7115	1	Fitting Bolt
	6799	1	Washer
15	7103	2	Wheel Cylinder Assy. (Each includes 1--7104 and ½ qty of Items #22 and #23)
	7104	2	Wheel Cylinder Assy. (Each includes ½ qty. of Items #17 thru #21)
—	7110	2	Repair Kit, Cylinder (Each includes ½ qty. of Items #18 and #20)
16	7109	2	Housing, Wheel Cylinder
17	7105	4	Boot
18	7106	4	Piston
19	7107	4	Cup
20	7108	2	Spring
21	7111	2	Bleeder Screw
22	7112	2	Inlet Connection
	6799	2	Washer

(Continued)

HYDRAULIC BRAKE SYSTEM - USED TL-10 #760 THRU #1422 - CONTINUED

(See Plate 453)

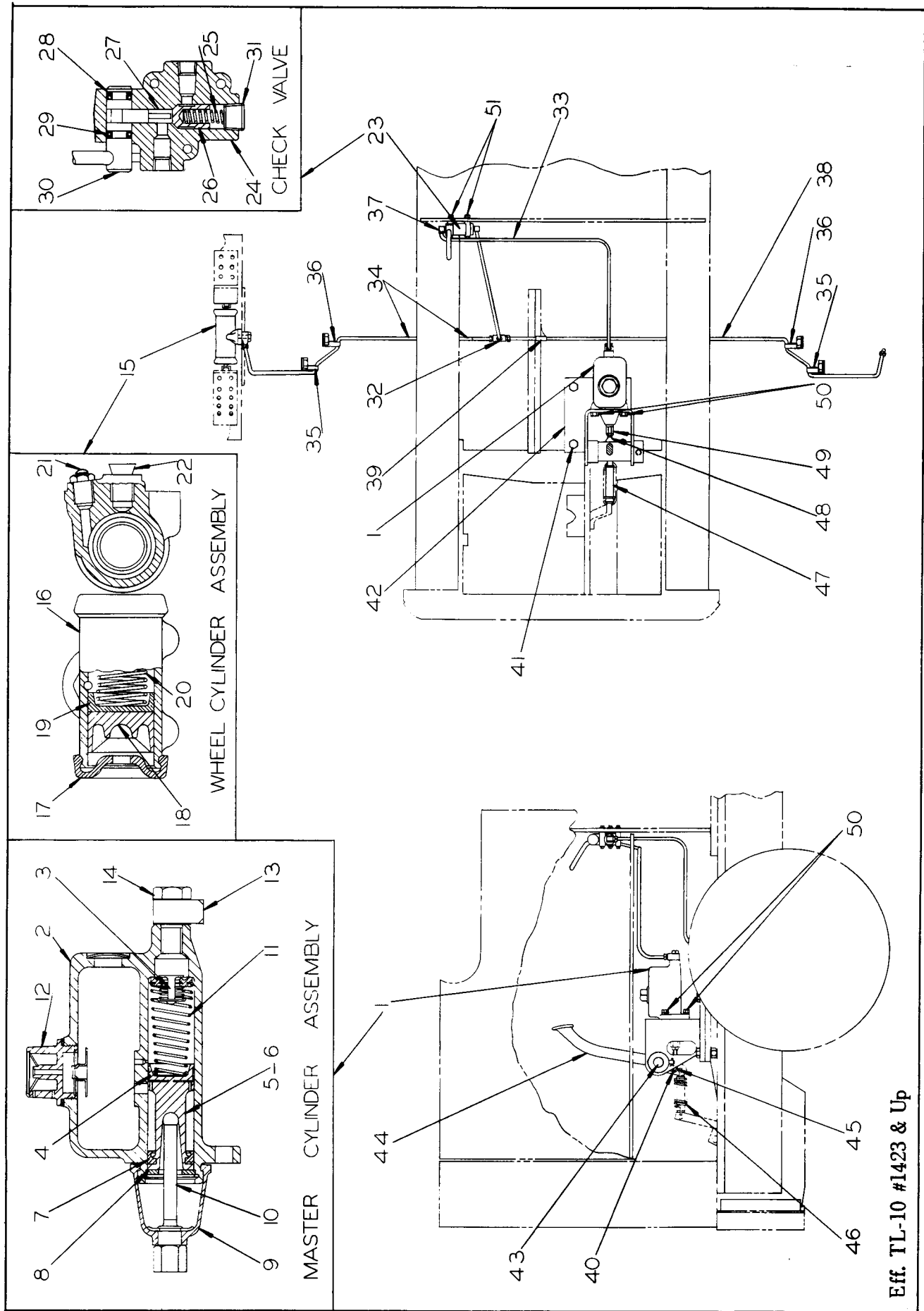
ITEM	PART NUMBER	QTY.	PART NAME
22	6797	2	Washer
	7115	2	Bolt
23	12490	1	Check Valve Assy. (Includes Items #24 thru #31)
24	- - - -	1	Housing (Not serviced separately)
25	14042	1	Spring
26	14043	1	Plunger
27	14044	1	Cam Follower
28	14045	2	Back-Up Ring
29	16812	2	Seal Ring
30	14046	1	Cam Assy.
31	907856	1	Pipe Plug, 3/8" Steel, Ctsk., 5/16" Hex
32	6788	1	Tee, Inverted Flare, 1/4"
33	12493	1	Tube Assy., Master Cylinder to Check Valve
34	6761	1	Tube Assy., Tee to R.H. Wheel
35	6769	2	Clamp
36	913039	2	Elbow, Male, Inv. Flare, 1/4" x 1/8"
37	6768	1	Tube Assy. Tee to L.H. Wheel
38	6780	1	Clamp
39	1170	1	Pin
	900801	1	Cotter Pin, 3/32" x 3/4"
40	1185	4	Capscrew, 1/2" - 20 NF x 1-3/4"
	904208	4	Lockwasher, 1/2" ASA Med.
	911043	4	Hex Nut, 1/2" - 20 NF
41	5823	1	Brake Bracket Assy. (Includes 2--5895 and 2--5896)
	5895	2	Seal
	5896	2	Bearing
42	6008	1	Washer (Used to key the Shaft to the Pedal)
	1089	1	Capscrew, 3/8" - 24 NF x 2"
	904206	1	Lockwasher, 3/8" ASA Med.
	911041	1	Hex Nut, 3/8" - 24 NF
43	12491	1	Tube Assy., Check Valve to Tee
44	6751	1	Brake Shaft Assy. (Includes 1--6288)

(Continued)

HYDRAULIC BRAKE SYSTEM - USED TL-10 #760 THRU #1422 - CONTINUED

(See Plate 453)

ITEM	PART NUMBER	QTY.	PART NAME
44	6288	1	Bushing
45	911159	1	Washer, 1" SAE
46	1108	3	Capscrew, 3/8" - 24 NF x 1-1/2"
	904206	3	Lockwasher, 3/8" ASA Med.
	911041	3	Hex Nut, 3/8" - 24 NF
47	12488	3	Machine Screw, #10-32 NF x 2"
	904203	3	Lockwasher, #10 ASA Med.
	910243	3	Plain Washer, #10 SAE
	910251	3	Hex Nut, #10-32 NF
48	5953	1	Pedal Weld Assy.
49	5999	1	Lever
50	6778	1	Spring
51	6790	1	Yoke End
	911048	1	Hex Jam Nut, 3/8" - 24 NF
52	2048	1	Capscrew, 3/8" - 24 NF x 1-1/4"
	904206	1	Lockwasher, 3/8" ASA Med.
	911041	1	Hex Nut, 3/8" - 24 NF
53	2737	2	Clamp



Eff. TL-10 #1423 & Up

PLATE 670 - HYDRAULIC BRAKE SYSTEM

HYDRAULIC BRAKE SYSTEM - EFFECTIVE TL - 10 #1423 & UP

(See Plate 670)

ITEM	PART NUMBER	QTY.	PART NAME
1	6162	1	Master Cylinder Assy., Complete (Includes 1--6796 and Items #13 & #14)
	6796	1	Master Cylinder (Includes one Housing, 1--6896 and Items #10 thru #12)
2	- - - -	1	Housing (Not serviced separately)
-	6896	1	Cylinder Repair Kit (Includes Items #3 thru #9)
3	7872	1	Check Valve Assy.
4	7873	1	Cup, Primary, Piston
5	7874	1	Piston Assy.
6	- - - -	1	Piston and Cup Protector Assy. (Not serviced separately)
7	7875	1	Cup, Secondary, Piston
	7876	1	Ring, Cup, Piston Secondary
8	7877	1	Lockwire, Stop Plate
	6895	1	Stop Plate, Piston
9	7878	1	Boot
10	6894	1	Piston Push Rod
11	6897	1	Piston Return Spring Assy.
12	6898	1	Filler Plug , 1-1/8" Hex Hd.
	6899	1	Gasket
13	6806	1	Fitting
	6797	1	Washer
14	7115	1	Fitting Bolt
	6799	1	Washer
15	7103	2	Wheel Cylinder Assy. (Each includes 1--7104 & ½ qty. of Items #21 & #22)
	7104	2	Wheel Cylinder Assy. (Each includes ½ qty. of Items #16 thru #20)
-	7110	2	Repair Kit, Cylinder (Each includes ½ qty. of Items #18 and #20)
16	7109	2	Wheel Cylinder Housing
17	7105	4	Boot
18	7106	4	Piston
19	7107	4	Cup
20	7108	2	Spring
21	7111	2	Bleeder Screw
22	7112	2	Inlet Connection
	6799	2	Washer

(Continued)

HYDRAULIC BRAKE SYSTEM - EFFECTIVE TL - 10 #1423 & UP - CONTINUED

(See Plate 670)

ITEM	PART NUMBER	QTY.	PART NAME
22	6797	2	Washer
	7115	2	Bolt
23	12490	1	Check Valve Assy. (Includes Items #24 thru #31) (Parking Brake Valve)
24	- - - -	1	Housing (Not serviced separately)
25	14042	1	Spring
26	14043	1	Plunger
27	14044	1	Cam Follower
28	14045	2	Back-Up Ring
29	16812	2	Seal Ring
30	14046	1	Cam Assy.
31	907856	1	Pipe Plug, 3/8" Steel, Ctsk., 5/16" Hex
32	6788	1	Tee, Inverted Flare , 1/4"
33	19175	1	Tube Assy., Master Cylinder to Check Valve
34	6761	1	Tube Assy., Tee to R.H. Wheel
35	6769	2	Clip
36	2737	2	Clip
37	913039	2	Elbow, Male, Inv. Flare, 1/4" x 1/8"
38	6768	1	Tube Assy., Tee to Left Hand Wheel
39	6780	1	Clamp
40	1170	1	Pin
	900942	1	Cotter Pin, 3/32" x 5/8"
41	1185	4	Capscrew, 1/2" - 20 NF x 1-3/4"
	904208	4	Lockwasher, 1/2" ASA Med.
	911043	4	Hex Nut, 1/2" - 20 NF
42	19114	1	Brake Bracket
43	7412	1	Pin
	1916	1	Lock Pin
	900806	1	Cotter Pin, 1/8" x 1"
44	7408	1	Foot Lever Assy. (Includes 2--5895, 2--5896 and 1--6288)
	5895	2	Seal
	5896	2	Bearing
			(Continued)

HYDRAULIC BRAKE SYSTEM - EFFECTIVE TL-10 #1423 & UP - CONTINUED

(See Plate 670)

ITEM	PART NUMBER	QTY.	PART NAME
45	6288	1	Bushing
46	7818	1	Spring
47	15533	1	Rod
48	6790	1	Yoke End
49	911048	1	Hex Jam Nut, 3/8" - 24 NF
50	2048	3	Capscrew, 3/8" - 24 NF x 1-1/4"
	904206	3	Lockwasher, 3/8" ASA Med.
	911041	3	Hex Nut, 3/8" - 24 NF
51	12488	3	Machine Screw, #10-32 NF x 2"
	904203	3	Lockwasher, #10 ASA Med.
	910243	3	Plain Washer, #10 SAE
	910251	3	Hex Nut, #10-32 NF

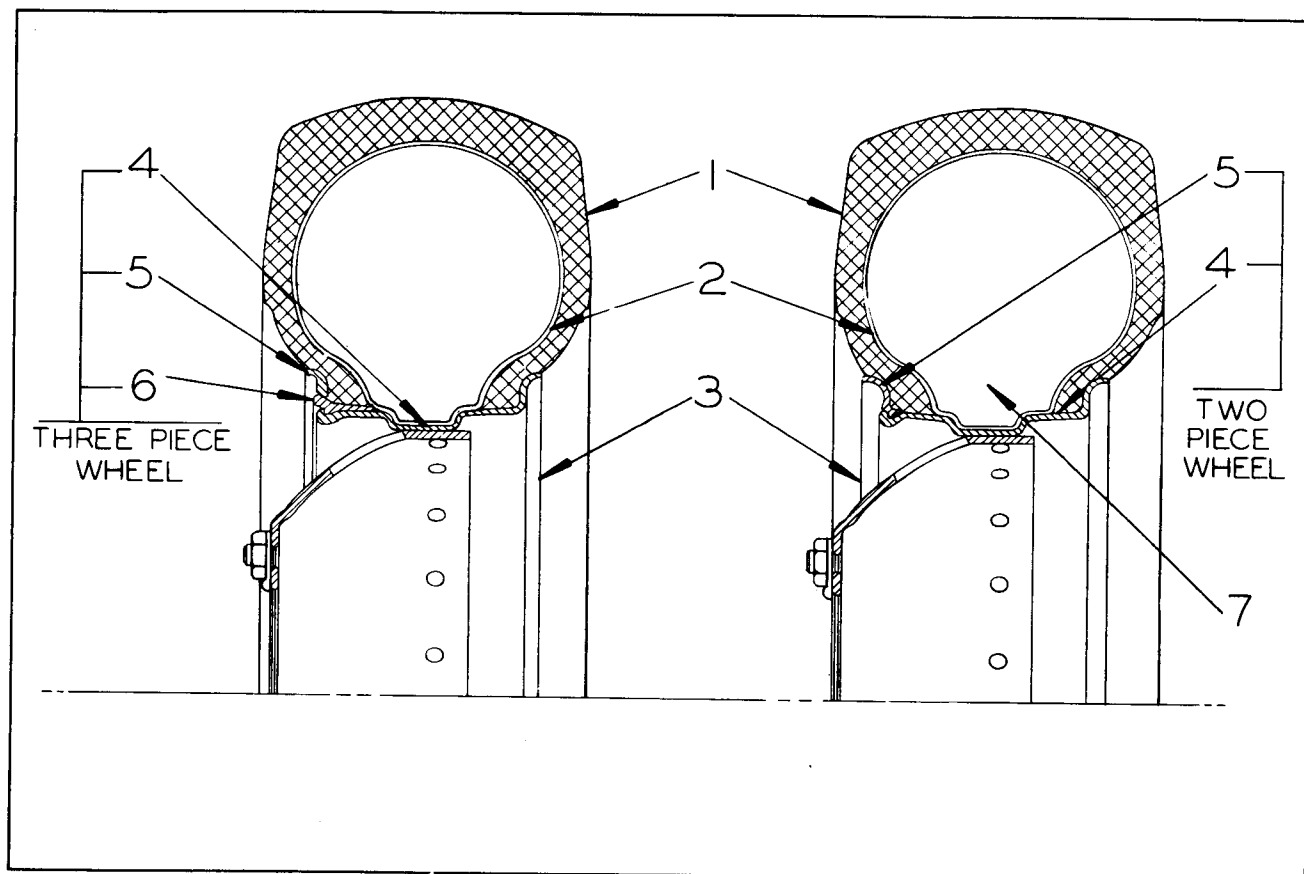


PLATE 170 - DRIVE WHEELS

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	----	2	Tire, Grader Lug Type, 13.00-24, 8 ply for 8.00 T Rim	Obtain Locally
2	----	2	Tube, Standard, for 13.00-24 Tire w/TR-218 Valve	
3	15573	2	Wheel Assy. (3 piece) (Each includes one Wheel, 1-- 5096, and 1-- 5097)	Use Nut 14430 only - See Item #41, page 169
	15572	2	Wheel Assy. (2 piece) (Each includes one Wheel & 1-- 13467)	
4	----	2	Wheel (3 piece) (Not serviced, order 15573)	
	----	2	Wheel (3 piece) (Use Nut 7151 & 7152 - Also see Item #41, page 169) (Not serviced, order 15573)	Used prior TL-10 #1016
	----	2	Wheel (2 piece) (Not serviced, order 15572)	Use Nut 14430 only
	----	2	Wheel (2 piece) (Use Nut 7151 - 7152 - Also see Item #41, page 169) (Not serviced, order 15572)	Used prior TL-10 #1016
5	5096	2	Side Ring (For 3 piece Wheel)	
	13467	2	Side Ring (For 2 piece Wheel)	
6	5097	2	Lock Ring (For 3 piece Wheel)	
7	----	-	Calcium Chloride (Not furnished, obtain locally)	

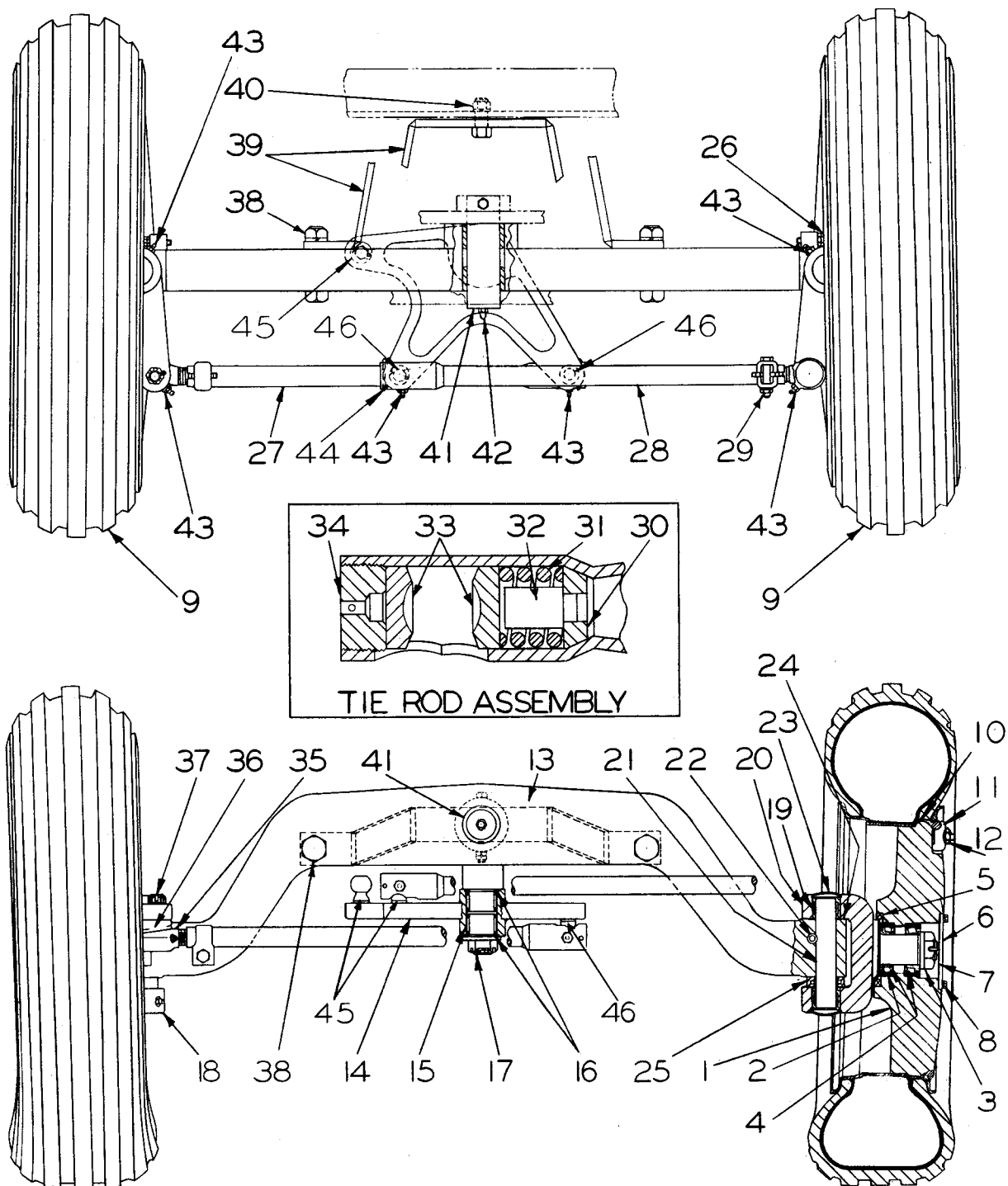


PLATE 153 - WHEEL AND AXLE - STEERING

WHEEL AND AXLE - STEERING

(See Plate 153)

ITEM	PART NUMBER	QTY.	PART NAME		NOTE
1	4933	2	Wheel Assy. (Cast Type) (Each includes one Wheel, and 2-- 4934)		Used prior TL-10 #409
	----	2	Wheel (Not serviced, order 4933)		
	10620	2	Wheel Assy. (Cast Type) (Each includes one Wheel, 1-- 10578 and 1-- 4934)		Used TL-10 #409 thru #559
	----	2	Wheel (Not serviced, order 10620)		
	11251	2	Wheel Assy. (Cast Type) (Each includes one Wheel, 1-- 10578 and 1-- 4934)		Eff. TL-10 #560
	----	2	Wheel (Not serviced, order 11251)		
2	10578	2	Cup, (Inner)		Eff. TL-10 #409
	4934	2	Cup (Outer) (Prior TL-10 #409, order four)		
3	4948	2	Washer		
	913798	2	Hex Jam Nut, 1-1/4" - 12 NF, Slotted		
	910148	2	Cotter Pin, 7/32" x 2"		
4	10579	2	Bearing Cone (Inner)		Eff. TL-10 #409
	4930	2	Bearing (Outer) (Prior TL-10 #409, order four)		
5	17034	2	Seal		
6	14916	2	Cover (Hub)		
7	4938	2	Gasket		
8	1665	8	Capscrew, 5/16" - 18 NC x 1"		
	904205	8	Lockwasher, 5/16" ASA Med.		
9	----	2	Tire (6 Ply, Rib Tread - Implement) and Tube, 7.50-16	Not Furnished Obtain Locally	Used prior TL-10 #560
	----	2	Tire (8 Ply, Rib Tread - Implement) and Tube, 7.50-16		Eff. TL-10 #560
	----	2	Tube, For 7.50-16 Tire w/TR-218 Valve		
	----	-	Solution, Calcium Chloride		
10	4927	2	Rim, 5.50 x 16 - Full Drop		Used prior TL-10 #560
	11223	2	Rim Assy., 5.50 x 16 - Semi-drop (Each includes 1-- 11221 and 1-- 11222)		Eff. TL-10 #560
	11221	2	Ring		
	11222	2	Rim Base		
11	4928	12	Rim Clamp		Used prior TL-10 #560
	11224	12	Rim Clamp		Eff. TL-10 #560

(Continued)

(Continued)

WHEEL AND AXLE - STEERING - CONTINUED

(See Plate 153)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
12	4929	12	Stud, 1/2" - 13 NC x 2-1/16"	
	12470	12	Hex Nut, 1/2" - 13NC	
13	4924	1	Axle Assy., Complete (Includes 1--4946, Items #14, 16, 17, 1--4914, 1--4915, Items #21 thru #27, 43 and 1--900806)	Used prior to TL-10 #409
	4946	1	Axle Assy. (Includes 2--1066)	Used prior to TL-10 #1502
	24485	1	Axle Assy., (Includes 2--1066)	Effective with TL-10 #1502
	1066	2	Bushing	
	10621	1	Axle Assy., Complete (Includes 1--4946, Items #14, 16, 17, 1--10617, 1--10618, Items #21 thru #27, 43 and 1--900806)	Used TL-10 #409 thru #1501
	24486	1	Axle Assy., Complete (Includes 1--24485 Items #14, 16, 17, 1--10617, 1--10618, Items #21 thru #25, 27, 43 and 1--900806)	Effective with TL-10 #1502
14	4911	1	Steering Arm Assy. (Includes Items #15, 45 and 46)	
15	4922	2	Bearing	
16	4912	2	Felt Washer	
17	4913	1	Washer	
	913798	1	Hex Jam Nut, 1-1/4" - 12 NF, Slotted	
	910148	1	Cotter Pin, 7/32" x 2"	
18	4914	1	Spindle Assy., Left (Includes 2-- 4921)	Used prior TL-10 #409
	10617	1	Spindle Assy., Left (Includes 2-- 4921)	Eff. TL-10 #409
19	4921	4	Bearing (Torrington Part No. B-2020 w/Oil Hole)	
20	4915	1	Spindle Assy., Right (Includes 2-- 4921)	Used prior TL-10 #409
	10618	1	Spindle Assy., Right (Includes 2--4921)	Eff. TL-10 #409
21	4918	2	Spindle Pin	
22	4917	2	Stud (Spindle Pin Lock)	
	911115	2	Plain Washer, 3/8" SAE	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911041	2	Hex Nut, 3/8" - 24 NF	
23	910000	4	Plug, Expansion, 2" Steel	
24	4919	-	Washer (Use as required)	
25	4920	2	Bearing	
26	1433	4	Capscrew, 5/8" - 11 NC x 1-1/2"	(Continued)

WHEEL AND AXLE – STEERING – CONTINUED

(See Plate 153)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
26	910511	4	Hex Jam Nut, 5/8" – 11 NC	
27	6018	2	Tie Rod Assy. (Each includes ½ qty. of Items #28 thru #35 and #44)	
28	----	2	Tie Rod (Not serviced separately)	
29	5337	2	Clamp Assy. (Each includes one Clamp, 1--2670, 1--904208 and 1--911043)	
	----	2	Clamp (Not serviced separately)	
	2670	2	Capscrew, 1/2" – 20 NF x 2-1/4"	
	904208	2	Lockwasher, 1/2" ASA Med.	
	911043	2	Hex Nut, 1/2" – 20 NF	
30	5223	2	Seat	
31	5221	2	Spring	
32	17076	2	Spacer	
33	5220	4	Bearing	
34	5219	2	Plug	
35	5316	2	Socket Assy. (Each includes one Item #36 and 1--912840)	
36	5317	2	Boot	
37	912840	2	Hex Nut, 5/8" – 18 NF	
	900806	2	Cotter Pin, 1/8" x 1"	
38	2693	2	Capscrew, 3/4" – 16 NF x 4"	
	904369	2	Lockwasher, 3/4" ASA , Med.	
	911045	2	Hex Nut, 3/4" – 16 NF	
39	4937	1	Radius Rod	
40	4935	1	Shoulder Bolt, 3/4" – 16 NF	
	904369	1	Lockwasher, 3/4" ASA Med.	
	911045	1	Hex Nut, 3/4" – 16 NF	
41	4939	1	Pin	
	2053	1	Capscrew, 1/2" – 20 NF x 4"	
	913177	2	Hex Jam Nut, 1/2" – 20 NF	
42	915274	1	Lubricating Fitting, 45° 1/8" – 27 NPT	
43	914465	9	Lubricating Fitting, st., 1/8" – 27 NPT	
44	904003	2	Cotter Pin, 1/8" x 1-1/4"	
45	25314	2	Stud, Ball	
	912840	2	Nut, slotted 5/8" NF	
	900808	2	Pin, Cotter, 1/8" x 1-1/2"	
46	20848	1	Stud, Ball	
	913470	1	Nut, Jam, 5/8" NF	
	800808	1	Pin, Cotter, 1/8" x 1-1/2"	

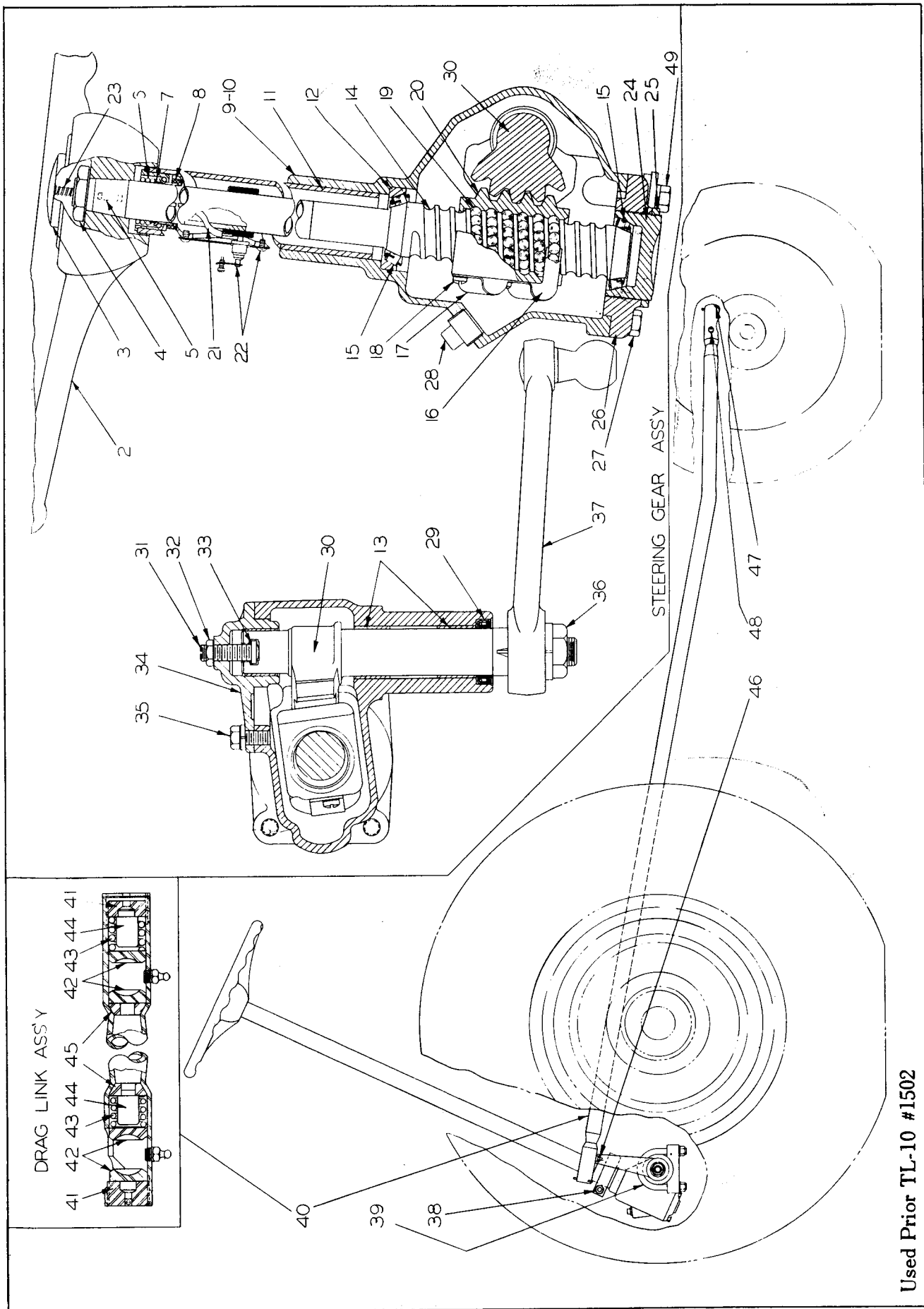


PLATE 167 - STEERING GROUP (CONVENTIONAL)

STEERING GROUP (CONVENTIONAL) – USED PRIOR TL-10 #1502

(See Plate 167)

ITEM	PART NUMBER	QTY.	PART NAME
1	6587	1	Steering Gear Assy. (Includes Items #4 thru #9, #14, #22 and #24 thru #36)
2	23001	1	Steering Wheel (Includes Steel Cup)
	912307	4	Screw (Self Tapping)
3	6592	1	Horn Button Assy. (Includes one Ring, four Drive Screw, one Rubber Washer, one Brass Cup, one Insulator Washer and one Spring) (Serviced as assy. only)
4	6584	1	Nut
5	6583	1	Key
6	6582	1	Spring
7	6581	1	Seat
8	6580	1	Bearing Assy.
9	6578	1	Housing Assy., Steering Gear (Includes Items #10 thru #13)
10	----	1	Housing (Not serviced separately)
11	----	1	Jacket, Column (Not serviced separately)
12	6613	1	Bearing Cup
13	6614	2	Bushing
14	6579	1	Shaft Assy. (Includes one Items #15 thru #21 and #23)
15	6575	2	Bearing, Worm Thrust
16	6598	4	Guide, Ball Return
17	6599	1	Clamp, Ball Return Guide
18	3933	3	Bolt and Washer Assy.
19	6597	106	Ball
20	----	1	Nut Ball (Not serviced separately)
21	6600	1	Contact Assy., Horn Cable (Includes one Cable and one Contact)(Serviced as assy. only)
22	6590	1	Connector Assy. (Includes Screw and Lockplate) (Serviced as assy. only)
	3850	2	Screw
23	6601	1	Terminal Assy., Horn (Includes one Terminal, one Spring and two Insulating Washer)
24	6573	1	Adjuster, Worm Bearing (Serviced as assy. only)
25	6574	1	Nut, Worm Bearing Adjuster
26	6576	1	Cover, Housing End
	6577	1	Gasket, End Cover
27	6572	3	Capscrew, 7/16" – 14 NC x 1–1/8" (Four used prior TL-10 #1058 except
	904207	3	Lockwasher, 7/16" ASA Med. #1041, 1044, 1045, 1047 & 1048)
28	905261	1	Pipe Plug, 3/8" Sq. Hd. Steel (Continued)

STEERING GROUP (CONVENTIONAL) - USED PRIOR TL-10 #1502 - CONTINUED

(See Plate 167)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
29	6585	1	Seal Assy.	
30	6586	1	Gear	
31	3896	1	Adjuster, Lash	
32	910876	1	Hex Jam Nut, 7/16" - 20 NF	
33	3883	1	Shim (.063" thick)	Select One
	3884	1	Shim (.065" thick)	
	3885	1	Shim (.067" thick)	
	3886	1	Shim (.069" thick)	
34	3882	1	Side Cover Assy., Housing (Includes Bushing)	
	3901	1	Gasket, Side Cover	
35	2205	3	Capscrew, 3/8" - 16 NC x 3/4"	
	904206	3	Lockwasher, 3/8" ASA Med.	
36	3904	1	Nut, Pitman Arm	
	904369	1	Lockwasher, 3/4" ASA Med.	
37	6589	1	Pitman Arm	
38	5026	1	"U" Bolt	
	904208	2	Lockwasher, 1/2" ASA Med.	
	911043	2	Hex Nut, 1/2" - 20 NF	
39	5024	1	"U" Bolt	
	5023	1	Clamp Block	
	904209	2	Lockwasher, 5/8" ASA Med.	
	911044	2	Hex Nut, 5/8" - 18 NF	
40	5225	1	Drag Link Assy. (Includes Items #41 thru #45)	Used TL-10 #410 thru #759
	14692	1	Drag Link Assy. (Includes Items #41 thru #45)	Eff. TL-10 #1 thru #409 and #760 & Up
41	5219	2	Plug	
42	5220	4	Bearing	
43	5221	2	Spring	
44	17076	2	Spacer	
45	5223	2	Seat	
46	914465	1	Lubricating Fitting, St., 1/8" - 27 NPT	
47	904003	2	Cotter Pin, 1/8" x 2-1/4"	
48	915276	1	Lubricating Fitting, 90°, 1/8" - 27 NPT	
49	2083	1	Capscrew, 7/16" - 14 NC x 1-1/2"	Eff. TL-10 #1041, #1044, #1045, #1047, #1048, #1058 & Up
	904207	1	Lockwasher, 7/16" ASA Med.	
	15624	1	Spacer	
	15625	1	Block, Locknut	

HYDRAULIC POWER STEERING GROUP – EFF. TL-10 #1502 & UP
(Used on TL-10 Prior #1502 as Special Equipment)
(See Plate 384)

ITEM	PART NUMBER	QTY.	PART NAME
1	11665	1	Steering Gear Assy. (Includes Items #4 thru #9, #14, #22 and #24 thru #45)
2	23001	1	Steering Wheel (Includes Steel Cup)
3	6592	1	Horn Button Assy. (Includes one Ring, four Drive Screw, one Rubber Washer, one Brass Cup, one Insulator Washer and one Spring)
4	6584	1	Nut
5	6583	1	Key
6	6582	1	Spring
7	11659	1	Washer
8	6580	1	Bearing Assy.
9	11655	1	Housing Assy., Steering Gear (Includes Items #10 thru #13)
10	----	1	Housing (Not serviced separately)
11	----	1	Jacket, Column (Not serviced separately)
12	11654	1	Bearing
13	6614	2	Bushing
14	11658	1	Shaft Assy., Ball, Nut Contact and Steering (Includes Items #15 thru #21 and #23)
15	6598	4	Guide, Ball Return
16	6599	1	Clamp, Ball Return Guide
17	3933	3	Bolt and Washer Assembly
18	6597	106	Ball
19	----	1	Nut, Ball (Not serviced separately)
20	11657	1	Contact Assy., Horn Cable (Includes one Cable and one Contact)(Serviced as assy. only)
21	----	1	Bearing Ring (Not serviced separately)
22	6590	1	Connector Assy. (Includes Screw and Lockplate) (Serviced as assy. only)
	3850	2	Screw, #10-16 Self Tapping x 1/4"
23	6601	1	Terminal Assy., Horn (Includes one Terminal, one Spring and two Insulating Washers) (Serviced as assy. only)
24	11649	1	Adapter Assy. (Includes Item #25 and #26)
	6577	1	Gasket, End Cover
25	20125	1	Needle Bearing
26	16722	1	Seal Ring
27	6572	4	Capscrew, 7/16" – 14 NC x 1-1/8"
	904207	4	Lockwasher, 7/16" ASA Med.
28	17977	1	Valve Assy. (Includes Item #29, one Housing, ten Plunger, one Spool and five Spring) (Serviced as assy. only)

(Continued)

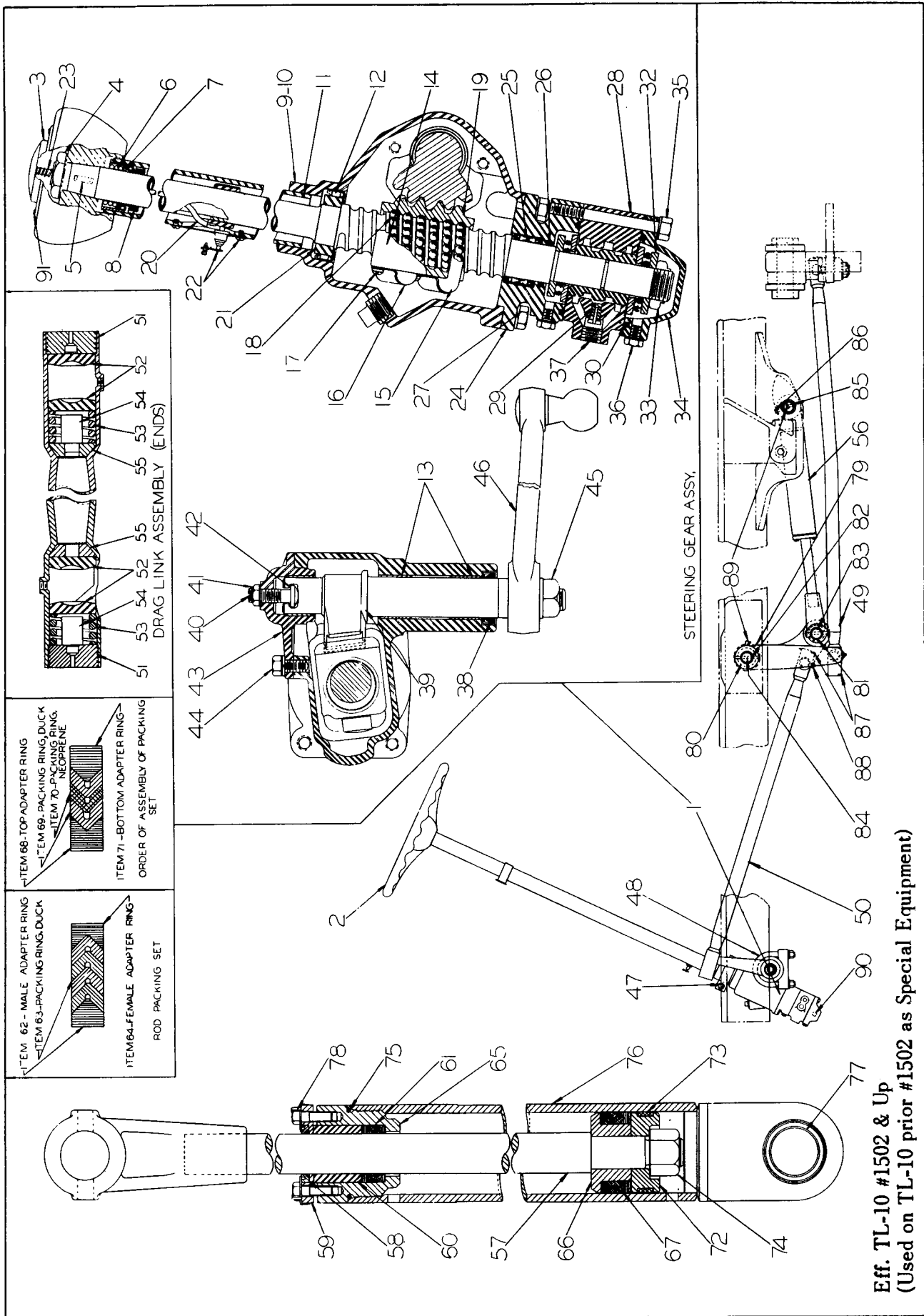


PLATE 384 - HYDRAULIC POWER STEERING GROUP

HYDRAULIC POWER STEERING GROUP – CONTINUED

(See Plate 384)

ITEM	PART NUMBER	QTY.	PART NAME
29	----	1	Valve Assy., Check (Includes one Ball and one Body) (Not serviced, order 17977)
30	11661	2	Seal
32	11651	2	Bearing Assy.
33	11664	1	Nut
34	20124	1	Cover
35	11663	3	Capscrew, 3/8" – 16 NC x 3-1/2"
	904206	3	Lockwasher, 3/8" ASA Med.
36	6433	2	Capscrew, 5/16" – 16 NC x 1/2"
	11653	2	Gasket, Washer (Used with tapped hole in cover)
37	905261	1	Pipe Plug, 1/2" Steel, 9/16" Sq. Hd.
38	6585	1	Seal
39	6586	1	Gear
40	3896	1	Adjuster, Lash
41	910876	1	Hex Jam Nut, 7/16" – 20 NF
42	3883	1	Shim (.063" thick)
	3884	1	Shim (.065" thick)
	3885	1	Shim (.067" thick)
	3886	1	Shim (.069" thick)
43	3882	1	Side Cover Assy., Housing (Includes one Bushing)
	3901	1	Gasket, Side Cover
44	2205	3	Capscrew, 3/8" – 16 NC x 3/4"
	904206	3	Lockwasher, 3/8" ASA Med.
45	3904	1	Nut, Pitman Arm
	904369	1	Lockwasher, 3/4" ASA Med.
46	6589	1	Pitman Arm
47	5026	1	"U" Bolt
	904208	2	Lockwasher, 1/2" ASA Med.
	911043	2	Hex Nut, 1/2" – 20 NF
48	5024	1	"U" Bolt
	5023	1	Clamp Block
	904209	2	Lockwasher, 5/8" ASA Med.
	911044	2	Hex Nut, 5/8" – 18 NF

(Continued)

HYDRAULIC POWER STEERING GROUP – CONTINUED

(See Plate 384)

ITEM	PART NUMBER	QTY.	PART NAME
49	10302	1	Drag Link Assy.
50	10303	1	Drag Link Assy.
51	5219	4	Threaded Plug
52	5220	8	Bearing
53	5221	4	Spring
54	17076	4	Spacer
55	5223	4	Seat
56	10986	1	Cylinder Assy. (Includes Items #57 thru #78)
57	10976	1	Piston Rod
58	3714	1	Oil Ring (Wiper)
59	3715	1	End Plate
60	3716	1	Bushing
61	3609	1	Rod Packing Set (Consists of Items #62 thru #64)
62	3610	1	Male Adapter Ring
63	3611	4	Packing Ring, Duck
64	3612	1	Female Adapter Ring
65	3717	1	Cylinder Head
66	3726	1	Piston, Upper
67	3727	1	Piston Packing Set (Consists of Items #68 thru #71)
68	3728	1	Top Adapter Ring
69	3729	2	Packing Ring, Duck
70	3730	1	Packing Ring, Neoprene
71	3731	1	Bottom Adapter Ring
72	3732	1	Piston, Lower
73	3733	1	Bearing Ring
74	3734	1	Locknut
75	3718	1	Seal Ring
76	10985	1	Cylinder Tube Assy. (Includes 1--1870)
77	1870	1	Bushing
78	3479	2	Capscrew, 5/16" – 24 NF x 1"
	3958	2	Lockwasher (Special)
79	10245	1	Steering Arm Assy. (Includes Items #80 and #81)

(Continued)

(See Plate 384)

ITEM	PART NUMBER	QTY.	PART NAME
80	4922	2	Bearing
	10242	2	Seal
81	10241	1	Bearing
	10242	2	Seal
82	10489	1	Pin
83	10490	1	Pin
84	1621	2	Lock Pin
	900806	2	Cotter Pin, 1/8" x 1"
85	5129	1	Pin
86	3936	1	Capscrew, 7/16" – 20 NF x 3–1/2"
	904207	1	Lockwasher, 7/16" ASA Med.
	911042	1	Hex Nut, 7/16" – 20 NF
87	904003	4	Cotter Pin, 1/8" x 2–1/4"
88	914465	4	Lubricating Fitting, St., 1/8" – 27 NPT
89	915276	2	Lubricating Fitting, 90o, 1/8" NPT
90	12682	2	Bolt, Universal Fitting
91	912307	4	Screw, #8 x 1/2" Self Tapping
92	20848	2	Stud, Ball
	912840	2	Nut, Slotted 5/8" Not Illustrated
	900808	2	Pin, Cotter 1/8" x 1–1/2"
93	16119	–	Cylinder Repair Kit (Includes Items #58, 59, 61, 62, 67, 73, 75 and 78)

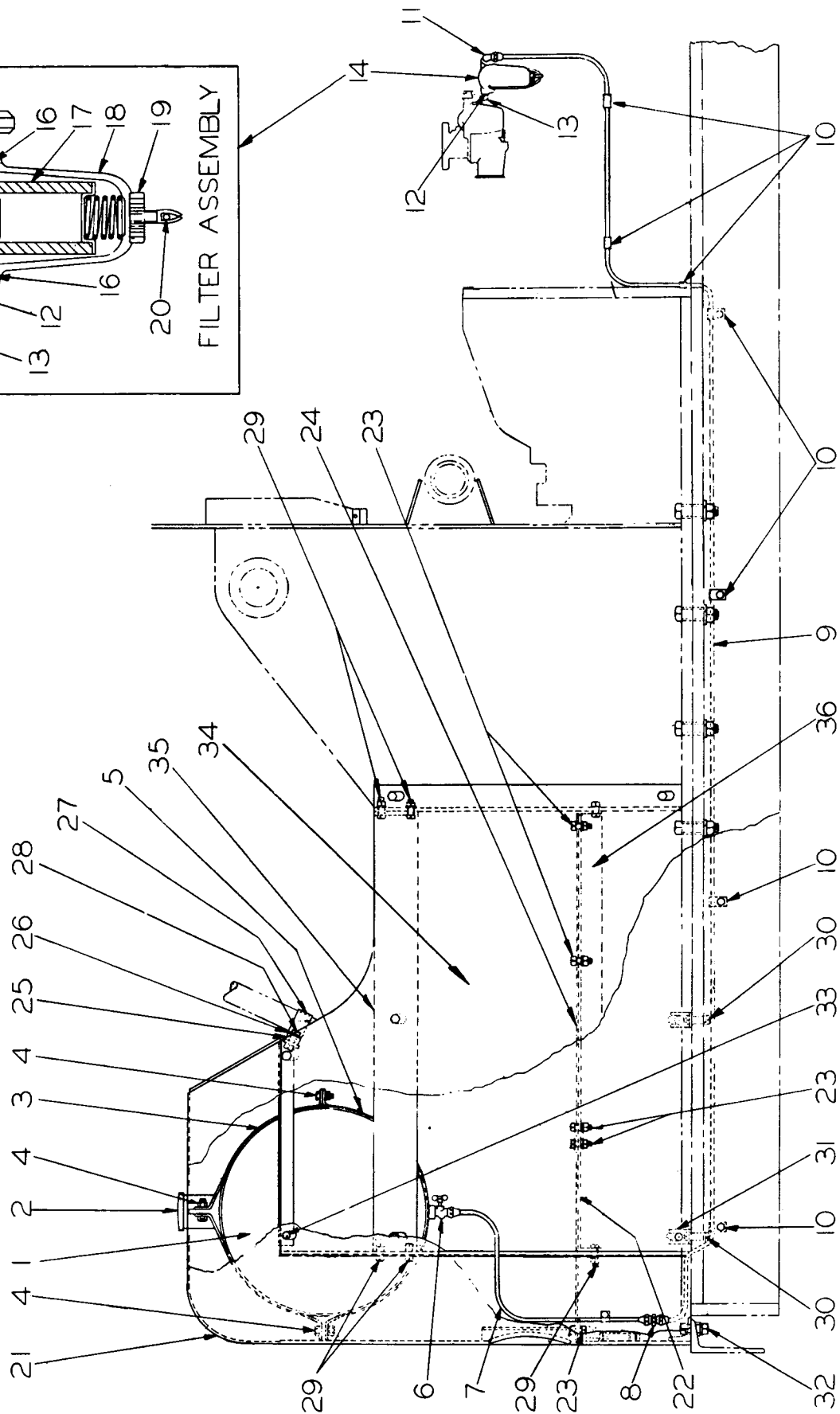


PLATE 168 - FUEL SYSTEM AND COWL

FUEL SYSTEM AND COWL - USED PRIOR TL-10 #792

(See Plate 168)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	4562	1	Fuel Tank (Includes Item #2)	Used prior TL-10 #638
	11815	1	Fuel Tank (Includes Item #2)	Eff. TL-10 #638
2	3530	1	Cap, Fuel Tank	
	3623	1	Cap, Fuel Tank (Includes Items #38 and 39) (Special Equipment)	
3	5240	4	Strap	
	6335	2	Packing Strip	Used prior TL-10 #638
	11860	2	Packing Strip	Eff. TL-10 #638
4	5227	12	Washer (Square)	Used prior TL-10 #638
	1108	6	Capscrew, 3/8" - 24 NF x 1-1/2"	
	904206	6	Lockwasher, 3/8" ASA Med.	
	911041	6	Hex Nut, 3/8" - 24 NF	
	5227	4	Washer, Square	Eff. TL-10 #638
	1108	4	Capscrew, 3/8" - 24 NF x 1-1/2"	
	904206	4	Lockwasher, 3/8" ASA Med.	
	911041	2	Hex Nut, 3/8" - 24 NF (Used w/Front Capscrews only)	
5	5241	2	Strap	Used prior TL-10 #638
	13033	2	Strap	Used TL-10 #638 thru #791
6	6638	1	Valve, Shut Off	
7	6674	1	Tube Assy.	
8	917332	1	Union, 1/4" SAE Flared	
9	6632	1	Tube Assy.	Used prior TL-10 #638
	13368	1	Tube Assy.	Eff. TL-10 #638
10	2529	7	Tube Clamp	
	2862	1	Capscrew, 3/8" - 24 NF x 1/2"	Eff. TL-10 #638
	904206	1	Lockwasher, 3/8" ASA Med.	See Item 24, page 173
11	910161	1	Elbow, 1/4" Flared Tube x 1/8" - 27 NPT	
12	6673	1	Connector	
13	915399	2	90° Elbow, Street (Auto Type) 1/8" - 27 NPT	One used prior TL-10 #638
14	6659	1	Filter Assy., Fuel (Includes Items #15 thru #20)	(Continued)
15	6653	1	Head	
16	6654	1	Gasket, Bowl	
17	6655	1	Element	

FUEL SYSTEM AND COWL – USED PRIOR TL-10 #792 – CONTINUED

(See Plate 168)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
18	6656	1	Bowl	
19	6658	1	Bail Nut	
20	6657	1	Bail	
21	6404	1	Cowl	Used prior TL-10 #638
	11841	1	Cowl	Used TL-10 #638 thru #791
22	5983	1	Floor Plate, Front	
	8245	1	Rubber Block	
23	1243	13	Capscrew, 3/8" – 24 NF x 1"	
	911115	13	Plain Washer, 3/8" SAE	
	904206	13	Lockwasher, 3/8" ASA Med.	
	911041	13	Hex Nut, 3/8" – 24 NF	
24	4734	1	Floor Plate, Rear	
25	3448	–	Bar	
26	3878	–	Shim	(Use as required)
27	6287	1	Clamp	
28	911115	2	Plain Washer, 3/8" SAE	
	1108	2	Capscrew, 3/8" – 24 NF x 1–1/2"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911041	2	Hex Nut, 3/8" – 24 NF	
29	1243	10	Capscrew, 3/8" – 24 NF x 1"	
	904206	10	Lockwasher, 3/8" ASA Med.	
	911041	10	Hex Nut, 3/8" – 24 NF	
30	1108	7	Capscrew, 3/8" – 24 NF x 1–1/2"	
	904206	7	Lockwasher, 3/8" ASA Med.	
	911041	7	Hex Nut, 3/8" – 24 NF	
31	7178	4	Angle Weld Assy.	
32	1185	3	Capscrew, 1/2" – 20 NF x 1–3/4"	
	910244	3	Plain Washer, 1/2" SAE	
	904208	3	Lockwasher, 1/2" ASA Med.	
	906950	3	Washer, Bevel, 1/2"	
	911043	3	Hex Nut, 1/2" – 20 NF	
33	1243	2	Capscrew, 3/8" – 24 NF x 1"	(Continued)

(See Plate 168)

207

Eff. TL-10 #792 & Up

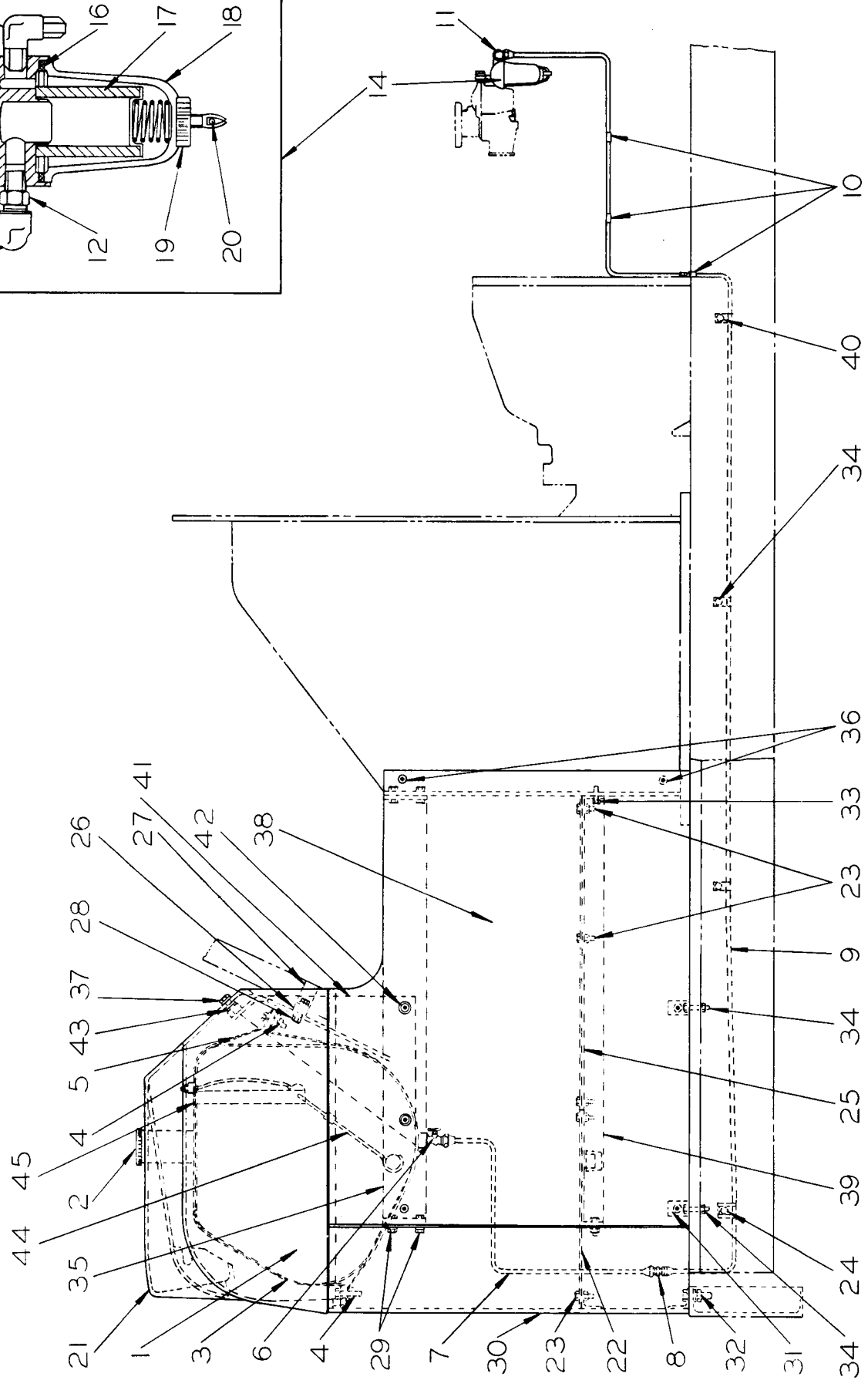


PLATE 694 - FUEL SYSTEM AND COWL

FUEL SYSTEM AND COWL - EFFECTIVE TL-10 #792 & UP

(See Plate 694)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	13032	1	Fuel Tank (Includes Items #2)	
2	3530	1	Cap, Fuel Tank	
	3623	1	Cap, Fuel Tank (Includes Items #46 and 47) (Special Equipment)	
3	13033	2	Strap	
	11860	4	Packing Strip	
4	5227	4	Square Washer	
	1108	4	Capscrew, 3/8" - 24 NF x 1-1/2"	
	904206	4	Lockwasher, 3/8" ASA Med.	
	911041	4	Hex Nut, 3/8" - 24 NF	
5	13034	2	Strap	
6	6638	1	Valve, Shut Off	
7	13725	1	Tube Assy.	
8	917332	1	Union, 1/4" SAE Flared	
9	13368	1	Tube Assy.	
10	2529	7	Tube Clamp	
11	910161	1	90o Elbow, 1/4" Flared Tube x 1/8" - 27 NPT	
12	6673	1	Connector	
13	915399	2	90o Elbow, Street, (Auto Type) 1/8" - 27 NPT	
14	6659	1	Filter Assy., Fuel (Includes Items #15 thru #20)	
15	6653	1	Head	
16	6654	1	Bowl Gasket	
17	6655	1	Element	
18	6656	1	Bowl	
	16274	1	Bowl (Special Equipment)	
19	6658	1	Bail Nut	
20	6657	1	Bail	
21	11640	1	Cowl, Top (Used with TL-10 #792 thru #1517 and #1519 thru #1525)	
	15504	1	Cowl Top (Effective with TL-10 #1518 and #1526 thru #1800)	
	24482	1	Cowl Top (Effective with TL-10 #1801 and up)	
22	13036	1	Floor Plate Weld Assy., Front	Used TL-10 #792 thru #1422 Incl.
	8245	1	Rubber Block	
	19212	1	Floor Plate Weld Assy., Front	Effective TL-10 #1423
23	1243	13	Capscrew, 3/8" - 24 NF x 1"	
	911115	13	Plain Washer, 3/8" SAE	
	904206	13	Lockwasher, 3/8" ASA Med.	
	911041	11	Hex Nut, 3/8" - 24 NF	

(Continued)

FUEL SYSTEM AND COWL - EFFECTIVE TL-10 #792 - CONTINUED

(See Plate 694)

ITEM	PART NUMBER	QTY.	PART NAME
24	1230	1	Capscrew, 3/8" - 24 NF x 3/4"
	904206	1	Lockwasher, 3/8" ASA Med.
25	4734	1	Floor Plate Weld Assy., Rear-Used TL-10 #792 thru #1422
	19236	1	Floor Plate Weld Assy., Rear-Second Type
	19237	1	Floor Plate Weld Assy., Rear-Third Type
26	3448	—	Bar
	3878	—	Shim (Use as required)
27	6287	1	Clamp
28	911115	2	Plain Washer, 3/8" SAE
	1108	2	Capscrew, 3/8" - 24 NF x 1-1/2"
	904206	2	Lockwasher, 3/8" ASA Med.
	911041	2	Nut, 3/8" NF Med.
29	1243	10	Capscrew, 3/8" - 24 NF x 1"
	904206	10	Lockwasher, 3/8" ASA Med.
	911041	10	Hex Nut, 3/8" - 24 NF
30	13015	1	Cowl, Bottom
31	7178	4	Angle Weld Assy.
32	1185	3	Capscrew, 1/2" - 20 NF x 1-3/4"
	910244	3	Plain Washer, 1/2" SAE
	904208	3	Lockwasher, 1/2" ASA Med.
	906950	3	Washer, Bevel, 1/2"
	911043	3	Hex Nut, 1/2" - 20 NF
33	1243	2	Capscrew, 3/8" - 24 NF x 1"
	904206	2	Lockwasher, 3/8" ASA Med.
34	1108	7	Capscrew, 3/8" - 24 NF x 1-1/2"
	904206	7	Lockwasher, 3/8" ASA Med.
	911041	7	Hex Nut, 3/8" - 24 NF
35	14613	2	Bar Weld Assy. (For initial installation, order also 14616 Brace Weld Assy.)
36	11457	12	Capscrew, 3/8" - 24 NF x 3/4", Btn. Hd., Skt.
	912301	12	Lockwasher, 3/8" ASA Med. External Tooth
37	1108	2	Capscrew, 3/8" - 24 NF x 1-1/2"
	911115	2	Plain Washer, 3/8" SAE
	906960	2	Lockwasher, 3/8" Internal Tooth
38	13026	2	Plate
(Continued)			

FUEL SYSTEM AND COWL - EFFECTIVE TL-10 #792 & UP - CONTINUED

(See Plate 694)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
39	6398	1	Support, Floor Plate (Left)	
	6399	1	Support, Floor Plate (Right)	
40	1230	1	Capscrew, 3/8" - 24 NF x 3/4"	
	904206	1	Lockwasher, 3/8" ASA Med.	
41	14616	1	Brace Weld Assy. (For initial installation, order also 14613 Bar Weld Assy.)	
42	11456	4	Capscrew, 3/8" - 24 NF x 1", Bt. Hd.	
	904206	4	Lockwasher, 3/8" ASA Med.	
	911115	4	Plain Washer, 3/8" - SAE	
	911048	4	Hex Jam Nut, 3/8" - 24 NF	
43	13775	-	Shim, 1/16" Thick (Use as required)	
	13776	-	Shim, 1/8" Thick	
44	20203	1	Fuel Gauge Link Unit (Effective TL-10#1518 and #1526 and up)	
45	20293	1	Gasket	
	904203	5	Lockwasher #10 ASA Med. (Effective TL-10 #1518 and #1526 and up)	
	900558	5	Machine Screw #10-32 NF x 1/2"	
46	13029	1	Screen	Not Illustrated (Special Equipment)
47	13028	1	Gasket	

INSTRUMENT PANEL ASSEMBLY

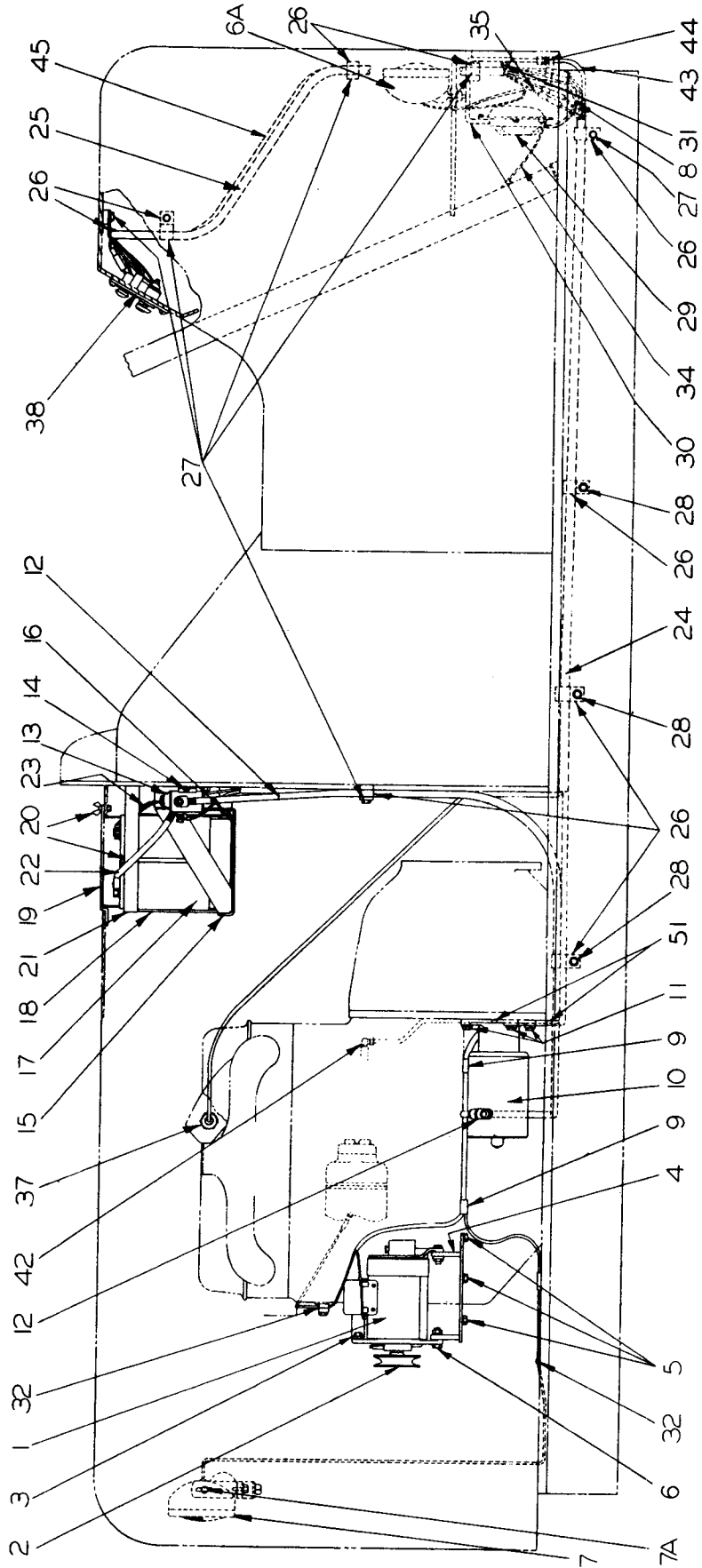
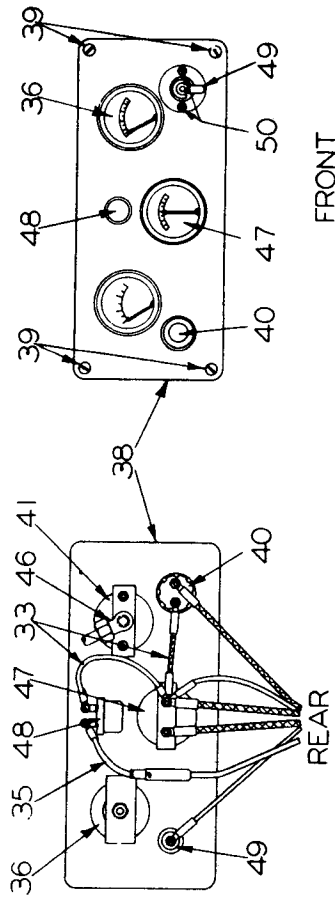


PLATE 180 - ELECTRICAL SYSTEM GROUP

ELECTRICAL SYSTEM GROUP - USED PRIOR TL-10 #792

(See Plate 180)

ITEM	PART NUMBER	QTY.	PART NAME
1	9603	1	Generator Assy. (Includes 1--9602 and 1--9589 - Order also 1--9605 Generator Bracket for initial installation)
	9602	1	Generator (Includes 1--9704, 1--905121, 1--5276 and 1--5275) (Order Repair Parts from Electric Auto-Lite Co. #GHD-6001AC-1)
2	9589	1	Pulley
	9704	1	Spacer
	905121	1	Key, 1/8" x 5/8"
	5276	1	Lockwasher
	5275	1	Hex Nut
3	5254	1	Brace, Generator
	6301	1	Capscrew, 5/16" - 18 NC x 3/4"
	910335	1	Plain Washer, 5/16" SAE
	904205	1	Lockwasher, 5/16" ASA Med.
4	9605	1	Bracket, Generator (Used with 9603 Generator Assy. only)
5	4884	3	Capscrew, 5/16" - 18 NC x 1-1/4"
	904205	3	Lockwasher, 5/16" ASA Med.
	910335	6	Plain Washer, 5/16" SAE
6	4884	2	Capscrew, 5/16" - 18 NC x 1-1/4"
	904205	2	Lockwasher, 5/16" ASA Med.
	900366	2	Hex Nut, 5/16" - 18 NC
6A	8047	2	Sealed Beam Light Assy., Head Light (Each includes parts as listed in Item 6A)
	11016	2	Element, Sealed Beam
	13712	2	Connector, Male Line
	904206	2	Lockwasher, 3/8" ASA Med.
	900367	2	Hex Nut, 3/8" - 16 NC
7	8727	1	Sealed Beam Assy., Tail Light (Includes parts as listed in Item 7) (Effective TL-10 #256 - Order 8047 for prior machines)
	11016	1	Element, Sealed Beam
	13712	1	Connector, Male Line
	904206	1	Lockwasher, 3/8" ASA Med.
	900367	1	Hex Nut, 3/8" - 16 NC
	8751	1	Bracket
	8752	1	Bracket, Swivel

(Continued)

ELECTRICAL SYSTEM GROUP – USED PRIOR TL-10 #792 – CONTINUED

(See Plate 180)

ITEM	PART NUMBER	QTY.	PART NAME
7	915050	1	Bolt, Carriage, 7/16" – 14 NC x 1/4" Sq. Neck
	904207	1	Lockwasher, 7/16" ASA Med.
	910881	1	Hex Nut, 7/16" – 14 NC
7A	1107	2	Capscrew, 3/8" – 16 NC x 1"
	904206	2	Lockwasher, 3/8" ASA Med.
	911989	2	Plain Washer, 3/8" SAE
8	904203	1	Lockwasher, #10 ASA Med.
	900850	1	Stove Bolt, 3/16" – 24 NC x 1/2", with Nut
9	7357	2	Clip
10	4908	1	Motor Assy., Starting (Order repair parts from Electric Auto-Lite Co. #MCL-6009A)
11	1243	3	Capscrew, 3/8" – 24 NF x 1"
	904206	3	Lockwasher, 3/8" ASA Med.
12	5993	1	Cable Assy., Solenoid to Starting Motor (Includes two Terminals and two Rubber Sleeves)
13	4953	1	Solenoid Starting Switch
14	911730	2	Stove Bolt, 3/16" – 24 NC x 1/2"
	904203	2	Lockwasher, #10 ASA Med.
15	5624	1	Battery Support, Left
	5625	1	Battery Support, Right
16	6734	4	Capscrew, 1/2" – 20 NF x 1"
	904208	4	Lockwasher, 1/2" ASA Med.
17	- - - -	1	Battery, 6 Volt, 95 Amp Hour Capacity, 15 Plate (Not furnished - obtain locally)
18	6731	2	Insulator, Battery, Bottom and Rear
	6732	2	Insulator, Battery, Left and Right Side
	10174	1	Insulator, Battery, Front
19	5990	1	Battery Cover Assy. (Includes 1-- 5989)
	5989	1	Rubber Strip
20	910335	2	Plain Washer, 5/16" SAE (Used with Bottom Wing Nuts)
	915016	4	Wing Nut, 5/16" – 18 NC
21	10175	1	Battery Hold Down
22	5992	1	Cable Assy., Battery to Solenoid Switch (Includes two Terminals and two Rubber Sleeves)
	8046	1	Washer, Felt

(Continued)

ELECTRICAL SYSTEM GROUP – USED PRIOR TL-10 #792 – CONTINUED

(See Plate 180)

ITEM	PART NUMBER	QTY.	PART NAME
23	5991	1	Strap Assy., Battery Ground (Includes two Terminals)
	8046	1	Washer, Felt
24	6676	1	Wiring Harness Assy., Complete
25	6629	1	Wiring Harness Assy., Complete
26	2196	9	Clamp
27	2862	6	Capscrew, 3/8" – 24 NF x 1/2"
	904206	6	Lockwasher, 3/8" ASA Med.
28	1108	3	Capscrew, 3/8" – 24 NF x 1-1/2"
	904206	3	Lockwasher, 3/8" ASA Med.
	911041	3	Hex Nut, 3/8" – 24 NF
29	2985	1	Horn Assy. (Includes 1--3072)
30	3072	1	Bracket, Horn
31	1638	2	Capscrew, 5/16" – 18 NC x 5/8"
	904205	2	Lockwasher, 5/16" ASA Med.
32	2737	3	Clip
33	6622	2	Wire Assy. (Each includes two Terminals and two Rubber Sleeves)
34	6702	1	Wire Assy. (Includes two Terminals and two Rubber Sleeves)
35	6682	1	Wire Assy. (Includes two Terminals and two Rubber Sleeves)
36	2898	1	Heat Indicator Assy. (Includes two Nuts, two Lockwashers and one Capillary Tube)
37	5819	1	Adapter
38	5929	1	Instrument Panel
39	911730	4	Stove Bolt, Rd. Hd., 3/16" – 24 NC x 1/2"
	904203	4	Lockwasher, #10 ASA Med.
40	4909	1	Starter Switch (Includes Nut and Washer)
41	2897	1	Pressure Gauge Assy., Oil (Includes two Nuts and two Lockwashers)
42	910129	1	90° Elbow, Male, 3/16" Tube (Includes Ball Sleeve and Nut)
43	6603	1	Tube, 3/16" I.D. x 108-1/2" Long, Seamless
44	914026	1	Union, 3/16" Tube (Includes two Ball Sleeves and two Nuts)
45	6602	1	Tube, 3/16" I.D. x 65-1/2" Long, Seamless
46	913474	1	90° Elbow, Female, 3/16" Tube (Includes Ball Sleeve and Nut)
47	6633	1	Ammeter (Includes Terminal Nuts and Lockwashers)
48	6610	1	Light Switch Assy. (Includes parts as listed in Item #48)

(Continued)

ELECTRICAL SYSTEM GROUP - USED PRIOR TL-10 #792 - CONTINUED

(See Plate 180)

ITEM	PART NUMBER	QTY.	PART NAME
48	6704	1	Light Switch
	6703	1	Switch Control Knob
	906960	1	Lockwasher, 3/8", Internal Tooth
	911048	1	Hex Jam Nut, 3/8" – 24 NF
49	6161	1	Magneto Switch (Includes two Terminal Nuts and one Lockwasher)
50	900498	2	Machine Screw, #8-32 NC x 3/8", Flat Head
51	2529	2	Clip

ELECTRICAL SYSTEM GROUP – USED TL-10 #792 THRU #1517 & #1519 THRU #1525

(See Plate 421)

ITEM	PART NUMBER	QTY.	PART NAME
1	9603	1	Generator Assy. (Includes 1-- 9602 and 1-- 9589)
	9602	1	Generator (Includes 1-- 9704, 1-- 905121, 1-- 5276 and 1-- 5275) (Order repair parts from Electric Auto-Lite Co. - #GHD-6001 AC - 1)
2	9589	1	Pulley
	9704	1	Spacer
	905121	1	Key , 1/8" x 5/8"
	5276	1	Lockwasher
	5275	1	Hex Nut
3	5254	1	Brace, Generator
	6301	1	Capscrew, 5/16" – 18 NC x 3/4"
	910335	1	Plain Washer, 5/16" SAE
	904205	1	Lockwasher, 5/16" ASA Med.
4	227238	1	Bracket, Generator (See Item #4 & Timing Gear and Crankcase for fasteners)
5	905562	2	Capscrew, 5/16" – 18 NC x 1–1/8" (See Item 5 - Page 213 for fasteners
	213314	2	Square Washer, 3/8" ASA Med. used with 9605 Bracket)
6	2687	2	Capscrew, 5/16" – 24 NF x 1–1/4"
	915262	2	Lockwasher, 5/16" – 24 NF
7	8047	2	Sealed Beam Light Assy., Head Light (Each includes parts as listed in Item #7 and 1-- 13712)
	11016	2	Element, Sealed Beam
	904206	2	Lockwasher, 3/8" ASA Med.
	900367	2	Hex Nut, 3/8" – 16 NC
8	13420	2	Seal Ring
9	13712	3	Connector Assy., Male Line
10	8727	1	Sealed Beam Light Assy., Tail Light (Includes parts as listed in Item #10 and 1- 13712)
	6708	1	Light Assy.
	11016	1	Element, Sealed Beam
	904206	1	Lockwasher, 3/8" ASA Med.
	900367	1	Hex Nut, 3/8" – 16 NC
	8751	1	Bracket
	8752	1	Bracket, Swivel
	915050	1	Bolt, Carriage, 7/16" – 14 NC x 1–1/4"

(Continued)

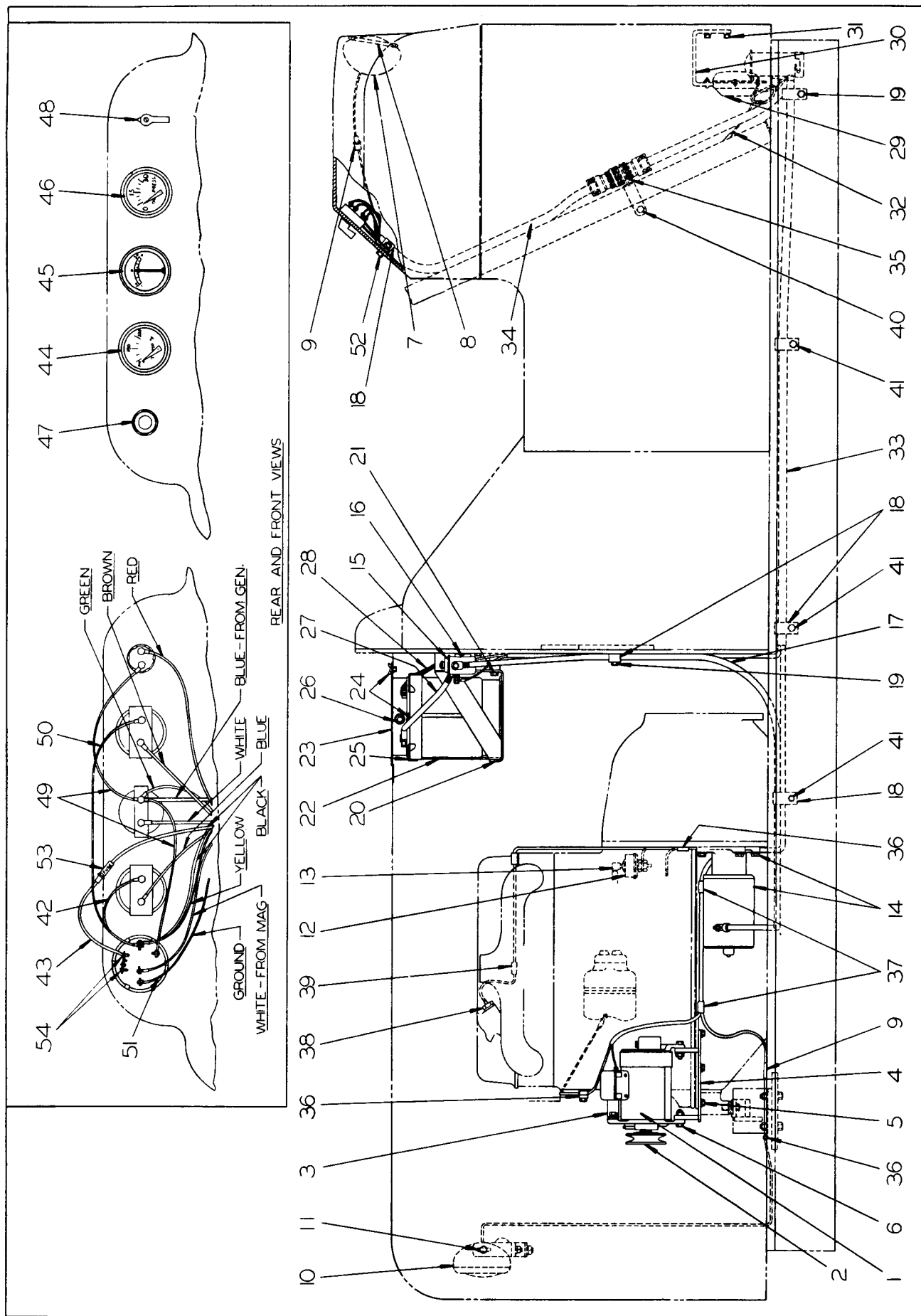


PLATE 421 - ELECTRICAL SYSTEM GROUP

ELECTRICAL SYSTEM GROUP – USED TL-10 #792 THRU #1517 & #1519 THRU #1525 – CONTINUED
(See Plate 421)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
10	904207	1	Lockwasher, 7/16" ASA Med.	
	910881	1	Hex Nut, 7/16" – 14 NC	
11	1107	2	Capscrew, 3/8" – 16 NC x 1"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911989	2	Plain Washer, 3/8" SAE	
12	13491	1	Pressure Sender (Prior TL-10 #1274 order also 16471)	
13	915399	1	90° Elbow, Street, 1/8" NPT (Auto type)	
14	4908	1	Motor Assy., Starting (Order repair parts from Electric Auto-Lite Co., #MCL-6009A)	
	1243	3	Capscrew, 3/8" – 24 NF x 1"	
	904206	3	Lockwasher, 3/8" ASA Med.	
15	4953	1	Solenoid Starting Switch (Order repair parts from Electric Auto-Lite Co., #SS-4007)	
16	911730	2	Stove Bolt, 3/16" – 24 NC x 1/2"	
	904203	2	Lockwasher, #10 ASA Med.	
17	5993	1	Cable	
18	11632	3	Clamp	
	14716	3	Clamp (Forward Section)	
19	2862	2	Capscrew, 3/8" – 24 NF x 1/2"	
	904206	2	Lockwasher, 3/8" ASA Med.	
20	5624	1	Battery Support, Left	
	5625	1	Battery Support, Right	
21	1084	4	Capscrew, 1/2" – 20 NF x 1"	
	906961	4	Lockwasher, 1/2" Internal Tooth	
22	----	1	Battery, 6 Volt, 95 Amp. Hour Capacity, 15 Plate (Not furnished - obtain locally)	
	6731	2	Insulator, Battery, Bottom and Rear	
	6732	2	Insulator, Battery, Left and Right	
	10174	1	Insulator, Battery, Front	
23	5990	1	Cover Assy., Battery (Includes 1-- 12696)	
	12696	1	Rubber Strip	
24	910335	2	Plain Washer, 5/16" SAE	
	915016	4	Wing Nut, 5/16" – 18 NC	
25	12690	1	Battery Hold Down	
26	12689	1	Grommet	

(Continued)

ELECTRICAL SYSTEM GROUP – USED TL-10 #792 THRU #1517 & #1519 THRU #1525 – CONTINUED

(See Plate 421)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
27	5992	1	Cable	
	8046	1	Washer, Felt	
28	5991	1	Ground Strap	
	8046	1	Washer, Felt	
29	2985	1	Horn Assy. (Includes 1-- 3072)	
30	3072	1	Bracket	
31	1638	2	Capscrew, 5/16" – 18 NC x 5/8"	
	904205	2	Lockwasher, 5/16" ASA Med.	
32	6702	1	Wire Assy. (Includes two Terminals and two Rubber Sleeves)	
33	13711	1	Wiring Harness, Complete (Bottom)	
34	13699	1	Wiring Harness, Complete (Top)	
35	908890	4	Machine Screw, #6-32 NC x 1/4", Self Tapping	
36	2737	3	Clip	
37	7357	2	Clip	
38	14389	1	Temperature Sender (Prior TL-10 #1274 order also 16470)	
39	2529	4	Clip (Capscrew furnished with Engine)	
40	13763	1	Clamp	
	1230	1	Capscrew, 3/8" – 24 NF x 3/4"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" – 24 NF	
41	1108	3	Capscrew, 3/8" – 24 NF x 1-1/2"	
	904206	3	Lockwasher, 3/8" ASA Med.	
42	6622	1	Wire Assy. (Includes two Terminals and two Rubber Sleeves)	
43	6682	1	Wire Assy. (Includes two Terminals and two Rubber Sleeves)	
44	16470	1	Temperature Gauge Assy. (Includes parts as listed in Item #44)	(Prior TL-10 #1274 order also 14389)
	17046	1	Mounting Strap	
	904203	2	Lockwasher, #10 ASA Med.	
	917415	2	Hex Nut, #10-32 NF	
	17049	1	Terminal Separator	
	906964	2	Lockwasher, #8 ASA Med.	
	917385	2	Hex Nut, #8-32 NC	
45	16406	1	Ammeter Assy. (Includes parts as listed in Item #45)	(Continued)
	17046	1	Mounting Strap	
	904203	4	Lockwasher, #10 ASA Med.	
	917415	4	Hex Nut, #10-32 NF	

(See Plate 421)

221

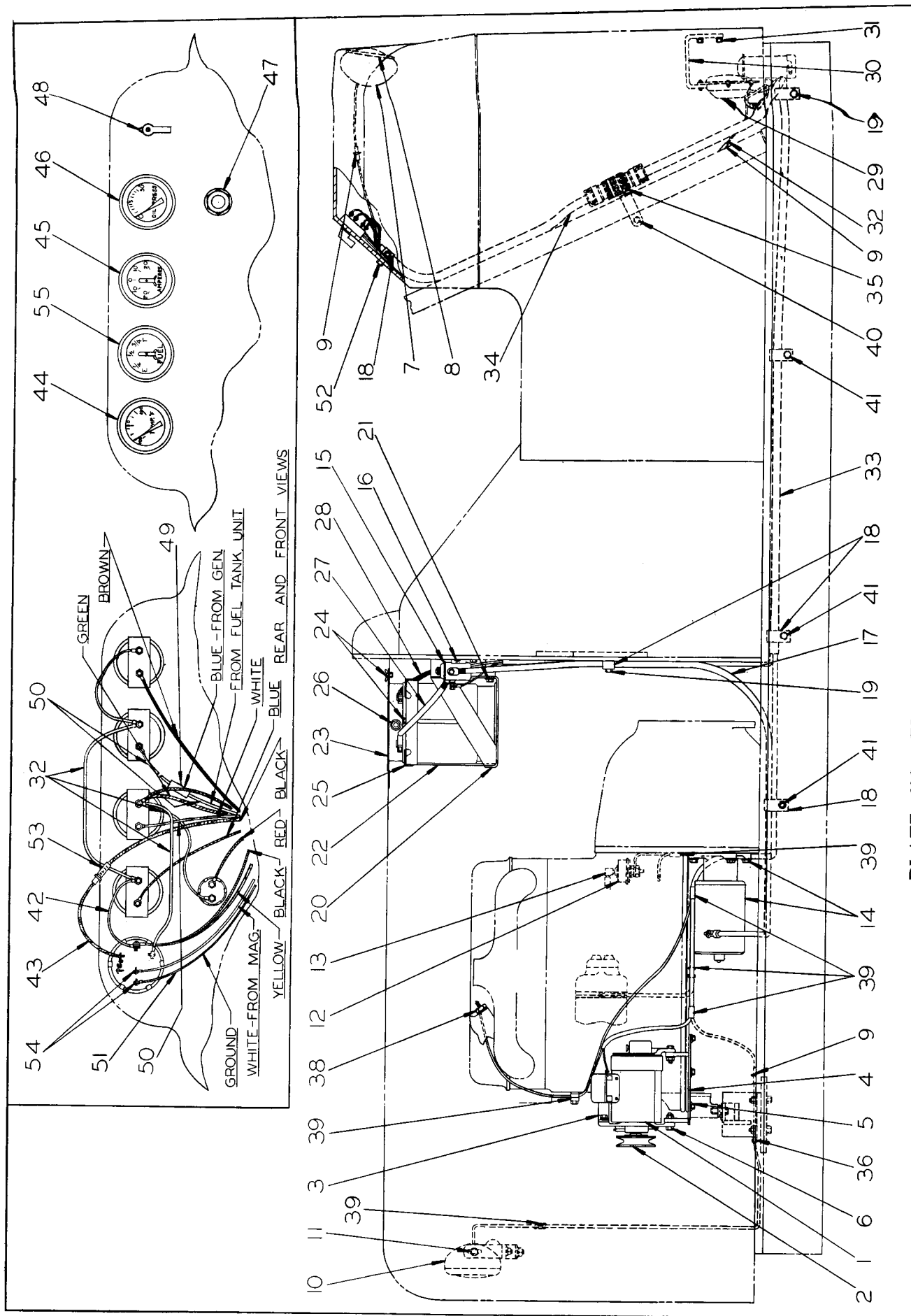


PLATE 693 - ELECTRICAL SYSTEM GROUP

ELECTRICAL SYSTEM GROUP – USED TL-10 #1518 AND #1526 THRU #1800

(See Plate 693)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	9603	1	Generator Assy. (Includes 1--9602 and 1--9589)	
	9602	1	Generator (Includes 1--9704, 1--905121, 1--5276 and 1--5275)	
			Order Repair Parts from Electric Auto-Lite Co. (#GHD-6001AC-1)	
2	9589	1	Pulley	
	9704	1	Spacer	
	905121	1	Key	
	5276	1	Lockwasher	
	5275	1	Hex Nut	
3	5254	1	Brace, Generator	
	6301	1	Capscrew, 5/16" – 18 NC x 3/4"	
	910335	1	Plain Washer, 5/16" SAE	
	904205	1	Lockwasher, 5/16" ASA Med.	
4	227238	1	Bracket, Generator	
	227309	1	Spacer, 1-1/8" long	
5	905662	2	Capscrew, 5/16" – 18 NC x 1-1/8"	
	213314	2	Square Washer	
6	2687	2	Capscrew, 5/16" – 24 NF x 1-1/4"	
	915262	2	Locknut, 5/16" – 24 NF	
7	8047	2	Sealed Beam Light Assy., Head Light (Each includes parts as listed in Item #7 and 1--13712)	
	11016	2	Element, Sealed Beam	
	904206	2	Lockwasher, 3/8" ASA Med.	
	900367	2	Hex Nut, 3/8" – 16 NC	
8	13420	2	Seal Ring	
9	13712	3	Connector Assy., Male Line (Serviced as assy. only)	
10	15523	1	Sealed Beam Light Assy., Tail Light (Includes parts as listed in Item #10 and 1--13712)	
	6708	1	Light Assy. (Serviced as assy. only)	
	11016	1	Element, Sealed Beam	
	904206	1	Lockwasher, 3/8" ASA Med.	
	900367	1	Hex Nut, 3/8" – 16 NC	
	8751	1	Bracket	
	8752	1	Bracket, Swivel	
	915050	1	Bolt, Carriage, 7/16" – 14 NC x 1-1/4"	
	904207	1	Lockwasher, 7/16" ASA Med.	
	910881	1	Hex Nut, 7/16" – 14 NC	
11	1107	2	Capscrew, 3/8" – 16 NC x 1"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911989	2	Plain Washer, 3/8" SAE	
				(Continued)

ELECTRICAL SYSTEM GROUP – USED TL-10 #1518 & 1526 THRU #1800 – CONTINUED
(See Plate 693)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
12	14391	1	Pressure Sender (Machine prior TL-10 #1274 order also #16471)	
13	915399	1	90o Elbow, Street, 1/8" NPT (Auto type)	
14	4908	1	Motor Assy., Starting (Order Repair Parts from Electric Auto-Lite Co., #MCL-6009A)	
	1243	3	Capscrew, 3/8" – 24 x 1"	
	904206	3	Lockwasher, 3/8" ASA Med.	
15	4953	1	Solenoid Starting Switch (Order Repair Parts from Electric Auto-Lite Co., #SS-4007)	
16	911730	2	Stove Bolt, 3/16" – 24 NC x 1/2"	
	904203	2	Lockwasher, #10 ASA Med.	
17	5993	1	Cable	
18	11632	3	Clamp	
	14716	3	Clamp (Forward Section)	
19	2862	2	Capscrew, 3/8" – 24 NF x 1/2"	
	904206	2	Lockwasher, 3/8" ASA Med.	
20	5624	1	Battery Support, Left	
	5625	1	Battery Support, Right	
21	1084	4	Capscrew, 1/2" – 20 NF x 1"	
	906961	4	Lockwasher, 1/2", Internal Tooth	
22	----	1	Battery, 6 Volt, 95 Amp Hour Capacity, 15 Plate (Not furnished - obtain locally)	
	6731	2	Insulator, Battery, Bottom and Rear	
	6732	2	Insulator, Battery, Left and Right	
	10174	1	Insulator, Battery, Front	
23	5990	1	Cover Assy., Battery (Includes 1--12696)	
	12696	1	Rubber Strip	
24	910335	2	Plain Washer, 5/16" SAE	
	915016	4	Wing Nut, 5/16" – 18 NC	
25	12690	1	Battery Hold Down	
26	12689	1	Grommet	
27	5992	1	Cable	
	8046	1	Washer, Felt	
28	5991	1	Ground Strap	
	8046	1	Washer, Felt	

(Continued)

ELECTRICAL SYSTEM GROUP – USED TL-10 #1518 & #1526 THRU #1800 – CONTINUED
(See Plate 693)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
29	2985	1	Horn Assy. (Includes 1--3072)	
30	3072	1	Bracket	
31	1638	2	Capscrew, 5/16" – 18 NC x 5/8"	
	904205	2	Lockwasher, 5/16" ASA Med.	
32	6702	4	Wire Assy. (Includes two Terminals and two Rubber sleeves) (Serviced as assy. only)	
33	13711	1	Wiring Harness, Complete (Bottom)	
34	13699	1	Wiring Harness, Complete (Top)	
35	908890	4	Machine Screw, #6, - 32 NC x 1/4", Self Tapping	
36	2737	1	Clip	
38	14389	1	Temperature Sender	
39	2529	7	Clip (Capscrew furnished with Engine)	
40	13763	1	Clamp	
	1230	1	Capscrew, 3/8" – 24 NF x 3/4"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" – 24 NF	
41	1108	3	Capscrew, 3/8" – 24 NF x 1-1/2"	
	904206	3	Lockwasher, 3/8" ASA Med.	
42	6622	2	Wire Assy. (Includes two Terminals and two Rubber Sleeves)	(Serviced as assy. only)
43	6682	1	Wire Assy. (Includes two Terminals and two Rubber Sleeves)	
44	16470	1	Temperature Gauge Assy. (Includes parts as listed in Item #44)	
	17046	1	Mounting Strap	
	904203	2	Lockwasher, #10 ASA Med.	
	917415	2	Hex Nut, #10-32 NF	
	906964	2	Lockwasher, #8 ASA Med.	
	917385	2	Hex Nut, #8-32 NC	
45	16406	1	Ammeter Assy. (Includes parts as listed in Item #45)	
	17046	1	Mounting Strap	
	904203	4	Lockwasher, #10 ASA Med.	
	917415	4	Hex Nut, #10-32 NF	
				(Continued)

ELECTRICAL SYSTEM GROUP – USED TL-10 #1518 & #1526 THRU #1800 – CONTINUED

(See Plate 693)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
46	16471	1	Pressure Gauge Assy., Oil (Includes parts as listed in Item #46)	
	17046	1	Mounting Strap	
	904203	2	Lockwasher, #10 ASA Med.	
	917415	2	Hex Nut, #10-32 NF	
	906964	2	Lockwasher, #8 ASA Med.	
	917385	2	Hex Nut, #8-32 NC	
47	4909	1	Starter Switch	
48	14714	1	Combination Switch Assy. (Includes parts as listed in Item #48)	
	917441	2	Machine Screw, #8-32 NC x 1/2"	
	906964	2	Lockwasher, #8 ASA Med.	
49	22476	1	Connector	
50	22475	2	Wire Assy.	
51	3079	1	Wire Assy.	
52	2048	1	Capscrew, 3/8" – 24 NF x 1-1/4"	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" – 24 NF	
53	6480	1	Fuse	
54	912731	2	Machine Screw, #8-32 NC x 5/16"	
	906964	2	Lockwasher, #8 ASA Med.	
55	20230	1	Fuel Gauge Assy. (Includes parts as listed in Item #55)	
	17048	1	Mounting Strap	
	904203	2	Lockwasher, #10 ASA Med.	
	917415	2	Hex Nut, #10-32 NF	
	906964	2	Lockwasher, #8 ASA Med.	
	917385	2	Hex Nut, #8-32 NC	
56	19108	1	Hour Meter Assy. (Includes Item #57)	(Special Equipment) (Not illustrated)
	19107	1	Dampner	
57	903752	3	Machine Screw, #6 NC x 1/2"	
	906963	3	Lockwasher, #6	
	901309	3	Hex Nut, #6 NC	
58	911115	1	Plain Washer	

ELECTRICAL SYSTEM – EFFECTIVE WITH TL-10 #1801

(See Plate 787)

ITEM	PART NUMBER	QTY.	PART NAME
1	23032	1	Generator Assy. (Includes 1--23136, 1--23138 and 1--23518)
	23136	1	Generator (Includes 1--23137, 1--905121, 1--5276, 1--5275 & item #60) (Order parts from Electric Auto-Lite Co., #GJL-7001- Venilated Type)
2	23138	1	Fan, Generator Cooling
	23137	1	Spacer
	23518	1	Pulley
	905121	1	Key
	5276	1	Lockwasher
	5275	1	Hex Nut
3	28391	1	Brace, Generator
	6301	1	Capscrew, 5/16" – 18 NC x 3/4"
	910335	1	Plain Washer, 5/16" SAE
	904205	1	Lockwasher, 5/16" ASA Med.
4	227238	1	Bracket, Generator
5	905662	2	Capscrew, 5/16" – 18 NC x 1-1/8"
	213314	2	Square Washer
6	2687	2	Capscrew, 5/16" – 24 NF x 1-1/4"
	915262	2	Lock Nut, 5/16" – 24 NF
7	15524	2	Sealed Beam Light Assy., Head Light (Each includes ½ qty. of parts as listed in Item #7 and 1--13712)
	20947	2	Element, Sealed Beam
	904206	2	Lockwasher, 3/8" ASA Med.
	900367	2	Hex Nut, 3/8" – 16 NC
8	13420	2	Seal Ring
9	13712	3	Connector Assy., Male Line (Serviced as assy. only)
10	15523	1	Sealed Beam Light Assy., Tail Light (Includes parts as listed in Item #10 & 1--13712)
	20947	1	Element, Sealed Beam
	904206	1	Lockwasher, 3/8" ASA Med.
	900367	1	Hex Nut, 3/8" – 16 NC
	8751	1	Bracket
	8752	1	Bracket, Swivel
	915050	1	Bolt, Carriage, 7/16" – 14 NC x 1-1/4"
	904207	1	Lockwasher, 7/16" ASA Med.
	910881	1	Hex Nut, 7/16" – 14 NC

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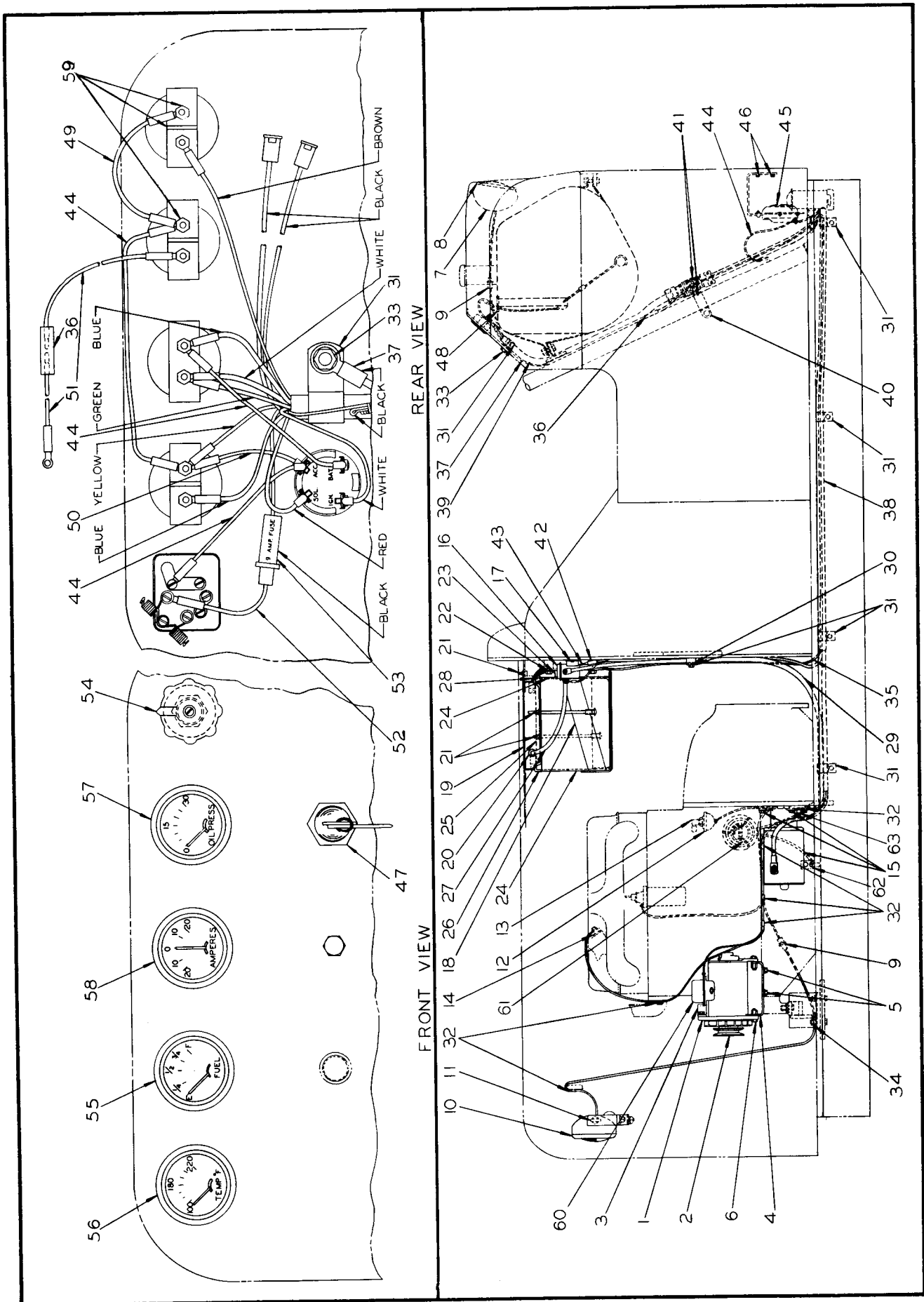


PLATE 787 - ELECTRICAL SYSTEM

ELECTRICAL SYSTEM – EFFECTIVE WITH TL-10 #1801 – CONTINUED

(See Plate 787)

ITEM	PART NUMBER	QTY.	PART NAME
11	1107	2	Capscrew, 3/8" – 16 NC x 1"
	904206	2	Lockwasher, 3/8" ASA Med.
	911115	2	Plain Washer, 3/8" SAE
12	14391	1	Pressure Sender (Used prior to TL-10 #2039)
	16961	1	Pressure Sender (Effective TL-10 #2039)
13	915399	1	90o Elbow, Street, 1/8" NPT (Auto type)
14	15495	1	Temperature Sender
15	23144	1	Motor Assy., Starting (Order repair parts from Electric Auto-Lite Co., #MDL-6007)
	1243	3	Capscrew, 3/8" – 24 NF x 1"
	904206	3	Lockwasher, 3/8" ASA Med.
16	15527	1	Solenoid Starting Switch (Order repair parts from Electric Auto-Lite Co., #SSW-4003)
17	911730	2	Stove Bolt, 3/16" – 24 NC x 1/2"
	904203	2	Lockwasher, #10 ASA Med.
18	22790	1	Battery Support
19	22792	1	Cover Assy., Battery (Includes 1-- 22999)
	22999	1	Rubber Strip
20	12689	1	Grommet
21	910335	2	Plain Washer, 5/16" SAE
	915016	4	Wing Nut, 5/16" – 18 NC
22	1084	4	Capscrew, 1/2" – 20 NF x 1"
	904208	4	Lockwasher, 1/2" ASA Med.
23	22992	1	Spacer
24	22796	2	Insulator, Front and Rear
	22797	1	Insulator, Bottom
	22798	2	Insulator, Left and Right
25	- - - -	1	Battery, 12 volt, 65 amp hr. capacity, 54 plate (Not furnished, obtain locally)
26	18572	1	Battery Hold Down
27	19671	1	Cable
	8046	1	Washer, Felt
28	5991	1	Ground Strap
	8046	1	Washer, Felt
29	5993	1	Cable
30	2862	1	Capscrew, 3/8" – 24 NF x 1/2"
	904206	1	Lockwasher, 3/8" ASA Med.

(Continued)

ELECTRICAL SYSTEM – EFFECTIVE WITH TL-10 #1801 – CONTINUED

(See Plate 787)

ITEM	PART NUMBER	QTY.	PART NAME
31	11632	6	Clamp
32	2529	8	Clamp
33	2048	1	Capscrew, 3/8" – 24 NF x 1-1/4"
	904206	1	Lockwasher, 3/8" ASA Med.
	911041	1	Hex Nut, 3/8" – 24 NF
34	2737	1	Clip
35	23580	1	Wire Assy. (Includes one terminal, sleeve and male snap terminal)
36	22476	2	Wire Connector
37	23579	1	Wire Assy. (Includes one terminal, sleeve and male snap terminal)
38	13711	1	Wiring Harness Assy., Complete, Bottom
39	13699	1	Wiring Harness Assy., Complete, Top
40	13763	1	Clamp
	1230	1	Capscrew, 3/8" – 24 NF x 3/4"
	904206	1	Lockwasher, 3/8" ASA Med.
	911041	1	Hex Nut, 3/8" – 24 NF
41	908890	4	Machine Screw, #6–32 x 1/4", Self Tapping
42	6480	1	Fuse, 20 amp
43	23581	1	Wire Assy. (Includes one terminal, sleeve and connector)
44	6702	4	Wire Assy. (Each includes two terminals and sleeves)
45	15526	1	Horn Assy. (Includes 1-- 3072)
	3072	1	Bracket
46	1638	2	Capscrew, 5/16" – 18 NC x 5/8"
	904205	2	Lockwasher, 5/16" ASA Med.
47	23643	1	Switch Assy., Ignition and Starter (Serviced as assy. only)
48	20203	1	Fuel Gauge Tank Unit
	20293	1	Gasket
	900558	5	Machine Screw, #10–32 NF x 1/2"
	904203	5	Lockwasher, #10 ASA Med.
49	6622	1	Wire Assy. (Each includes two terminals and sleeves)
50	20798	1	Wire Assy.
51	22475	2	Wire Assy. (Each includes one terminal, sleeve and male snap terminal)
52	6682	1	Wire Assy. (Each includes one terminal, sleeve and male line connector)

(Continued)

ELECTRICAL SYSTEM - EFFECTIVE WITH TL-10 #1801 - CONTINUED

(See Plate 787)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
53	23548	1	Fuse, 9 amp	
54	23646	1	Light Switch Assy. (Serviced as assy. only)	
55	20229	1	Fuel Gauge Assy. (Each includes 1--17046,	
56	15496	1	Temperature Gauge Assy. 2--904203, 2--917415,	
57	15497	1	Pressure Gauge Assy. 2--906964 and 2--917385)	Used prior TL-10 #2039
	16905	1	Pressure Gauge Assy.	Effective TL-10 #2039
58	16406	1	Ammeter Assy. (Includes 1--17046, 4--904203 and 4--917415)	
59	17046	4	Mounting Strap	
	904203	10	Lockwasher, #10 ASA Med.	
	917415	10	Hex Nut, #10-32 NF	
	906964	6	Lockwasher, #8 ASA Med.	
	917385	6	Hex Nut, #8-32 NC	
60	28028	1	Voltage Regulator	
61	19107	1	Dampner	
	19109	1	Hour Meter (12 volt) (Includes three 903752, 906963 & 901309)	
	903752	6	Machine Screw, #6-32 NC x 1/2"	
	906963	6	Lockwasher, #6 ASA Med.	
	901309	6	Hex Nut, #6-32 NC	
62	2706	1	Terminal	SPECIAL EQUIPMENT
63	2704	1	Cable Terminal	
	2701	2	Terminal Sleeve	
	901170	1	Machine Screw, #10-24 NC x 1/4", rd. hd.	
	904203	1	Lockwasher, #10 ASA Med.	
	901310	1	Hex Nut, #10-24 NC	

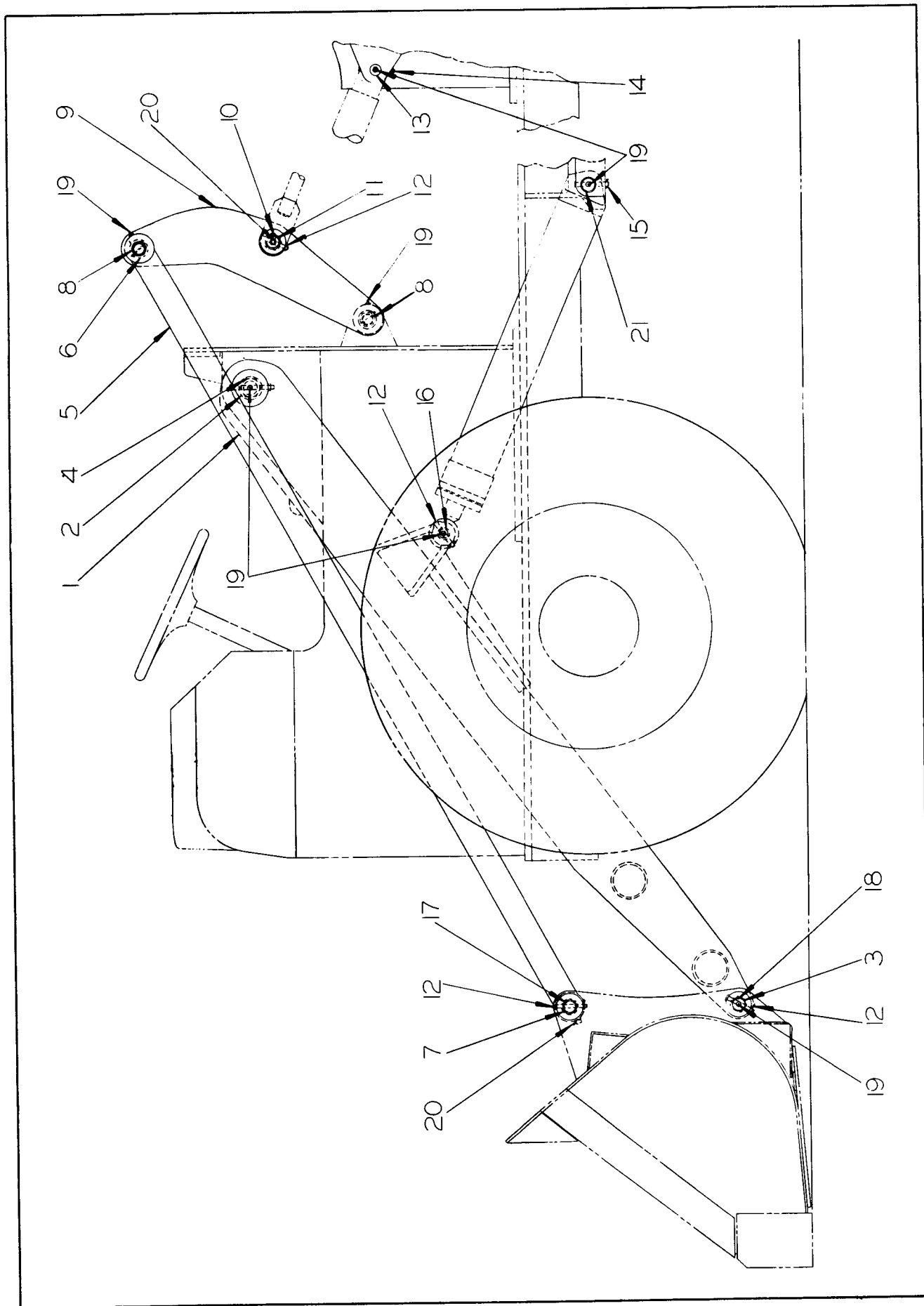


PLATE 673 - LINKAGE GROUP

LINKAGE GROUP

(See Plate 673)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	4793	1	Boom Assembly (Includes Items #2 and #3)	
2	4785	2	Bushing	
3	1031	2	Bushing	
4	5239	2	Pin Weld Assy.	
	5706	2	Hex Jam Nut	
	5495	2	Capscrew, 1/2" - 20 NF x 4-3/4"	
	904208	2	Lockwasher, 1/2" ASA Med.	
	911043	2	Hex Nut, 1/2" - 20 NF	
5	4798	2	Dump Link Assy. (Each includes 2-- 5370 & 2-- 1870)	Used prior TL-10 #1040
	15325	2	Dump Link Assy. (Each includes 2-- 5370 & 2-- 1870)	Eff. TL-10 #1040
6	5370	4	Bushing	
7	1870	4	Bushing	
8	4799	4	Pin	
	1898	4	Boss (Require Welding)	
	900824	4	Plain Washer, 1-1/4" USS	
	913798	4	Hex Jam Nut, 1-1/4" - 12 NF, Slotted	
	910148	4	Cotter Pin, 7/32" x 2"	
9	4800	1	Cross Link Assy., Left	Used prior TL-10 #1040
	14948	1	Cross Link Assy., Left (Each includes 2-- 4799, 2--	Eff. TL-10 #1040
	4801	1	Cross Link Assy., Right 1898 and one Item #10)	Used prior TL-10 #1040
	14949	1	Cross Link Assy., Right	Eff. TL-10 #1040
10	4803	2	Bushing	
11	3149	2	Pin	
12	1621	8	Lock Pin	
	900806	8	Cotter Pin, 1/8" x 1"	
13	6942	2	Pin	
14	6888	2	Capscrew, 7/16" - 20 NF x 6"	
	904207	2	Lockwasher, 7/16" ASA Med.	
	911042	2	Hex Nut, 7/16" - 20 NF	
				(Continued)

LINKAGE GROUP – CONTINUED

(See Plate 673)

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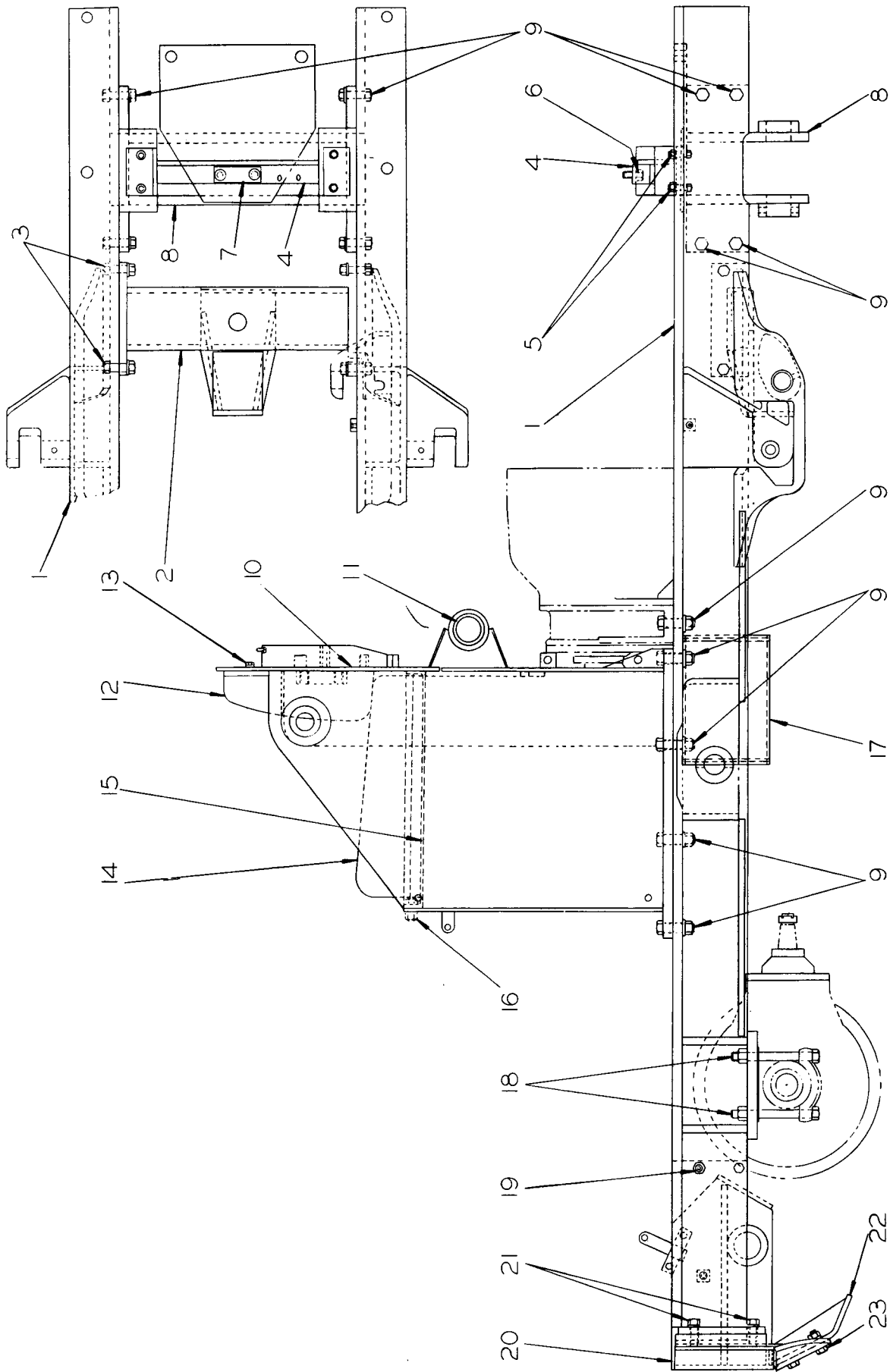


PLATE 387 - FRAME AND SEAT GROUP

FRAME AND SEAT GROUP

(See Plate 387)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	5036	1	Frame Weld Assy., Left	Used prior TL-10 #1502
	5037	1	Frame Weld Assy., Right	w/Conventional Steering
	10327	1	Frame Weld Assy., Left	Eff. TL-10 #1502 & Up
	10328	1	Frame Weld Assy., Right	(Used on TL-10 prior #1502 as Special Equipment)
2	4950	1	Radius Rod Support	Used prior TL-10 #1502 w/Conventional Steering
	10233	1	Radius Rod Support	Eff. TL-10 #1502 & Up
				(Used on TL-10 prior #1502 as Special Equipment)
3	4306	4	Capscrew, 5/8" - 18 NF x 1-3/4"	Used prior TL-10 #1502 w/Conventional Steering
	2977	4	Capscrew, 5/8" - 18 NF x 2-1/4"	Eff. TL-10 #1502 & Up
				(Used TL-10 prior #1502 as Special Equipment)
	904209	4	Lockwasher, 5/8" ASA Med.	
	911044	4	Hex Nut, 5/8" - 18 NF	
	24092	-	Shim, 1/16" thick (Used as required)	
4	23776	1	Engine Support	
5	1239	4	Capscrew, 1/2" - 20 NF x 1-1/2"	
	904208	4	Lockwasher, 1/2" ASA Med. (See Converter Cooling and Power Steering Lines)	
	911043	4	Hex Nut, 1/2" - 20 NF	
6	8091	2	Capscrew, 1/2" - 13 NC x 1-1/4" Dr. Hd.	
	8167	1	Lockwire, #16 W and M Ga., 9" Long	
7	6265	-	Shim (.0625" thick)	(Use as required)
	6266	-	Shim (.010" thick)	
8	5047	1	Support, Steering Axle	
9	1244	10	Capscrew, 3/4" - 16 NF x 2-1/2"	(16 used prior TL-10 #1694)
	3802	2	Capscrew, 3/4" - 16 NF x 2-3/4"	(Used w/Step Weld Assy.) (Used prior TL-10 #1694)
	5301	10	Locknut, 3/4" - 16 NF	or (18 used prior TL-10 #1694)
	19490	10	Locknut, 3/4" - 16 NF	
	1727	1	Capscrew, 7/8" - 14 NF x 3" (Used w/Step Weld Assy.)	Used w/Seat Frame
	22195	2	Capscrew, 7/8" - 14 NF x 3-1/2" (Rear Capscrew, Lt. & Rt.)	only - Effective
	21998	5	Capscrew, 7/8" - 14 NF x 2-3/4" (3 used Rt. front & 2 used	TL-10 #1694
			Lt. Front)	
	17978	8	Locknut, 7/8" - 14 NF	
10	5558	1	Seat Frame Assy. (Includes Item #11)	Used prior TL-10 #1801
	23037	1	Seat Frame Assy. (Includes Item #11)	Eff. with TL-10 #1801
11	5370	4	Bushing	
12	1994	1	Cushion, Back	
13	2084	4	Capscrew, 3/8" - 16 NC x 1-1/4"	
	904206	4	Lockwasher, 3/8" ASA Med.	
14	1993	1	Cushion, Seat	
15	11167	1	Support, Seat	
16	1249	2	Capscrew, 1/2" - 20 NF x 1-1/4"	
	904208	2	Lockwasher, 1/2" ASA Med.	

FRAME AND SEAT GROUP – CONTINUED

(See Plate 387)

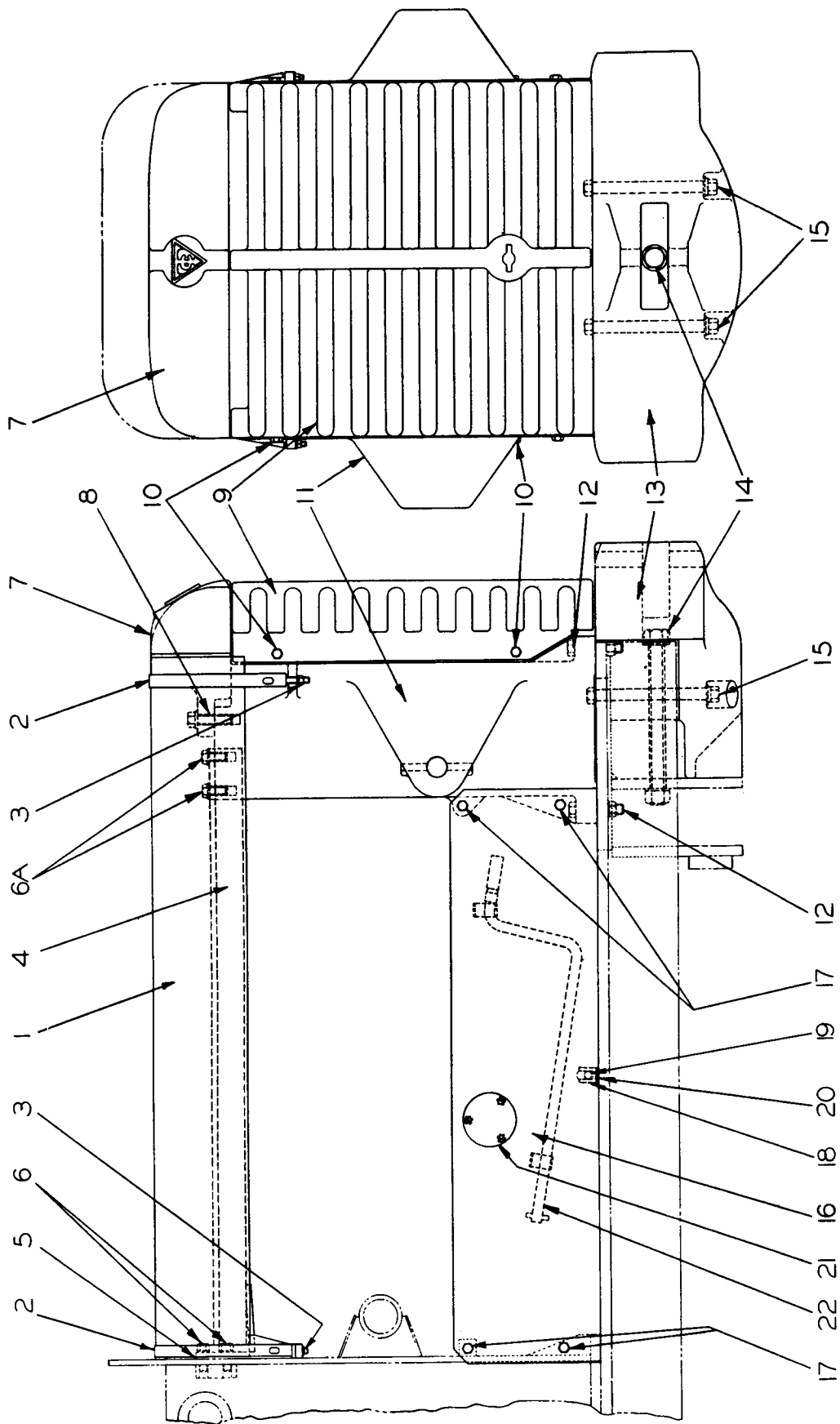
ITEM	PART NUMBER	QTY.	PART NAME	NOTE
16	911043	2	Hex Nut, 1/2" – 20 NF	
17	6498	1	Step Weld Assy.	
18	6368	8	Capscrew, 3/4" – 16 NF x 6–1/2"	
	5301	8	Locknut, 3/4" – 16 NF	
	19490	8	Locknut, 3/4" – 16 NF or	
19	1382	4	Capscrew, 5/8" – 18 NF x 2"	Upper Capscrew in Left Hand Frame must be installed with Hex Nut and Lockwasher on outside of Frame for Drag Link clearance.
	904209	4	Lockwasher, 5/8" ASA Med.	
	911044	4	Hex Nut, 5/8" – 18 NF	
20	5025	1	Bumper and Support Steering Gear	Used prior TL-10 #1423
	19151	1	Bumper and Support Steering Gear	Used TL-10 #1423 thru #1501
	19150	1	Bumper and Support Steering Gear	Eff. TL-10 #1502 & Up (Used TL-10 prior #1502 as Special Equipment)
21	1382	4	Capscrew, 5/8" – 18 NF x 2"	
	904209	4	Lockwasher, 5/8" ASA Med.	
	911100	4	Plain Washer, 5/8" SAE	
22	14072	1	Plate Weld Assy.	
23	1239	4	Capscrew, 1/2" – 20 NF x 1–1/2"	Eff. TL-10 #1502 & Up Used prior as Special Equipment
	904208	4	Lockwasher, 1/2" ASA Med.	
	910244	4	Plain Washer, 1/2" SAE	
	911043	4	Hex Nut, 1/2" – 20 NF	

HOOD AND COUNTERWEIGHT GROUP – USED PRIOR TL-10 #91

(See Plate 176)

ITEM	PART NUMBER	QTY.	PART NAME
1	5554	1	Hood (Used with Gasoline Engine only)
	7820	1	Hood (Used with Kerosene Engine only)
2	5639	2	Strap, Hood
3	1377	4	Capscrew, 3/8" – 24 NF x 1–3/4"
	2708	4	Washer (Square)
	904206	4	Lockwasher, 3/8" ASA Med.
	911041	4	Hex Nut, 3/8" – 24 NF
4	5642	1	Brace, Left
	5643	1	Brace, Right
5	6684	–	Shim (Use as required)
6	4306	4	Capscrew, 5/8" – 18 NF x 1–3/4"
	904209	4	Lockwasher, 5/8" ASA Med.
6A	1433	4	Capscrew, 5/8" – 11 NC x 1–1/2"
	904209	4	Lockwasher, 5/8" ASA Med.
7	5077	1	Casting, Upper
8	2696	2	Capscrew, 3/4" – 10 NC x 2–1/2"
	904369	2	Lockwasher, 3/4" ASA Med.
9	5075	1	Casting, Radiator Guard
10	1164	4	Capscrew, 1/2" – 20 NF x 3"
	904208	4	Lockwasher, 1/2" ASA Med.
	911043	4	Hex Nut, 1/2" – 20 NF
11	5233	1	Casting, Side Plate, Left
	5234	1	Casting, Side Plate, Right
12	1143	4	Capscrew, 3/4" – 16 NF x 3–1/4"
	904369	4	Lockwasher, 3/4" ASA Med.
	911045	4	Hex Nut, 3/4" – 16 NF
13	5042	1	Casting, Lower
14	5104	1	Stud Weld Assy.
	913093	1	Plain Washer, 1–1/32" I.D. x 1–3/4" O.D. x #10 Ga.
	910916	1	Lockwasher, 1", ASA Med.
	911047	1	Hex Nut, 1" – 14 NF
15	5101	2	Stud Weld Assy.

(Continued)



Used Prior TL-10 #91

PLATE 176 -- HOOD AND COUNTERWEIGHT GROUP

(See Plate 176)

241

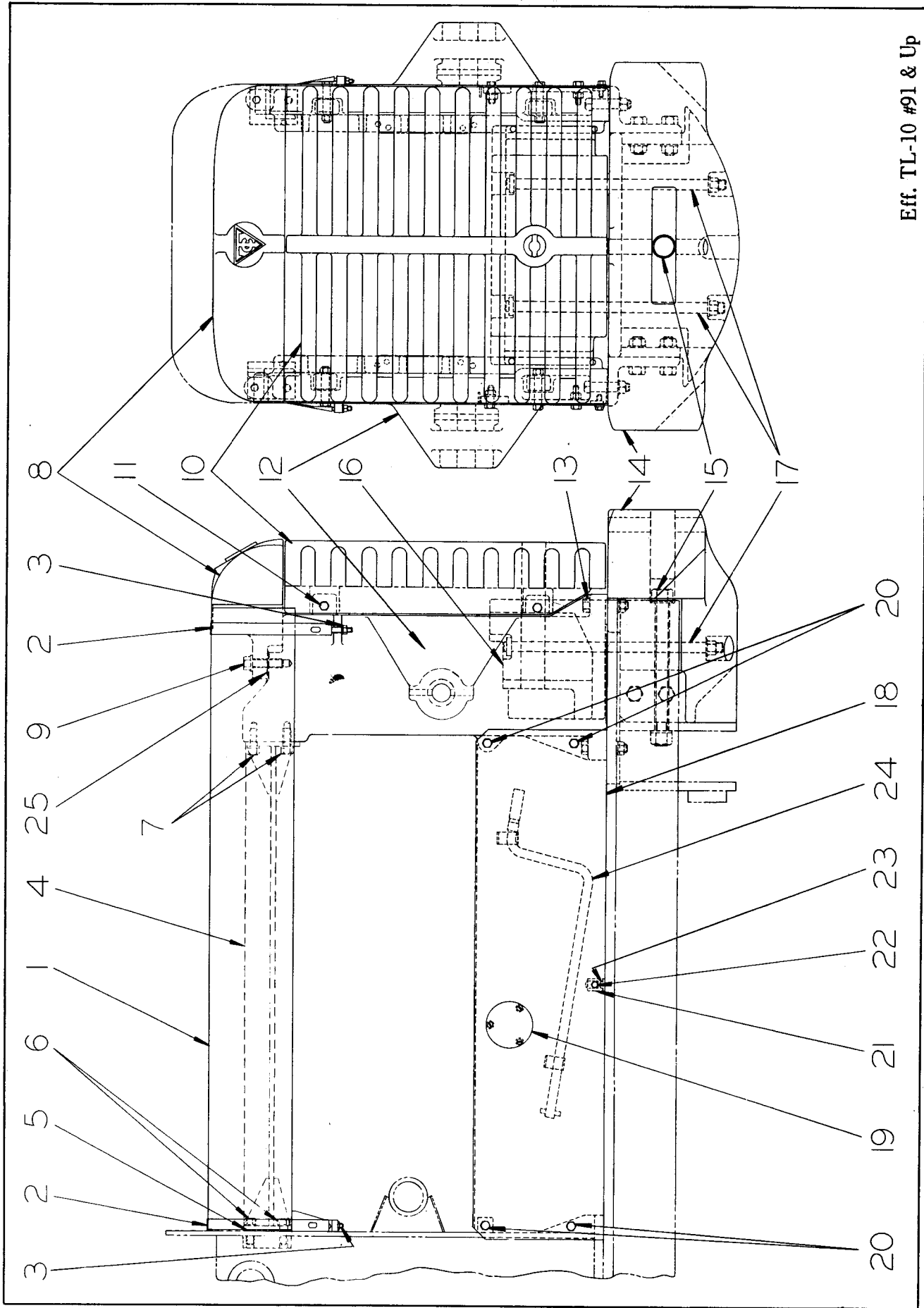


PLATE 339 - HOOD AND COUNTERWEIGHT GROUP

Eff. TL-10 #91 & Up

HOOD AND COUNTERWEIGHT GROUP - EFFECTIVE TL-10 #91 & UP

(See Plate 339)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	5554	1	Hood (Used with Gasoline Engine only)	Used prior TL-10 #1801
	22977	1	Hood (Used with Gasoline Engine only)	Eff. TL-10 #1801
	13529	1	Hood (Used with Kerosene Engine only)	
2	5639	2	Strap, Hood	
3	1377	4	Capscrew, 3/8" - 24 NF x 1-3/4"	Used prior TL-10 #1040
	1108	2	Capscrew, 3/8" - 24 NF x 1-1/2", Front	Eff. TL-10 #1040
	1376	2	Capscrew, 3/8" - 24 NF x 2-1/4", Rear	
	2708	4	Washer (Square)	
	904206	4	Lockwasher, 3/8" ASA Med.	
	911041	4	Hex Nut, 3/8" - 24 NF	
4	5642	1	Brace, Left (Used with Gasoline Engine only)	Used prior TL-10 #1040
	7817	1	Brace, Left (Used with Kerosene Engine only)	
	5643	1	Brace, Right	
	16111	1	Brace, Left (Used with Gasoline Engine only)	Eff. TL-10 #1040
	16134	1	Brace, Left (Used with Kerosene Engine only)	
	16112	1	Brace, Right	
5	6684	-	Shim (Use as required)	
6	4306	4	Capscrew, 5/8" - 18 NF x 1-3/4"	
	904209	4	Lockwasher, 5/8" ASA Med.	
7	1433	4	Capscrew, 5/8" - 11 NC x 1-1/2"	
	904209	4	Lockwasher, 5/8" ASA Med.	
8	5077	1	Casting (Upper)	
9	2696	2	Capscrew, 3/4" - 10 NC x 2-1/2"	
	904369	2	Lockwasher, 3/4" ASA Med.	
10	5075	1	Casting, Radiator Guard	
11	1164	4	Capscrew, 1/2" - 20 NF x 3"	
	904208	4	Lockwasher, 1/2" ASA Med.	
	911043	4	Hex Nut, 1/2" - 20 NF	
12	5233	1	Casting, Side Plate, Left	Used prior TL-10 #638
	5234	1	Casting, Side Plate, Right	
	12303	1	Casting, Side Plate, Left	Used TL-10 #638 thru #1039
	12304	1	Casting, Side Plate, Right	
	16123	1	Casting, Side Plate, Left	Eff. TL-10 #1040 (Continued)
	16124	1	Casting, Side Plate, Right	

HOOD AND COUNTERWEIGHT GROUP - EFFECTIVE TL-10 #91 & UP – CONTINUED

(See Plate 339)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
13	1143	4	Capscrew, 3/4" – 16 NF x 3-1/4"	
	5301	4	Locknut, 3/4" – 16 NF	
	19490	4	Locknut, 3/4" – 16 NF or	
14	5042	1	Casting (Lower)	
15	5104	1	Stud Weld Assy.	
	913093	1	Plain Washer, 1-1/32" I.D. x 1-3/4" O.D. x #10 Ga.	
	910916	1	Lockwasher, 1" ASA Med.	
	911047	1	Hex Nut, 1" – 14 NF	
16	8611	1	Casting (Counterweight)	
17	8624	2	Stud Weld Assy.	
	1647	2	Plain Washer	
	5301	2	Locknut, 3/4" – 16 NF	
18	6685	1	Panel, Right Side	
	7946	1	Panel, Left Side	
19	7945	1	Cover, Panel, Left Side	
	903752	3	Machine Screw, #6-32 NC x 1/2"	
	906963	3	Lockwasher, #6 ASA Med.	
	901309	3	Hex Nut, #6-32 NC	
20	7795	8	Capscrew, 1/2" – 20 NF x 1-1/2"	
	904208	8	Lockwasher, 1/2" ASA Med.	
	911043	8	Hex Nut, 1/2" – 20 NF	
21	7178	2	Angle	
22	1230	2	Capscrew, 3/8" – 24 NF x 3/4"	
	904206	2	Lockwasher, 3/8" ASA Med.	
23	1243	2	Capscrew, 3/8" – 24 NF x 1"	
	904206	2	Lockwasher, 3/8" ASA Med.	
24	8083	1	Crank Assy.	
25	17331	–	Shim (Use as required)	

SUGGESTIONS FOR THE OPERATOR

NEVER ATTEMPT TO SERVICE OR ADJUST ANY PART OF THE TRACTOR OR LOADER WHEN THE BUCKET IS RAISED, UNLESS IT IS SUITABLY SUPPORTED BY MEANS OTHER THAN THE HYDRAULIC LIFTING CYLINDERS.

GREASE YOUR LOADER AND CHECK LEVEL OF HYDRAULIC OIL DAILY.

DRAIN AND FLUSH LOADER HYDRAULIC SYSTEM AFTER EACH 500 HOURS OF OPERATION.

NEVER START THE ENGINE WHEN HYDRAULIC SYSTEM IS EMPTY.

WHEN INSTALLING A HOSE ASSEMBLY BE SURE IT IS NOT TWISTED WHEN CONNECTIONS ARE TIGHTENED.

TO AVOID RAPID WEAR OF PISTON ROD PACKING RINGS, DO NOT TIGHTEN PACKING GLANDS EXCESSIVELY.

LIFT CYLINDER ASSEMBLY

(See Plate 173)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	7848	1	Lift Cylinder Assy., Right (Includes 1--7846, 1--7845, ½ qty. of Items #5 thru #9, and #11 thru #26)	Eff. TL-10 #11
	7849	1	Lift Cylinder Assy., Left (Includes 1--7847, 1--7845, ½ qty. of Items #5 thru #9 and #11 thru #26)	
	6516	1	Lift Cylinder Assy. Right (Includes 1--6513, 1--6515, ½ qty. of Items #5 thru #9 and #11 thru #26)	Used prior TL-10 #11
	6517	1	Lift Cylinder Assy., Left (Includes 1--6514, 1--6515, ½ qty. of Items #5 thru #9 and #11 thru #26)	
2	7846	1	Tube Assy., Cylinder, Right (Includes one Item #4)	Eff. TL-10 #11
	6513	1	Tube Assy., Cylinder, Right (Includes one Item #4)	Used prior TL-10 #11
3	7847	1	Tube Assy., Cylinder, Left (Includes one Item #4)	Eff. TL-10 #11
	6514	1	Tube Assy., Cylinder, Left (Includes one Item #4)	Used prior TL-10 #11
4	1870	2	Bushing	(Continued)
5	4982	2	Piston Rod Assy. (Each includes 1--4984)	
6	4984	2	Bushing	

NOTE: CYLINDER REPAIR KIT -
SEE ITEM *27 ON PARTS LIST

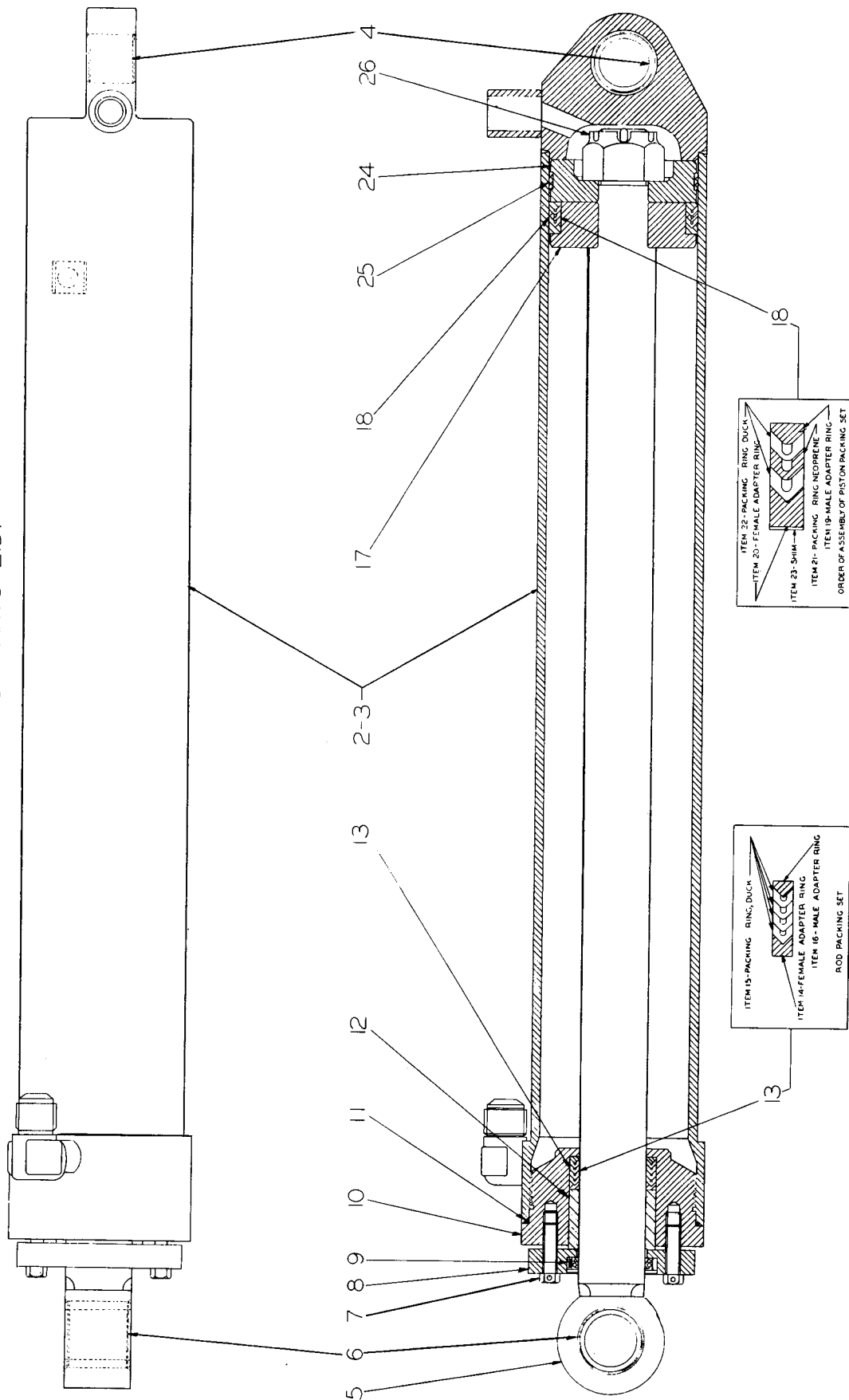


PLATE 173 - LIFT CYLINDER ASSEMBLY

LIFT CYLINDER ASSEMBLY – CONTINUED

(See Plate 173)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
7	7904	8	Capscrew, 3/8" – 16 NC x 1-1/2", Dr. Hd.	Eff. TL-10 #11
	4952	8	Capscrew, 3/8" – 24 NF x 1-1/2", Dr. Hd.	Used prior TL-10 #11
	1085	2	Lockwire, #16 W and M Ga. x 17" Long	
8	4986	2	End Plate	
9	1088	2	Oil Seal	
10	7845	2	Head, Cylinder	Eff. TL-10 #11
	6515	2	Head, Cylinder	Used prior TL-10 #11
11	3003	2	Seal Ring	
12	4989	2	Bearing Packing Gland	
13	7015	2	Rod Packing Set (Each includes 1--4990, 4--1469, and 1--1498)	
14	4990	2	Adapter Ring, Female	
15	1469	8	Packing Ring, Male	
16	1498	2	Adapter Ring, Male	
17	1315	2	Piston (Upper)	
18	1472	2	Piston Packing Set (Each includes 1--1461, 1--1460, 1--1316 and 2--1468)	
19	1461	2	Adapter Ring, Male	
20	1460	2	Adapter Ring, Female	
21	1316	2	Packing Ring, Neoprene	
22	1468	4	Packing Ring, Duck	
23	3161	–	Shim (Use as required)	
24	4991	2	Piston (Lower)	
25	1481	2	Bearing Ring	
26	911058	2	Castle Nut, 1-1/2" – 12 NF	Eff. TL-10 #335
	901345	2	Cotter Pin, 1/4" x 2-1/2"	
	4299	2	Locknut, 1-1/2" – 12 NF	Used prior TL-10 #335
27	13195	–	Cylinder Repair Kit (Includes one each Items #9, #11, #12, #13, #14, #18, #25, and 4--7904, 1--1085 & 1-- 901345)	

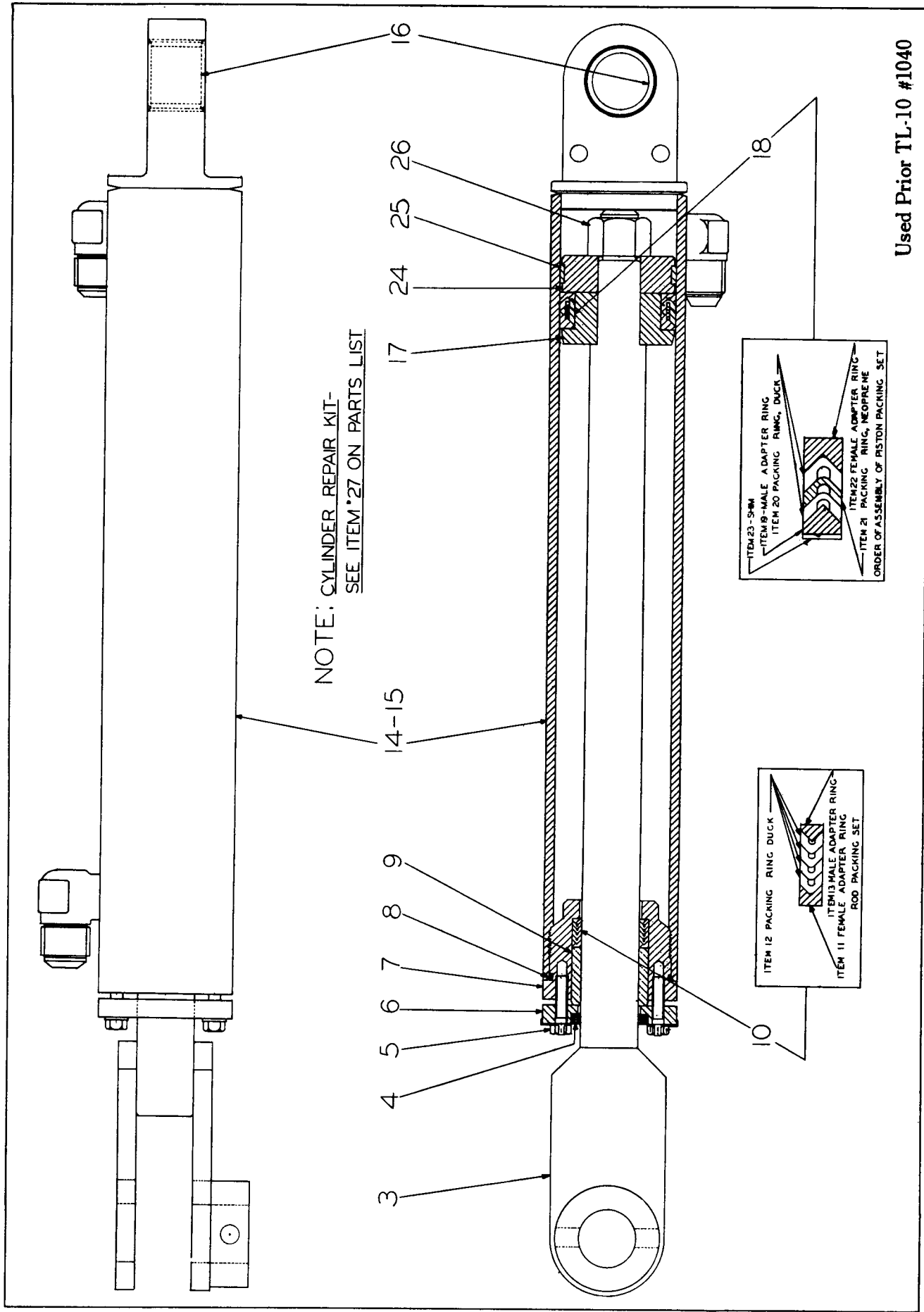


PLATE 175 - DUMP CYLINDER ASSEMBLY - LEFT AND RIGHT

DUMP CYLINDER ASSEMBLY – LEFT AND RIGHT - USED PRIOR TL-10 #1040

(See Plate 175)

ITEM	PART NUMBER	QTY.	PART NAME
1	5478	1	Dump Cylinder Assy. .Left (Includes ½ qty. of Items #3 thru #10, #14, #17, #18 and #24 thru #26)
2	5479	1	Dump Cylinder Assy., Right (Includes ½ qty. of Items #3 thru #10, #15, #17, #18 and #24 thru #26)
3	15999	2	Piston Rod (For initial installation order also 2--15993)
4	3658	2	Wiper Ring
5	3479	6	Capscrew, 5/16" – 24 NF x 1"
	3958	6	Lockwasher (Special)
6	3659	2	End Plate
7	3661	2	Head
8	3662	2	Seal Ring
9	3660	2	Bearing
10	3605	2	Rod Packing Set (Each includes 1--3608, 4--3607 and 1--3606)
11	3608	2	Adapter Ring, Female
12	3607	8	Packing Ring, Duck
13	3606	2	Adapter Ring, Male
14	5476	1	Tube Assy., Left Dump Cylinder (Includes 1--1870)
15	5477	1	Tube Assy., Right Dump Cylinder (Includes 1--1870)
16	1870	2	Bushing
17	3672	2	Piston, Upper
18	3673	2	Piston Packing Set (Each includes 1--3677, 2--3675, 1--3676 and 1--3674)
19	3677	2	Adapter Ring, Male
20	3675	4	Packing Ring, Duck
21	3676	2	Packing Ring, Neoprene
22	3674	2	Adapter Ring, Female
23	4313	–	Shim (Use as required)
24	3678	2	Piston, Lower
25	3679	2	Bearing Ring
26	3680	2	Locknut (Used with 5486 Piston Rod with 1" – 14 NF Thread)
	15993	2	Locknut (Used with 15999 Piston Rod with 1–1/8" – 12 NF Thread)
27	13196	–	Cylinder Repair Kit (Includes one each Items #4, #8, #9, #10, #18, #25, 3--3479 and 3--3958)

Eff. TL-10 #1040 & Up

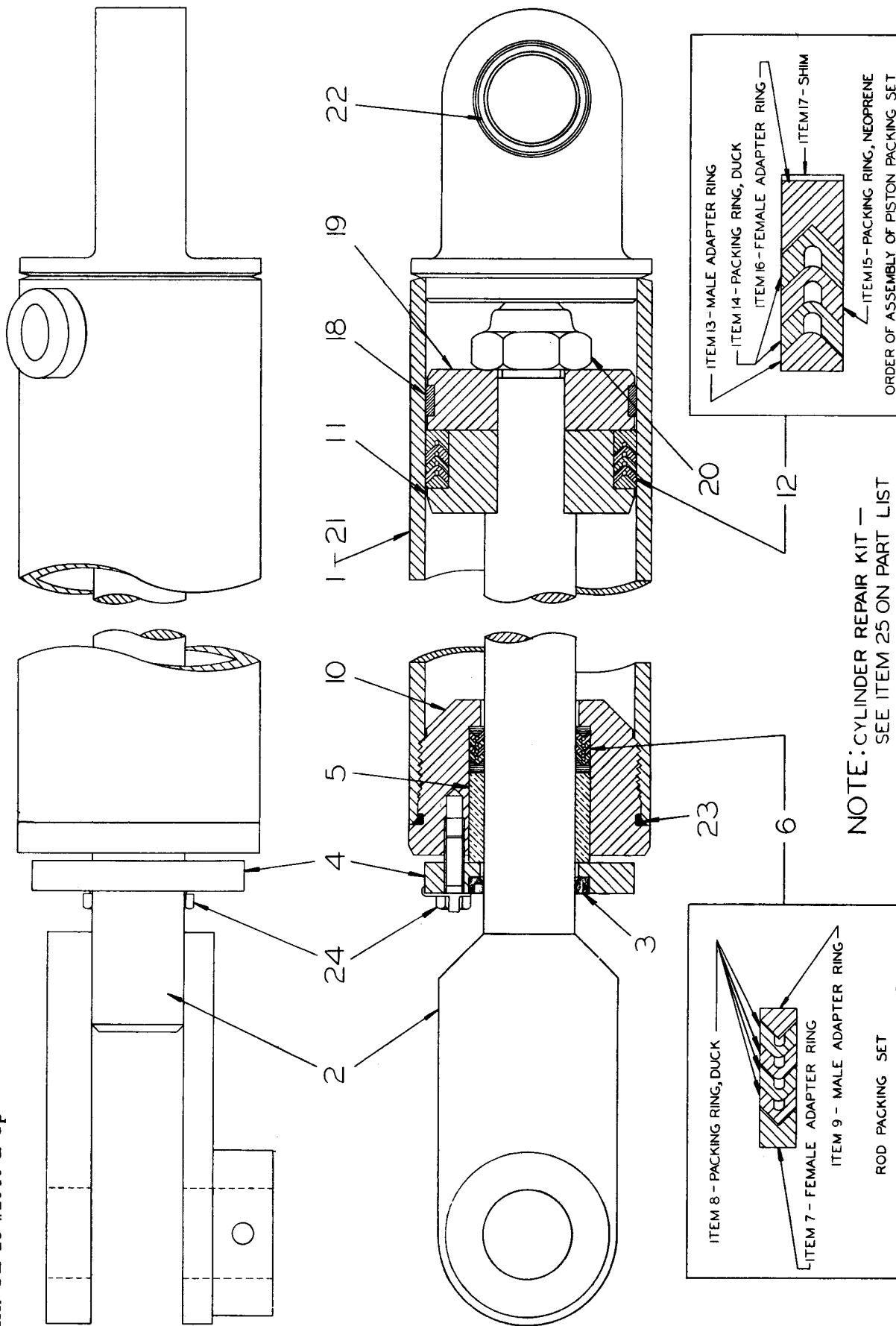


PLATE 498 — DUMP CYLINDER ASSEMBLY — LEFT AND RIGHT

DUMP CYLINDER ASSEMBLY – LEFT AND RIGHT – EFFECTIVE TL-10 #1040 & UP

(See Plate 498)

ITEM	PART NUMBER	QTY.	PART NAME
1	14818	1	Dump Cylinder Assy., Left (Includes one each Items #2 thru #20, 1--14816, 1--1870, 1--6427, 3--3479 and 3--3958)
	14819	1	Dump Cylinder Assy., Right (Includes one each Items #2 thru #20, 1--14817, 1--1870, 1--6427, 3--3479 and 3--3958)
2	15999	2	Piston Rod
3	3658	2	Oil Seal (Wiper)
4	3659	2	End Plate
5	3660	2	Packing Gland Bearing
6	3605	2	Rod Packing Set (Each consists of 1--3608, 4--3607, and 1--3606)
7	3608	2	Adapter Ring, Female
8	3607	8	Packing Ring, Duck
9	3606	2	Adapter Ring, Male
10	13395	2	Cylinder Head
11	6418	2	Piston, Upper
12	6417	2	Piston Packing Set (Each consists of 1--1179, 2--6414, 1--1180 and 1--6413)
13	1179	2	Adapter Ring, Male
14	6414	4	Packing Ring, Duck
15	1180	2	Packing Ring, Neoprene
16	6413	2	Adapter Ring, Female
17	13985	—	Shim (Use as required)
18	6411	2	Bearing Ring
19	6412	2	Piston, Lower
20	15993	2	Nut
21	14816	1	Cylinder Tube Assy., Left
	14817	1	Cylinder Tube Assy., Right (Each includes 1--1870)
22	1870	2	Bushing
23	6427	2	Seal Ring
24	3479	6	Capscrew, 5/16"-24 NF x 1"
	3958	6	Lockwasher, (Special)
25	16071	—	Cylinder Repair Kit (Includes one each Items #3, #5, #6, #12, #18, #23 and three Item #24)

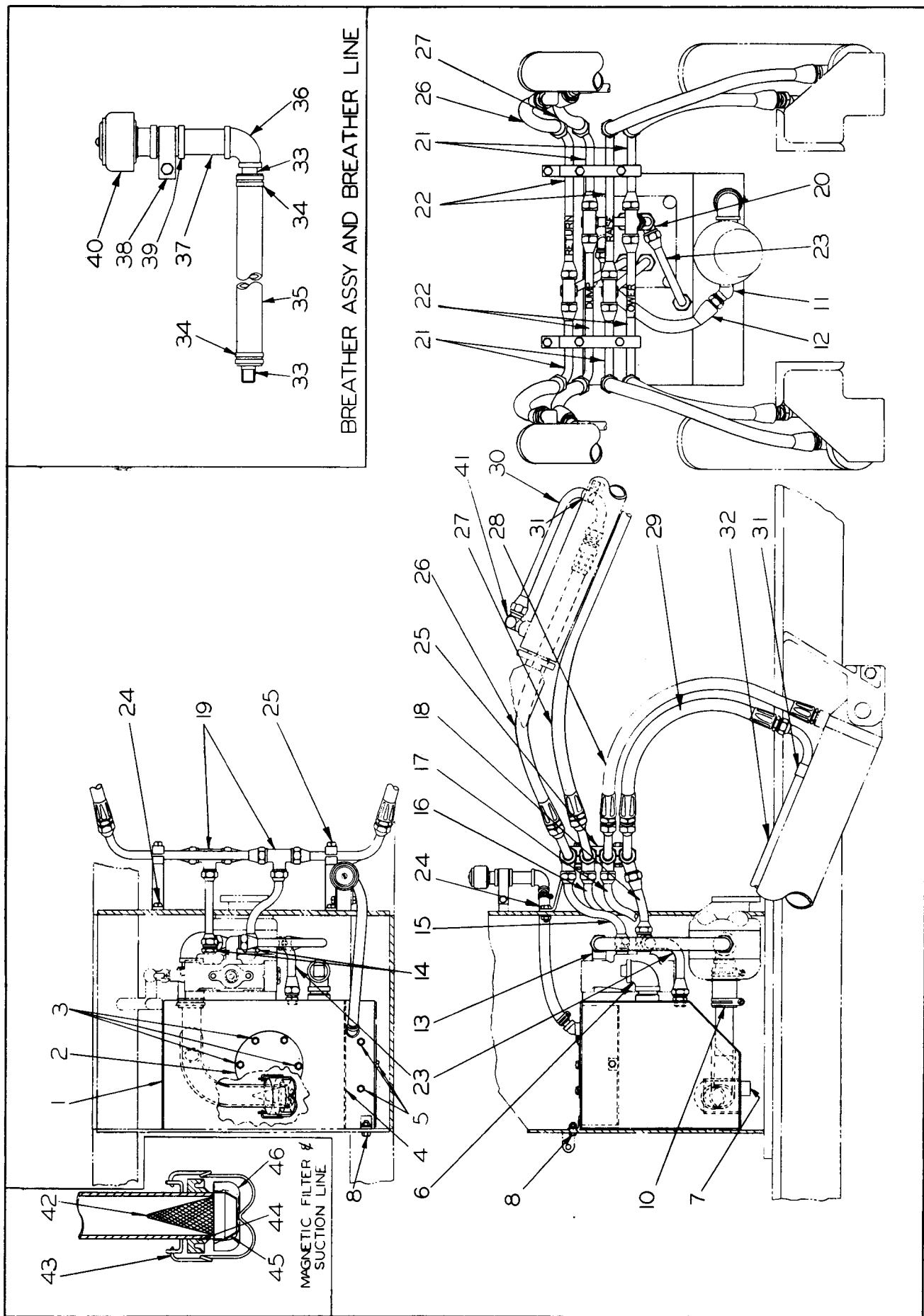


PLATE 172 - PIPING AND TANK GROUP

PIPING AND TANK GROUP

(See Plate 172)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	5548	1	Tank Weld Assy.	
2	5629	1	Cover Plate, Filler Flange	
	1224	1	Gasket	
3	1230	6	Capscrew, 3/8" - 24 NF x 3/4"	
	904206	6	Lockwasher, 3/8" ASA Med.	
4	6749	1	Baffle Plate	
5	1230	3	Capscrew, 3/8" - 24 NF x 3/4"	
	7214	3	Plain Washer, Copper	
6	3630	1	Close Nipple, 1-1/4" Std. Blk. Wrought Steel	
	901682	1	90° Elbow, 1-1/4" Std. M.I.	
	901657	1	Pipe Plug, 1-1/4" Sq. Hd.	
7	909091	1	Pipe Plug, 3/4" Steel, Ctsk., 9/16" Hex	
8	1249	3	Capscrew, 1/2" - 20 NF x 1-1/4"	
	904208	3	Lockwasher, 1/2" ASA Med.	
	911043	3	Hex Nut, 1/2" - 20 NF	
10	----	1	Suction Line Assy. (Includes 1--9533, 1--19275, 4--1249, 4--904208, 1--4774 and 2--910226)	Eff. TL-10 #256
	9533	1	90° Elbow (Prior TL-10 #1208 order also 19275)	
	19275	1	Gasket	Eff. TL-10 #1208
	1620	1	Seal Ring	Used prior TL-10 #1208
	1249	4	Capscrew, 1/2" - 20 NF x 1-1/4"	Eff. TL-10 #256
	904208	4	Lockwasher, 1/2" ASA Med.	
	4774	1	Hose, 1-5/8" I.D. x 3-1/4" Long	
	9300	2	Hose Clamp, 2-1/8" I.D.	
	----	1	Suction Line Assy. (Includes 1--3630, 1--901682, 1--4773, 1--4774 and 2--910226)	Used prior TL-10 #256
	3630	1	Close Nipple, 1-1/4" Std. Blk. Wrought Steel	
	901682	1	90° Elbow, 1-1/4" Std. M.I.	
	4773	1	Nipple, 1-1/4" x 2" (Threaded one end)	
	4774	1	Hose, 1-5/8" I.D. x 3-1/4" Long	
	910226	2	Hose Clamp, 2-9/32" I.D.	
11	6818	1	45° Elbow	Used prior TL-10 #1208
	7528	1	45° Elbow	Eff. TL-10 #1208
				(Continued)

PIPING AND TANK GROUP – CONTINUED

(See Plate 172)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
11	17003	1	Adapter Plate	Eff. TL-10 #1208
	10881	1	Seal Ring	
	1249	4	Capscrew, 1/2" – 20 NF x 1–1/4"	
	904208	4	Lockwasher, 1/2" ASA Med.	
12	6832	1	Hose Assy. (Includes one Hose and 2-- 3589)	
	1550-14½	1	Hose (Bare Length) See Note - Page 256	
	3589	2	Swivel Nut Sub-Assy., 3/4" JIC	
13	1776	1	90° Elbow (Special) Valve End	
14	2006	3	Adapter, 3/4"	
15	5881	1	Tube Assy., Bucket Return, Valve to Manifold	
16	5887	1	Tube Assy., Bucket Dump, Valve to Manifold	
17	5879	1	Tube Assy., Bucket Raise, Valve to Manifold	
18	5889	1	Tube Assy., Bucket Lower, Valve to Manifold	
19	1773	4	Tee, 3/4"	
20	6431	1	Tee, 3/4"	
21	5893	4	Tube Assy. , Manifold	
22	5891	4	Tube Assy. , Manifold	
23	6329	1	Tube Assy. (Restrictor Line)	
24	5901	2	Strap	
	2048	2	Capscrew, 3/8" – 24 NF x 1–1/4"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911041	2	Hex Nut, 3/8" – 24 NF	
25	5900	4	Clamp	
	3685	4	Capscrew, 3/8" – 24 NF x 2–1/2"	
	904206	4	Lockwasher, 3/8" ASA Med.	
	911041	4	Hex Nut, 3/8" – 24 NF	
26	6261	2	Hose Assy. (Each includes 1-- 3589, one Hose and 1-- 3587)	Used prior TL-10 #1040
	3589	2	Swivel Nut Sub-Assy., 3/4" JIC	
	1550-14	2	Hose (Bare Length) See Note - Page 256	
	3587	2	Flare Sub-Assy., 3/4" JIC	
	16059	2	Hose Assy. (Each includes one Hose and 2 -- 3587)	Eff. TL-10 #1040 (Continued)
	1550-26½	2	Hose (Bare Length) See Note - Page 256	
	3587	4	Flare Sub-Assy., 3/4" JIC	

PIPING AND TANK GROUP – CONTINUED

(See Plate 172)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
27	6262	2	Hose Assy. (Each includes one Hose and 2--3587)	Used prior TL-10 #1040
	1550-14	2	Hose (Bare Length) See Note - Page 256	
	3587	4	Flare Sub-Assy., 3/4" JIC	
	15906	2	Hose Assy. (Each includes 1--3589, one Hose & 1--3587)	Eff. TL-10 #1040
	3589	2	Swivel Nut Sub-Assy., 3/4" JIC	
	1550-30½	2	Hose (Bare Length) See Note - Page 256	
	3587	2	Flare Sub-Assy., 3/4" JIC	
28	6325	2	Hose Assy. (Each includes 1--3587, one Hose & 1--1261)	
	3587	2	Flare Sub-Assy., 3/4" JIC	
	1550-32	2	Hose (Bare Length) See Note - Page 256	
	1261	2	Male Sub-Assy., 3/4"	
29	6326	2	Hose Assy. (Each includes one Hose and 2--3587)	
	1550-27	2	Hose (Bare Length) See Note - Page 256	
	3587	4	Flare Sub-Assy., 3/4" JIC	
30	6259	2	Tube Assy.	Used prior TL-10 #1040
	16057	2	Tube Assy. (Return)	Eff. TL-10 #1040
31	5487	4	Clamp	
	2862	4	Capscrew, 3/8" – 24 NF x 1/2"	
	904206	4	Lockwasher, 3/8" ASA Med.	
32	6445	2	Tube Assy.	
33	1392	2	Pipe, 3/8" I.D. x 1–1/2" (Threaded one end)	
34	10411	2	Hose Clamp	
35	6432	1	Hose, 5/8" I.D. x 11–1/2"	
36	2233	1	90° Elbow (Special)	
37	901513	1	Nipple, 3/4" x 3", Std. Blk. Wrought Steel	
38	1163	1	Strap	
	1376	1	Capscrew, 3/8" – 24 NF x 2–1/4"	
	911115	1	Plain Washer, 3/8" SAE	
	904206	1	Lockwasher, 3/8" ASA Med.	
	911041	1	Hex Nut, 3/8" – 24 NF	
39	7509	1	Coupling, 3/4" Std., M.I.	
40	2766	1	Breather Assy. (Includes parts as listed in Item #40)	

(Continued)

PIPING AND TANK GROUP – CONTINUED

(See Plate 172)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
40	2767	1	Base	
	2768	1	Cap	
	2769	1	Filter Element	
	914172	1	Machine Screw, #10 - 32 NF x 1-1/4"	
	904203	1	Lockwasher, #10 ASA Med.	
41	2184	4	90° Elbow (Special) (One used on each Dump & Lift Cylinder)	Eff. TL-10 #1046
42	10653	1	Strainer	
43	13848	1	Bail	
44	13850	1	Magnet	
45	13847	1	Baffle Support	
46	13852	1	Baffle	
-	1550	-	Hose, 3/4" x 25 Foot Roll (For service Stock)	
			<p>NOTE: The factory will furnish 25 foot rolls of hose only. Dealer will furnish hose cut to proper length or in 25 foot rolls.</p>	

CONTROL GROUP – USED PRIOR TL-10 #1040

(See Plate 174)

ITEM	PART NUMBER	QTY.	PART NAME
1	----	1	Valve Assy. (Includes Items #2 thru #34) (For service, order 15047, see Item #1- Page 261)
2	----	1	Housing
3	----	1	Plunger (Not serviced separately)
4	----	1	Plunger, Detent
5	2744	1	Cap
6	2745	2	Washer, Steel
7	2746	4	Seal Ring
8	2747	1	Spring (Compression)
9	2749	2	Spring (Compression)
10	2748	4	Plunger, Check Valve
11	2750	2	Spring (Compression)
12	2751	2	Plunger Eye
13	4888	1	Cap, Detent Valve
14	1712	2	Poppet, Detent Plunger
15	7405	1	Spring (Compression)
16	7404	1	Spacer, Plunger
17	2761	2	Seal (Inner)
	2760	2	Seal (Felt, Outer)
18	908944	2	Pipe Plug, 1/2" Steel, Ctsk., 3/8" Hex
19	907856	1	Pipe Plug, 3/8" Steel, Ctsk., 5/16" Hex
20	3487	1	Pipe Plug, 1" Special
21	909091	2	Pipe Plug, 3/4" Steel, Ctsk., 9/16" Hex
22	2757	1	Acorn Nut
23	2758	1	Set Screw
24	911048	1	Hex Jam Nut, 3/8" – 24 NF
25	2756	1	Spring Guide
26	2759	1	Cap
	2755	1	Washer Gasket
27	6158	1	Spring (Compression)
28	2753	1	Plunger, Relief Valve
29	2752	1	Seat, Relief Valve
30	905564	1	Set Screw, 5/16" – 18 NC x 3/8"

(Continued)

Used Prior TL-10 #1040

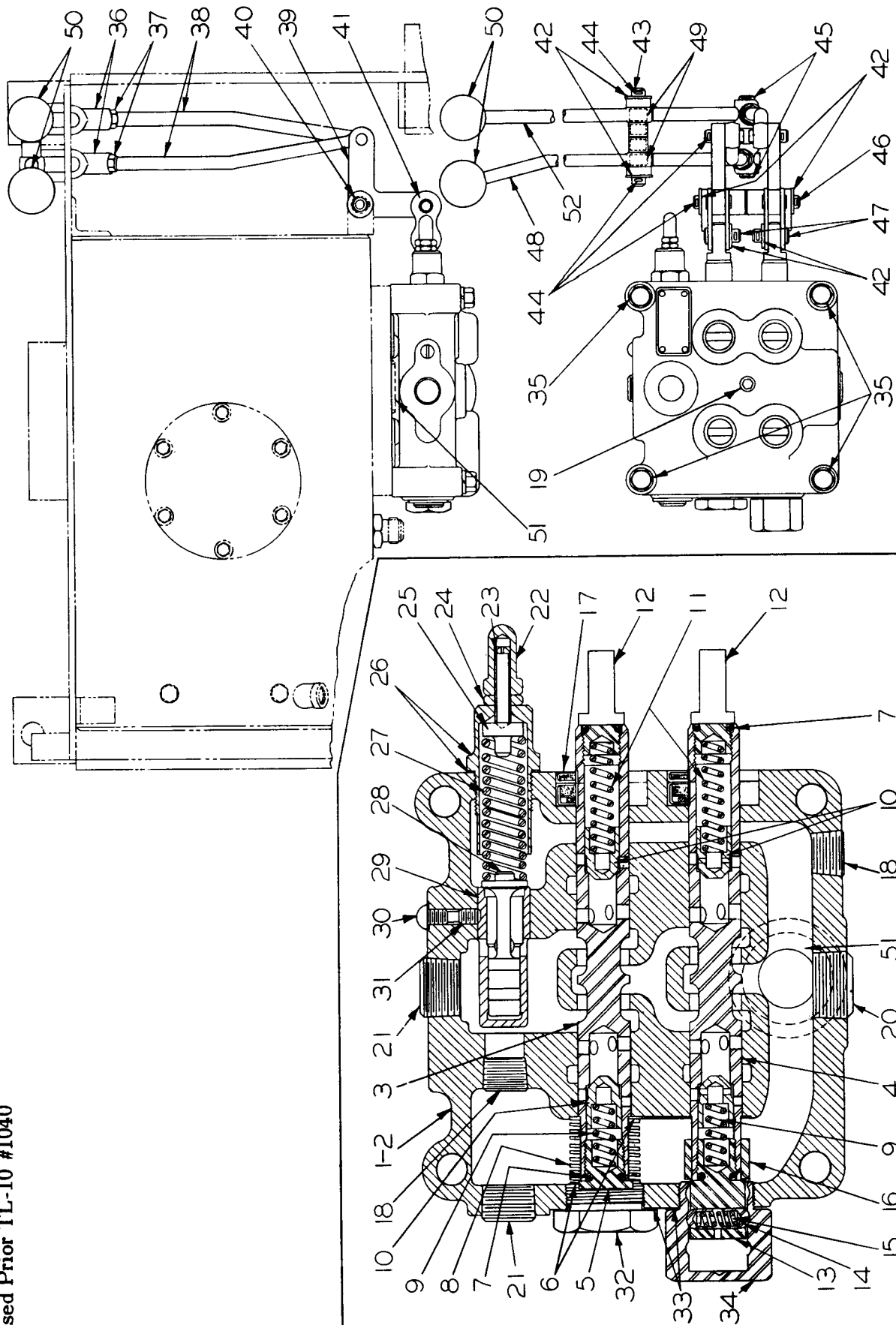


PLATE 174 - CONTROL GROUP

CONTROL GROUP - USED PRIOR TL-10 #1040 - CONTINUED

(See Plate 174)

ITEM	PART NUMBER	QTY.	PART NAME
30	1737	1	Washer Gasket
31	914372	1	Machine Screw, 5/16" - 18 NC x 3/8"
32	2763	1	Cap
33	1731	2	Washer Gasket
34	7407	1	Cap, Detent
35	2052	4	Capscrew, 1/2" - 20 NF x 3-1/2"
	904208	4	Lockwasher, 1/2" ASA Med.
36	5684	2	Yoke
37	913177	2	Hex Jam Nut, 1/2" - 20 NF
38	7665	2	Rod Weld Assy.
39	5660	2	Bell Crank Assy. (Each includes one Bell Crank, 2-- 5652 and 1--1523)
	----	2	Bell Crank (Not serviced separately) Order 5660
40	5652	4	Bushing
41	1523	2	Link Kit (Each includes two Side Plates and one Bushing)
42	910244	6	Plain Washer, 1/2" SAE
43	5685	1	Pin
44	900806	10	Cotter Pin, 1/8" x 1"
45	1565	2	Pin
46	5686	1	Pin
47	1566	2	Pin
48	5682	1	Control Lever Assy. (Includes two Item #49)
49	5652	4	Bushing
50	1171	2	Knob
51	2227	1	Seal Ring (Valve to Tank)
52	9014	1	Control Lever Assy. (Includes two Item #49)

(Used TL-10 #1040 thru #1647)

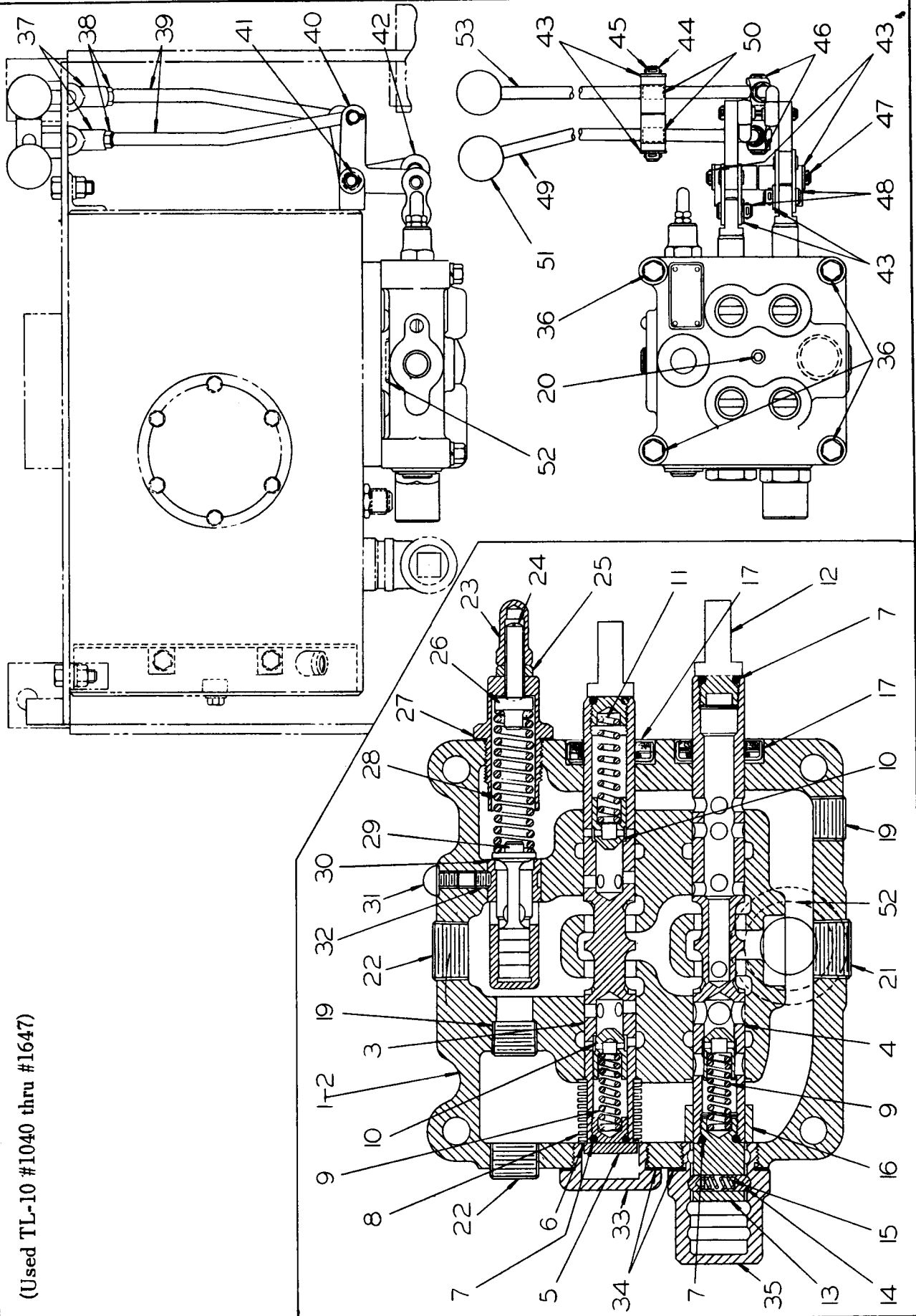


PLATE 499 - CONTROL GROUP

CONTROL GROUP – USED TL-10 #1040 THRU #1647

(See Plate 499)

ITEM	PART NUMBER	QTY.	PART NAME
1	15047	1	Valve Assy. (Includes Items #2 thru #35)
2	----	1	Housing
3	----	1	Plunger (Not serviced separately)
4	----	1	Plunger, Detent
5	2744	1	Cap
6	2745	2	Washer, Steel
7	2746	4	Seal Ring
8	2747	1	Spring (Compression)
9	2749	2	Spring (Compression)
10	2748	3	Plunger, Check Valve
11	2750	1	Spring (Compression)
12	2751	2	Plunger Eye
13	4888	1	Cap, Detent Valve
14	1712	2	Poppet, Detent Plunger
15	7405	1	Spring (Compression)
16	15371	1	Spacer, Detent Plunger
17	16485	2	Seal
19	908944	2	Pipe Plug, 1/2" Steel, Ctsk., 3/8" Hex
20	907856	1	Pipe Plug, 3/8" Steel, Ctsk., 5/16" Hex
21	3487	1	Pipe Plug, 1" Special
22	909091	2	Pipe Plug, 3/4" Steel, Ctsk., 9/16" Hex
23	2757	1	Acorn Nut
24	2758	1	Set Screw
25	911048	1	Hex Jam Nut, 3/8" – 24 NF
26	2756	1	Spring Guide
27	2759	1	Cap
	2755	1	Washer Gasket
28	6158	1	Spring (Compression)
29	2753	1	Plunger (Relief Valve)
30	2752	1	Seat, Relief Valve
31	905564	1	Set Screw, 5/16" – 18 NC x 3/8"
	1737	1	Washer Gasket
			(Continued)

CONTROL GROUP – USED TL-10 #1040 THRU #1647 – CONTINUED

(See Plate 499)

ITEM	PART NUMBER	QTY.	PART NAME
32	914372	1	Machine Screw, 5/16" – 18 NC x 3/8"
33	2763	1	Cap
34	1731	2	Washer Gasket
35	15372	1	Cap, Detent
36	2052	4	Capscrew, 1/2" – 20 NF x 3-1/2"
	904208	4	Lockwasher, 1/2" ASA Med.
37	5684	2	Yoke
38	913177	2	Hex Jam Nut, 1/2" – 20 NF
39	7665	2	Rod Weld Assy.
40	5660	1	Bell Crank Assy., Upper (Each includes 2--5652, 1--1347 (Used Prior to TL-10 #1594)
	5661	1	
	15470	1	Bell Crank Assy., Upper (See page 265 for parts) (Effective w/TL-10 #1594)
	15471	1	
	1347	2	Bushing
41	13908	4	Bushing
	5652	4	Bushing
42	1523	2	Link Kit (Each includes two Side Plates and one Bushing)
43	910244	6	Plain Washer, 1/2" SAE
44	5685	1	Pin
45	900806	10	Cotter Pin, 1/8" x 1"
46	1565	2	Pin
47	5686	1	Pin
48	1566	2	Pin
49	5682	1	Control Lever Assy. (Includes 1--13909 and 2--5652)
	13909	1	Bushing
50	5652	4	Bushing
51	1171	2	Knob
52	2227	1	Seal Ring (Valve to Tank)
53	9014	1	Control Lever Assy. (Includes 2--5652 and 1--13909)
	13909	1	Bushing

CONTROL GROUP – EFFECTIVE TL-10 #1648 & UP

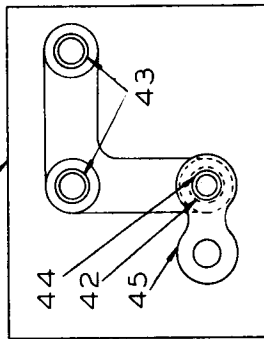
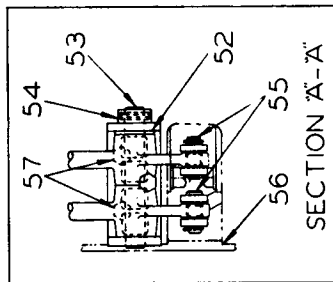
(See Plate 757)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	15047	1	Valve Assy. (Includes Items #2 thru #35) (Order also Item #59)	
2	----	1	Housing	
3	----	1	Plunger	(Not serviced separately)
4	----	1	Plunger, detent	
5	2744	1	Cap	
6	2745	2	Washer, steel	
7	2746	4	Seal Ring	
8	2747	1	Spring, compression	
9	2749	2	Spring, compression	
10	2748	3	Plunger, check valve	
11	2750	1	Spring, compression	
12	2751	2	Plunger Eye	
13	4888	1	Cap, detent valve	
14	1712	2	Poppet, detent plunger	
15	7405	1	Spring, compression	
16	15371	1	Spacer, detent plunger	
17	16485	2	Seal	
18	908944	2	Pipe Plug, 1/2", steel, ctsk., 3/8" hex	
19	907856	1	Pipe Plug, 3/8", steel, ctsk., 5/16" hex	
20	3487	1	Pipe Plug, 1", special	
21	909091	2	Pipe Plug, 3/4", steel, ctsk., 9/16" hex	
—		1	Main Relief Valve Assy. (Includes Items #22 thru #29) (Setting should read 1100 to 1150 psi)	
22	2757	1	Acorn Nut	
23	2758	1	Set Screw	
24	911048	1	Hex Jam Nut, 3/8" – 24 NF	
25	2756	1	Spring Guide	
26	2759	1	Cap	
	2755	1	Washer Gasket	
27	31088	1	Spring, compression	
28	2753	1	Plunger, relief valve	
29	2752	1	Seat, relief valve	
30	914372	1	Machine Screw, 5/16" – 18 NC x 3/8"	
	1737	1	Washer Gasket	

(Continued)

(Effective with TL-10 #1648)

41-46



MAIN RELIEF VALVE SETTING SHOULD
READ 1100 TO 1150 P.S.I.

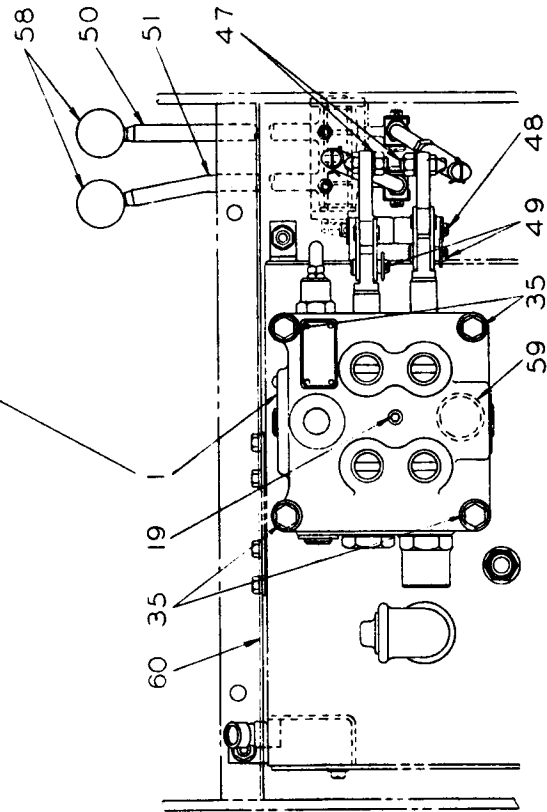
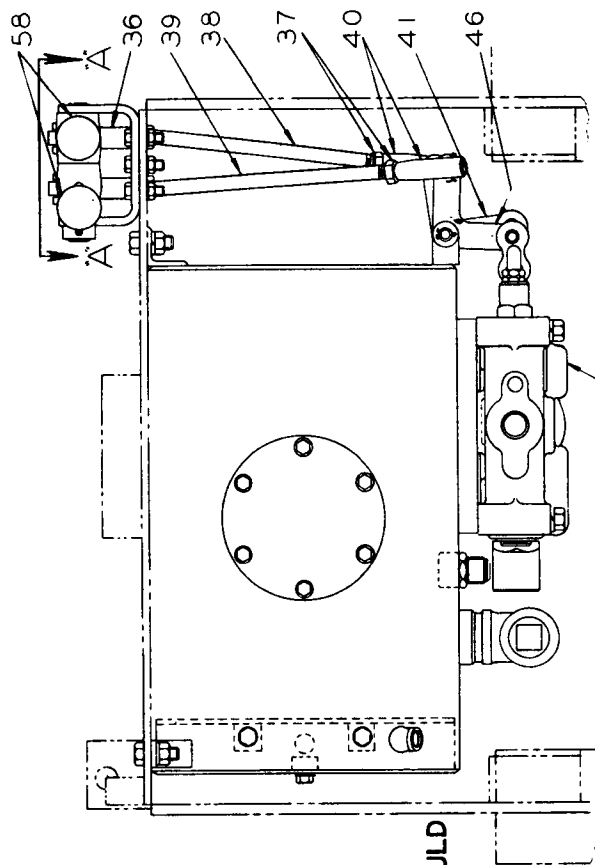
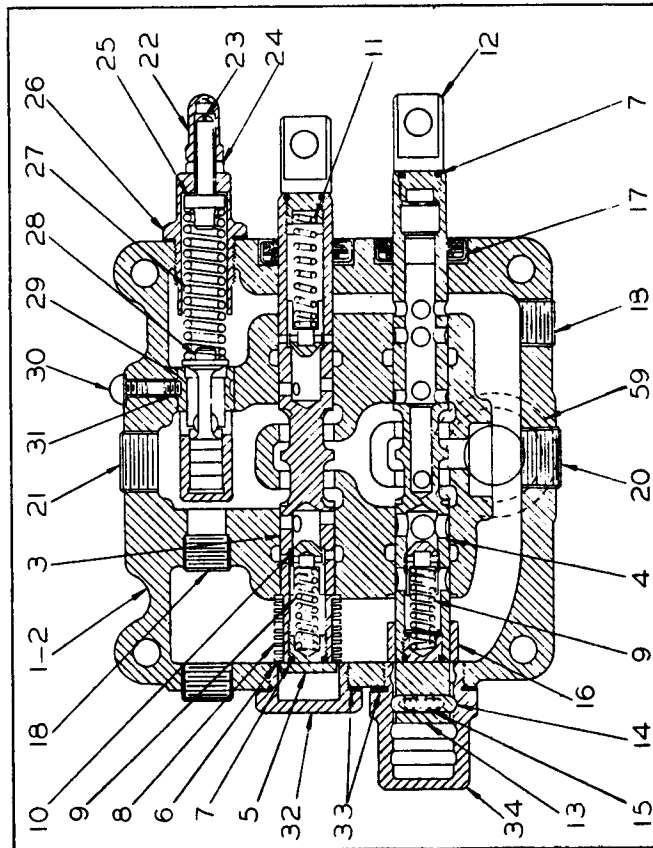


PLATE 757 - CONTROL GROUP

CONTROL GROUP – EFFECTIVE TL-10 #1648 & UP – CONTINUED

(See Plate 757)

ITEM	PART NUMBER	QTY.	PART NAME
31	905564	1	Setscrew, 5/16" – 18 NC x 3/8"
32	2763	1	Cap
33	31089	2	O-Ring
34	15372	1	Cap, Detent
35	916424	4	Capscrew, 1/2" – 20 NF x 3-1/2"
	904208	4	Lockwasher, 1/2" ASA Med.
36	917666	2	Yoke
37	913177	4	Hex Jam Nut, 1/2" – 20 NF
38	17113	1	Rod
39	17112	1	Rod
40	17120	2	Ball Joint
41	15470	1	Bell Crank Assy. (Includes 1--13908, 3--13909, 1--1347 and 1--1523)
42	13908	2	Bushing
43	13909	8	Bushing
44	1347	2	Bushing
45	1523	2	Link Kit (Each includes two Side Plates and one Bushing)
46	15471	1	Bell Crank Assy. (Includes 1--13908, 3--13909, 1--1347 and 1--1523)
47	911043	2	Hex Nut, 1/2" – 20 NF
	904208	2	Lockwasher, 1/2" ASA Med.
48	5686	1	Lock Pin
	900806	2	Cotter Pin, 1/8" x 1"
	910244	2	Plain Washer, 1/2" SAE
49	1566	2	Lock Pin
	900806	2	Cotter Pin, 1/8" x 1"
	910244	2	Plain Washer, 1/2" SAE
50	17114	1	Control Lever Assy. (Includes 2--5955, 2--5957 and 1--13909)
	5955	2	Bearing (Lettered end must face pressing tool)
	5957	2	Seal (Install with lips toward outside)
51	17115	1	Control Lever Assy. (Includes 2--5955, 2--5957 and 1--13909)
	5955	2	Bearing (Lettered end must face pressing tool)
	5957	2	Seal (Install with lips toward outside)
52	910255	1	Plain Washer, 3/4" SAE

(Continued)

CONTROL GROUP - EFFECTIVE TL-10 #1648 & UP - CONTINUED

(See Plate 757)

ITEM	PART NUMBER	QTY.	PART NAME
53	17119	1	Shaft
54	916937	1	Roll Pin
55	1565	2	Lock Pin
	900806	2	Cotter Pin, 1/8" x 1"
56	17118	1	Bracket
57	915228	3	Capscrew, 3/8" - 24 NF x 1-1/4"
	904206	3	Lockwasher, 3/8" ASA Med.
	911041	3	Hex Nut, 3/8" - 24 NF
58	1171	2	Knob
59	2227	1	Seal Ring (Valve to Tank)
60	23661	1	Insulator

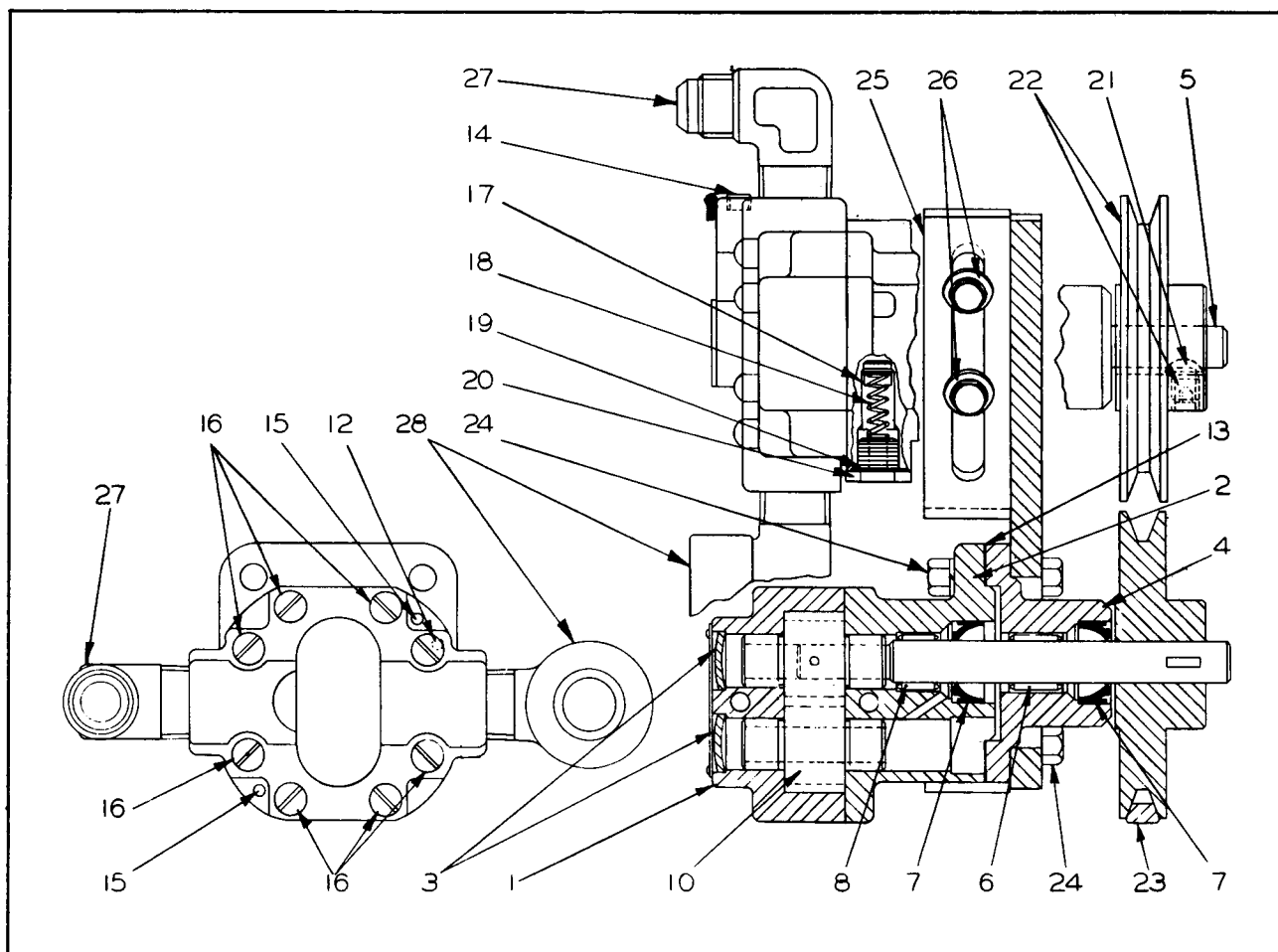


PLATE 318 - CONVERTER PUMP MOUNTING & DRIVE GROUP - USED TL-10 #256 THRU #970

ITEM	PART NUMBER	QTY.	PART NAME
1	9530	1	Pump Assy.
	- - - -	1	End Cover (Not serviced separately)
2	- - - -	1	Housing (Not serviced separately)
3	914590	2	Expansion Plug
4	9578	1	Adapter Cover
5	11193	1	Drive Shaft and Gear
6	9577	1	Bearing
7	6710	2	Seal
8	9574	1	Bearing
10	9573	1	Driven Gear
12	9580	1	Dowel Pin (Pulley end of Pump)
13	9576	1	Gasket
14	9581	1	Pipe Plug
15	6715	2	Pin

(Continued)

CONVERTER PUMP MOUNTING & DRIVE GROUP - USED TL-10 #256 THRU #970 - CONTINUED

(See Plate 318)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
16	6713	8	Machine Screw	
17	6721	1	Plunger	
18	9584	1	Spring	
19	9582	1	Gasket	
20	6718	1	Cap	
21	905119	1	Key, Woodruff, #3	
22	9524	1	Pulley Assembly (Includes 1-- 905564)	
	905564	1	Setscrew, 5/16" - 18 NC x 3/8"	
23	9529	1	"V" Belt	
24	3480	4	Capscrew, 5/16" - 24 NF x 1-1/2"	
	904205	4	Lockwasher, 5/16" ASA Med.	
	913636	4	Hex Nut, 5/16" - 24 NF	
25	9519	1	Mounting Bracket, Pump	
26	1108	2	Capscrew, 3/8" - 24 NF x 1-1/2"	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911115	2	Plain Washer, 3/8" SAE	
	911041	2	Hex Nut, 3/8" - 24 NF	
27	9526	1	90° Elbow	
28	9527	1	90° Elbow, Street, 1/2"	Used prior TL-10 #409
	10150	1	90° Elbow (Special)	Used TL-10 #409 thru #970

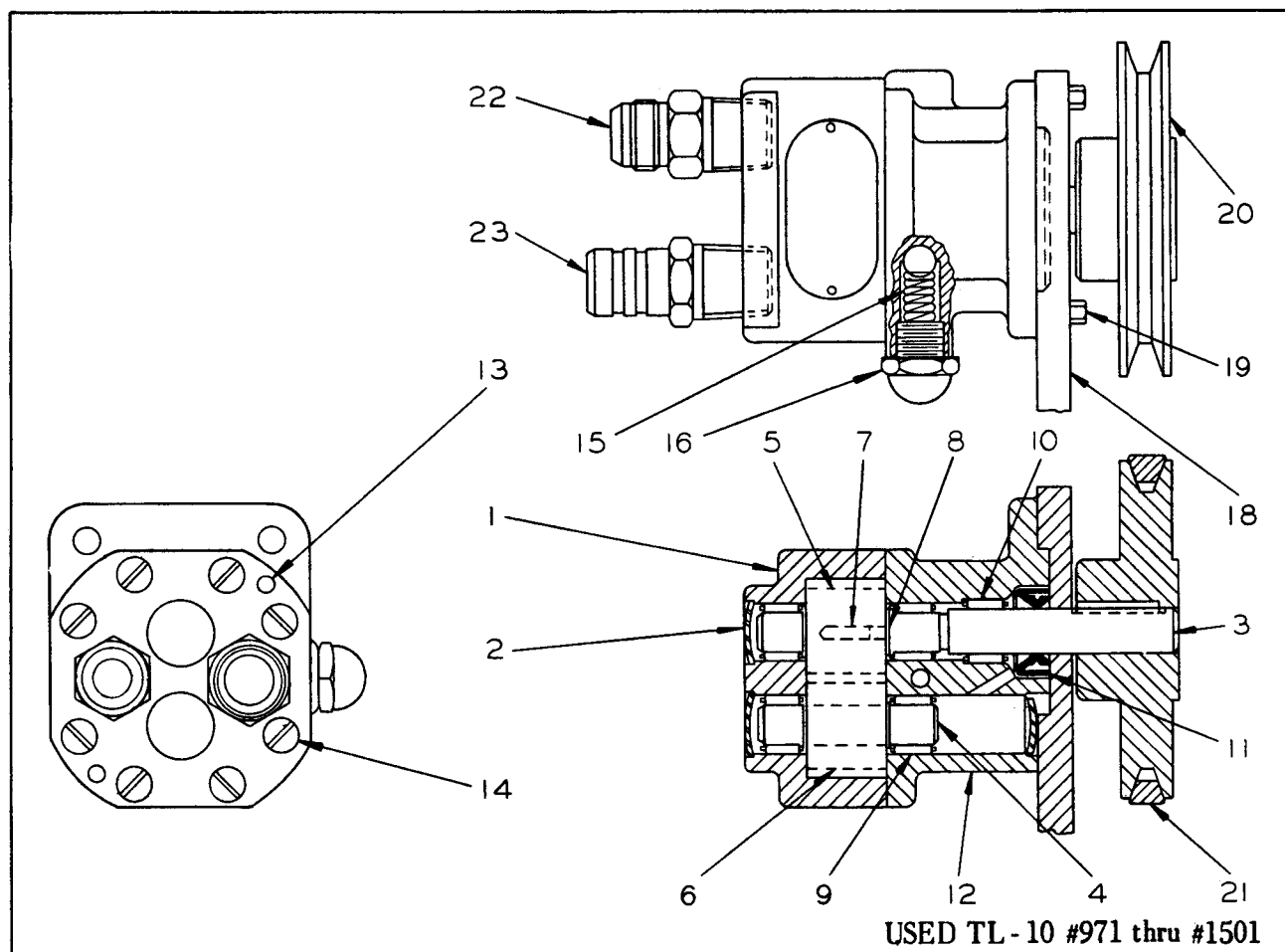


PLATE 534 - CONVERTER PUMP MOUNTING AND DRIVE GROUP - (For Conventional Steering)

ITEM	PART NUMBER	QTY.	PART NAME
1	14290	1	Pump Assy. (Includes one Housing and Items #2 thru #17)
	----	1	End Cover (Not serviced separately)
2	914590	3	Expansion Plug
3	15061	1	Drive Shaft
4	21691	1	Driven Gear & Shaft Assy., (Includes 1-21692)
	21692	1	Shear Pin
5	15055	1	Drive Gear
6	----	1	Driven Gear (Not serviced order 21691)
7	15056	1	Key, 1/8" x 1/8" x 1/2"
8	15050	4	Snap Ring
9	11711	4	Needle Bearing
10	9574	1	Needle Bearing
11	6710	1	Oil Seal
12	----	1	Housing (Not serviced separately)
13	6715	2	Dowel Pin
(Continued)			

CONVERTER PUMP MOUNTING AND DRIVE GROUP - USED TL-10 #971 thru #1501 - CONTINUED
(For Conventional Steering)
(See Plate 534)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
14	6713	8	Machine Screw	
15	15587	1	Ball and Spring Assy.	
16	15063	1	Cap	Used TL-10 #971 thru #1201
	913463	1	Cap	
	11709	1	Adjustment Screw	Eff. TL-10 #1202 and Up
	9582	1	Gasket	
17	1108	2	Capscrew, 3/8" - 24 NF x 1-1/2"	
	911115	2	Plain Washer, 3/8" SAE	
	904206	2	Lockwasher, 3/8" ASA Med.	
	911041	2	Hex Nut, 3/8" - 24 NF	
18	15159	1	Bracket Weld Assy.	
19	7381	4	Capscrew, 3/8" - 24 NF x 1"	
	13078	1	Lockwire	
20	9524	1	Pulley Assy. (Includes 1--905564)	
	10542	1	Key, 1/8" x 1/8" x 7/8"	
	905564	1	Setscrew, 5/16" - 18 NC x 3/8"	
21	9529	1	"V" Belt	
22	14291	1	Adapter, 3/4" - 16 NF x 1/2" NPT	
23	8304	1	Adapter, 1/2" NPT	

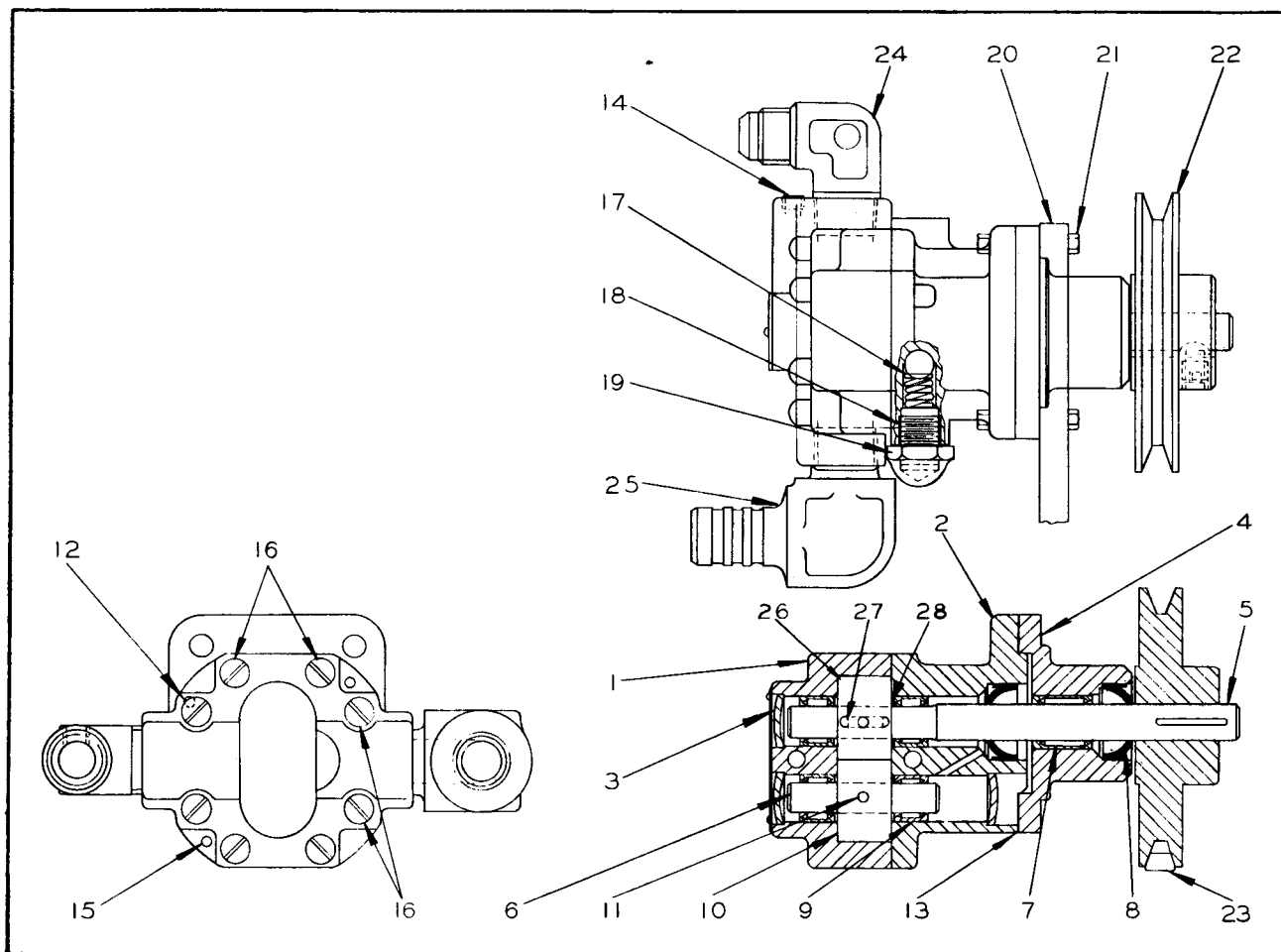


PLATE 449 – CONVERTER PUMP MOUNTING AND DRIVE GROUP (FOR POWER STEERING)
(Used on TL-10 prior #923 as Special Equipment)

ITEM	PART NUMBER	QTY.	PART NAME
1	11018	1	Pump Assy. (Includes one End Cover, Items #2 thru #19 and #26 thru #28)
	----	1	End Cover
2	----	1	Housing
3	914590	3	Expansion Plug
4	9578	1	Adapter Cover
5	17137	1	Drive Shaft
6	11714	1	Driven Shaft
7	9577	1	Bearing
8	6710	2	Seal
9	11711	4	Bearing
10	11710	1	Gear
11	6719	1	Shear Pin
12	9580	1	Dowel Pin
13	9576	1	Gasket
14	9581	1	Pipe Plug, 1/16" Steel, Ctsk., 1/8" Hex

(Continued)

(USED ON TL-10 PRIOR #923 AS SPECIAL EQUIPMENT)

(See Plate 449)

ITEM	PART NUMBER	QTY.	PART NAME
15	6715	2	Pin
16	6713	8	Machine Screw
17	11708	1	Ball and Spring Assy. (Serviced as assembly only)
18	11709	1	Adjustment Screw
19	9582	1	Gasket
	913463	1	Cap Nut, 1/2" – 20 NF
20	9519	1	Bracket, Pump Mounting
21	3480	4	Capscrew, 5/16" – 24 NF x 1–1/2"
	904205	4	Lockwasher, 5/16" ASA Med.
	913636	4	Hex Nut, 5/16" – 24 NF
22	9524	1	Pulley Assy. (Includes 1--905564)
	10542	1	Key
	905564	1	Set Screw, 5/16" – 18 NC x 3/8"
23	12990	1	"V" Belt
24	10434	1	90° Elbow (Special)
25	10150	1	90° Elbow (Special)
26	17135	1	Drive Gear
27	17136	1	Key, 1/8" x 1/8" x 7/16"
28	15050	2	Snap Ring

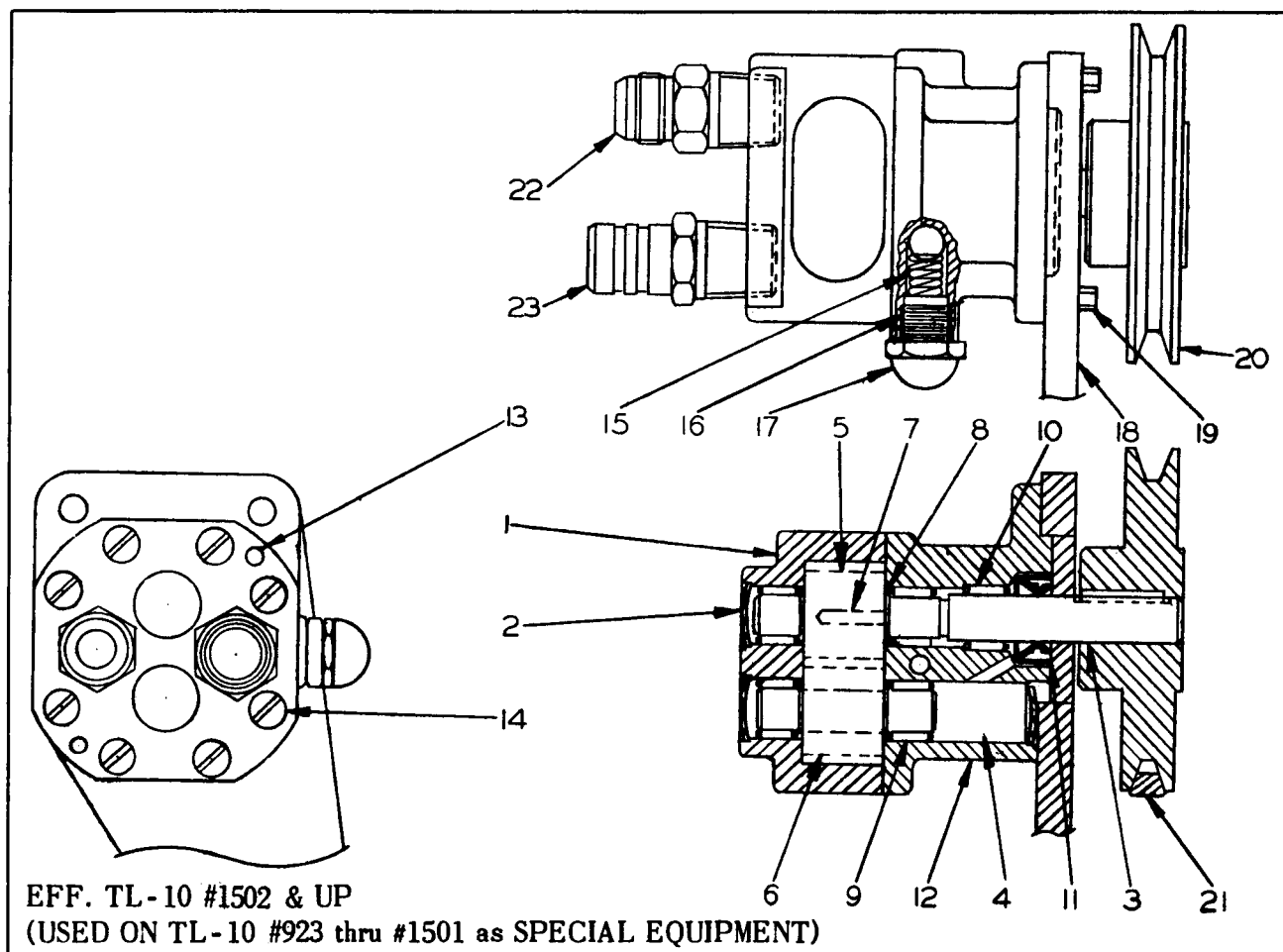


PLATE 500 – CONVERTER PUMP MOUNTING AND DRIVE GROUP

ITEM	PART NUMBER	QTY.	PART NAME
1	14738	1	Pump Assy. (Includes one Housing and Items #2 thru #17)
	----	1	End Cover (Not serviced separately)
2	914590	3	Expansion Plug
3	15061	1	Drive Shaft
4	21691	1	Driven Gear & Shaft (Includes 1-- 21692)
	21692	1	Shear Pin
5	15055	1	Drive Gear
6	----	1	Driven Gear (Not serviced order 21691)
7	15056	1	Key, 1/8" x 1/8" x 1/2"
8	15050	4	Snap Ring
9	11711	4	Needle Bearing
10	9574	1	Needle Bearing
11	6710	1	Oil Seal
12	----	1	Housing (Not serviced separately)
13	6715	2	Dowel Pin
14	6713	8	Machine Screw

(Continued)

CONVERTER PUMP MOUNTING AND DRIVE GROUP - CONTINUED

(See Plate 500)

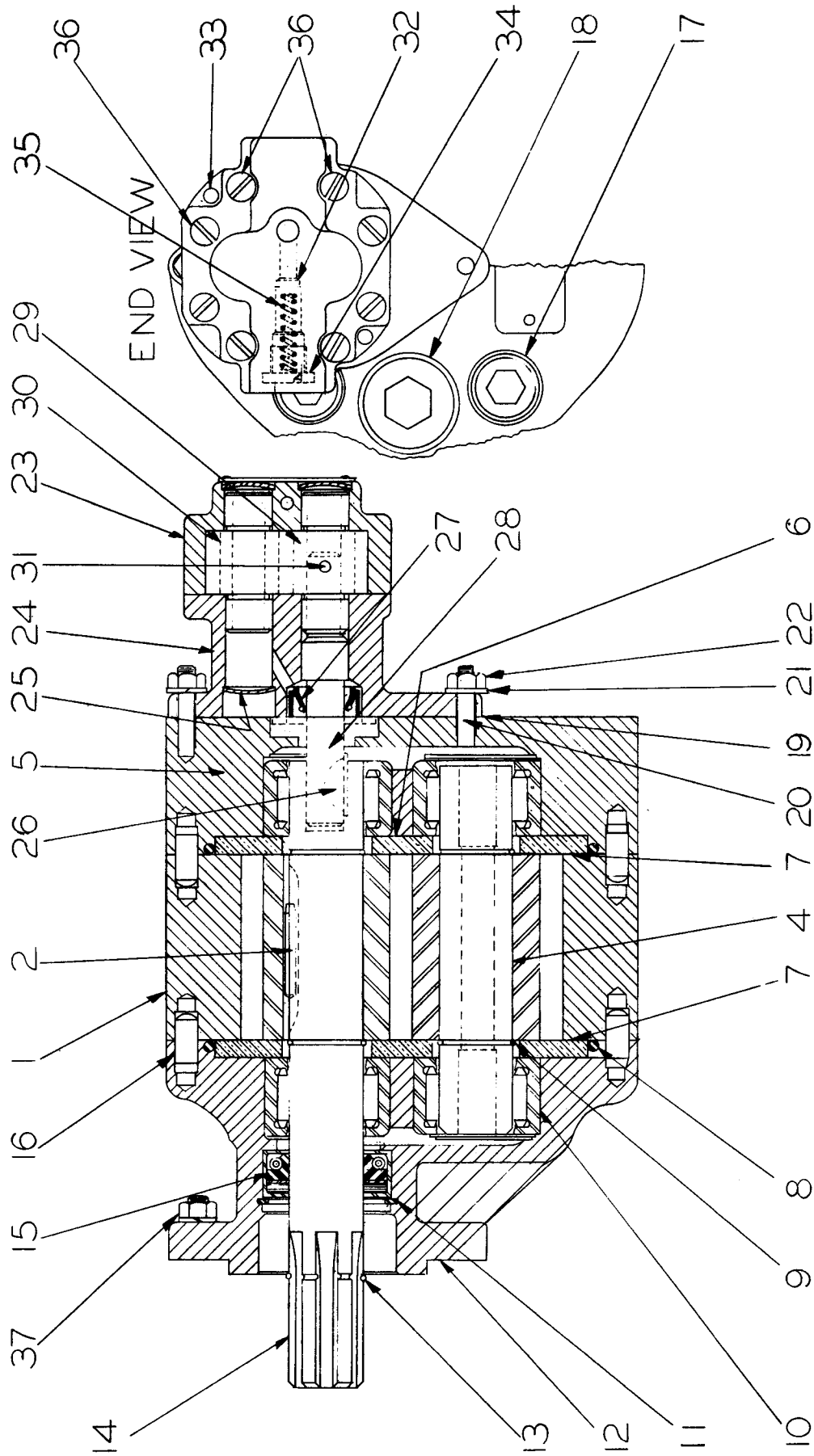
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TANDEM PUMP GROUP - USED PRIOR TL-10 #256

(See Plate 182)

ITEM	PART NUMBER	QTY.	PART NAME
1	6728	1	Pump Assy. (Large) (Includes 1--3001 and Items #2 thru #18) (For use in Tandem with Torque Converter Pump)
	3001	1	Housing
2	6663	1	Dowel (For service only with separate Gear and Shaft)
4	3004	1	Driven Shaft and Gear
5	6722	1	End Cover
6	3009	2	Wear Plate
7	3691	—	Gasket, .001" thick (Amber)
	3692	—	Gasket, .002" thick (Red)
			(Use as required)
8	3008	2	Seal Ring
9	3689	4	Snap Ring (For service only with separate Gear and Shaft)
10	3005	4	Bearing
11	6213	1	Snap Ring
12	6667	1	Adapter Cover, Pump
13	2997	1	Snap Ring
14	9419	1	Drive Shaft and Gear
15	2998	1	Seal
16	3002	4	Dowel
17	3010	4	Capscrew, 5/8" — 18 NF x 4—1/2", Skt. Hd.
18	909365	2	Pipe Plug, 1" Steel, Ctsk., 5/8" Hex
19	7278	1	Gasket (Used with 6215 Pump when mounted in Tandem)
	10468	1	Cover
	7719	1	Seal Ring
			(Not Shown) (Used with 6728 Pump when not mounted in Tandem)
20	6725	2	Stud
21	904204	2	Lockwasher, 1/4" ASA Med.
22	911040	2	Hex Nut, 1/4" — 28 NF
23	6215	1	Pump Assy. (Includes one Gear Housing and Items #24 thru #36)
	----	1	End Cover (Not serviced separately)
24	----	1	Housing (Not serviced separately)

(Continued)



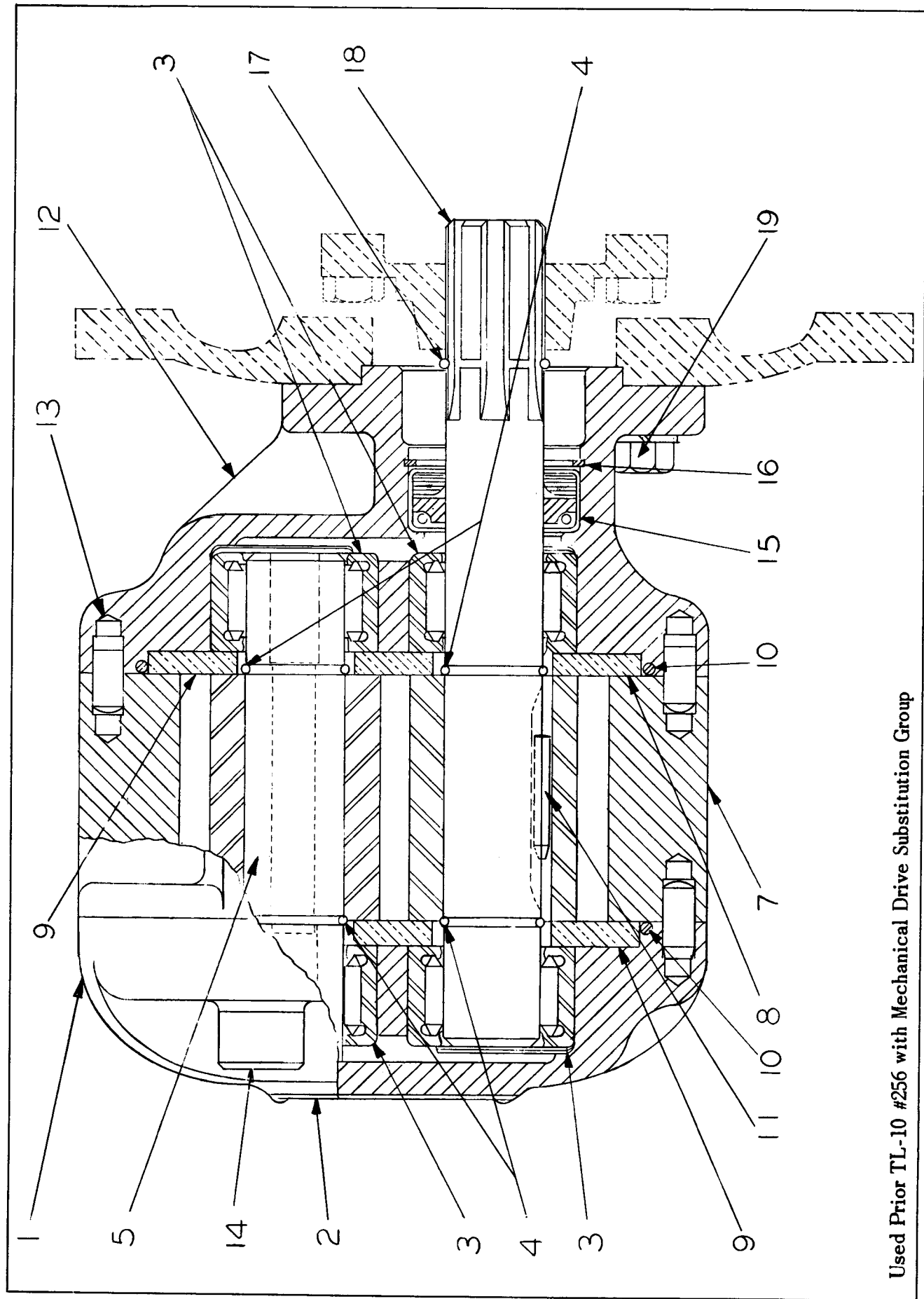
Used Prior TL-10 #256

PLATE 182 - TANDEM PUMP GROUP

TANDEM PUMP GROUP - USED PRIOR TL-10 #256 - CONTINUED

(See Plate 182)

ITEM	PART NUMBER	QTY.	PART NAME
25	914590	3	Expansion Plug
26	6712	1	Key
27	6710	1	Seal
28	6714	1	Drive Shaft
29	6709	1	Drive Gear
30	6717	1	Driven Gear
31	6719	1	Shear Pin
32	6721	1	Plunger
33	6715	2	Pin
34	6718	1	Cap
35	6720	1	Spring
36	6713	8	Machine Screw
	6240	6	Stud, 3/8"
37	904206	6	Lockwasher, 3/8" ASA Med.
	911041	6	Hex Nut, 3/8" – 24 NF

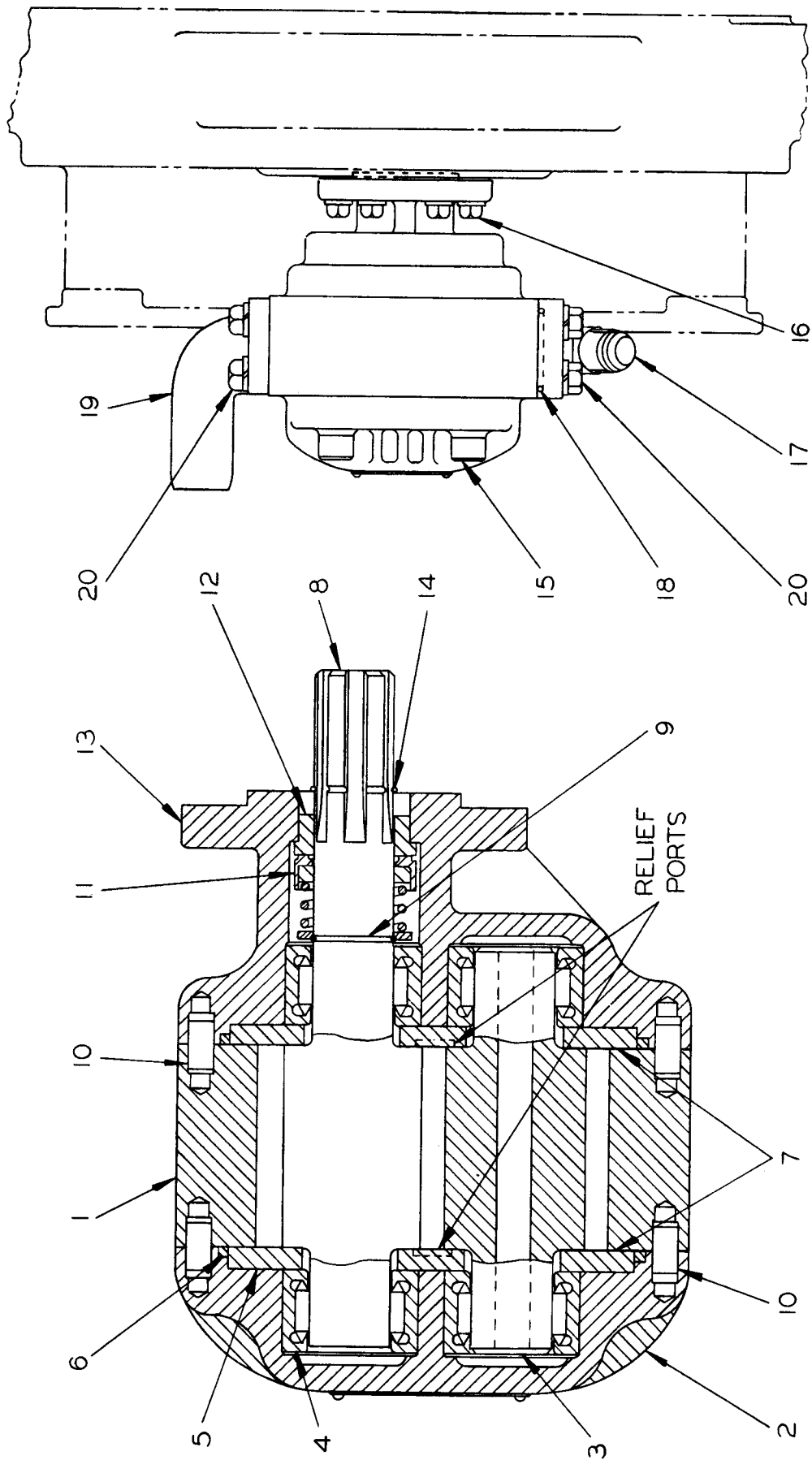


Used Prior TL-10 #256 with Mechanical Drive Substitution Group

PLATE 177 - PUMP ASSEMBLY

**PUMP ASSEMBLY - USED PRIOR TL-10 #256
WITH MECHANICAL DRIVE SUBSTITUTION GROUP
(See Plate 177)**

ITEM	PART NUMBER	QTY.	PART NAME
1	5365	1	Pump Assy., Hydreco (Includes Items #2 thru #18)
2	3006	1	End Cover
3	3005	4	Bearing
4	3689	4	Snap Ring (For service only with separate Gear and Shaft)
5	3004	1	Driven Shaft and Gear
7	3001	1	Housing
8	3691	—	Gasket, .001" thick (Amber)
	3692	—	Gasket, .002" thick (Red)
9	3009	2	Wear Plate
10	3003	2	Seal Ring
11	6663	1	Dowel (For service only with separate Gear and Shaft)
12	6667	1	Adapter Cover
13	3002	4	Dowel
14	3010	4	Capscrew, 5/8" — 18 NF x 4—1/2", Skt. Hd.
15	2998	1	Seal
16	6213	1	Snap Ring
17	2997	1	Snap Ring
18	3007	1	Drive Shaft and Gear
19	904206	6	Lockwasher, 3/8" ASA Med.
	911041	6	Hex Nut, 3/8" — 24 NF



Eff. TL-10 #256 & Up

PLATE 584 - HYDRAULIC PUMP ASSEMBLY

HYDRAULIC PUMP ASSEMBLY - EFFECTIVE TL-10 #256 & UP

(See Plate 584)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	9550	1	Pump Assy. (Includes 1--9547 & Items #2 thru #15)	Used prior TL-10 #1208
	16859	1	Pump Assy. (Includes 1--16856 & Items #2 thru #15)	Eff. TL-10 #1208
	9547	1	Housing	Used prior TL-10 #1208
	16856	1	Housing	Eff. TL-10 #1208
2	7756	1	End Cover	
3	3004	1	Driven Shaft and Gear	
4	3005	4	Bearing (Used w/Pump Serial No's. ending w/Suffix "A")	
	9548	4	Bearing (Used w/Pump Serial No's. ending w/Suffix "B")	
5	3009	2	Wear Plate	
6	3003	2	Seal Ring	
7	3691	-	Gasket, Amber Plastic, .001" thick	(Use as required)
	3692	-	Gasket, Red Plastic, .002" thick	
8	3007	1	Pump Drive Shaft and Gear	
9	3689	1	Snap Ring	
10	3002	4	Dowel Pin	
11	7753	1	Seal Assy. (Serviced only as a unit)	
12	7752	1	Seal Seat Assy., (Includes one 29725 O-Ring)	
	29725	1	O-Ring	
13	9546	1	Adapter End Cover	
14	2997	1	Snap Ring	
15	3010	4	Capscrew, 5/8" - 18 NF x 4-1/2"	
16	904206	6	Lockwasher, 3/8" ASA Med.	
	911041	6	Hex Nut, 3/8" - 24 NF	
17	6818	1	45° Elbow	Used prior TL-10 #1208
	7528	1	45° Elbow	Eff. TL-10 #1208
	17003	1	Adapter Plate	
18	10881	1	Seal Ring	Eff. TL-10 #1208
19	9533	1	90° Elbow (Prior TL-10 #1208 order also 19275)	
	19275	1	Gasket	Eff. TL-10 #1208
	1620	1	Seal Ring	Used prior TL-10 #1208
20	1249	8	Capscrew, 1/2" - 20 NF x 1-1/4"	Four used prior
	904208	8	Lockwasher, 1/2" ASA Med.	TL-10 #1208

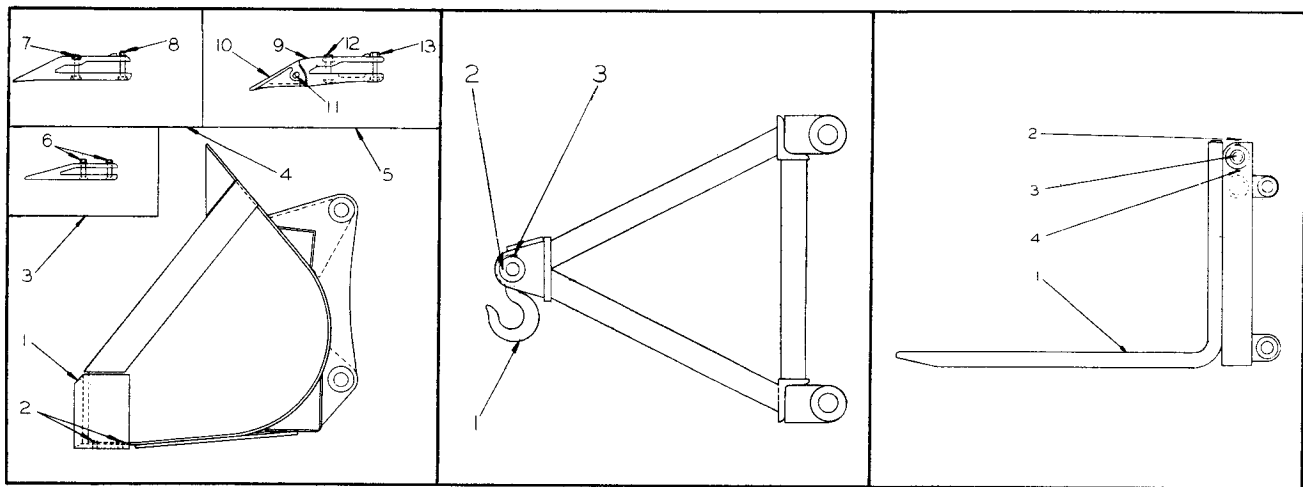


PLATE 675 - BUCKETS

PLATE 218 - CRANE HOOK

PLATE 217 - LIFT FORK

BUCKETS (See Plate 675)

ITEM	PART NUMBER	QTY.	PART NAME	
1	----	1	Bucket Assy., Std., 1 Cu. Yd. - Welded Cutting Edge	Machinery Item - See Your Allis-Chalmers Dealer
	----	1	Bucket Assy., 1 Cu. Yd. - Riveted Cutting Edge	
	----	1	Bucket Assy., 1-1/2 Cu. Yd. - Riveted Cutting Edge	
	----	1	Bucket Assy., 1-1/2 Cu. Yd. - Welded Cutting Edge	
	4605	1	Cutting Edge, 1/2" Thk., 72-1/2" Wide (Requires Welding)	For 3/4 Cu. Yd. Bucket
	7515	1	Cutting Edge, 1/2" Thk., 72-1/2" Wide (Order also 26-3984)	
	16128	1	Cutting Edge, 1/2" Thk., 74-3/8" Wide (Requires Welding)	For 1 Cu. Yd. Bucket
	4395	1	Cutting Edge, 3/4" Thk., 74-3/8" Wide (Order also 26-911575)	
	7863	1	Cutting Edge, 1/2" Thk., 84-1/2" Wide (Requires Welding)	For 1-1/2 Cu. Yd. Bucket
	7880	1	Cutting Edge, 1/2" Thk., 84-1/2" Wide (Order also 30-3984)	
2	3984	-	Rivet, Pan Hd., 1/2" x 1-3/8"	
	911575	-	Rivet, Ctsk. Hd. 1/2" x 2"	
3	3110	-	Bucket Tooth Assy. (One Piece) (Includes 1--3109, 2--912921, and 2--904208)	Used with 1/2" thick
	3109	1	Bucket Tooth	Cutting Edge only
4	4420	-	Bucket Tooth Assy. (One Piece) (Includes 1--4419, 1--3787, 1--4809, 2--904208 & 2--910325) (Order also 1--15853)	Used with 3/4" thick
	4419	1	Bucket Tooth	Cutting Edge only
5	14989	-	Bucket Tooth Assy. (Two Piece) (Includes 1--14988, 1--14986, 1--14987, 1--19717, 1--19718 & 2--19733) (Order also 1--15853)	
6	912921	2	Plow Bolt, Rd. Hd. Sq. Neck, Ctsk., (Reg.) 1/2" - 13 NC x 2-1/4" with Nut	
	904208	2	Lockwasher, 1/2" ASA Med.	
7	3787	1	Capscrew, 1/2" - 13 NC x 2-1/4", Alloy, H.T.	
	904208	1	Lockwasher, 1/2" ASA Med.	(Continued)

BUCKETS - CONTINUED

(See Plate 675)

ITEM	PART NUMBER	QTY.	PART NAME
7	910325	1	Hex Nut, 1/2" - 13 NC
8	4809	1	Capscrew, 1/2" - 13 NC x 2-3/4", Alloy, H.T.
	904208	1	Lockwasher, 1/2" ASA Med.
	910325	1	Hex Nut, 1/2" - 13 NC
9	14988	1	Shank
10	14986	1	Point
11	14987	1	Roll Pin
12	19717	1	Capscrew, 1/2" - 20 NF x 2-5/8", Alloy, H.T.
	19733	1	High Nut, 1/2" - 20 NF
13	19718	1	Capscrew, 1/2" - 20 NF x 2-7/8", Alloy, H.T.
	19733	1	High Nut, 1/2" - 20 NF
-	15853	1	Spacer (Not Shown)

CRANE HOOK (See Plate 218)

ITEM	PART NUMBER	QTY.	PART NAME
-	- - - -	1	Crane Hook, Complete (Machinery Item - See your Allis-Chalmers Dealer)
1	3298	1	Hook
2	1911	1	Pin
3	1916	1	Pin
	900806	1	Cotter Pin, 1/8" x 1"

LIFT FORK - (See Plate 217)

ITEM	PART NUMBER	QTY.	PART NAME
-	- - - -	1	Lift Fork, Complete (Machinery Item - See your Allis-Chalmers Dealer)
1	17913	2	Fork Weld Assy.
2	2629	2	T-Screw Assy.
	3508	2	Sleeve
3	3507	1	Bar
4	1622	2	Pin
	900806	2	Cotter Pin, 1/8" x 1"

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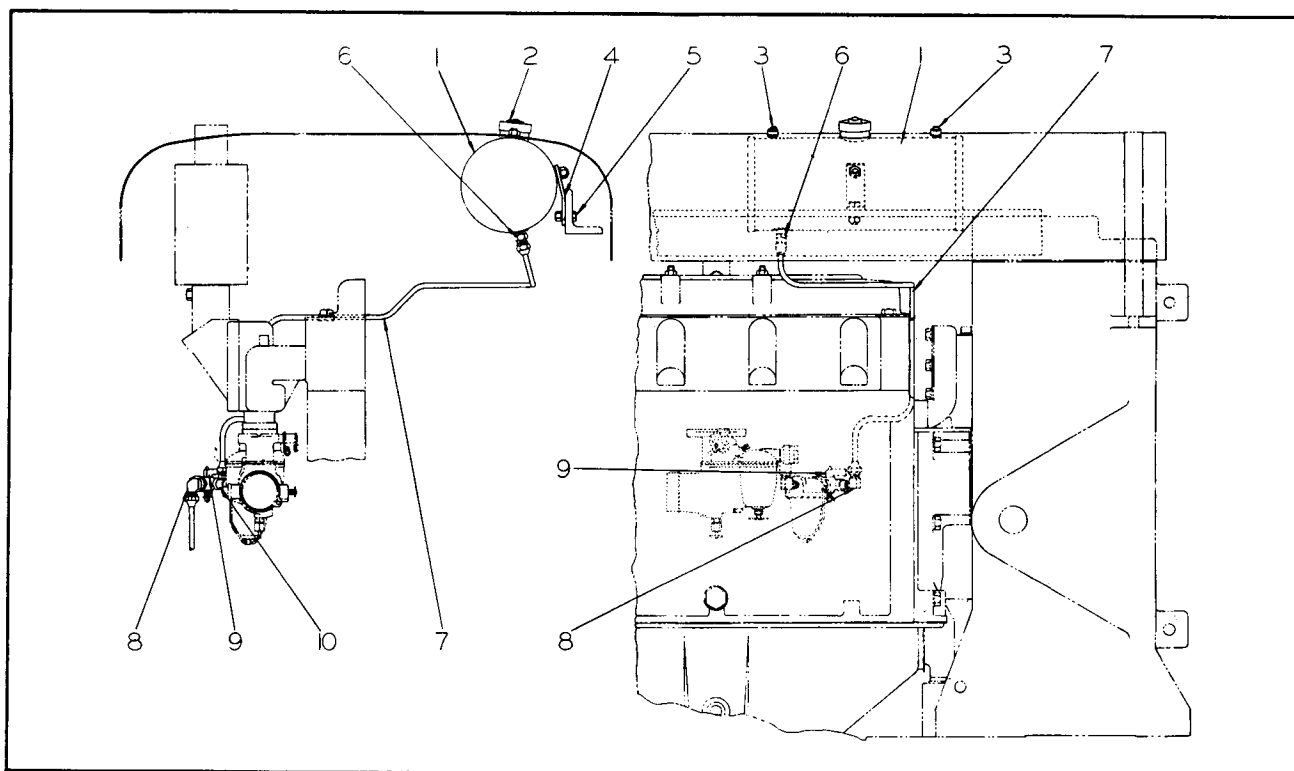


PLATE 388 – STARTING FUEL SYSTEM GROUP

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	226233	1	Tank Assy. (Includes Items #2 and #3)	
2	204827	1	Cap	
	U-2963	1	Gasket	
3	U-2670	3	Packing Strip	
	901165	3	Plain Washer, 5/16" USS	
	904205	3	Lockwasher, 5/16" ASA Med.	
	900366	3	Hex Nut, 5/16" – 18 NC	
4	7810	1	Bracket	Used prior TL-10 #1040
	16355	1	Bracket	Eff. TL-10 #1040
5	1665	1	Capscrew, 5/16" – 18 NC x 1"	
	904205	1	Lockwasher, 5/16" ASA Med.	
	900366	1	Hex Nut, 5/16" – 18 NC	
6	910141	1	Male Adapter, 1/4" Tube x 1/8" NPT, Brass	
7	7812	1	Tube Assy.	
	2529	1	Clamp (Fasteners furnished with Engine)	
8	913475	1	Elbow, Female, 1/4" Tube x 1/8" NPT, Brass	
	915399	1	90° Elbow, Street, 1/8" – 27 NPT Same as used in Fuel System and Cowl Group	
9	7813	1	Three-way Shut-Off, Brass	
10	6673	1	Nipple, 1/8" NPT, Brass	

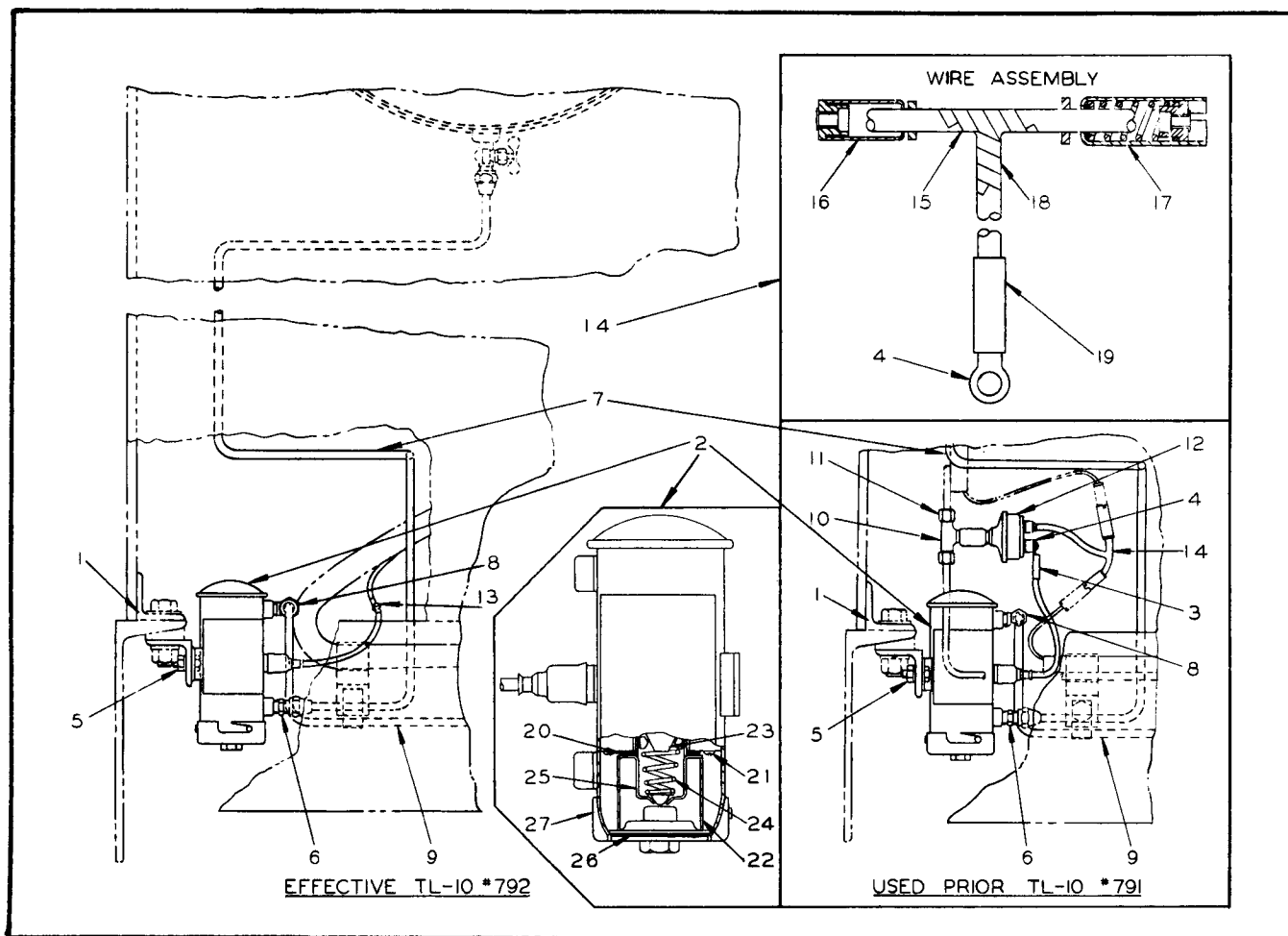


PLATE 334 - ELECTRICAL FUEL PUMP GROUP

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
-	----	1	Fuel Pump Group,Complete (6 Volt) Machinery Item-See your Allis-Chalmers Dealer	(Used prior to TL-10 #792)
-	----	1	Fuel Pump Group,Complete (6Volt) Machinery Item-See your Allis-Chalmers Dealer	(Used TL-10 #793 thru #1800)
-	----	1	Fuel Pump Group,Complete (12 Volt) Machinery Item-See your Allis-Chalmers Dealer	(Effective TL-10 #1801)
1	9970	1	Angle	
2	9990	1	Fuel Pump Assy., (Includes 1 Fuel Pump Items 3,4, and 20 thru 27)	(Used prior to TL-10 #1801)
	23289	1	Fuel Pump Assy., (Includes 1 Fuel Pump, Items 3,4, and 20 thru 27)	(Effective TL-10 #1801)
3	2701	1	Terminal Sleeve	
4	2704	1	Cable Terminal	(Two used prior TL-10 #794)
				(Continued)

ELECTRICAL FUEL PUMP GROUP – CONTINUED

(See Plate 334)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
5	2865	2	Capscrew, 1/4" – 28 NF x 3/4"	
	904204	2	Lockwasher, 1/4" ASA Med.	
	911040	2	Hex Nut, 1/4" – 28 NF	
6	910141	1	Connector, 1/4"	
7	10033	1	Tube Assy., Connector to Tank shut Off Valve	Used prior TL-10 #792
	13726	1	Tube Assy., Connector to Tank Shut Off Valve	Effective TL-10 #792
8	910161	1	90o Elbow	
9	13368	1	Tube Assy., Pump to Filter (Bend to fit) (Not included in Fuel Pump Group)	
10	910130	1	Tee, 3/16" x 1/8" (Includes two Sleeves 912367 and two Nuts 912064)	
11	901763	1	Coupling, 1/8"	Used prior TL-10 #792
12	9981	1	Pressure Switch	
13	901170	1	Machine Screw, #10-24 x 1/4"	Effective TL-10 #792
	904203	1	Lockwasher, #10 ASA Med.	
	901310	1	Hex Nut, #10-24	
14	9982	1	Wire Assy. (Includes one Item #4 and #15 thru #19)	
15	9987	1	Wire, 19 Strand #12 AWG, #25 Wire, Type 2, 2-1/2" Lg.	
16	6651	1	Male Line Connector Assy.	
17	6649	1	Female Line Connector Assy.	
18	9988	1	Wire, 19 Strand #12 AWG, Wire, Type 2, 9" Lg.	
19	2711	1	Terminal Sleeve	
20	22493	1	Gasket	
21	22494	3	Screw	
22	22495	1	Screen	
23	22496	1	Plunger Assy. (Serviced as assy. only)	
24	22497	1	Spring	
25	22498	1	Cap	
26	22499	1	Gasket	
27	22500	1	Cover	

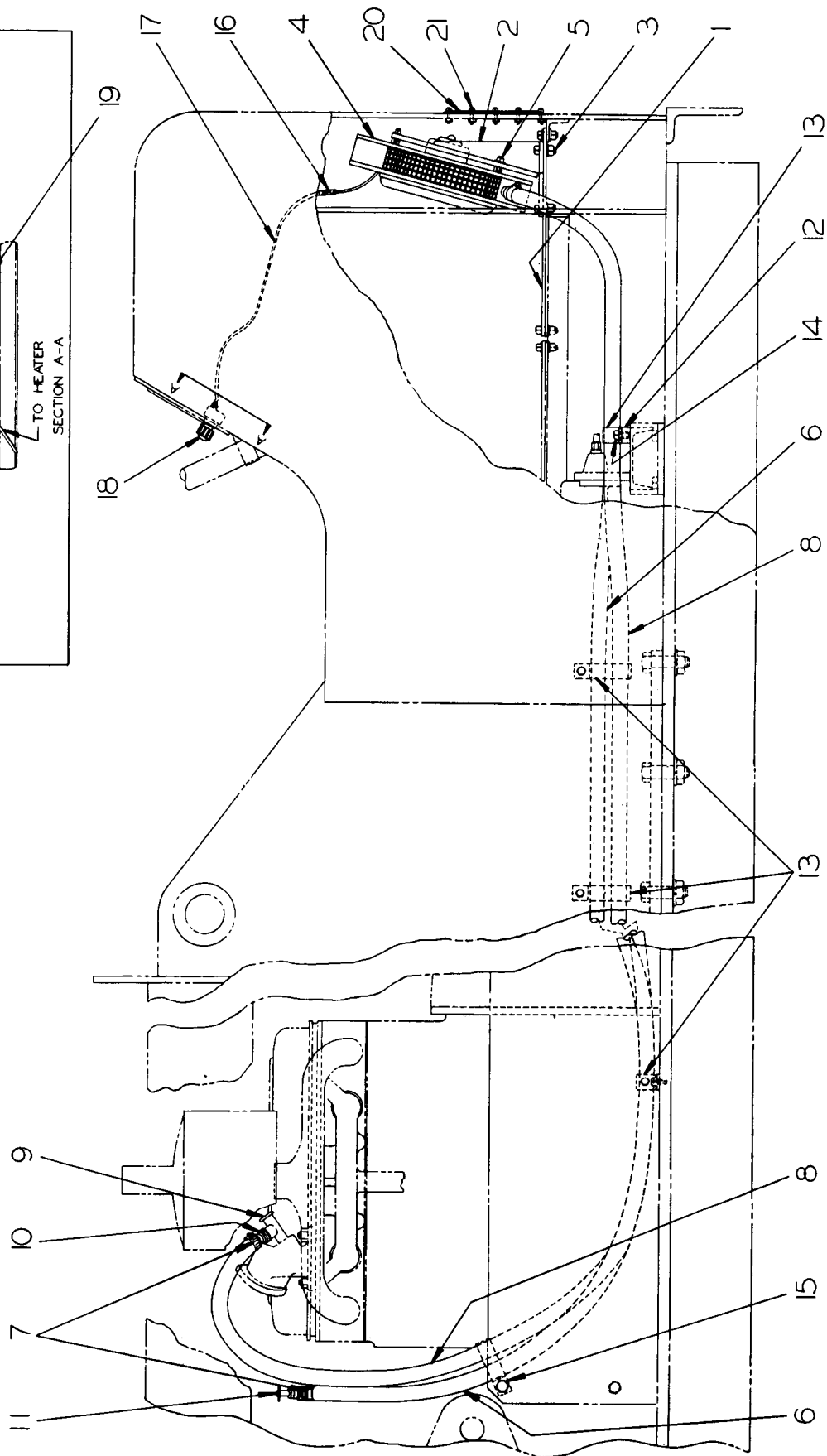
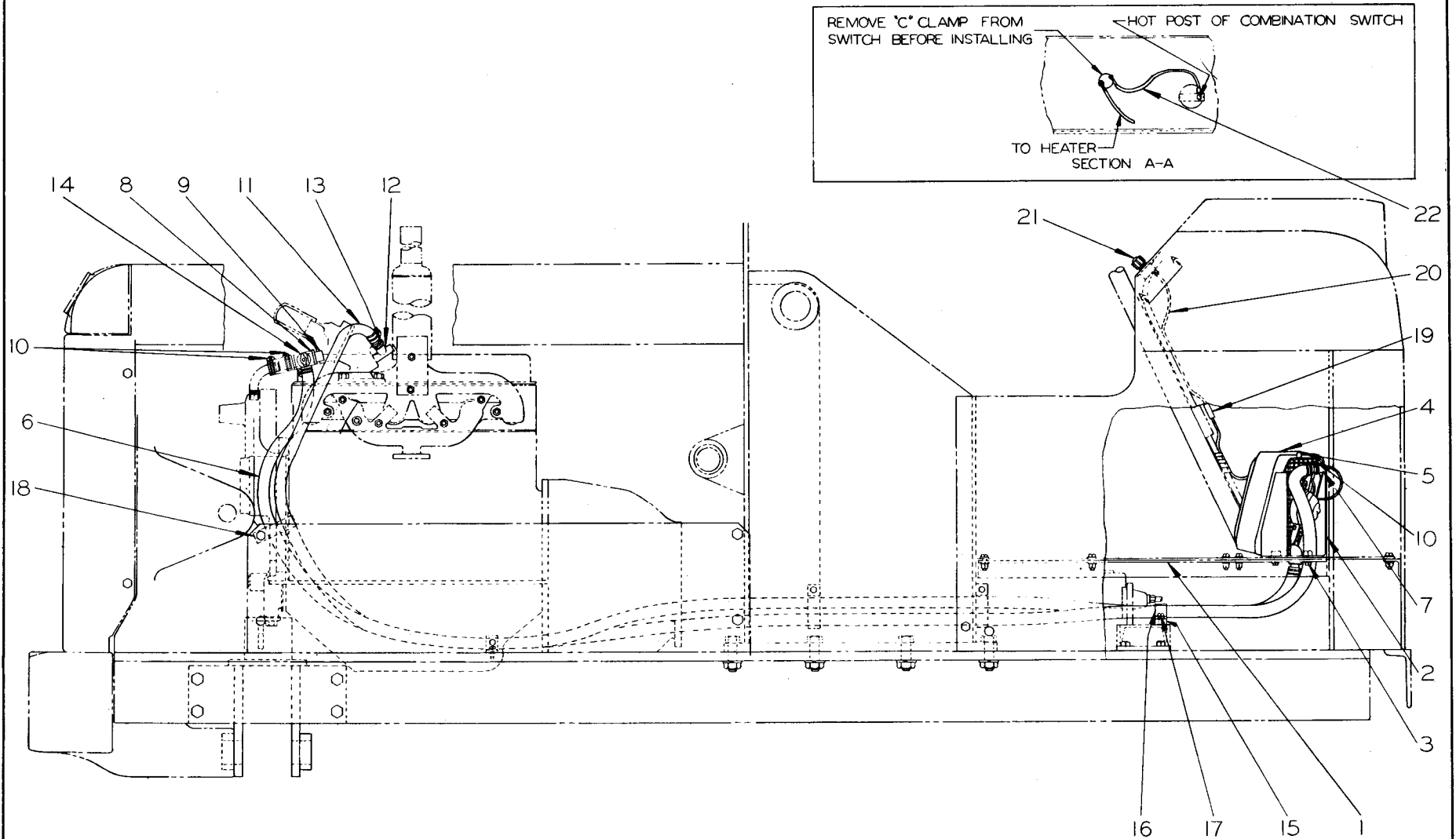


PLATE 347 - HEATER GROUP

HEATER GROUP – USED PRIOR TL-10 #792

(See Plate 347)

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	----	1	Heater Group, Complete (Machinery Item - See your Allis-Chalmers Dealer)	
	9375	1	Floor Plate (For service with new Heater, Bracket 12912 can be used as template for locating mounting holes)	
2	9374	1	Bracket	
3	2048	3	Capscrew, 3/8" – 24 NF x 1-1/4"	
	904206	3	Lockwasher, 3/8" ASA Med.	
	911041	3	Hex Nut, 3/8" – 24 NF	
4	12911	1	Heater (Order also Bracket 12912 and 2 each 1243 and 904206 for servicing old style heater)	
5	904203	4	Lockwasher, #10 ASA Med.	
	901310	4	Hex Nut, #10-24 NC	
6	9721	1	Hose, 5/8" I.D. x 130" Long	
7	10411	4	Hose Clamp	
8	9723	1	Hose, 5/8" I.D. x 128" Long	Used prior TL-10 #782
	12914	1	Hose, 5/8" I.D. x 138" Long	Eff. TL-10 #782
9	914087	1	Tee, Pipe, Service, 1/2" M.I.	
10	8304	1	Adapter, 1/2" – 14 NPT	
11	9722	1	Valve Angle	
12	1251	3	Tapped Block	
13	1373	4	Clip	
14	1230	3	Capscrew, 3/8" – 24 NF x 3/4"	
	904206	3	Lockwasher, 3/8" ASA Med.	
15	9730	1	Clip	
16	6652	1	Male Line Connector Assy.	
17	9726	1	Wire Assy.	
18	9725	1	Switch, Rheostat	
19	9724	1	Wire Assy., Jumper	Used prior TL-10 #782
	12909	1	Wire Assy., Jumper	Eff. TL-10 #782
20	9728	2	Ring	
	9729	2	Plexiglass Shield	
21	900852	12	Stove Bolt, 3/16" x 3/4" w/Nut	



Used TL-10 #792 thru #1348

PLATE 451 - HEATER GROUP

HEATER GROUP - USED TL-10 #792 THRU #1348

(See Plate 451)

ITEM	PART NUMBER	QTY.	PART NAME
-	----	1	Heater Group, Complete (Machinery Item - See your Allis-Chalmers Dealer)
1	13739	1	Floor Plate
2	12912	1	Bracket
3	1243	2	Capscrew, 3/8" - 24 NF x 1"
	904206	2	Lockwasher, 3/8" ASA Med.
4	12911	1	Heater
5	2422	3	Capscrew, 1/4" - 20 NC x 1/2"
	904204	3	Lockwasher, 1/4" ASA Med.
6	9721	1	Hose, 5/8" I.D. x 130" Long
7	901723	2	90° Elbow, Street, 3/8" M.I.
	904271	2	Bushing, Pipe, M.I., 1/2" x 3/8"
	1392	2	Pipe, 3/8" x 1-1/2"
8	12968	1	Tee, Reducing, 1/2" x 1/2" x 3/8" M.I.
9	901500	1	Nipple, 1/2" x 1-1/8"
10	10411	4	Hose Clamp
11	12914	1	Hose, 5/8" I.D. x 138" Long
12	914087	1	Tee, Pipe, 1/2" M.I.
13	8304	1	Adapter, 1/2" - 14 NPT
14	9722	1	Valve
15	1251	3	Tapped Block
16	1373	4	Clip
17	1230	3	Capscrew, 3/8" - 24 NF x 3/4"
	904206	3	Lockwasher, 3/8" ASA Med.
18	9730	1	Clip
19	6652	1	Male Line Connector Assy.
20	9726	1	Wire Assy.
21	9725	1	Switch, Rheostat
22	12909	1	Jumper, Wire Assy.

(Used TL-10 #1349 thru #1800)

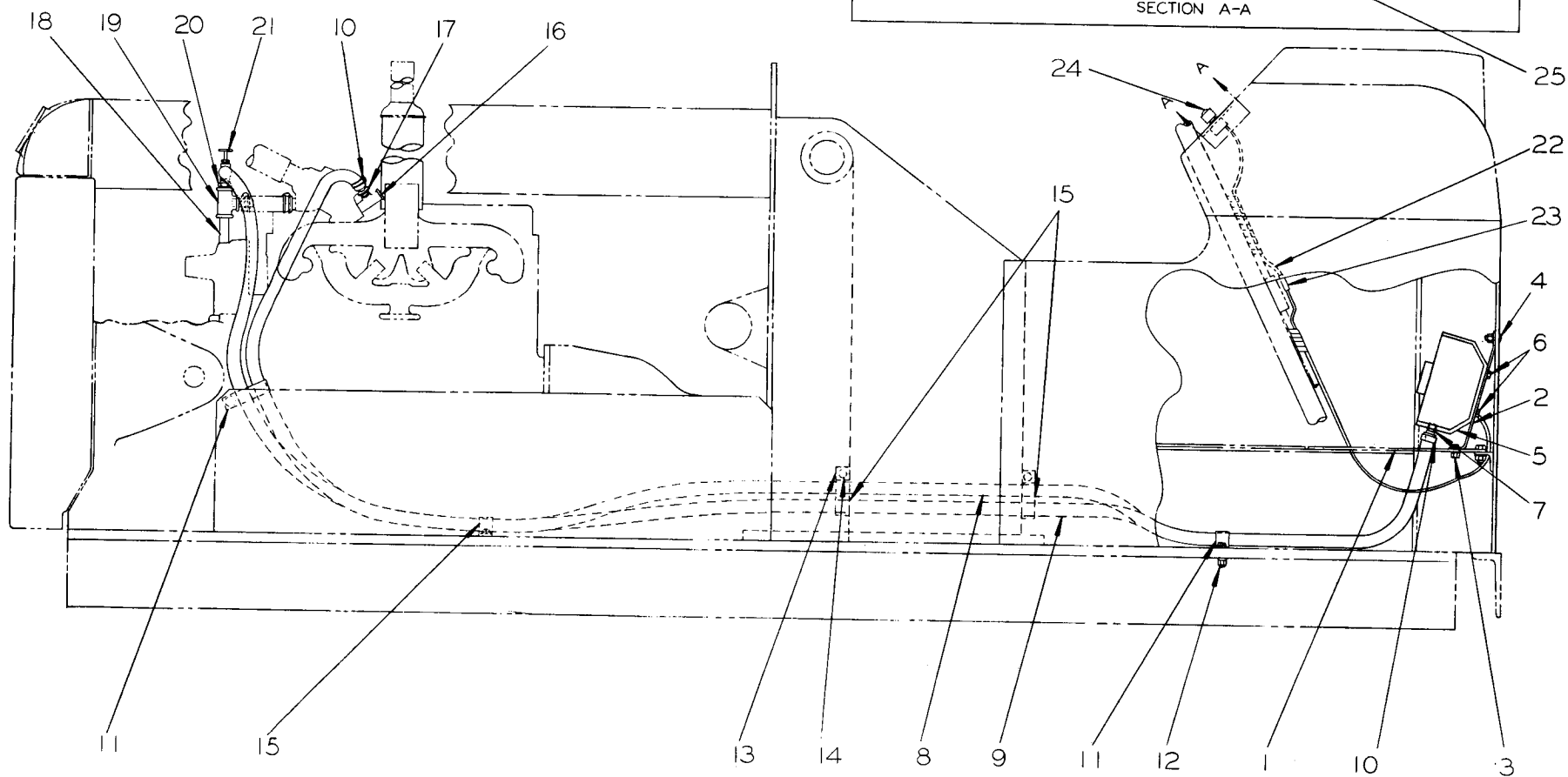
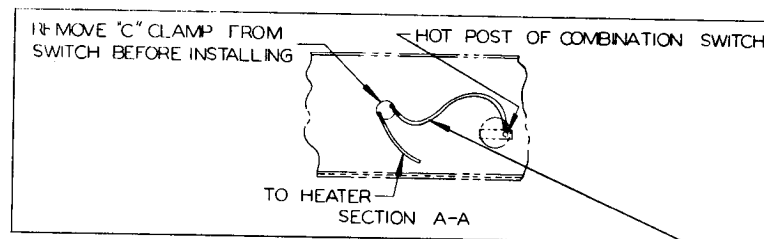
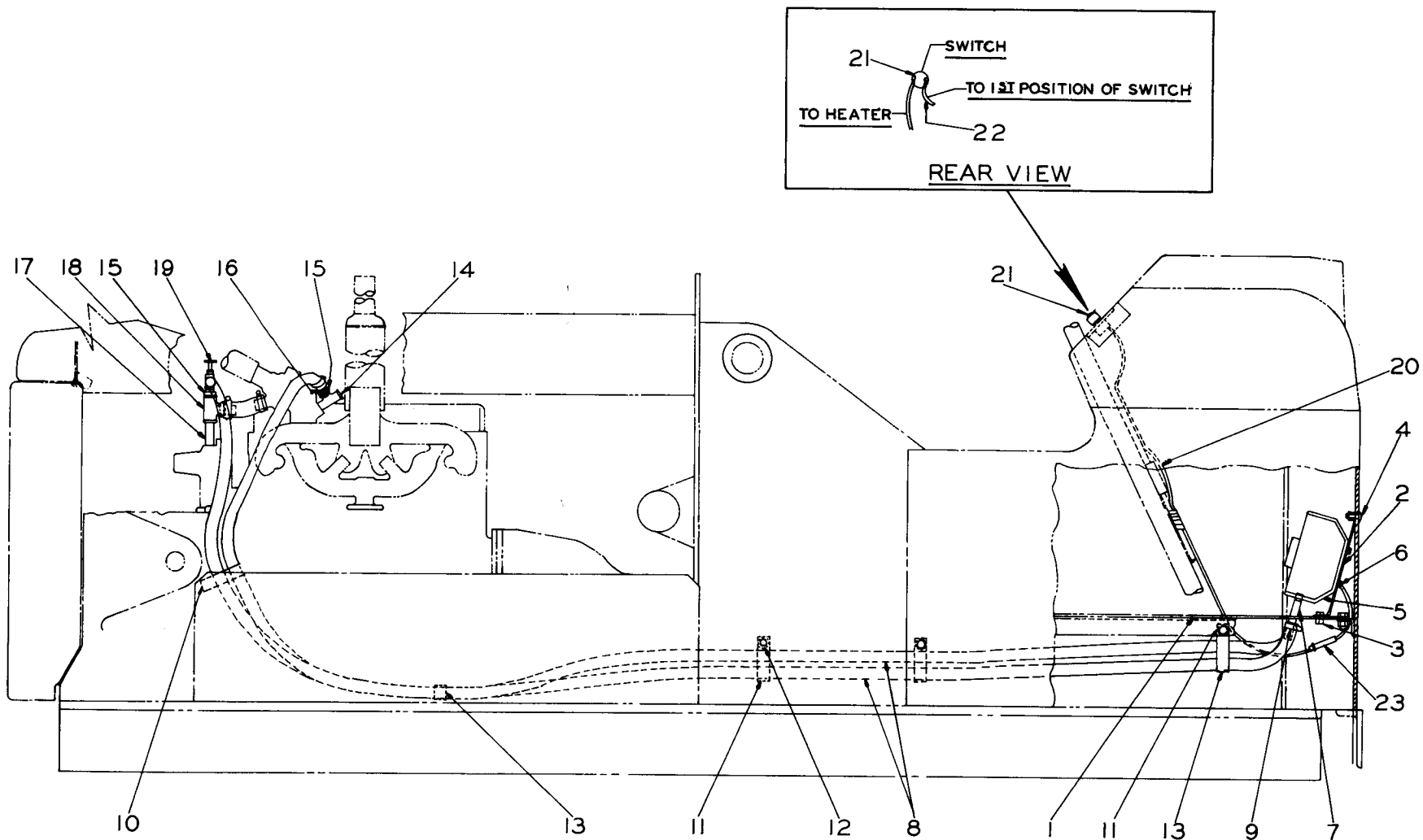


PLATE 607 - HEATER GROUP

HEATER GROUP - USED TL-10 #1349 THRU #1800

(See Plate 607)

ITEM	PART NUMBER	QTY.	PART NAME
1	19228	1	Floor Plate
2	19229	2	Strap
3	1243	2	Capscrew, 3/8" - 24 NF x 1"
	904206	2	Lockwasher, 3/8" ASA Med.
	911041	2	Hex Nut, 3/8" - 24 NF
4	11456	2	Capscrew, 3/8" - 24 NF x 1", Bt. Hd.
	904206	2	Lockwasher, 3/8" ASA Med.
	911041	2	Hex Nut, 3/8" - 24 NF
5	19230	1	Heater
6	4063	4	Capscrew, 1/4" - 20 NC x 3/4"
	904204	4	Lockwasher, 1/4" ASA Med.
7	1392	2	Pipe, 3/8" x 1-1/2" (Threaded one end)
8	12914	1	Hose, 5/8" I.D. x 138" Long
9	9721	1	Hose, 5/8" I.D. x 130" Long
10	10411	4	Hose Clamp
11	9730	2	Clip
12	1239	1	Capscrew, 1/2" - 20 NF x 1-1/2"
	904208	1	Lockwasher, 1/2" ASA Med.
	911043	1	Hex Nut, 1/2" - 20 NF
13	1251	2	Tapped Block (Requires Welding)
14	1230	2	Capscrew, 3/8" - 24 NF x 3/4"
	904206	2	Lockwasher, 3/8" ASA Med.
15	1373	3	Clip
16	914087	1	Tee
17	8304	1	Adapter
18	901503	1	Nipple
19	901705	1	Tee
20	904271	1	Bushing
21	9722	1	Valve
22	9726	1	Wire Assy.
23	6652	1	Male Line Connector Assy.
24	9725	1	Rheostat Switch
25	12909	1	Jumper Wire Assy.



EFFECTIVE WITH TL-10#1801

PLATE 942 - HEATER GROUP

HEATER GROUP – EFFECTIVE WITH TL-10 #1801

(See Plate 942)

ITEM	PART NUMBER	QTY.	PART NAME
1	19228	1	Floor Plate
2	19229	2	Strap
3	916225	2	Capscrew, 3/8" – 24 NF x 1"
	904206	2	Lockwasher, 3/8" ASA Med.
	911041	2	Hex Nut, 3/8" – 24 NF
4	11456	2	Capscrew, 3/8" – 24 NF x 1", Btn. Hd.
	904206	2	Lockwasher, 3/8" ASA Med.
	911041	2	Hex Nut, 3/8" – 24 NF
5	19248	1	Heater (12 volt)
6	915406	4	Capscrew, 1/4" – 20 NC x 3/4"
	904204	4	Lockwasher, 1/4" ASA Med.
7	23972	2	Pipe, 3/8" NPT x 4"
8	12914	2	Hose, 5/8" I.D. x 130" long
9	10411	4	Hose Clamp
10	9730	1	Clip
11	1251	3	Tapped Block (Requires welding)
12	916381	3	Capscrew, 3/8" – 24 NF x 3/4"
	904206	3	Lockwasher, 3/8" ASA Med.
13	1373	4	Clip
14	914087	1	Tee, 1/2" M.I.
15	904271	2	Bushing, 1/2" x 3/8"
16	1392	1	Pipe, 3/8" x 1-1/2"
17	901503	1	Nipple, 1/2" x 2-1/2", steel
18	901705	1	Tee, 1/2" M.I.
19	9722	1	Valve
20	20735	1	Wire Assy. (Includes one terminal, sleeve and connector)
21	19318	1	Rheostat Switch
22	12909	1	Wire Assy. (Jumper) (Includes two terminals and two sleeves)
23	6480	1	Fuse, 20 amp

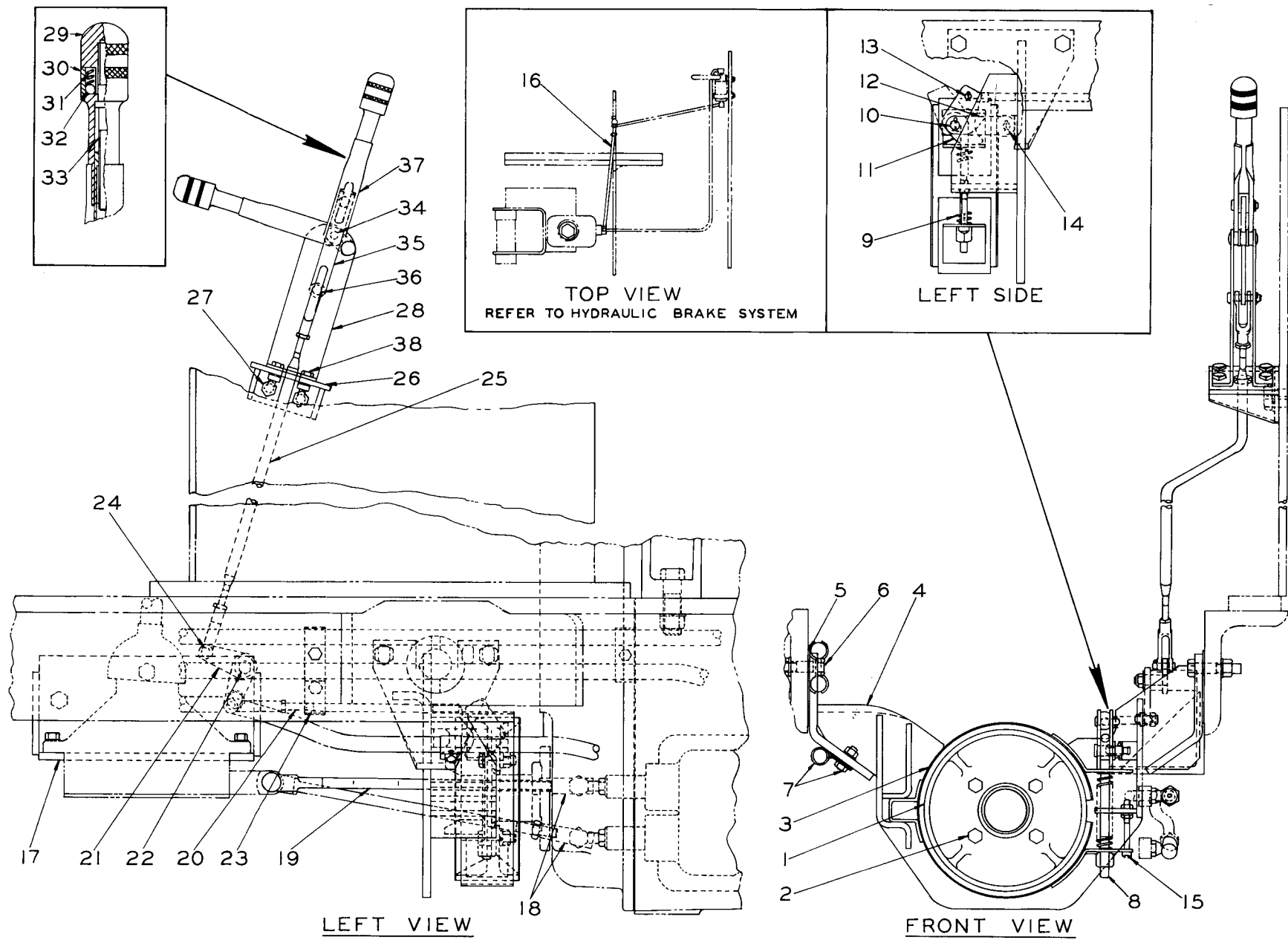


PLATE 945 - MECHANICAL PARKING BRAKE

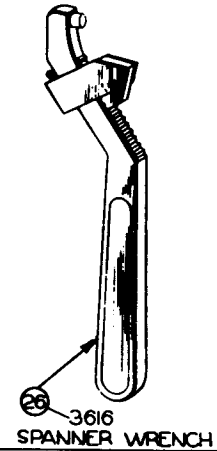
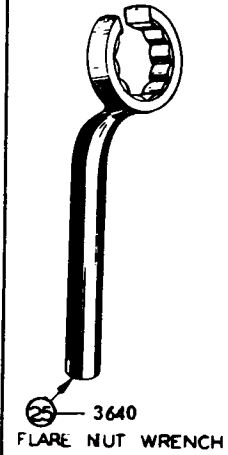
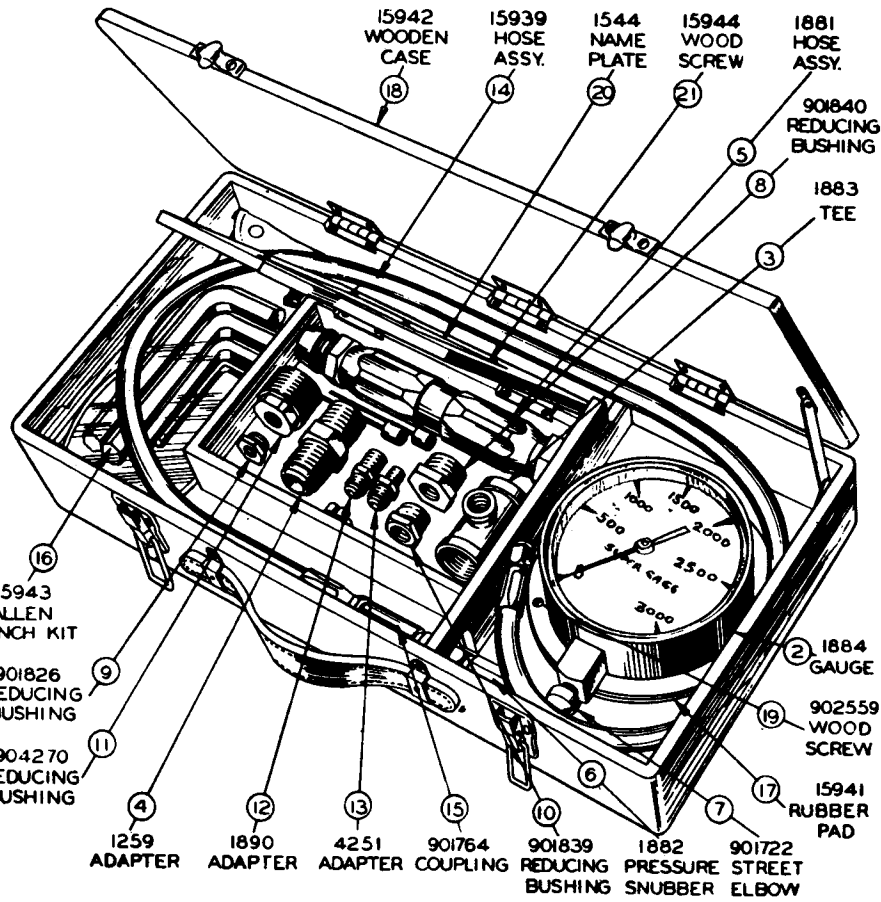
MECHANICAL PARKING BRAKE

ITEM	PART NUMBER	QTY.	PART NAME	NOTE
1	21635	1	Brake Drum	
2	918903	4	Capscrew, 7/16" NF x 1-1/2"	
	904207	4	Lockwasher, 7/16"	
	911042	4	Nut, 7/16" NF	
3	7282	1	Band & Lining Assy..(Serviced only as a unit)	
4	21640	1	Bracket	
5	21630	-	Shim (1/32" thick) (Use as required)	
6	916420	4	Capscrew, 1/2" NF x 2-1/4"	
	904208	4	Lockwasher, 1/2"	
	911043	4	Nut, 1/2" NF	
7	5487	1	Clamp	
	916225	1	Capscrew, 3/8" NF x 1"	
	904206	1	Lockwasher, 3/8"	
	911041	1	Nut, 3/8" NF	
8	7331	1	Adjusting Pin	
	7329	1	Adjusting Nut	
9	73 27	2	Spring	
10	7 323	1	Pin	
	904746	1	Cotter Pin, 1/16" x 5/8"	
11	7325	2	Cam	
12	21557	1	Link	
13	7283	1	Pin	
	900970	1	Cotter Pin, 1/16" x 1/2"	
14	900970	1	Cotter Pin, 1/16" x 1/2"	
15	903747	1	Capscrew, Fil. Hd., 1/4" NC x 3"	
	904204	1	Lockwasher, 1/4"	
	910880	2	Nut, 1/4" NC	
16	23765	1	Tube Assy.	
17	21628	1	Shift Control Support	
18	17120	2	Ball Joint	
	904208	2	Lockwasher, 1/2"	
	911043	2	Nut, 1/2" NF	

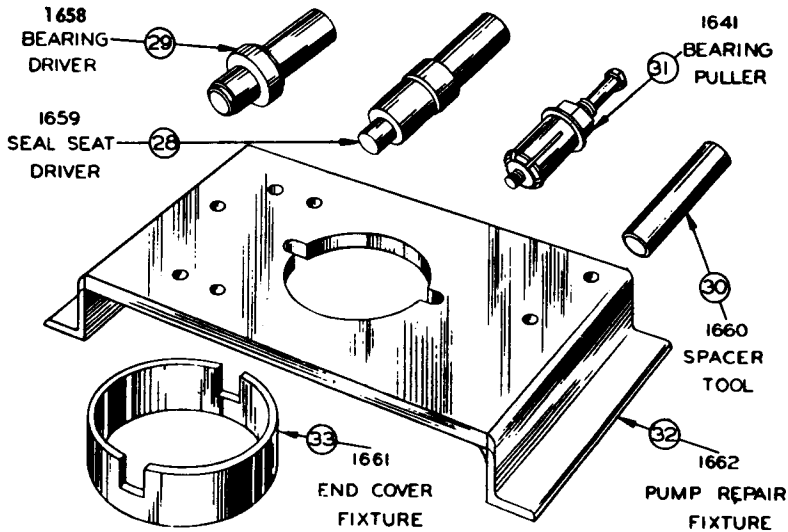
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MECHANICAL PARKING BRAKE - CONTINUED

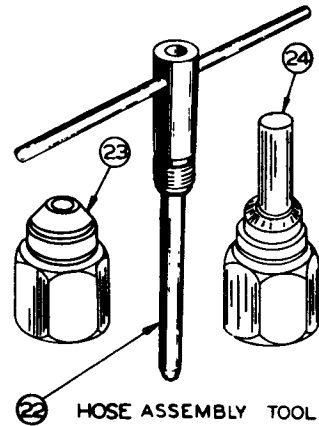
ITEM	PART NUMBER	QTY.	PART NAME	NOTE
19	23658	1	Rod	
20	21632	1	Rod	
	7324	1	Stud	
	2207	1	End Yoke	
	913636	1	Nut, 5/16" NF	
21	21544	1	Bell Crank Assy. (Includes 2--5652)	
	5652	2	Bushing	
22	910335	1	Plain Washer	
	20018	1	Nut, stop, 5/16" NF	
23	8932	2	Clamp	
24	2208	2	Yoke Pin	
	900970	2	Cotter Pin, 1/16" x 1/2"	
25	21634	1	Rod	
	2207	2	End Yoke	
	913636	2	Nut, 5/16" NF	
26	21545	1	Bracket	
27	916395	2	Capscrew, 7/16" NF x 1-1/4"	
	904207	2	Lockwasher, 7/16"	
	911042	2	Nut, 7/16" NF	
28	21534	1	Brake Lever Assy. (Includes Items 29 thru 37)	
29	21920	1	Cap	
30	21921	1	Knob	
31	21922	1	Spring	
32	21923	1	Ball	
33	21924	1	Rod	
34	21925	1	Pin	
	910335	1	Washer, plain, SAE Std., 5/16"	
	21926	1	Ring, retaining	
35	21927	1	Link	
36	21929	1	Pin	
	910335	1	Washer, plain, SAE Std., 5/16"	
	900802	1	Pin, 3/32" x 1"	
37	21928	1	Tube, adjusting	
38	920622	4	Capscrew, 5/16" NF x 1"	
	904205	4	Lockwasher, 5/16"	
	913636	4	Nut, 5/16" NF	



① — 15945 MASTER GAUGE KIT



② — 1645 PUMP REPAIR TOOL KIT



CLUTCH SEAL TOOL

SPECIAL TOOLS

(See Plate 216)

ITEM	PART NUMBER	QTY.	PART NAME
1	15945	1	Gauge Kit (Includes Items #2 thru #21)
2	1884	1	Pressure Gauge, 3000 psi
3	1883	1	Tee, 3/4" x 3/4" x 1/4"
4	1259	1	Adapter, 3/4" x 3/4"
5	1881	1	Hose Assy. (Includes 1--1260, one Hose and 1--1261)
	1260	1	Swivel Nut Sub-Assy., 3/4"
	1550-4	1	Hose (Bare Length) See Note - Page 208
	1261	1	Male Sub-Assy., 3/4"
6	1882	1	Pressure Snubber (Includes 2 pistons)
7	901722	1	90° Elbow, Street, 1/4"
8	901840	1	Reducing Bushing, 3/4" x 1/4" C.I. Hex Hd.
9	901826	1	Reducing Bushing, 3/8" x 1/4" C.I. Hex Hd.
10	901839	1	Reducing Bushing, 1/2" x 1/4" C.I. Hex Hd.
11	904270	1	Reducing Bushing, 1" x 1/4" C.I. Hex Hd.
12	1890	1	Adapter, 3/8" Pipe Thread
13	4251	1	Adapter, 1/4" Pipe Thread
14	15939	1	Hose Assy. (Includes 1--1888, 1--1889 and one Hose)
	1888	1	Male Sub-Assy., 1/4" Pipe Thread
	1889	1	Swivel Nut Sub-Assy., 1/2" - 20 NF
	1891-43	1	Hose (Bare Length)
15	901764	1	Coupling, 1/4" Steel
16	15943	1	Allen Wrench Kit, 1/8", 1/4", 3/8", 1/2", 9/16" (Only as set)
17	15941	1	Rubber Pad, 1/8" thick, 6" Dia.
18	15942	1	Wooden Case, 3-1/4" x 10-5/8" x 19-1/2"
19	902559	3	Wood Screw, #6 x 1/2" Round Head
20	1544	1	Name Plate
21	15944	4	Wood Screw, #8 x 3/8" Round Head
<u>HOSE TOOLS</u>			
22	1577	1	Assembly Tool, 3/4" Hose
23	8004	1	Hose Assy., Tool, 3/4" (For Double Wire Braid Hose)
24	4237	-	Assembly Tool (For Single Wire Braid Hose)
<u>TUBE AND CYLINDER REPAIR TOOLS</u>			
25	15370	1	Flare Nut Wrench, 1-1/4"
26	3616	1	Spanner Wrench
<u>PUMP REPAIR TOOLS</u>			
27	1645	1	Pump Repair Kit (Includes Items #28 thru #33)
28	1659	1	Driver, Seal Seat
29	1658	1	Driver, Bearing
30	1660	1	Spacer Tool
31	1641	1	Bearing Puller (Includes Parts as listed in Item #31)
	1643	1	Expander Bolt
	1642	1	Sleeve
	911100	1	Plain Washer, 5/8" SAE
	911049	1	Hex Jam Nut, 5/8" - 18 NF
	1640	1	Capscrew, 5/8" - 24 NF x 3-3/4"
32	1662	1	Fixture, Pump Repair
33	1661	1	Fixture, End Cover
<u>CLUTCH SEAL TOOL</u>			
34	11235	1	Sleeve
35	22403	1	Spacer Tool (Power steering adjustment - not illustrated)

ASSEMBLIES OR PACKAGED PARTS

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
U-3644	Block Assy., cylinder	
	1 - - - - -	Block
	1 U-3157	Cap, main bearing, front
	1 U-3021	Cap, main bearing, center
	1 U-3020	Cap, main bearing, rear
	2 204722	Shim, front main bearing cap
	4 204721	Shim, center and rear main bearing cap
	6 224574	Bolt, main bearing cap
	3 U-3865	Bushing, camshaft
205826	1 910011	Plug, expansion (f/camshaft hole)
	Head Assy., cylinder	
	1 - - - - -	Head, cylinder
	4 U-3164	Insert, exhaust valve
	4 - - - - -	Guide, intake valve
	4 - - - - -	Guide, exhaust valve
208354	2 - - - - -	Plug, core hole
	Ring Set, piston	
	8 U-3050	Ring, compression
	4 U-3809	Ring, scraper
208356	4 U-4000	Ring, oil
	Gasket Kit, intake and exhaust manifold	
	6 - - - - -	Gasket
209868	6 - - - - -	Retainer
	Bearing Set, crankshaft, main (std. size)	
	2 U-3158	Bearing, front, half
209870	4 U-3024	Bearing, center and rear, half
	Seal Kit, crankshaft	
	1 U-3040	Seal, front
209888	1 U-3038	Retainer, front seal
	2 U-3041	Seal, rear, half
	Valve Kit, intake and exhaust	
	4 209132	Valve, intake
	4 209134	Valve, exhaust
	8 206879	Spring, valve
	8 206876	Seat, spring
	8 209099	Retainer, spring
210145	16 209103	Lock, retainer, half
	8 204801	Ring, snap, valve stem
	Gasket Set, motor	
	1 U-3006	Gasket, cylinder head cover
	1 U-3198	Gasket, cylinder head
	2 U-3138	Gasket, main bearing cap
	2 U-3187	Gasket, oil pan
	2 U-3077	Gasket, water manifold

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
212092	Gasket Set, oil sump	
	2 U-3036	Gasket, rear main bearing cap
	2 U-3138	Gasket, end
	2 U-3187	Gasket, sides
213506	Cable Set, spark plug	
	1 207551	Cable w/nipple and terminals, No. 1 cyl.
	1 U-3653	Cable w/nipple and terminals, No. 3 cyl.
	2 207550	Cable w/nipple and terminals, No. 2 and 4 cyl.
213556	Bearing Set, crankshaft, main, .040" undersize	
	2 213354	Bearing, front, half
	4 213355	Bearing, center and rear, half
215279	Bearing Set, crankshaft, main, .0025" undersize	
	2 211853	Bearing, front, half
	4 211857	Bearing, center and rear, half
217312	Motor Kit, 5.5:1 Ratio	
	4 217311	Piston Assy., with pin
	8 U-3050	Ring, piston, compression
	4 U-3809	Ring, piston, scraper
	4 U-4000	Ring, piston, oil
	4 207435	Liner, cylinder
	8 207436	Ring, liner, packing
223561	Bearing Set, crankshaft, main, .0425" undersize	
	2 223550	Bearing, front, half
	4 215276	Bearing, center and rear, half
223562	Bearing Set, crankshaft, main, .045" undersize	
	2 223551	Bearing, front, half
	4 215275	Bearing, center and rear, half
223680	Transfer Set (f/repainting tractor)	
	2 915677	Transfer, "Allis-Chalmers"
	1 - - - - -	Transfer, battery instruction
	1 - - - - -	Transfer, cylinder block drain
	1 - - - - -	Transfer, radiator shutter instruction
	1 - - - - -	Transfer, air cleaner instruction
	1 - - - - -	Transfer, steering shaft universal joint
	1 223670	Transfer, hydraulic pump instruction
	1 - - - - -	Transfer, wheel rim
	1 - - - - -	Transfer, hydraulic, control hand lever
	1 - - - - -	Transfer, oil filter element
	2 225749	Transfer, model designation
223765	Bowl Assy., fuel, carburetor	
	1 - - - - -	Bowl
	1 - - - - -	Pin, stop, choke plate
	3 - - - - -	Plug, channel
	1 224418	Packing, air intake drain
	1 224063	Plug, expansion air intake drain

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
224005	Gasket Set, carburetor	
	1 224148	Gasket, fuel filter body
	1 224159	Gasket, fuel filter body plug float valve
	2 224152	Gasket, main jet adjusting body main jet
	3 224153	Gasket, compensating jet cap jet
	1 224144	Gasket (Not used)
224524	Pump Kit, water	
	1 207822	Shaft Assy. (Includes Ball Bearing)
	1 207823	Seal, shaft (Rubber)
	1 207824	Ring, clamp, shaft seal
	1 207825	Spring, shaft seal
	1 207826	Guide, shaft seal spring
	1 207827	Washer, shaft seal (Carbon)
	1 207828	Ring, snap, impeller
	1 207829	Ring, snap, body (f/bearing)
	1 210830	Gasket, cover to body
	1 U-3061	Gasket, body to cylinder block
	1 207832	Gasket (Not used on WD)
	1 207001	Gasket (Not used on WD)
224542	Clutch Assy., transmission	
	1 223152	Plate Assy., front
	2 223149	Disc Assy., driven
	1 223150	Plate, center
	1 223151	Plate Assy., pressure
	3 223165	Spring, retracting
	1 224533	Plate Assy., back (w/Pressure Washer, Retainer and Ring)
	6 915430	Capscrew, (f/back plate)
	6 904205	Lockwasher (f/915430)
	3 223166	Shim, backplate
	6 223154	Lever, release
	6 223159	Pin, link and lever
	3 223155	Roller, release lever
	3 223156	Link, release lever
	3 223158	Pin, link to release lever
	9 223395	Ring, snap, release lever and link pin
	1 223160	Shifter Assy. (w/Bushings)
	1 223161	Collar Assy., shifter
224765	Gasket Set, major engine overhaul	
	1 211433	Gasket, cylinder head
	1 U-3006	Gasket, rocker arm cover
	1 U-3054	Gasket, timing gear cover
	1 218604	Gasket, push rod cover
	2 U-3187	Gasket, oil sump, sides
	2 U-3138	Gasket, oil sump, ends
	2 U-3036	Gasket, crankshaft rear bearing cap
	1 U-3176	Gasket, oil pump cover
	1 207882	Gasket, oil filter base
	1 U-3083	Gasket, governor cover (continued)

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION
224765	<p>Gasket Set, major engine overhaul (Continued)</p> <p>6 U-3162 Gasket, intake and exhaust manifold</p> <p>6 U-3163 Retainer, intake and exhaust manifold gasket</p> <p>1 U-3205 Gasket, carburetor to manifold</p> <p>1 U-3061 Gasket, water pump body</p> <p>2 U-3077 Gasket, water pump body</p> <p>1 210158 Gasket, thermostat housing cover</p> <p>1 U-3079 Gasket, magneto bracket</p> <p>2 U-3041 Seal (Half) crankshaft rear</p> <p>1 U-3040 Seal, crankshaft, front</p> <p>1 U-3038 Retainer, crankshaft front seal</p>
224932	<p>Crankshaft Kit, std. size</p> <p>1 - - - - Crankshaft Assy. (w/Gear, Key and Wick)</p> <p>2 U-3158 Bearing, front, half</p> <p>4 U-3024 Bearing, center and rear</p> <p>2 204722 Shim, front main bearing cap</p> <p>4 204721 Shim, center and rear main bearing cap</p> <p>4 223622 Bearing, connecting rod, two halves</p> <p>8 204720 Shim, connecting rod bearing cap</p>
224946	<p>Seal Set, crankshaft</p> <p>1 224929 Seal, front</p> <p>2 224945 Seal, rear, half</p>
224948	<p>Gasket Set, major engine overhaul (Prior Engine No. 72459)</p> <p>1 211433 Gasket, cylinder head</p> <p>1 U-3006 Gasket, rocker arm cover</p> <p>1 U-3054 Gasket, timing gear cover</p> <p>1 218604 Gasket, push rod cover</p> <p>2 U-3187 Gasket, oil sump, side</p> <p>2 U-3138 Gasket, oil sump, end</p> <p>2 U-3036 Gasket, crankshaft rear bearing cap</p> <p>1 U-3176 Gasket, oil pump cover</p> <p>1 207882 Gasket, oil filter base</p> <p>1 U-3083 Gasket, governor cover</p> <p>1 226360 Gasket, manifold</p> <p>1 U-3205 Gasket, carburetor</p> <p>1 U-3061 Gasket, water pump body</p> <p>2 U-3077 Gasket, water manifold</p> <p>1 210158 Gasket, thermostat housing</p> <p>1 U-3079 Gasket, magneto bracket</p> <p>2 224945 Seal, half, crankshaft, rear</p> <p>1 224929 Seal, crankshaft, front</p> <p>1 205834 Seal Assy., magneto drive coupling</p> <p>4 226477 Packing, rocker arm cover</p>
225023	<p>Gasket Set, major engine overhaul (Used on Engine No. 289000 and up)</p> <p>1 225016 Gasket, cylinder head</p> <p>1 U-3006 Gasket, rocker arm cover</p> <p>1 U-3054 Gasket, timing gear cover</p> <p style="text-align: right;">(Continued)</p>

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
225023	Gasket Set, major engine overhaul (Used on engine #289000 and up) (continued)	
	1 218604	Gasket, push rod cover
	2 U-3187	Gasket, oil sump, side
	2 U-3138	Gasket, oil sump, end
	2 U-3036	Gasket, crankshaft rear bearing cap
	1 U-3176	Gasket, oil pump cover
	1 207882	Gasket, oil filter base
	1 U-3083	Gasket, governor cover
	6 U-3162	Gasket, intake and exhaust manifold
	6 U-3163	Retainer, intake and exhaust manifold gasket
	1 U-3205	Gasket, carburetor
	1 U-3061	Gasket, water pump body
	2 U-3077	Gasket, water manifold
	1 225013	Gasket, thermostat housing
	1 210158	Gasket, thermostat housing cover
	1 U-3079	Gasket, magneto bracket
	2 224945	Seal, crankshaft rear, half
	1 224929	Seal, crankshaft, front
	1 205834	Seal Assy., magneto drive coupling
225024	Gasket Set, cylinder head overhaul	
	1 225016	Gasket, cylinder head
	1 U-3006	Gasket, rocker arm cover
	6 U-3162	Gasket, intake and exhaust manifold
	6 U-3163	Retainer, intake and exhaust manifold cover
	1 U-3205	Gasket, carburetor
	2 U-3077	Gasket, water manifold
	1 225013	Gasket, thermostat housing
225039	Cable Set, spark plug (magneto ignition)	
	1 207551	Cable, No. 1 cylinder
	3 207550	Cable, No. 2, 3, 4 cylinder
	1 U-3203	Retainer
225747	Cable Set, spark plug	
	1 225745	Cable, No 1 cylinder
	3 225746	Cable, No. 2, 3, 4 cylinder
	1 U-3203	Retainer, cable
226148	Gasket Set, major engine overhaul (f/distributor ignition units)	
	1 225345	Gasket, distributor base
	1 226117	Gasket, housing cover
	1 225016	Gasket, cylinder head
	1 U-3006	Gasket, rocker arm cover
	1 U-3054	Gasket, timing gear cover
	1 218604	Gasket, push rod cover
	2 U-3187	Gasket, oil sump, side
	2 U-3138	Gasket, oil sump, end
	2 U-3036	Gasket, crankshaft rear bearing cap
	1 U-3176	Gasket, oil pump cover
	1 207882	Gasket, oil filter base
	(continued)	

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
226148	Gasket Set, major engine overhaul (f/distributor ignition units) Continued	
	1 U-3083	Gasket, governor cover
	6 U-3162	Gasket, intake and exhaust manifold
	6 U-3163	Retainer, intake and exhaust manifold gasket
	1 U-3205	Gasket, carburetor
	1 U-3061	Gasket, water pump body
	2 U-3077	Gasket, water manifold
	1 225013	Gasket, thermostat housing
	1 210158	Gasket, thermostat housing cover
	1 U-3079	Gasket, magneto bracket
	2 224945	Seal, crankshaft rear, half
	1 224929	Seal, crankshaft, front
	1 205834	Seal Assy., magneto drive coupling
226248	Block Assy., cylinder	
	1 - - - - -	Block
	1 U-3020	Cap, main bearing, rear
	1 U-3021	Cap, main bearing, center
	1 U-3157	Cap, main bearing, front
	6 226152	Capscrew, main bearing cap
	2 204722	Shim, front main bearing cap
	4 204721	Shim, center and rear main bearing cap
	3 U-3865	Bushing, camshaft
	1 910011	Plug, expansion (f/camshaft hole)
226358	Crankshaft Kit (std.) (All units except "D" grader)	
	1 - - - - -	Crankshaft Assy. (w/Gear, Key, and Wick)
	2 U-3158	Bearing (Half) front
	4 U-3024	Bearing (Half) center and rear
	2 204722	Shim, front main bearing cap
	4 204721	Shim, center and rear main bearing cap
	4 223622	Bearing, connecting rod (two halves)
	8 204720	Shim, connecting rod bearing cap
226363	Gasket Set, cylinder head	
	1 U-3006	Gasket, rocker cover
	2 U-3077	Gasket, water manifold
	1 226360	Gasket, intake and exhaust manifold
	1 U-3205	Gasket, carburetor
	1 225013	Gasket, thermostat housing
	1 226244	Gasket, cylinder head
	4 226477	Packing, rocker arm cover
226364	Gasket Set, engine major overhaul	
	1 U-3006	Gasket, rocker cover
	2 U-3036	Gasket, rear bearing cap
	1 U-3054	Gasket, timing gear cover
	1 U-3061	Gasket, water pump to block
	2 U-3077	Gasket, water manifold
	1 U-3079	Gasket, distributor bracket
	1 U-3083	Gasket, governor cover

(Continued)

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION		
226364	Gasket Set, engine major overhaul (continued)		
	2	U-3138	Gasket, oil sump end
	1	226360	Gasket, intake and exhaust manifold
	1	U-3176	Gasket, oil pump cover
	2	U-3187	Gasket, oil sump side
	1	U-3205	Gasket, carburetor to manifold
	1	205834	Seal, magneto drive shaft (Discard)
	1	207882	Gasket, oil filter base
	1	210158	Gasket, thermostat cover
	1	218604	Gasket, push rod cover (Discard)
	1	226620	Seal, crankshaft, front
	2	224945	Seal, crankshaft, rear
	1	225013	Gasket, thermostat housing
	1	226244	Gasket, cylinder head
	1	225345	Gasket, distributor base
	1	226117	Gasket, housing cover
	1	226317	Gasket, thermostat
	4	226477	Packing, rocker arm cover
226470	Gasket Set, Marvel-Schebler carburetor		
	1	226452	Gasket, fuel bowl
	1	219998	Gasket, seat valve float
	1	226468	Gasket, nozzle
	1	226466	Gasket, seat, main adjusting
	1	U-3205	Gasket, flange
226471	Repair Kit, Marvel-Schebler carburetor		
	1	226470	Gasket Set
	1	226445	Shaft Assy., throttle
	1	226446	Seal, throttle shaft
	1	226447	Retainer
	2	219969	Packing, choke shaft
	2	219968	Retainer, choke shaft packing
	1	219979	Spring, choke friction lever
	1	226457	Shaft, float lever
	1	226458	Valve Assy., float
	1	219987	Needle, idle adjusting
	1	220006	Jet, idling
	1	226469	Jet, power
	4	226444	Screw, throttle plate
226533	Crankshaft Kit, std. size		
	1	- - - -	Crankshaft (w/Gear, Key and Wick)
	4	U-3024	Bearing, main, center and rear
	2	U-3158	Bearing, main, front
	4	223622	Bearing, connecting rod (2 halves)
	4	204721	Shim, center and rear main bearing
	2	204722	Shim, front main bearing
	8	204720	Shim, connecting rod bearing

(Continued)

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
226640	Seal Set, crankshaft	
	1 226620	Seal, front
	1 224945	Seal, rear half
227122	Repair Kit, Zenith carburetor	
	1 227097	Seal, throttle shaft
	1 227098	Retainer, shaft seal
	1 224027	Plug, shaft hole
	4 915663	Screw, mach.
	1 227119	Needle, idle adjusting
	1 223961	Pin, float
	1 227104	Gasket, bowl to body
	4 917074	Screw, machine
	2 224053	Packing, choke shaft
	2 223974	Retainer
	1 227106	Plug, intake drain
	1 224152	Gasket, main jet idle
	1 227112	Jet, main (Size 29)
	1 224153	Washer, main jet
	1 227113	Jet, idle (Size 16)
	1 224144	Washer, discharge jet
	1 227116	Jet, well vent (Size 28)
	1 223909	Valve Assy. (Incl. Seat) (Size 44)
	1 224152	Gasket, valve seat
	1 U-3205	Gasket, carburetor flange
	4 915664	Lockwasher
	4 906965	Lockwasher
229092	Crankshaft Kit, std.	
	1 - - - -	Crankshaft Assy. (Includes Key and Gear)
	1 910184	Key, woodruff
	1 226542	Gear, crankshaft
	1 229862	Bearing, main, center (2 alves)
	2 229888	Bearing, main, front & rear (2 Halves)
229860	Gasket Set, oil sump	
	2 229178	Gasket, rear bearing cap
	2 U-3138	Gasket, oil sump, front & rear
	2 U-3187	Gasket, oil sump side
	6 229177	Clip, gasket
229863	Ring Set, Piston	
	12 229537	Ring, compression
	4 229538	Ring, oil

ASSEMBLIES OR PACKAGED PARTS

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
229865	Gasket Set, cylinder head overhaul	
	1 229406	Gasket, cylinder head
	1 U-3006	Gasket, rocker arm cover
	6 - - - -	Gasket, intake & exhaust
	6 - - - -	Retainer, intake & exhaust manifold
	1 U-3205	Gasket, carburetor flange
	2 U-3077	Gasket, water manifold
	1 225013	Gasket, thermostat housing
	4 226477	Packing, cover stud
229866	Gasket Set, major engine overhaul	
	1 229406	Gasket, cylinder head
	1 U-3006	Gasket, rocker arm cover
	1 229228	Gasket, gear cover
	2 U-3187	Gasket, oil sump side
	2 U-3138	Gasket, oil sump end
	2 229178	Gasket, rear bearing cap
	1 U-3176	Gasket, oil pump cover
	1 207882	Gasket, oil filter base
	1 U-3083	Gasket, governor cover
	6 - - - -	Gasket, intake & exhaust manifold
	6 - - - -	Retainer, intake & exhaust manifold
	1 U-3205	Gasket, carburetor flange
	1 229473	Gasket, water pump body
	1 225013	Gasket, water manifold
	1 210158	Gasket, thermostat
	2 229180	Seal, crankshaft, rear (Half)
	1 229229	Seal, crankshaft, front
	1 225345	Gasket, distributor base
	1 228542	Gasket, thermostat
	4 226477	Packing, cover stud
	6 229177	Clip, rear crankshaft seal
	1 206072	Seal, governor control shaft
229867	Cable Set, spark plug	
	1 - - - -	Cable, coil to distributor (Secondary)
	2 - - - -	Cable, No. 1 & 2 cyl.
	1 - - - -	Cable, No. 3 cyl.
	1 - - - -	Cable, No. 4 cyl.
229958	Gasket Set, intake & exhaust manifold	
	4 - - - -	Gasket, intake
	4 - - - -	Retainer, intake gasket
	2 - - - -	Gasket, exhaust
	2 - - - -	Retainer, exhaust gasket
230091	Ring Set, piston (Expander type) (Chrome faced)	
	4 230086	Ring, compression, top
	4 229537	Ring, compression, 2nd.
	4 227171	Ring, compression, 3rd.
	4 227172	Expander, 3rd compression ring
	4 229538	Ring, oil

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION	
230280	Transfer Set	
	2 - - - -	Transfer (Allis-Chalmers)
	1 206289	Transfer (Cyl. Block Drain)
	1 - - - -	Transfer (Air Cleaner)
	1 210300	Transfer (P.T.O. Warning)
	1 - - - -	Transfer (Oil Filter)
	1 - - - -	Transfer (Snap Coupler)
	1 - - - -	Transfer (Hyd. Pump Control)
	1 - - - -	Transfer (Traction Booster)
	2 - - - -	Transfer (D17)
	1 - - - -	Transfer (Engine Designation)
	1 - - - -	Transfer (12 Volt)
	1 - - - -	Transfer (Battery Instruction)
280006	Rod Assy., connecting	
	1 - - - - -	Rod
	1 - - - - -	Cap, bearing
	2 224620	Bolt, bearing cap
	2 915652	Nut, lock (f/cap bolt)
	2 204720	Shim, bearing cap
	1 U-3188	Capscrew, clamp, piston pin
	1 904206	Lockwasher (f/capscrew)
281986	Crankshaft Kit, .040" undersize	
	1 - - - - -	Crankshaft Assy. (w/Gear, Key and Wick)
	2 213354	Bearing, main, front, half
	4 213355	Bearing, main, center and rear, half
	2 204722	Shim, front main bearing cap
	4 204721	Shim, center and rear main bearing cap
	4 223626	Bearing, connecting rod, two halves
	8 204720	Shim, connecting rod bearing cap
283064	Motor Kit, 5.7:1 ratio	
	4 224917	Piston Assy., aluminum, with pin
	8 U-3050	Ring, piston, compression
	4 U-3809	Ring, piston, scraper
	4 U-4000	Ring, piston, oil
	4 207435	Liner, cylinder
	8 207436	Ring, liner packing
283201	Motor Kit, 6.45:1 ratio	
	4 226346	Piston Assy., aluminum, with pin
	8 U-3050	Ring, piston, compression
	4 U-3809	Ring, piston, scraper
	4 U-4000	Ring, piston, oil
	4 207435	Liner, cylinder
	8 207436	Ring, liner packing

ASSEMBLIES OR PACKAGED PARTS - CONTINUED

ASSEMBLY OR PACKAGE NO.	DESCRIPTION
283605	Motor Kit, 7.25:1 ratio, gasoline (Std) 4 229718 Piston Assy. (Includes Pin) 4 207435 Liner, cylinder 8 227500 Packing, cylinder liner 12 229537 Ring, piston, compression 4 229538 Ring, piston, oil
283617	Motor Kit, 4.75:1 ratio, low octane fuel (Std.) 4 226268 Piston Assy. (Includes Pin) 4 207435 Liner, cylinder 8 227500 Packing, cylinder liner 12 229537 Ring, piston, compression 4 229538 Ring, piston, oil

NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
1870	202 thru 251	2760	257	3623	205,209	4251	301
1898	233	2761	257	3630	253	4282	160,181
1911	283	2763	259,262,265	3658	249,251	4283	181
1916	188,283	2766	255	3659	249,251	4286	181
1965	121,125	2767	256	3660	249,251	4288	181
1993	237	2768	256	3661	249	4299	247
1994	237	2769	256	3662	249	4306	237,239,243
2006	254	2862	111 thru 255	3672	249	4313	249
2048	115 thru 291	2864	132,135,169	3673	249	4395	282
2052	259,262	2865	289	3674	249	4419	282
2053	195	2897	215	3675	249	4420	282
2083	198	2898	215	3676	249	4548	89
2084	103 thru 237	2940	234	3677	249	4562	205
2184	256	2977	237	3678	249	4605	282
2196	215	2985	215,220,225	3679	249	4692	162
2205	104,198	2997	275,279,281	3680	249	4693	162
2207	101,298	2998	275,279	3685	254	4696	101
2208	101,298	3001	275,279	3689	275,279,281	4734	206,210
2212	101	3002	275,279,281	3691	275,279,281	4773	253
2217	60,62,101	3003	247 thru 281	3692	275,279,281	4774	253
2227	259,262,266	3004	275,279,281	3714	202	4785	233
2233	255	3005	275,279,281	3715	202	4793	185
2236	163	3006	279	3716	202	4798	233
2309	180	3007	279,281	3717	202	4799	233
2422	132,138,293	3009	275,279,281	3718	202	4800	233
2529	205 thru 286	3010	275,279,281	3726	202	4801	233
2629	283	3072	215,220,230	3727	202	4803	233
2670	195	3079	221,226	3728	202	4804	39 thru 138
2685	181	3109	282	3729	202	4806	38,40
2686	181	3110	282	3730	202	4809	282
2687	217,223,227	3149	233	3731	202	4810	234
2693	195	3161	247	3732	202	4811	234
2695	164	3264	145	3733	202	4812	234
2696	239,243	3298	283	3734	202	4884	131,135,213
2701	231,288	3379	111 thru 153	3735	285	4888	257,261,263
2704	231,288	3440	169	3787	282	4908	214,219,224
2706	231	3448	206,210	3802	237	4909	215,221,226
2708	239,243	3479	202,249,251	3850	197,199	4911	194
2711	289	3480	122,268,272	3878	206,210	4912	194
2737	180 thru 230	3487	257,261,263	3882	198,201	4913	194
2744	257,261,263	3507	283	3883	198,201	4914	194
2745	257,261,263	3508	283	3884	198,201	4915	194
2746	257,261,263	3530	205,209	3885	198,201	4917	194
2747	257,261,263	3585	153	3886	198,201	4918	194
2748	257,261,263	3587	254,255	3896	198,201	4919	194
2749	257,261,263	3589	254,255	3901	198,201	4920	194
2750	257,261,263	3605	249,251	3904	198,201	4921	194
2751	257,261,263	3606	249,251	3933	197,199	4922	194,203
2752	257,261,263	3607	249,251	3936	203	4927	193
2753	257,261,263	3608	249,251	3958	202,251	4928	193
2755	257,261,263	3609	202	3975	121,125	4929	193
2756	257,261,263	3610	202	3884	282	4930	193
2757	257,261,263	3611	202	4063	107,111,295	4931	157
2758	257,261,263	3612	202	4230	121 thru 129	4933	193
2759	257,261,263	3616	301	4237	301	4934	193

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
4935	195	5487	255,299	6061	101	6574	197
4937	195	5495	233	6063	101	6575	197
4938	193	5548	253	6064	101	6576	197
4939	193	5554	239,243	6065	101	6577	197,199
4946	193	5558	237	6109	133,136,138	6578	197
4948	193	5624	214,219,224	6158	257,261	6579	197
4950	237	5625	214,219,224	6161	215	6580	197,199,230
4952	247	5629	253	6162	179,183,187	6581	197,199
4953	219	5639	239,243	6213	275,279	6582	197,199
4982	245	5642	239,243	6215	275	6583	197
4984	245	5643	239,243	6240	141,145,277	6584	197,199
4986	247	5652	101,300	6259	255	6585	198,201
4989	247	5660	259,262	6261	254	6586	198,201
4990	247	5661	262	6262	255	6587	197,199
4991	247	5670	162	6265	237	6589	198,201
5023	198,201	5671	162	6266	237	6590	197,199
5024	198,201	5672	162	6287	206,210	6592	197
5025	238	5682	259,262	6288	180,185,189	6593	160
5026	198,201	5684	148,259	6294	101	6595	160
5036	237	5685	259,262	6301	132 thru 227	6597	197
5037	237	5686	259,262,265	6325	255	6598	197,199
5042	239,244	5706	233	6326	255	6599	197,199
5047	237	5811	159,	6329	254	6600	197
5075	239,243	5818	147	6335	205	6601	197,199
5077	239,243	5819	215	6368	238	6602	215
5096	190	5823	180,184	6389	148,211	6603	215
5097	190	5828	86,87	6398	207,211	6610	215
5101	239	5881	254	6399	207	6613	197
5104	239,244	5887	254	6404	206	6614	197,199
5129	203,234	5889	254	6411	251	6622	215 thru 230
5219	195,198,202	5891	254	6412	251	6629	215
5220	195,198,202	5893	254	6413	251	6632	205
5221	195,198,202	5895	154 thru 188	6414	251	6633	215
5223	195,198,202	5896	154 thru 188	6417	251	6638	205,209
5225	195	5900	254	6418	251	6652	291,293,295
5227	207,209	5901	254	6427	251	6653	205,209
5233	239,243	5905	103	6431	254	6654	205,209
5234	239,243	5907	103	6432	255	6655	205,209,173
5235	162,163	5929	215	6433	201	6656	206,209
5239	233	5931	148	6445	255	6657	206,209
5240	205	5934	147	6480	221,226,297	6658	206 thru 173
5241	205	5942	148	6498	238	6659	205,209
5254	213,217,223	5953	180 thru 224	6513	245	6663	275,279
5275	213 thru 227	5955	265	6514	245	6667	275,279
5276	213 thru 227	5957	265	6515	247	6673	205,209,286
5301	237,238,244	5989	214	6516	245	6674	205
5316	195	5990	214,219,224	6517	245	6676	215
5317	195	5991	215 thru 229	6544	162	6682	215 thru 230
5337	195	5992	214,220,224	6554	102	6684	239,243
5365	279	5993	214 thru 229	6555	102	6685	241,244
5370	233,237	5999	180,185	6563	60,62,101	6702	215 thru 230
5476	249	6008	180,184	6564	159	6703	216
5477	249	6018	195	6568	101	6704	216
5478	249	6020	234	6572	197,199	6705	107 thru 122
5479	249	6038	148	6573	197	6708	217,223

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
6709	277	6897	179,183,187	7137	174	7219	105,106
6710	267 thru 277	6898	179,180,187	7138	174	7220	105,106
6712	277	6899	179,180,187	7139	174	7221	109
6713	268 thru 277	6942	233	7140	174	7246	164
6714	275	6973	102,104	7141	174	7247	164
6715	267 thru 277	6794	102,104	7144	149,172	7248	164
6717	277	6975	102	7145	164,167,171	7249	164
6718	268,277	6977	102	7146	167,171	7250	164
6719	271,277	6978	102	7147	167,171	7251	164
6720	277	6979	102	7148	167	7252	164
6721	268,277	6980	102	7149	167,171	7253	164
6722	275	6981	102	7150	167	7254	165
6725	275	7008	105 thru 127	7151	169	7255	165
6728	275	7009	105 thru 127	7152	169	7256	165
6731	214,219,224	7010	105	7153	167	7257	165
6732	214,219,224	7015	247	7154	167	7258	165
6734	214	7025	207	7155	168,172	7259	165
6736	109 thru 128	7028	207	7156	168,172	7260	165
6749	253	7047	167	7157	168,172	7261	165
6751	180	7048	169,172	7158	167,171	7262	165
6761	180,184,188	7049	167	7159	168,172	7263	165
6764	109	7094	167,171	7160	167	7264	165
6767	109	7097	169	7161	167,171	7265	165
6768	180,184,188	7098	169	7162	168,171	7267	165
6769	179 thru 188	7099	168,172	7163	167,171	7268	165
6775	107	7100	169,175	7164	167	7269	165
6777	109	7101	169,172	7165	167,171	7271	165
6778	180,185	7102	168,172	7166	167,171	7272	165
6779	181	7103	169 thru 187	7167	167	7273	165
6780	180,184,188	7104	179,183,187	7168	167,171	7275	165
6782	180	7105	179,183,187	7169	167	7276	165
6785	109	7106	179,183,187	7170	167	7277	165
6788	180,188	7107	179,183,187	7171	169,175	7278	275
6790	180,185,189	7108	179,183,187	7173	168,172	7279	165
6796	183,187	7109	179,183,187	7174	168,172	7282	141,145,299
6797	179 thru 188	7110	179,183,187	7175	168	7283	141,145,299
6798	179	7111	180,183,187	7176	165,168,171	7323	141,145,299
6799	179 thru 187	7112	180,183,187	7177	168,171	7324	141,145,300
6803	107	7115	180 thru 188	7178	206 thru 244	7325	141,145,299
6804	105,106	7116	168,172	7183	149	7326	141,146
6805	105,106	7118	174	7184	149	7327	141,146,299
6806	179,183,187	7119	168,172	7185	149	7328	141,146
6810	109 thru 142	7120	168,172	7186	148	7329	141,146,299
6816	107 thru 128	7121	168	7187	148	7330	141,145
6818	253,281	7122	168	7188	148	7331	141,146,299
6832	254	7123	168	7189	149	7341	107,111
6834	109	7124	168	7190	148	7342	164
6836	107,111	7125	168	7191	148	7348	169,173
6837	107 thru 127	7128	174	7193	149	7357	214,220
6838	107 thru 132	7131	174	7194	149	7365	107,111
6840	107,111	7132	174,176	7195	148	7366	109
6888	184,233	7133	174,176	7198	105,106	7368	107,111
6894	179,183,187	7134	174	7199	105	7369	107,111
6895	179,183,187	7135	174	7200	164	7370	107,111
6896	179,183,187	7136	174	7214	253	7371	107,111

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
7372	109,112	7463	142 thru 158	7698	131,135	7806	165
7373	109,112	7464	139	7699	131,135	7808	148
7374	109,112	7465	139,143	7701	131	7810	286
7376	109,112	7466	139	7702	131	7812	286
7377	109,112	7467	142 thru 158	7703	131	7813	286
7378	109,112	7468	142 thru 158	7705	131,135	7817	243
7379	109,112	7469	142 thru 158	7706	131,135	7818	181,189
7380	137 thru 172	7470	142 thru 158	7707	131	7820	239
7381	119 thru 274	7471	142 thru 158	7708	39 thru 188	7821	147
7382	138,139,143	7472	142 thru 158	7709	131	7822	147
7383	138	7473	142,152	7710	131,135	7823	147
7384	137	7474	142 thru 158	7711	131,135	7824	148
7385	132,138	7475	139,143	7712	131,135	7825	148
7386	132,138	7476	139,143	7713	131	7826	148
7387	138	7477	139	7714	132,135	7831	148
7388	137	7478	139	7715	132,135	7832	148
7389	137,139,143	7479	139,143	7717	132	7833	147
7390	137	7480	139	7719	132,135,275	7834	147
7391	137	7481	139,143	7720	132,135	7845	247
7392	137	7482	139,143	7721	133,136	7846	245
7393	137	7483	139	7722	133,136	7847	245
7394	138	7484	149,143	7723	133,136	7848	245
7397	35	7485	139,143	7724	133,136	7849	245
7398	168,172	7487	139,143	7725	133,136	7855	107
7399	168	7489	139,143	7726	133,136	7857	109,112,123
7401	169,172	7490	139,143	7752	281	7863	282
7402	168,172	7491	139	7753	281	7872	179,183,187
7404	257	7492	139,143	7756	281	7873	179,183,187
7405	257,261,263	7493	139,143	7763	133,135	7874	179,183,187
7407	259	7494	139,143	7764	133	7875	113 thru 187
7412	188	7495	152	7765	153	7876	179,183,187
7413	151,157	7496	152	7768	132,136	7877	179,183,187
7414	151,157	7497	152	7769	107 thru 133	7878	179,183,178
7415	151,157	7498	152,158	7770	109,112,132	7880	282
7416	151,157	7499	152,157	7771	107,111,133	7892	285
7418	151,157	7501	152,158	7772	133,138	7893	285
7420	38,40,138	7502	152,158	7775	116 thru 145	7898	173
7423	152,157	7503	151	7776	141	7904	247
7439	151,157	7505	153,159	7777	153,159	7945	241 thru 244
7441	151,157	7506	153,159	7778	153,159	7958	103
7442	151,157	7509	255	7779	153,159	7959	103
7443	151,157	7515	282	7780	154,159	7960	103
7444	151,157	7528	253,281	7781	141,146	7961	103
7445	151,157	7564	133,136,138	7782	148	7962	103
7446	151,157	7565	142,146	7783	141,145	7963	103
7450	81	7665	259,262	7784	141	7971	157
7453	142,151	7680	132,135	7785	141,145	7993	157
7454	151,157	7681	131,135	7786	154,159	8004	303
7455	151,155	7682	131,135	7788	154,159	8032	107,109
7456	151,158	7683	131	7789	154,159	8033	111
7457	151,157	7684	131,135	7790	154,159	8046	215,220
7458	156,157	7685	131	7791	154,159	8047	211,217
7459	152,157	7696	131,135	7792	154,160	8046	103 thru 229
7460	152	7697	131,135	7793	141,145	8063	285
7462	142 thru 158	7697	131,135	7795	38 thru 244	8065	147,223

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
8072	138	9576	267,271	10241	203	11141	163
8074	234	9577	267,271	10242	203	11142	163
8078	133,136,138	9578	267,271	10245	202	11143	163
8083	241,244	9580	267,271	10297	121,125,153	11144	163
8091	237	9581	267,271	10302	202	11146	163
8130	101	9582	268 thru 274	10303	202	11196	151,157
8138	146,152,158	9584	268	10327	237	11199	160
8167	237	9589	217,223	10328	237	11200	157
8168	154	9602	213,217,223	10411	115 thru 297	11202	159
8169	154	9603	213,217,223	10434	272	11221	193
8170	154	9605	213	10435	115,117	11222	193
8200	137	9621	157	10436	116 thru 145	11223	193
8201	137	9622	151	10437	116 thru 128	11224	193
8245	209	9704	211,217,223	10438	115 thru 145	11235	303
8304	112 thru 187	9721	151,293,295	10440	115	11251	193
8305	112	9722	151 thru 297	10441	115 thru 128	11264	234
8348	141,146	9623	291	10442	115 thru 129	11272	132
8535	235	9724	291	10443	113 thru 136	11273	132
8566	153	9725	291,293,295	10444	133,136,138	11276	131
8611	244	9726	291,293,295	10447	113,123	11277	131
8624	244	9728	291	10468	275	11330	153,158
8678	235	9729	291	10473	132	11347	153,160
8727	213,217	9730	291 thru 297	10489	203	11348	160
8751	213 thru 227	9970	288	10490	203	11350	159
8752	213 thru 227	9979	235	10494	115 thru 136	11367	154,159
8817	241	9981	289	10496	113 thru 136	11456	207 thru 299
8932	121,125	9982	289	10542	270,274	11457	199,210,235
8939	300	9987	289	10578	193	11632	219,224,230
9014	259,262	9988	289	10579	193	11640	109
9300	103,104,253	9990	288	10617	194	11649	199
9302	106	10033	289	10618	194	11651	201
9374	291	10088	143	10620	193	11653	201
9375	291	10089	143	10621	194	11654	199
9419	272,275,268	10090	143	10644	152,158	11655	199
9516	237	10091	143	10653	256	11658	199
9519	112,116,121	10092	143	10839	103	11659	199
9521	112	10093	113 thru 128	10881	254,281	11661	201
9522	111	10094	113 thru 128	10894	121,125	11662	165
9523	112	10096	113 thru 128	10896	121,125	11663	201
9524	122 thru 274	10120	146,151,157	10976	202	11664	201
9525	112	10139	143	10985	202	11665	119
9526	112 thru 268	10150	113 thru 272	10986	202	11708	272
9527	112,268	10151	115,124,128	11016	213,217,223	11709	270,272,274
9528	39	10158	145	11018	121,271	11710	271
9529	112 thru 270	10159	145	11020	163	11711	271,273
9530	112,116,267	10169	152,258	11021	163	11714	271
9533	253,281	10171	152,158	11022	163	11815	205
9537	41	10172	137,152,158	11023	163	11823	146,152,158
9546	281	10173	137 thru 158	11024	163	11841	206
9547	281	10174	214,219,224	11026	163	11844	151,157
9548	281	10175	214	11078	121,125	11860	205,209
9550	281	10184	132,135	11080	121,125	11862	106
9565	112	10211	121,125	11082	121,125	11863	157,
9573	267	10213	121,125	11084	121,125	11940	157
9574	267,269,273	10233	237	11141	163	11954	135

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
11957 . . .	102	13670 . . .	101	14939 . . .	104	15999 . . .	249
11958 . . .	102	13699 . . .	220,225,230	14948 . . .	233	16057 . . .	255
11960 . . .	102	13705 . . .	35	14949 . . .	233	16111 . . .	243
11964 . . .	102	13710 . . .	149	14986 . . .	283	16112 . . .	243
11968 . . .	154,159	13711 . . .	220 thru 230	14987 . . .	283	16119 . . .	203
12003 . . .	154,159	13712 . . .	213 thru 227	14988 . . .	283	16123 . . .	243
12004 . . .	154,159	13714 . . .	221	14989 . . .	282	16124 . . .	243
12048 . . .	132,138	13725 . . .	209	15047 . . .	261,263	16134 . . .	243
12142 . . .	149	13726 . . .	289	15050 . . .	269,273	16174 . . .	131,135
12143 . . .	149	13739 . . .	293	15055 . . .	269,273	16175 . . .	131,135
12202 . . .	158	13763 . . .	220,225,230	15056 . . .	269,273	16274 . . .	209
12205 . . .	157	13775 . . .	211	15060 . . .	274	16296 . . .	60,62
12223 . . .	113 thru 128	13776 . . .	211	15061 . . .	269,273	16355 . . .	286
12225 . . .	113 thru 127	13847 . . .	256	15063 . . .	270	16406 . . .	220,225,231
12226 . . .	113 thru 127	13848 . . .	256	15113 . . .	274	16470 . . .	220,225
12263 . . .	122	13850 . . .	256	15129 . . .	135	16471 . . .	221,226
12268 . . .	133,136,138	13852 . . .	256	15133 . . .	135	16485 . . .	261,263
12303 . . .	243	13857 . . .	106	15134 . . .	135	16722 . . .	199
12304 . . .	243	13908 . . .	262,265	15139 . . .	117,127,136	16812 . . .	184,188
12460 . . .	121,125	13909 . . .	262,265	15159 . . .	119,125,274	16856 . . .	281
12470 . . .	194	13985 . . .	203	15160 . . .	119	16859 . . .	281
12488 . . .	185,189	14042 . . .	184,188	15325 . . .	233	16905 . . .	231
12490 . . .	184,188	14043 . . .	184,188	15370 . . .	303	16961 . . .	229
12491 . . .	184	14044 . . .	184,188	15371 . . .	261,263,265	16992 . . .	174
12493 . . .	184	14045 . . .	184,188	15372 . . .	262,265	16993 . . .	174
12682 . . .	203	14046 . . .	184,188	15495 . . .	229	16994 . . .	169,174
12689 . . .	219,224,229	14072 . . .	238	15496 . . .	231	17003 . . .	254,281
12690 . . .	219,224	14173 . . .	154,160,195	15497 . . .	231	17034 . . .	193
12696 . . .	219,224	14221 . . .	234	15504 . . .	209	17046 . . .	220 thru 231
12866 . . .	139,143	14226 . . .	101	15523 . . .	223,227	17048 . . .	226
12909 . . .	221 thru 297	14232 . . .	122	15524 . . .	227	17049 . . .	220,221
12911 . . .	291,293	14237 . . .	117,128,136	15526 . . .	230	17076 . . .	195,202
12912 . . .	293	14238 . . .	122	15527 . . .	229	17112 . . .	265
12914 . . .	291,293,297	14239 . . .	122	15533 . . .	189	17113 . . .	265
12968 . . .	293	14245 . . .	122	15537 . . .	136	17114 . . .	265
12989 . . .	39	14272 . . .	127	15572 . . .	190	17118 . . .	266
12990 . . .	122,127,272	14274 . . .	127	15573 . . .	190	17119 . . .	266
13015 . . .	210	14275 . . .	127	15624 . . .	198	17120 . . .	265,299
13026 . . .	210	14276 . . .	127	15625 . . .	198	17135 . . .	272
13028 . . .	207,211	14277 . . .	127	15853 . . .	283	17136 . . .	272
13029 . . .	207,211	14290 . . .	119,269	15891 . . .	169,173	17137 . . .	271
13032 . . .	209	14291 . . .	119 thru 274	15892 . . .	168,171	17682 . . .	87
13033 . . .	205,209	14359 . . .	171	15893 . . .	167,171	17793 . . .	114 thru 127
13034 . . .	209	14389 . . .	220,225	15894 . . .	167,171	17913 . . .	283
13036 . . .	209	14430 . . .	169	15895 . . .	167,171	17977 . . .	199
13078 . . .	119 thru 274	14605 . . .	172,176	15906 . . .	255	18572 . . .	229
13162 . . .	102	14613 . . .	210	15918 . . .	151	18982 . . .	106
13195 . . .	247	14616 . . .	211	15919 . . .	151	19107 . . .	226,231
13196 . . .	249	14714 . . .	221,226	15939 . . .	303	19108 . . .	226
13368 . . .	205,209,289	14716 . . .	219,224	15941 . . .	303	19109 . . .	231
13420 . . .	217,223,227	14738 . . .	125,273	15942 . . .	303	19114 . . .	188
13467 . . .	190	14916 . . .	193	15943 . . .	303	19150 . . .	238
13479 . . .	115 thru 219	14935 . . .	160	15944 . . .	303	19151 . . .	238
13480 . . .	115 thru 128	14937 . . .	104	15945 . . .	303	19175 . . .	153
13529 . . .	243	14938 . . .	104	15993 . . .	249	19212 . . .	173

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
19222 . . .	295,297	21927 . . .	300	23643 . . .	230	U-3017 . . .	45,46
19229 . . .	295,297	21928 . . .	300	23646 . . .	231	U-3018 . . .	45,46
19230 . . .	295	21929 . . .	300	23658 . . .	300	U-3020 . . .	33,35
19236 . . .	210	21935 . . .	160	23661 . . .	266	U-3021 . . .	33,36
19237 . . .	210	22262 . . .	176	23765 . . .	299	U-3024 . . .	38
19248 . . .	297	22403 . . .	303	23918 . . .	101	U-3025 . . .	63
19275 . . .	281	22410 . . .	143	23972 . . .	297	U-3027 . . .	45
19318 . . .	297	22411 . . .	143	24107 . . .	104	U-3028 . . .	45
19490 . . .	238,244	22475 . . .	226,230	24108 . . .	104	U-3031 . . .	45
19671 . . .	229	22476 . . .	226,230	24109 . . .	104	U-3033 . . .	38
19717 . . .	283			24482 . . .	209	U-3036 . . .	33
19718 . . .	283			24485 . . .	194	U-3038 . . .	58
19733 . . .	283	22493 . . .	289	24486 . . .	194	U-3040 . . .	39
19743 . . .	35	22495 . . .	289	24750 . . .	176	U-3041 . . .	38
19744 . . .	35	22496 . . .	289	24752 . . .	176	U-3042 . . .	34,35
19745 . . .	35	22497 . . .	289	24753 . . .	176	U-3050 . . .	43
19746 . . .	35	22498 . . .	289	24754 . . .	176	U-3052 . . .	43,44
19747 . . .	35	22499 . . .	289	24763 . . .	176	U-3056 . . .	85,90
19748 . . .	35	22500 . . .	289	24764 . . .	176	U-3072 . . .	88,90
19801 . . .	234	22796 . . .	229	24766 . . .	176	U-3077 . . .	48,49,81
20018 . . .	298	22797 . . .	229	24781 . . .	173,176	U-3079 . . .	75,77
20124 . . .	201	22798 . . .	229	24782 . . .	176	U-3083 . . .	61,63
20125 . . .	199	22799 . . .	229	25235 . . .	176	U-3084 . . .	75
20203 . . .	211,230	22790 . . .	229	25314 . . .	195	U-3088 . . .	38
20229 . . .	231	22792 . . .	229	25725 . . .	139,143	U-3091 . . .	52
20230 . . .	226	22797 . . .	243	28028 . . .	231	U-3094 . . .	61,63
20293 . . .	230	22979 . . .	104	28099 . . .	176	U-3095 . . .	60,62
20293 . . .	211	22980 . . .	104	28391 . . .	227	U-3096 . . .	60,62
20461 . . .	39	22981 . . .	104	28601 . . .	173	U-3097 . . .	60 thru 63
29735 . . .	297	22982 . . .	104	28602 . . .	172	U-3098 . . .	60,62
20798 . . .	230	22992 . . .	229	28603 . . .	172	U-3099 . . .	60
20848 . . .	203	22995 . . .	104	28604 . . .	172	U-3100 . . .	65,66,67
20947 . . .	227	22999 . . .	229	28605 . . .	172	U-3107 . . .	65,66,67
20848 . . .	195	23001 . . .	199	28606 . . .	171	U-3118 . . .	33,36
21534 . . .	300	23032 . . .	227	28607 . . .	171	U-3124 . . .	75
21544 . . .	300	23112 . . .	167	28608 . . .	176	U-3129 . . .	34,36,37
21545 . . .	300	23113 . . .	167	28609 . . .	172,176	U-3130 . . .	34
21557 . . .	299	23114 . . .	169	28610 . . .	176	U-3132 . . .	51
21628 . . .	299	23115 . . .	168	28684 . . .	176	U-3135 . . .	86,87
21630 . . .	299	23116 . . .	168	29580 . . .	172	U-3138 . . .	64
21632 . . .	300	23117 . . .	168	29725 . . .	281	U-3141 . . .	86,87
21634 . . .	300	23118 . . .	168	29917 . . .	58	U-3142 . . .	47 thru 57
21635 . . .	299	23119 . . .	168	31088 . . .	263	U-3144 . . .	34,36
21640 . . .	299	23119 . . .	168	31089 . . .	265	U-3155 . . .	52,55
21545 . . .	298	23134 . . .	169	AM-8692 . . .	90	U-3157 . . .	33,36
21664 . . .	101	23137 . . .	227	AM-9021 . . .	47	U-3158 . . .	38
21691 . . .	269,273	23138 . . .	227	U-219 . . .	75	U-3161 . . .	86
21692 . . .	269,273	23141 . . .	169	U-1671 . . .	33,35	U-3162 . . .	90
21696 . . .	101	23144 . . .	229	U-1852 . . .	58	U-3163 . . .	90
21881 . . .	160	23516 . . .	41	U-2670 . . .	286	U-3164 . . .	47 thru 55
21920 . . .	300	23517 . . .	41	U-2963 . . .	286	U-3168 . . .	65
21921 . . .	300	23518 . . .	227	U-3003 . . .	47	U-3169 . . .	65
21922 . . .	300	23531 . . .	41	U-3004 . . .	47	U-3170 . . .	65
21923 . . .	300	23532 . . .	87	U-3006 . . .	52,55,57	U-3171 . . .	65
21924 . . .	300	23548 . . .	231	U-3009 . . .	52,55,57	U-3172 . . .	65
21925 . . .	300	23579 . . .	230	U-3010 . . .	52	U-3173 . . .	65
21926 . . .	300	23580 . . .	230	U-3011 . . .	51,55,57		
		23581 . . .	230	U-3014 . . .	51		

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
U-3174 . . .	65 thru 68	207550 . . .	74	215242 . . .	61,63	223952 . . .	93
U-3175 . . .	65,66,67	207551 . . .	74	215275 . . .	38	223955 . . .	93
U-3176 . . .	65,66,67	207552 . . .	75	215276 . . .	38	223961 . . .	97
U-3181 . . .	65	207719 . . .	61,63	217050 . . .	60	223967 . . .	93
U-3182 . . .	65,66	207822 . . .	85,87	217051 . . .	60	223974 . . .	98
U-3183 . . .	33,35	207823 . . .	85,87	217054 . . .	51	223977 . . .	93,94
U-3186 . . .	65	207824 . . .	85,86	217311 . . .	42	223985 . . .	93
U-3187 . . .	64	207825 . . .	85,87	217312 . . .	42	223994 . . .	93
U-3188 . . .	43,44	207826 . . .	85,87	218444 . . .	60,62	223998 . . .	93
U-3196 . . .	52,54,57	207827 . . .	85,87	218445 . . .	60,62	224001 . . .	93
U-3198 . . .	47	207828 . . .	85,87	218604 . . .	33	224027 . . .	98
U-3201 . . .	33	207829 . . .	85,87	219698 . . .	100	224033 . . .	94
U-3203 . . .	74	207830 . . .	86,87	219967 . . .	100	224047 . . .	93
U-3204 . . .	89,90,91	207831 . . .	86,87	219968 . . .	100	224051 . . .	93
U-3205 . . .	89,90,91	207833 . . .	86,87	219975 . . .	100	224053 . . .	98
U-3441 . . .	88,90	207872 . . .	38	219977 . . .	100	224056 . . .	93
U-3461 . . .	47 thru 84	207882 . . .	69,70,71	219978 . . .	100	224059 . . .	93,94,98
U-3526 . . .	75	208049 . . .	51,55,57	219979 . . .	100	224061 . . .	93,97,98
U-3527 . . .	75	208564 . . .	61,63	219982 . . .	99	224063 . . .	94
U-3644 . . .	33	208566 . . .	60 thru 65	219987 . . .	100	224112 . . .	93
U-3809 . . .	43	208662 . . .	61,63	219996 . . .	99	224144 . . .	97
U-3810 . . .	64	208817 . . .	61,63	219997 . . .	100	224148 . . .	93
U-3898 . . .	69,70,71	209099 . . .	51,54,57	219998 . . .	100	224152 . . .	93,94,97
U-3899 . . .	69,70,71	209103 . . .	51,54,57	220000 . . .	100	224153 . . .	93,94,97
U-3901 . . .	69	209132 . . .	51,54	220006 . . .	100	224159 . . .	93
U-3902 . . .	69	209134 . . .	51,55	220473 . . .	51,55	224418 . . .	94
U-3904 . . .	33	209359 . . .	33,35	220476 . . .	51,54	224431 . . .	94
U-4000 . . .	43	209518 . . .	85,86	222783 . . .	58	224526 . . .	47,48
U-4013 . . .	52,55,87	209862 . . .	51,55,57	223138 . . .	61	224568 . . .	45
U-4014 . . .	33,36,37	209946 . . .	85	223176 . . .	58	224574 . . .	33
053616 . . .	58	210137 . . .	89	223507 . . .	42	224620 . . .	43,44
056320 . . .	58	210155 . . .	81,82	223550 . . .	38	224729 . . .	47 thru 84
204720 . . .	43	210157 . . .	81,82	223551 . . .	88	224730 . . .	47,48,49
204721 . . .	33,36	210158 . . .	81 thru 84	223622 . . .	43	224731 . . .	47,48,49
204722 . . .	33,36	210186 . . .	74	223623 . . .	43	224732 . . .	47
204801 . . .	51,55	210758 . . .	85	223624 . . .	43	224733 . . .	61,54,57
204827 . . .	286	210828 . . .	85	223626 . . .	43	224782 . . .	88
204833 . . .	45	210829 . . .	85,86	223627 . . .	43	224915 . . .	58,59
204863 . . .	69,70,71	210830 . . .	85,87	223628 . . .	43	224917 . . .	42
204917 . . .	70	210831 . . .	85,87	223753 . . .	93	224926 . . .	51,55,47
205152 . . .	89,93	211368 . . .	61,63	223765 . . .	93	224929 . . .	39
205215 . . .	47 thru 55	211413 . . .	51	223776 . . .	93	224932 . . .	38
205807 . . .	45	211850 . . .	45	223792 . . .	93	224945 . . .	38
205826 . . .	47	211853 . . .	38	223805 . . .	94	224988 . . .	64
205834 . . .	75	211857 . . .	38	223813 . . .	93	224990 . . .	74,77
206072 . . .	61,63	212004 . . .	51,54,57	223819 . . .	94	224991 . . .	74,77
206518 . . .	74	212283 . . .	88	223844 . . .	93	224998 . . .	48
206782 . . .	70,71	212435 . . .	66,67,68	223874 . . .	94	225000 . . .	74,77
206861 . . .	52	212436 . . .	66,67,68	223909 . . .	97	225001 . . .	74,77
206876 . . .	51,54,57	212442 . . .	66,67,68	223915 . . .	93	225010 . . .	74,77
206879 . . .	51,54,57	212767 . . .	88	223923 . . .	93	225011 . . .	74,77
207132 . . .	47,48	212957 . . .	51	223925 . . .	94	225013 . . .	82,83,84
207151 . . .	47	213314 . . .	64 thru 227	223931 . . .	94	225014 . . .	48
207152 . . .	47,48	213317 . . .	69	223946 . . .	97	225017 . . .	52,55
207259 . . .	49	213354 . . .	38	223947 . . .	93	225019 . . .	51,55,57
207435 . . .	42,44	213355 . . .	38	223950 . . .	94	225020 . . .	55
207436 . . .	42						

NUMERICAL INDEX - CONTINUED

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
225021 . . .	48	226152 . . .	36	226537 . . .	42	229143 . . .	57
225032 . . .	55	226169 . . .	90	226541 . . .	33,35	229171 . . .	37
225035 . . .	82,83,84	226233 . . .	286	226542 . . .	89	229172 . . .	37
225073 . . .	76	226236 . . .	77	226620 . . .	89,41	229173 . . .	37
225074 . . .	62,77	226237 . . .	62	226622 . . .	43	229174 . . .	37
225078 . . .	62,77	226244 . . .	48	226693 . . .	90	229178 . . .	37
225344 . . .	77	226248 . . .	35	226721 . . .	55	229179 . . .	37
225345 . . .	77	226251 . . .	70,71	226761 . . .	55,57	229180 . . .	37,40
225484 . . .	74,77	226254 . . .	61	226935 . . .	87	229181 . . .	37
225606 . . .	76	226255 . . .	70,71	227017 . . .	84	229228 . . .	59
225657 . . .	34	226256 . . .	70	227018 . . .	84	229230 . . .	63
225688 . . .	45,46	226259 . . .	66	227032 . . .	45,46	229231 . . .	63
225689 . . .	45,46	226260 . . .	66	227038 . . .	45,46	229339 . . .	91
225728 . . .	54	226268 . . .	42,44	227043 . . .	74,77	229340 . . .	91
225733 . . .	79	226275 . . .	97,99	227060 . . .	61,63	229370 . . .	37
225734 . . .	79	226313 . . .	90	227096 . . .	98	229402 . . .	71,73
225735 . . .	79	226314 . . .	86	227097 . . .	98	229403 . . .	57
225736 . . .	79	226315 . . .	83,87	227098 . . .	98	229405 . . .	57
225739 . . .	79	226316 . . .	83	227099 . . .	97	229406 . . .	49
225740 . . .	79	226317 . . .	83	227101 . . .	98	229408 . . .	57
225745 . . .	74	226319 . . .	83	227103 . . .	97	229409 . . .	49
225746 . . .	74	226320 . . .	86	227104 . . .	97	229410 . . .	49
225771 . . .	58,59,77	226321 . . .	87	227105 . . .	98	229416 . . .	91
225772 . . .	80	226346 . . .	42	227106 . . .	97	229474 . . .	73
225773 . . .	79	226350 . . .	90	227107 . . .	98	229515 . . .	77,79
225774 . . .	79	226358 . . .	38	227108 . . .	97	229516 . . .	79
225775 . . .	79	226372 . . .	83	227110 . . .	97	229517 . . .	76
225776 . . .	80	226374 . . .	77	227111 . . .	97	229518 . . .	76
225777 . . .	80	226376 . . .	77	227112 . . .	97	229522 . . .	49,57
225778 . . .	79	226388 . . .	66,67,69	227113 . . .	97	229531 . . .	91
225780 . . .	80	226389 . . .	66,67,68	227114 . . .	97	229537 . . .	44
225781 . . .	79	226408 . . .	36,37,64	227116 . . .	97	22938 . . .	44
225783 . . .	79	226442 . . .	100	227119 . . .	97	229540 . . .	67
225784 . . .	80	226443 . . .	100	227121 . . .	97	229541 . . .	67,68
225785 . . .	79	226444 . . .	100	227170 . . .	43	229635 . . .	76
225786 . . .	79	226445 . . .	100	227171 . . .	43	229670 . . .	45
225787 . . .	79	226446 . . .	100	227172 . . .	43	229706 . . .	59
225789 . . .	79	226447 . . .	100	227173 . . .	43	229715 . . .	35
225790 . . .	79	226448 . . .	100	227174 . . .	43	229718 . . .	44
225791 . . .	80	226449 . . .	99	227236 . . .	64	229720 . . .	71
225792 . . .	79	226451 . . .	100	227238 . . .	217,223,227	229840 . . .	87
225793 . . .	79	226452 . . .	100	227300 . . .	90	229861 . . .	44
225794 . . .	80	226453 . . .	100	227302 . . .	46	229862 . . .	40
225795 . . .	80	226455 . . .	100	227307 . . .	59	229876 . . .	44
225796 . . .	79	226456 . . .	100	227309 . . .	58,59,223	229881 . . .	40
225797 . . .	79	226457 . . .	100	227500 . . .	44	229882 . . .	40
225798 . . .	80	226458 . . .	100	227636 . . .	57	229885 . . .	40
225799 . . .	33,80	226460 . . .	99	228131 . . .	76	229886 . . .	40
225893 . . .	65,57	226466 . . .	99	228394 . . .	59	229888 . . .	40
226012 . . .	34 thru 64	226468 . . .	99	228429 . . .	61,63	229903 . . .	57
226019 . . .	79	226469 . . .	99	228473 . . .	43	229904 . . .	57
226020 . . .	80	226470 . . .	100	228542 . . .	84	229911 . . .	49,57
226100 . . .	77	226471 . . .	100	228543 . . .	84	229922 . . .	91
226115 . . .	58	226477 . . .	57	228611 . . .	44	229927 . . .	84
226116 . . .	77	226479 . . .	99	228612 . . .	44	229949 . . .	91
226117 . . .	77	226533 . . .	38	228915 . . .	71		

NUMERICAL INDEX - CONTINUED

Part No.	Page
229949 . . .	91
229950 . . .	91
229952 . . .	46
229953 . . .	46
229954 . . .	46
229955 . . .	46
229958 . . .	90
229969 . . .	91
230066 . . .	37
230081 . . .	64
230217 . . .	41
230302 . . .	86
230308 . . .	63
230331 . . .	37
230357 . . .	49
230359 . . .	49
230392 . . .	59
230393 . . .	59
230424 . . .	37
230577 . . .	44
230806 . . .	68
231451 . . .	40
231452 . . .	40
231585 . . .	73
231769 . . .	77,79
231922 . . .	40
231923 . . .	40
231924 . . .	40
231925 . . .	40
232422 . . .	73
232423 . . .	73
232425 . . .	73
232426 . . .	73
232428 . . .	77
232431 . . .	68
232432 . . .	68
232433 . . .	68
232434 . . .	68
232435 . . .	68
232436 . . .	68
232447 . . .	49
232554 . . .	68
232561 . . .	44
232578 . . .	73
232826 . . .	80
232827 . . .	79
232828 . . .	79
232829 . . .	79
232926 . . .	57
233155 . . .	49
233214 . . .	59
233216 . . .	49
233218 . . .	84
233304 . . .	73
233625 . . .	44

Part No.	Page
233627 . . .	63
233668 . . .	59
240912 . . .	71
280006 . . .	43
281986 . . .	38
282901 . . .	42
283064 . . .	42
283200 . . .	42
283201 . . .	42
283229 . . .	42
283248 . . .	42
800465 . . .	100
800912 . . .	69,70