

CLARK

PARTS MANUAL

NO. 484

MODEL

SUPER 99

SW

POWER GRADER

This Manual applies to machines
numbered serially from No. 99SW-104 & After

CLARK EQUIPMENT COMPANY
Crane Division

CLARK WARRANTY

CLARK warrants each new Construction Machinery Group product, including attachments and accessories thereto, sold by it to be merchantable and free from defects in material and workmanship.

CLARK will cause any part of a CLARK product covered by this warranty (except as excluded below) which proves to be defective in material or workmanship during six (6) months immediately following the delivery of said product to the person who first puts it into use, to be replaced without charge with a new or repaired part (whichever CLARK elects). CLARK also will cause the labor to remove any such defective part and to install the new or repaired part to be provided without charge to the owner of said CLARK product. The parts and labor to meet this warranty will be furnished by a CLARK distributor designated by CLARK.

CLARK also warrants each replacement part for the products covered by this warranty sold by it to be merchantable and free from defects in material and workmanship. CLARK will cause any such replacement part which proves to be defective during the first six (6) months following its installation in a CLARK product to be replaced, without charge, with a new or repaired part (whichever CLARK elects).

CLARK'S warranty *does not cover*: (i) the replacement of parts found to have been damaged by abuse, accident or a failure to maintain or use the CLARK product or part according to the instructions applicable to it, (ii) the labor to remove and reinstall a defective replacement part after the expiration of the warranty period applicable to the product in which such part is located, (iii) overtime labor premiums, (iv) transportation of the CLARK product to the distributor's service facility or transportation of the distributor's service men to the product's location, (v) the engine or the tires of any CLARK product, nor does it cover the carrier on any truck mounted hydraulic cranes. The warranty of the respective manufacturers of these components shall apply to said items unless said manufacturers make no warranty with respect to said items, in which event CLARK'S warranty shall apply.

The Buyer accepts this warranty and the limitations of liability and disclaimers set forth herein as part of the purchase of the CLARK product or part to which this warranty applies.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED AND THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Remedies available to any person claiming under this warranty are exclusive and expressly limited to obtaining the parts and the labor, where applicable, in accordance with terms of this warranty.

CLARK'S liability for losses, damages or expenses of any kind arising from its design, manufacture or sale of the products or parts covered by this warranty, whether based on contract, tort or otherwise, including liability arising from a breach of this warranty, is limited, unless otherwise prohibited by law, to an amount not exceeding the cost of performing the obligations contained in this warranty according to its terms, and in no event shall CLARK'S liability exceed the value of the CLARK product giving rise to such liability.

CLARK disclaims all liability for loss, damage or expense attributable to a loss of use of the CLARK product, a loss or damage to property other than the CLARK product, a loss of profits or other commercial loss, or any special or consequential damages (except liability for consequential damages which by law may not be disclaimed).

The term CLARK means Clark Equipment Company or one of its subsidiaries, whichever last sold the product to which this warranty applies.

The term Construction Machinery Group products refers to machines of the following types: Tractor shovels (loaders), wheel dozers, scrapers, log skidders, log loaders, hydraulic cranes, cable cranes, excavators, and power shovels. (Not included are: lift trucks, straddle carriers, skid steer loaders, agricultural products or other products sold by CLARK'S Material Handling Group or the General Products Group).

Revised August 1978

- TO THE OPERATOR -

Your Super 99 Grader is the result of a combination of advanced engineering and research, skilled manufacturing, and the latest developments in metallurgical science. The entire design and construction is such that it can withstand usage with a minimum of maintenance, and will operate smoothly and easily with maximum safety to the operator.

A fine mechanism such as this grader will always respond best to considerate treatment and care. Therefore, before operating it, we suggest that even the experienced operator review the entire contents of this booklet. While the material in this booklet has been prepared in sufficient detail to be of maximum assistance to inexperienced operators, the "Old Timers" will find much information and many of the illustrations of considerable help.

If you should need information not given in this booklet, or require the services of a trained mechanic, we urge you to use the extensive facilities offered by the Austin-Western Distributor in your locality. Distributors are kept informed on the best methods of servicing and are equipped to provide prompt, high class service in the field, or in an up-to-date service station.

When in need of parts always give the Austin-Western Distributor your grader and engine serial numbers. We suggest that you write these serial numbers in the spaces provided below for ready reference when parts are required.

Grader Serial No. 99SW -

(STAMPED ON NAME PLATE, ALSO ON FRAME, ON LEFT HAND SIDE OF GRADER ABOVE FRONT AXLE)

Engine Serial No. _____

(GM ENGINES - STAMPED ON ENGINE BLOCK, BLOWER SIDE;
ALSO ON ACCESSORY PLATE.

IHC ENGINE - STAMPED ON ENGINE BLOCK ABOVE LUBE
OIL FILTERS)

.....

- WARRANTY -

Company warrants all Austin-Western products sold to Distributor for six (6) months after date of shipment, this warranty being limited to the replacement at the factory of such parts as it appears to Company upon inspection by Company to have been defective in material or workmanship. Company makes no warranty in respect to engines, tires, rims, electrical apparatus, or any other trade accessory not manufactured by Company, such being subject to the warranty of their respective manufacturers. No warranty is made or authorized to be made by Company other than herein set forth. Distributor agrees not to alter any products purchased hereunder nor to do anything that will in any way infringe, impeach or lessen the validity of the patents or trade-marks under which Company's products are made or sold.

We reserve the right to make changes or add improvements at any time without incurring any obligation to make such changes on machines sold previously.

ALWAYS USE GENUINE — AUSTIN-WESTERN — REPAIR PARTS

SATISFACTORY AND EFFICIENT OPERATION OF THIS MACHINE IS ENDANGERED BY THE USE OF INFERIOR REPAIR PARTS. THE USE OF CHEAP AND IMITATION PARTS INVARIABLY MEANS SHORT LIFE AND HIGHER ULTIMATE COST.

IF REPAIR PARTS COULD BE MADE AT LOWER COST AND SOLD AT LESS PRICE WITHOUT SACRIFICING QUALITY WE WOULD DO SO. THE CORRECT MATERIAL FOR THE PURPOSE AND THE KNOWLEDGE ACQUIRED THROUGH MANY YEARS OF MANUFACTURING ENABLES — THE AUSTIN-WESTERN WORKS — TO PRODUCE QUALITY THAT WILL NOT BE FOUND IN IMITATION PARTS.

YOU TAKE AN UNNECESSARY RISK WHEN YOU USE INFERIOR REPAIR PARTS. WE USE MANY BOLTS, STUDS, CAP SCREWS, ETC., THAT ARE LISTED WITH PART NUMBERS. THESE ARE MADE OF ALLOY STEEL AND HEAT TREATED TO GIVE THEM MAXIMUM STRENGTH. THEY MAY LOOK LIKE ORDINARY BOLTS, STUDS OR CAP SCREWS, BUT USE OF A SUBSTITUTE FOR THEM WILL LEAD TO BREAK-DOWNS, DELAYS AND DAMAGE TO MACHINE.

WHEN ORDERING A TAPERED ROLLER BEARING ALWAYS ORDER A SET, WHICH CONSISTS OF ONE BEARING CUP AND ONE BEARING CONE WITH ROLLERS.

ALWAYS USE GENUINE — AUSTIN-WESTERN — REPAIR PARTS

— SAFETY FIRST —

ACCIDENTS ARE CAUSED BY THE FAILURE OF SOME INDIVIDUAL TO OBSERVE SIMPLE AND FUNDAMENTAL SAFE RULES OR PRECAUTION. ACCIDENTS CAN BE PREVENTED BY RECOGNIZING THE CAUSE OF THE ACCIDENTS AND DOING SOMETHING ABOUT IT BEFORE THE ACCIDENT OCCURS.

REGARDLESS OF THE CARE USED IN THE DESIGN OF A MACHINE, THERE ARE POINTS THAT CANNOT BE COMPLETELY SAFEGUARDED WITHOUT INTERFERING WITH ACCESSIBILITY AND EFFICIENT OPERATION.

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT.

MANY ACCIDENTS WOULD BE PREVENTED IF THE FOLLOWING RULE WERE OBSERVED.

"NEVER ATTEMPT TO CLEAN, OIL, OR ADJUST A MACHINE WHILE IT IS IN MOTION."

INSTRUCTIONS FOR ORDERING PARTS

When ordering parts, follow the instructions listed below. By doing this you will be assured of receiving the correct part in the shortest period of time.

1. Send your order to the Austin-Western Distributor for your territory.
2. Give the crane and engine serial numbers which will be found on the name plates attached to the instrument panel and the engine.
3. Write the quantity, part number and description of the part wanted.
4. Give definite shipping instructions, that is: to whom and where the parts are to be shipped, also whether shipment is to go by parcel post, express, freight or truck, prepaid or collect.
5. Confirm all telephone or telegraph orders in writing.

RETURN OF PARTS

When you return parts to your Austin-Western Distributor, be sure the package or part is tagged with your name and address; pre-pay transportation charges; then write to the Distributor giving full details of shipment as to when, how and why parts are being returned. Give the machine number for which parts are being returned.

CLAIMS FOR SHORTAGE OR BREAKAGE should be made to the transportation company on receipt of goods.

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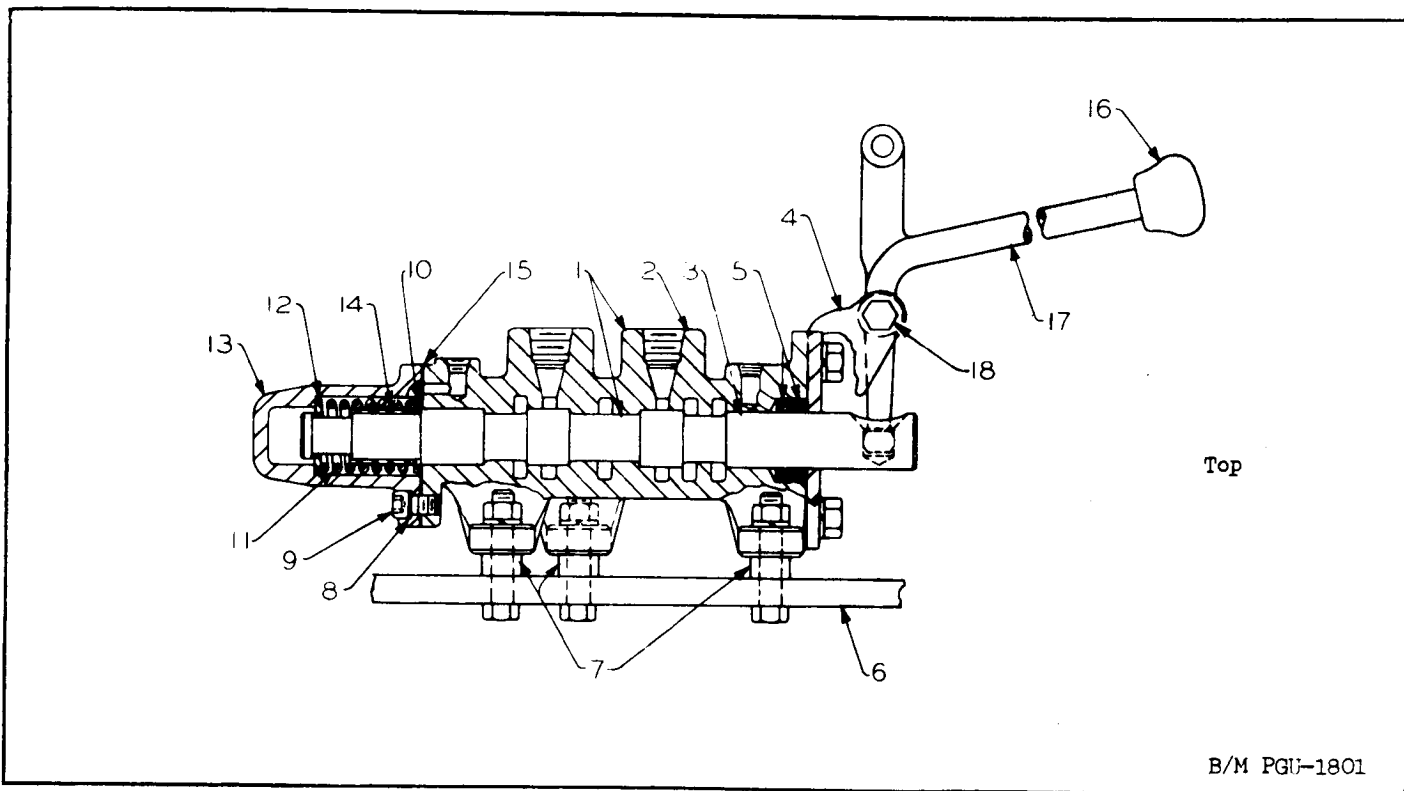
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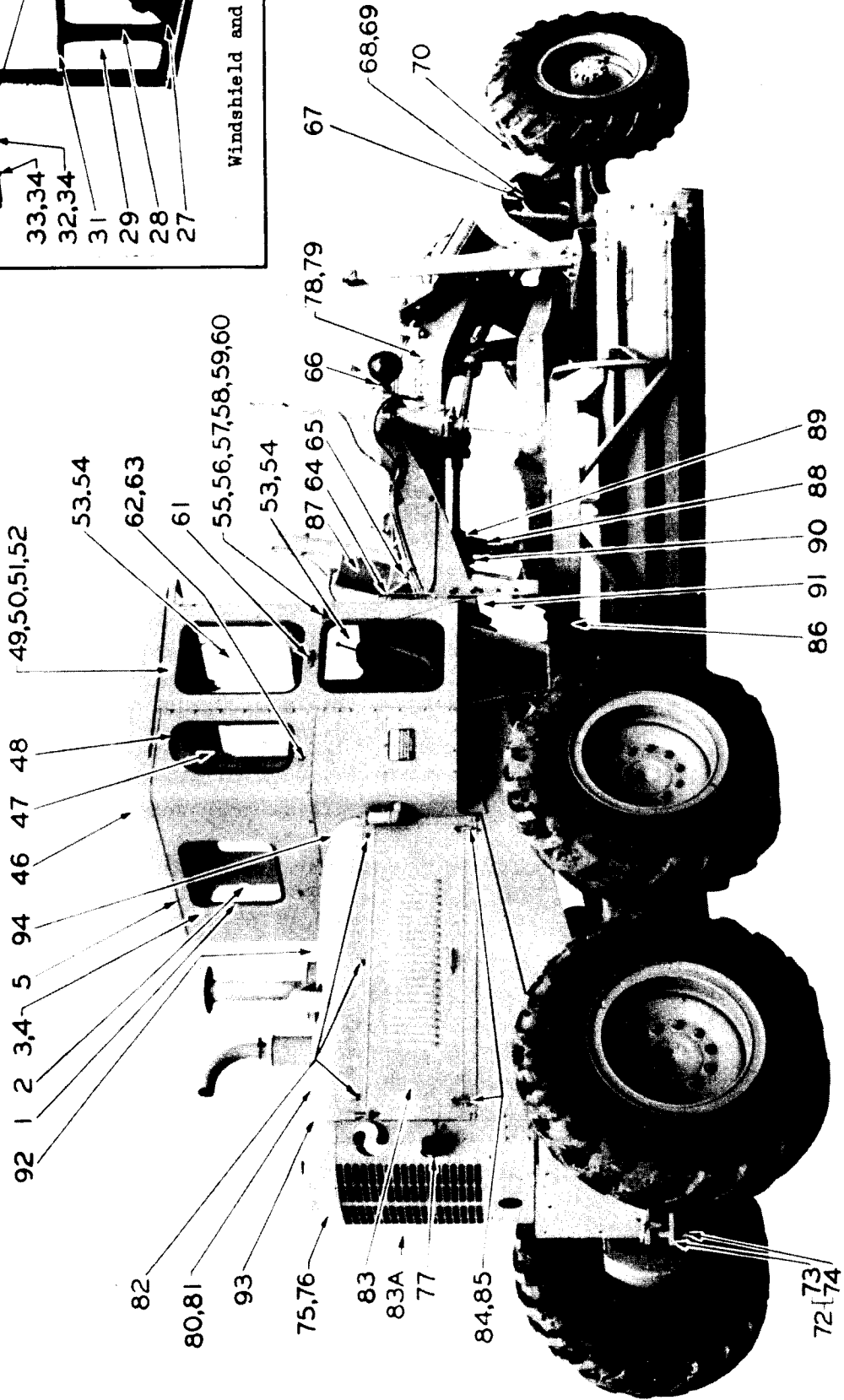


Rear Roller Hydraulic Control Valve

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGU-1800	1	Body with valve (includes Ref. Nos. 2 and 3)
2		1	* Valve body
3		1	* Valve plug (movable)
4	PG-1832	1	Valve lever bracket
5	PGF-12365	2	Oil seal
6		1	Valve support plate
7	AJF-3215	3	Valve body spacer
8	HCF-373	4	Washer
9	819133	4	Cap screw-hollow head
10	PGF-8785	1	Washer
11	PGF-8775	1	Valve spring
12	PGF-8780	1	Washer
13	AS-1010	1	Valve spring cap
14	PGF-8781	1	Sleeve
15	ASF-5105	1	Valve spring cap gasket
16	PG-1400	1	Valve lever ball
17	PGF-9765	1	Valve lever
18	PGF-11259	1	Valve lever cap screw

Note: * Indicates parts not sold separately. Order Ref. 1, PGU-1800, body with valve, from your nearest Austin-Western distributor.

Refer to Pages 5, 6 and
7 for Part Numbers



Windshield and Parts

Figure 1. Miscellaneous Parts

B/M PGU-8251, 8252-A
PGU-2091-A, 2537

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
Non-hinged Rear Window Parts			
1	PGF-15125-3	1	Rear window glass rubber molding - 77" long
2	PGF-9634	1	Rear window glass
3	PGF-9782	1	Wrapper sheet - upper (regular)
4	PGF-12002	1	@ Wrapper sheet - upper (special order)
5	PGF-9586-1	1	Fender welt - 100" long
Hinged Rear Window Parts (not illustrated)			
	PGF-15410	1	Wrapper sheet - upper
	PGF-15344	1	Rear window
	PGF-15345	1	Rear window glass
	PGFA-13304-2	2	Rear window frame weatherstrip - 19-3/16" long
	PGFA-13304-3	2	Rear window frame weatherstrip - 25-1/4" long
	PGF-15350	2	Rear window weatherstrip - 19-3/16" long
	PGF-15351	2	Rear window weatherstrip - 25-1/4" long
	PGF-15125-14	1	Rear window glass rubber molding - 75-1/4" long
	PGF-15352	1	Trough
	PGF-9586-5	1	Fender welt - 25" long
	PGF-15346	2	Spacer
	PGF-13081	2	Rear window arm bracket
	PGF-13082	1	Cab bracket with PGF-13093 bushing (R.H.)
	PGF-13083	1	Cab bracket with PGF-13093 bushing (L.H.)
	PGF-13093	2	Arm bracket bushing
	PGF-13080	2	Arm
	PGF-13254	1	Rear window latch handle
	PGF-13257	1	Rear window latch handle bolt
Miscellaneous Parts			
25	PGF-13740	1	Cab front post (no longer furnished. Order Ref. Nos. 25A, B, C and D)
25A	PGF-15377	1	Cab front post
25B	PGF-15375	2	Cab door catch
25C	PGF-15376	2	Cab door shim
25D	822140	4	Hollow head cap screw
26	PGF-13079	1	Cab front post spacer
27	PGF-14472	1	Windshield frame (lower)
28	PGF-13094	1	Cover plate for lower windshield frame
29	PGF-12317	2	Windshield glass (lower)
31	PGF-15125-9	2	Windshield glass lower rubber molding - 67-5/8" long
32	PGF-13255	1	Windshield latch handle (left hand)
33	PGF-13254	1	Windshield latch handle (right hand)
34	PGF-13257	2	Windshield latch handle bolt
35	PGF-14473	1	Windshield frame (upper)
36	PGF-12324	1	Windshield glass (upper)
38	PGF-15125-10	1	Windshield glass upper rubber molding - 136-1/2" long

Note: @ Used only on machines with five windshield wipers, or machines with rear window wiper installation.

(continued)

(Refer to Figure 1 for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
39	PGFA-13305-1	2	Windshield frame side sponge rubber weather strip - 21-3/4" long
40	PGF-13081	2	Windshield arm bracket
41	PGF-13080	2	Windshield arm
42	PGP-13083	1	Windshield arm bracket and bushing - cab post (left hand) includes one of Ref. No. 44)
43	PGP-13082	1	Windshield arm bracket and bushing - cab post (right hand) (includes one of Ref. No. 44)
44	PGF-13093	2	Windshield arm bracket bushing
45	PGFA-13304-1	1	Windshield frame bottom sponge rubber weather strip - 52-3/4" long
46	PGF-9781	1	Cab top
47	PGF-9635	2	Cab side window glass
48	PGF-15125-2	2	Cab side window glass rubber molding - 62-1/2" long
49	PGU-8253	1	Door complete - right hand
50	PGU-8254	1	Door complete - left hand
51	PGFA-13689-2	2	Door sponge rubber weatherstrip - 57" long
52	PGFA-13690-2	2	Door sponge rubber weather strip - 106" long
53	PGF-9634	4	Door window glass
54	PGF-15125-3	4	Door window glass rubber molding - 77" long
55	PGF-12953	1	Door handle with 2 keys - outside (R.H.)
56	PGF-12954	1	Door handle - outside (L.H.)
57	PGF-13114	4	Door handle screw
58	PGF-9632	1	Door lock - inside (right hand)
59	PGF-9633	1	Door lock - inside (left hand)
60	PGF-11108	6	Door lock shim
61	PG-1831	2	Door stop nut
62	PGF-8557	2	Door stop clamp
63	PGF-8555	2	Door stop crank
64	PGF-11881	4	Hand grip
65	PGF-10216	10	Stud - pipe clamp to frame
66	MS-380	2	Headlight socket
67	PGF-268	1	Spring - hydraulic hose strap
68	PGF-7487	1	Hydraulic hose strap with grommets - front steer
69	PGF-13009	1	Link - hydraulic hose strap
70	PGF-14863	1	* "U" bolt - front tow hook
72	PGU-2452	1	Rear draw bar group - special order (includes Ref. Nos. 73 and 74)
73	PGF-5212	1	Draw bar bracket
74	BTF-517	1	Draw bar bracket pin
75	PGF-14495	1	Radiator name plate (enamel)
76	918076	8	Tapping screw - name plate
77	PGF-5164	2	Tail light bracket
78	PGF-14230	2	A-W name plate (enamel)
79	751031	16	Drive screw - name plate
80	PGP-14515	1	Hood with PGF-3982 hangers (for GM4-71 engine)
81	PGP-14555	1	Hood with PGF-3982 hangers (for UD-14A engine)
82	PGF-3982	6	Hood hanger (riveted on)
83	PGF-14518	1	Side door - right hand
83A	PGF-14512	1	* Side door - left hand

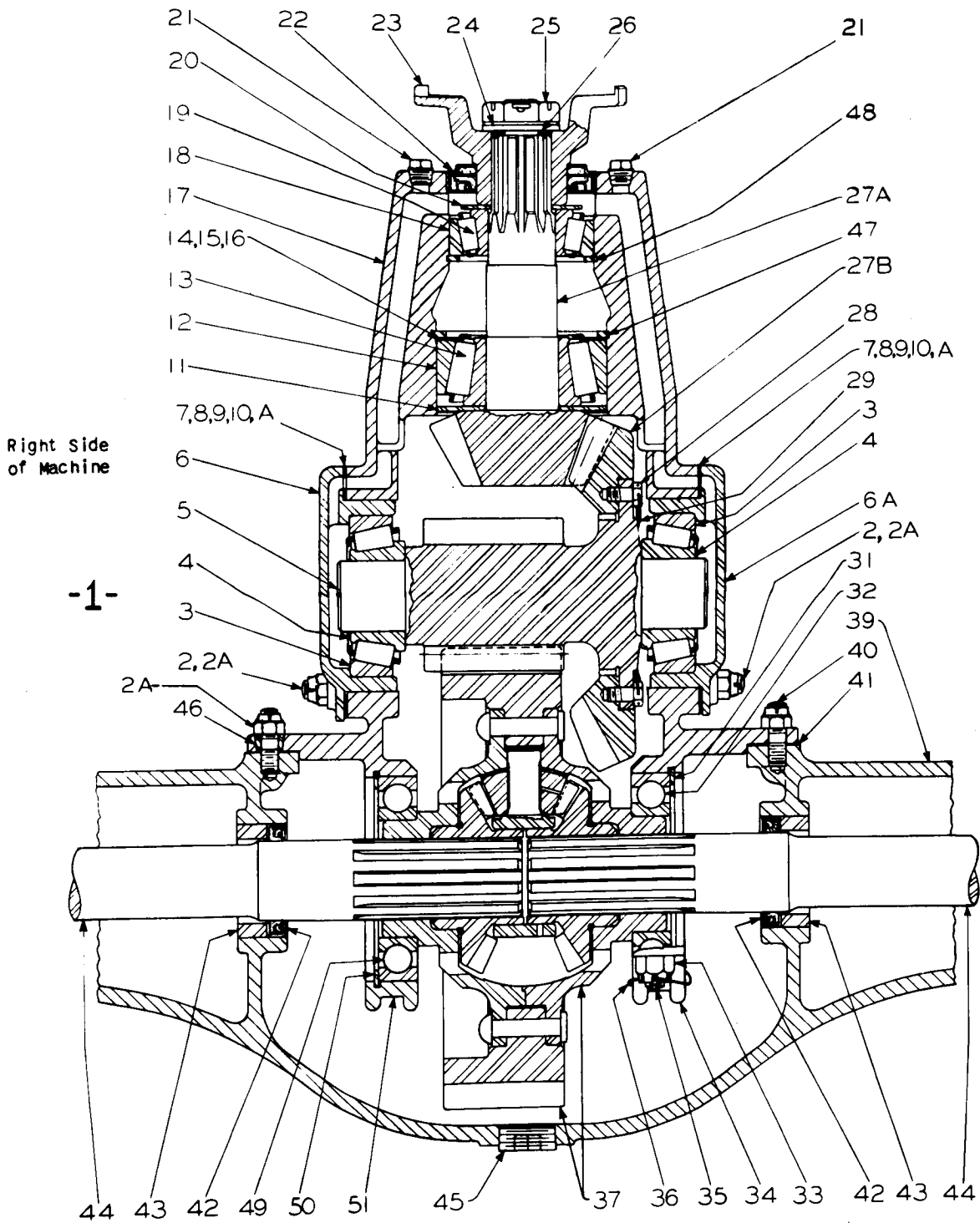
Note: * Indicates parts not illustrated.

(continued)

(Refer to Figure 1 for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
84	BRF-1546	4	Side door fastener
85	PGF-2371	4	Side door fastener clip
86	PGF-14776	1	Transfer case guard
87		1	High lift ram (see Fig. 27)
88	PGF-14479	1	High lift shaft and arm
89		1	High lift shaft bearing (upper and lower halves)
90	AJF-3100	2	High lift shaft front bearing stud
91	PGF-10234	2	* High lift shaft rear bearing stud
92	PGF-14576	1	* Cover plate - instrument panel (cab left side lower wrapper)
93	PGF-14563	1	Hood band - front
94	PGF-14504	1	Hood band - rear
	PGF-11612	1	* Cover - propeller shaft grease opening
	MSF-1775	1	* rear view mirror
	PGF-10369	1	* Mirror bracket
	PGF-10370	1	* Mirror bracket spacer
Curtains			
	PGF-10348	1	* Side curtain - right hand
	PGF-10350	1	* Side curtain - left hand
	PGF-10356	4	* Side curtain tie rope
	PGX-1068	24	* "D" ring with clamp

Note: * Indicates parts not illustrated.



B/M PGU-2459

Figure 2. Front Axle Gear Carrier

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGU-2459	1	Front axle gear carrier group (includes Ref. Nos. 2 to 38 inclusive, also 47 to 51 incl.)
2	PGF-15052	12	Stud
2A	914005	26	Hex nut (hug-lock)
3	313098	2	Bearing cup
4	312245	2	Bearing cone and rollers
5	PGF-14588	1	Pinion and gear hub
6	PGF-15066	1	Bearing cap with cup (includes 1 of Ref. 3)
6A	PGF-15069	1	Bearing cap with cup (includes 1 of Ref. 3)
7	PGF-15378	4	Gasket (brass) (2 each side)
8	PGF-3080	As req'd	Shim - .005" thick
9	PGF-3081	As req'd	Shim - .010" thick
10	PGF-3082	As req'd	Shim - .030" thick
10A	PGF-4288	As req'd	Shim - .003" thick
11	PGF-8595	1	Oil retainer
12	313209	1	Bearing cup
13	312549	1	Bearing cone and rollers
14	PGF-11957	As req'd	Shim - .005" thick
15	PGF-11956	As req'd	Shim - .007" thick
16	PGF-11958	As req'd	Shim - .020" thick
17	PGPS-2334	1	Gear carrier casting (includes Ref. Nos. 2, 2A, 33, 34, 35 and 51)
18	313448	1	Bearing cup
19	312991	1	Bearing cone and rollers
20	PGF-4852	1	Spline shaft washer
21	810003	2	Pipe plug
22	PGF-5240	1	Oil seal
23	PGF-8537-58	1	Fitting yoke
24	PGF-4864	1	Washer
25	PGF-15388	1	Slotted nut
26	PGF-4865	2	Washer gasket
27A	PGF-14796	1	* Spiral bevel pinion
27B	PGF-14796	1	* Spiral bevel gear
28	PGF-13276	6	Bevel gear cap screw
29	PGF-9436	1	Lock wire
31	PGF-14589	1	Differential bearing washer
32	311619	1	Differential hub ball bearing
33	727009	4	Castellated nut
34		1	@ Bearing cap
35	PGF-13544	4	Stud
36	PGF-9486	2	Lock wire
37	PGF-14586	1	# Differential group
38	PGF-4184	1	Gear carrier vent plug - top (not illustrated)
39	PGP-2335	1	Front axle housing with studs and nuts (includes Ref. Nos. 2A and 40)
40	BTF-890	14	Stud
41	PGFB-14724	1	Gasket
42	194206	2	Oil seal
43	PGF-14722	2	Spacer
44	PGF-14723	2	Drive shaft or axle
45	812006	1	Drain plug - countersunk head
46	PGF-3084	1	Taper bushing
47	PGFA-11962	1	Snap ring
48	PGFA-11963	1	Snap ring
49	311618	1	Differential hub ball bearing
50	PGF-14590	1	Differential bearing washer
51		1	@ Bearing cap
	810005	1	Filler and oil level plug (not illustrated)

Note: * Bevel pinion and bevel gear sold in matched sets only
 @ Bearing caps not sold separately. Order Ref. 17, PGPS-2334, complete gear carrier casting.
 # Differential repair parts not sold separately. Order complete differential group.

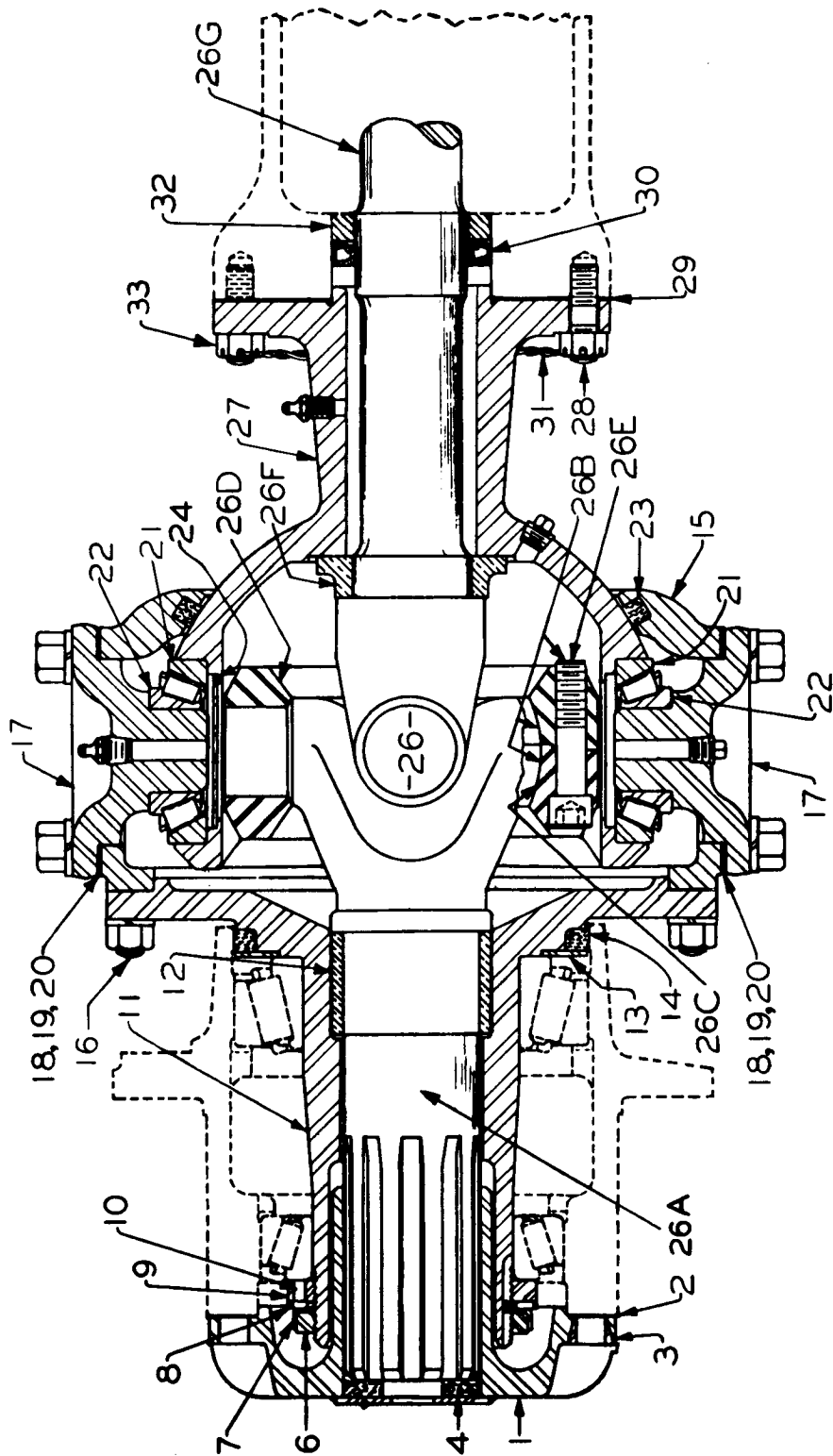
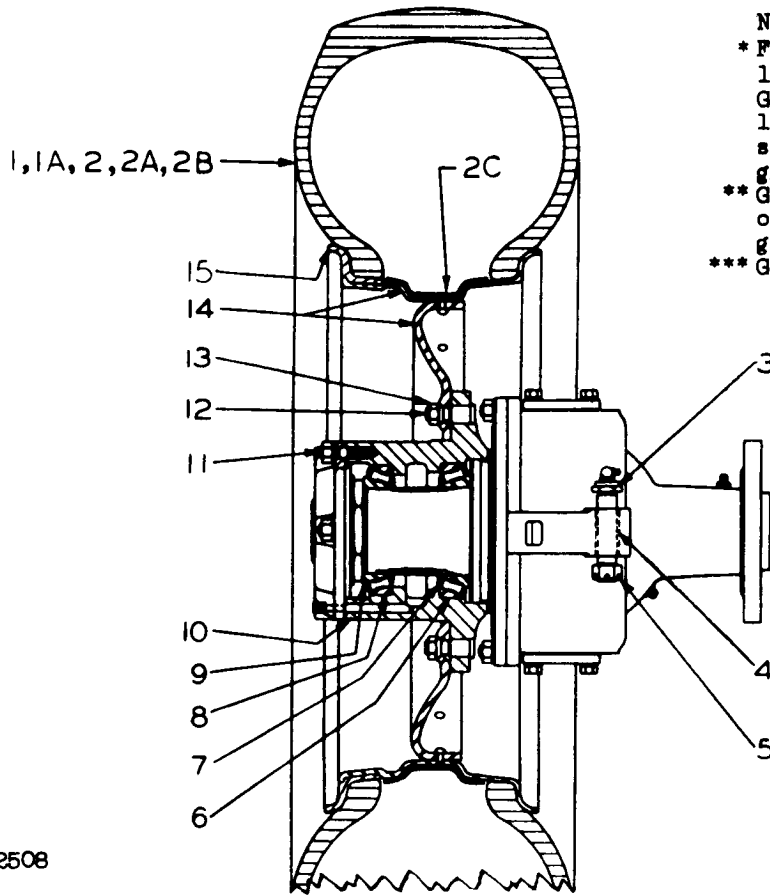


Figure 3. Front Axle Steering Knuckle and Universal Joint

B/M RGD-2468

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-13549	1	Driving hub or flange
2	PGF-13555	1	Gasket
3	PGF-13541	4	Dowel bushing
4	PGF-7012	1	Felt
6	PGF-5436	1	Lock nut
7	PGF-5439	1	Lock washer
8	PGF-5438	1	Washer
9	PGU-5437	1	Adjusting nut with pin (includes Ref. No. 10)
10	PGF-3677	1	Adjusting nut pin
11	PGF-13540	1	Steering knuckle
12	PGF-5591	1	Bushing
13	PGF-4358	1	Washer
14	PGF-4360	1	Felt
15	PGF-2249	1	Knuckle flange with one PGF-8753 bushing
16	PGF-13556	8	Stud
17	PGF-14727	2	Steer bearing cap
18	PGF-4345	As req'd	Shim - .005" thick
19	PGF-4346	As req'd	Shim - .007" thick
20	PGF-4347	As req'd	Shim - .020" thick
21	313380	2	Bearing cup
22	312836	2	Bearing cone and rollers
23	PGF-4362	1	Felt
24	PGF-4339-2	1	Grease retainer
26	PGU-2463	1	Bearing ring and shaft group (includes Ref. Nos. 26A,B,F and G)
26A	PGF-11923	1	Drive shaft or axle - short
26B	PGF-11927	1	Ring group (includes Ref. Nos. 26C,D and E)
26C		1	* Ring (male) (not sold separately. Order Ref. No. 26B)
26D		1	* Ring (female) (not sold separately. Order Ref. No. 26B)
26E	PGF-12612	8	Cap screw - hollow head
26F	PG-2123	1	Axle retainer
26G	PGF-14723	1	Drive shaft or axle - long
27	PGF-14599	1	Trunnion socket
28	PGF-13556	8	Stud
29	PGF-12824	1	Gasket
30	194206	1	Oil seal
31	PGF-9486	3	Locking wire
32	PGF-14730	1	Spacer
33	737008	8	Slotted nut

Note: * Sold in pairs only.

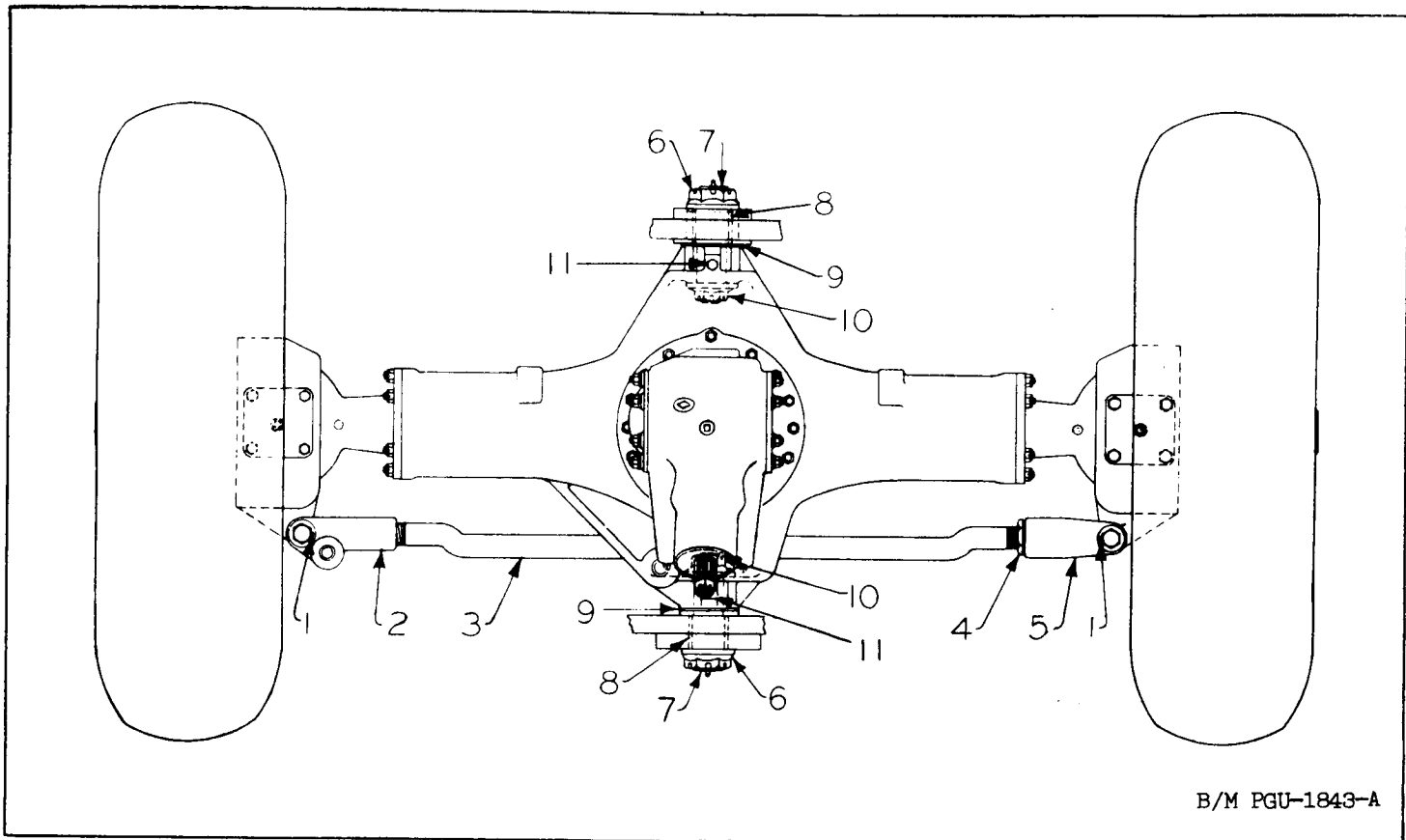


Note:
 * Firestone curved-bar, ground-grip, low-pressure road builder, or Goodrich tractor grader, T-15 lug type, or Goodyear road grader sure-grip, or U.S. Rubber road grader full traction.
 ** Goodyear road grader sure-grip, or Firestone curved-bar, ground-grip, low-pressure road builder.
 *** Goodyear road grader sure-grip.

B/M PGU-2499, 2508
 PGU-2527

Figure 4. Front Axle Steering Knuckle, Wheel and Tire

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1		1	* Tire - 13.00 x 24 - 10 ply (tapered bead seat)
1A		1	Tube - 13.00 x 24 with TR-220 air-water valve
2		1	** Tire - 13.00 x 24 - 12 ply (special order) (tapered bead seat)
2A		1	*** Tire - 14.00 x 24 - 10 ply (special order) (tapered bead seat)
2B		1	Tube - 14.00 x 24 with TR-220 air-water valve
2C	PGF-15250	1	Tire flap
3	PGF-8757	1	Fork bolt
4	PGF-8753	1	Knuckle flange bushing
5	737010	1	Slotted nut
6	313407	1	Bearing cup
7	312888	1	Bearing cone and rollers
8	313366	1	Bearing cup
9	312814	1	Bearing cone and rollers
10	PGP-2325	1	Wheel hub with studs and nuts (includes Ref. No. 11)
11	PGF-13556	8	Stud
12	PGF-9391	10	Wheel stud
13	PGF-7357	10	Wheel stud nut
14	PGF-14548	1	Wheel with rim (less ring)
15	PGF-14475	1 Pr.	Lock ring (2 piece type) (Goodyear No. 1279-HR)



B/M PGU-1843-A

Figure 5. Front Axle Tie Rod and Axle Support

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-13270	2	Pin
2	PG-2210	1	Fork
3	PGF-8835	1	Tie rod
4	PGF-3955	1	Adjusting nut
5	PG-2211	1	Fork
6	PGA-1771	2	Nut
7	PGF-9087	2	Pivot pin
8	PGF-8738	2	Frame bushing
9	PGF-9263	2	Washer
10	PGA-1649	2	Nut
11	755135	2	Set screw - cup point

Front Axle End

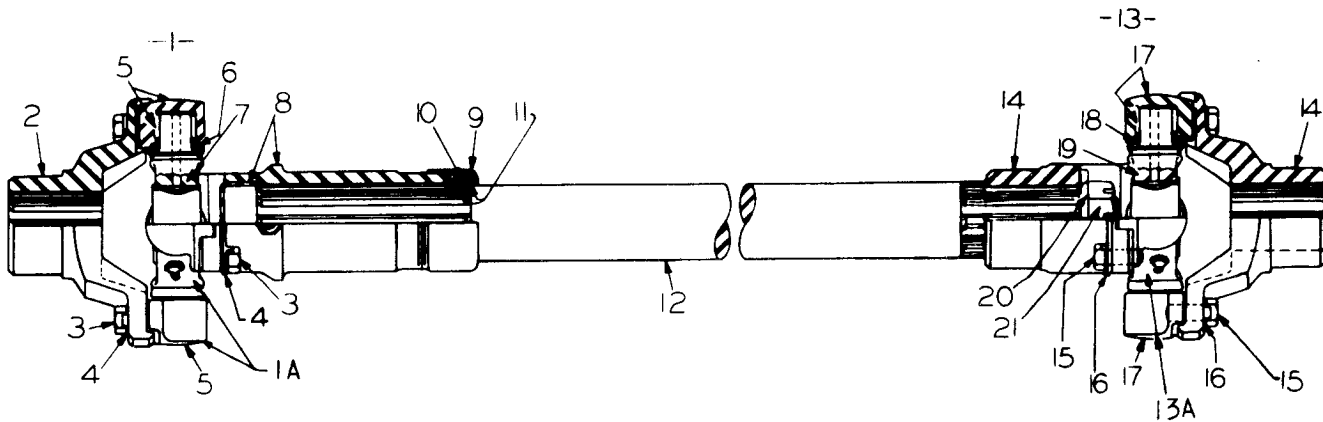
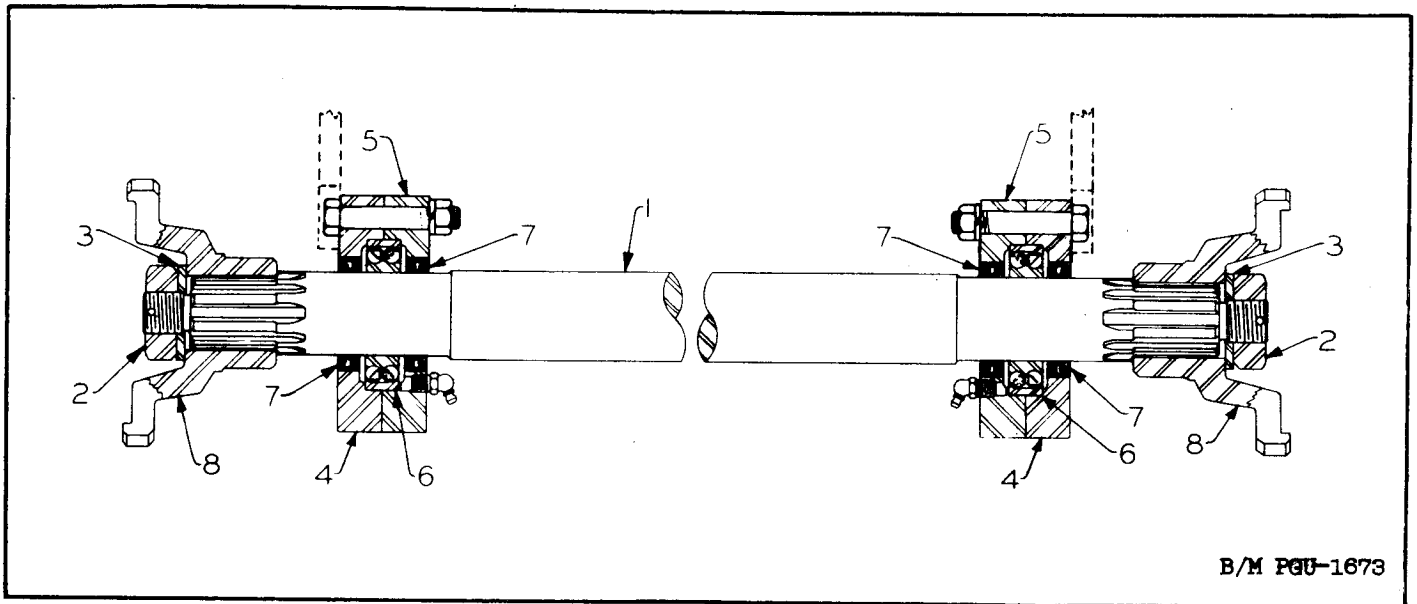


Figure 6. Front Section of Front Propeller Shaft

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-8607	1	Knuckle group (includes Ref. Nos. 2 to 11 inclusive)
1A	465132	1	Spider and bearing group (includes Ref. Nos. 5,6 and 7 assembled)
2	PGF-8537-58	1	Fitting yoke
3	PGF-9717-55	8	Cap screw
4	PGF-9717-56	4	Cap screw lock plate
5		4	Bearing group (not sold separately. Order Ref. No. 1A)
6	465149	4	Cork trunnion washer
7		1	Spider group (not sold separately. Order Ref. No. 1A)
8	465128	1	Slip yoke with dust cup
9	465008	1	Felt retainer
10	465016	1	Felt washer
11	465015	2	Felt retainer washer
12	PGF-8864	1	Shaft
13	PGF-8588	1	Knuckle group (includes Ref. Nos. 14 to 19 inclusive)
13A	465132	1	Spider and bearing group (includes Ref. Nos. 17,18 and 19 assembled)
14	PGF-8537-58	2	Fitting yoke
15	PGF-9717-55	8	Cap screw
16	PGF-9717-56	4	Cap screw lock plate
17		4	Bearing group (not sold separately. Order Ref. No. 13A)
18	465149	4	Cork trunnion washer
19		1	Spider group (not sold separately. Order Ref. No. 13A)
20	PGF-4864	1	Washer
21	PGF-15388	1	Slotted nut



B/M PGU-1673

Figure 7. Center Section of Front Propeller Shaft

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-8865	1	Shaft
2	PGF-15388	2	Slotted nut
3	PGF-4864	2	Washer
4	PGF-10140	2	Bearing housing - outer
5	PGF-10141	2	Bearing housing - inner
6	314060	2	Ball bearing
7	PGF-8861	4	Oil seal
8	PGF-8537-58	2	Fitting yoke

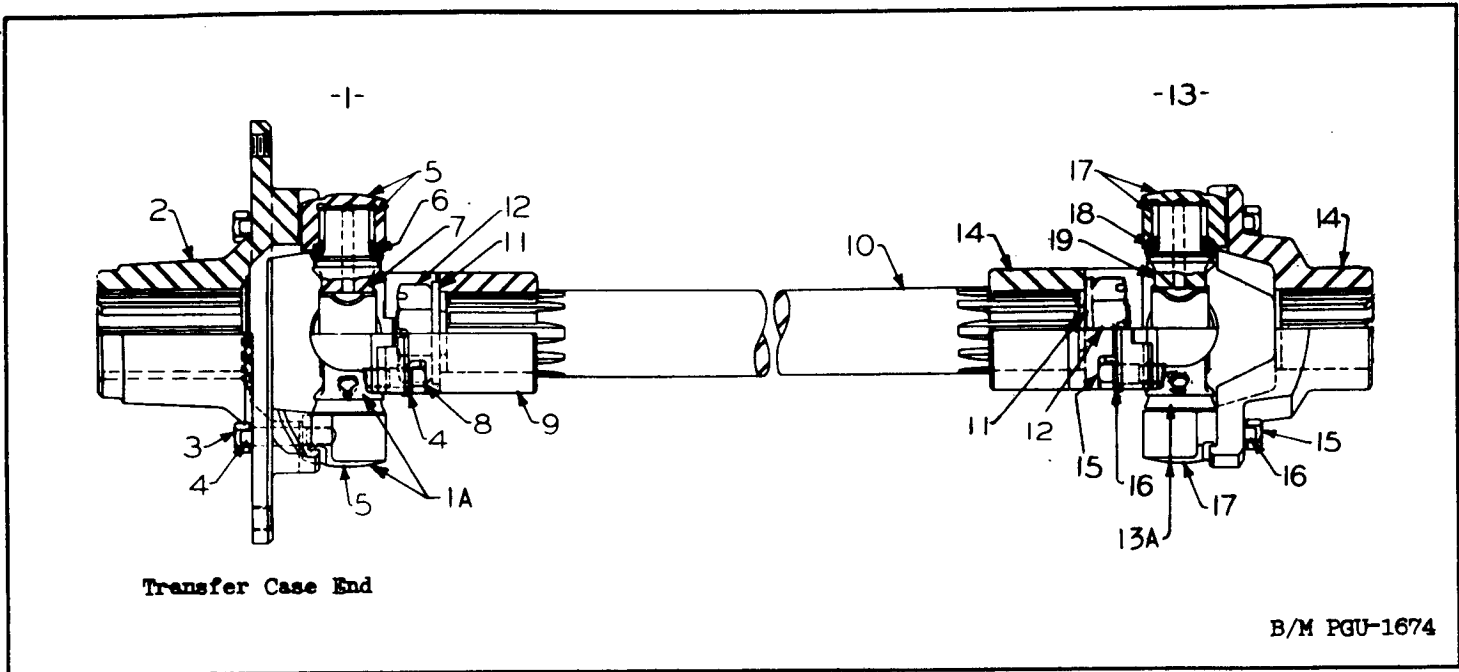
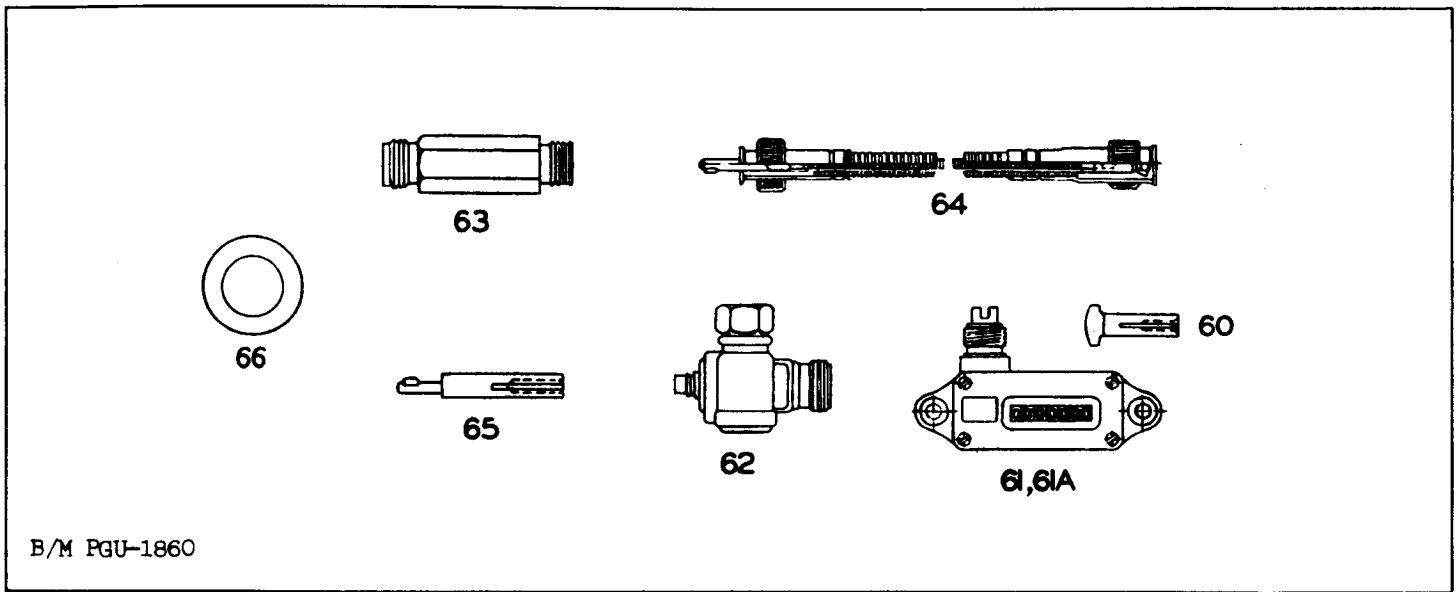


Figure 8. Rear Section of Front Propeller Shaft

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-8807	1	Knuckle and brake flange group (includes Ref. Nos. 2 to 9 inclusive)
1A	465136	1	Spider and bearing group (includes Ref. Nos. 5,6 and 7 assembled)
2	PGF-8807-55	1	Brake flange
3	PGF-8807-58	4	Brake flange cap screw
4	PGF-9717-56	4	Cap screw lock plate
5		4	Bearing group (not sold separately. Order Ref. No. 1A)
6	465149	4	Cork trunnion washer
7		1	Spider group (not sold separately. Order Ref. No. 1A)
8	PGF-9717-55	4	Cap screw
9	PGF-8537-58	1	Fitting yoke
10	PGF-9248	1	Shaft
11	PGF-4864	2	Washer
12	PGF-15388	2	Slotted nut
13	PGF-8588	1	Knuckle group (includes Ref. Nos. 14 to 19 inclusive)
13A	465132	1	Spider and bearing group (includes Ref. Nos. 17,18 and 19 assembled)
14	PGF-8537-58	2	Fitting yoke
15	PGF-9717-55	8	Cap screw
16	PGF-9717-56	4	Cap screw lock plate
17		4	Bearing group (not sold separately. Order Ref. No. 13A)
18	465149	4	Cork trunnion washer
19		1	Spider group (not sold separately. Order Ref. No. 13A)



B/M PGU-1860

Figure 9. Odometer

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
60	PGF-3850	1	Drive tip
61	PGF-9361	1	Odometer - mile reading
61A	PGF-9831	1	Odometer - kilometer reading (special order)
62	PGF-9363	1	Right angle joint (.266 ratio - 13.00 x 24 or 14.00 x 24 tires)
63	PGF-9889	1	Extension sleeve
64	PGF-9364	1	Flexible shaft
65	PGF-9888	1	Shaft extension
66	NES-1652	1	Washer

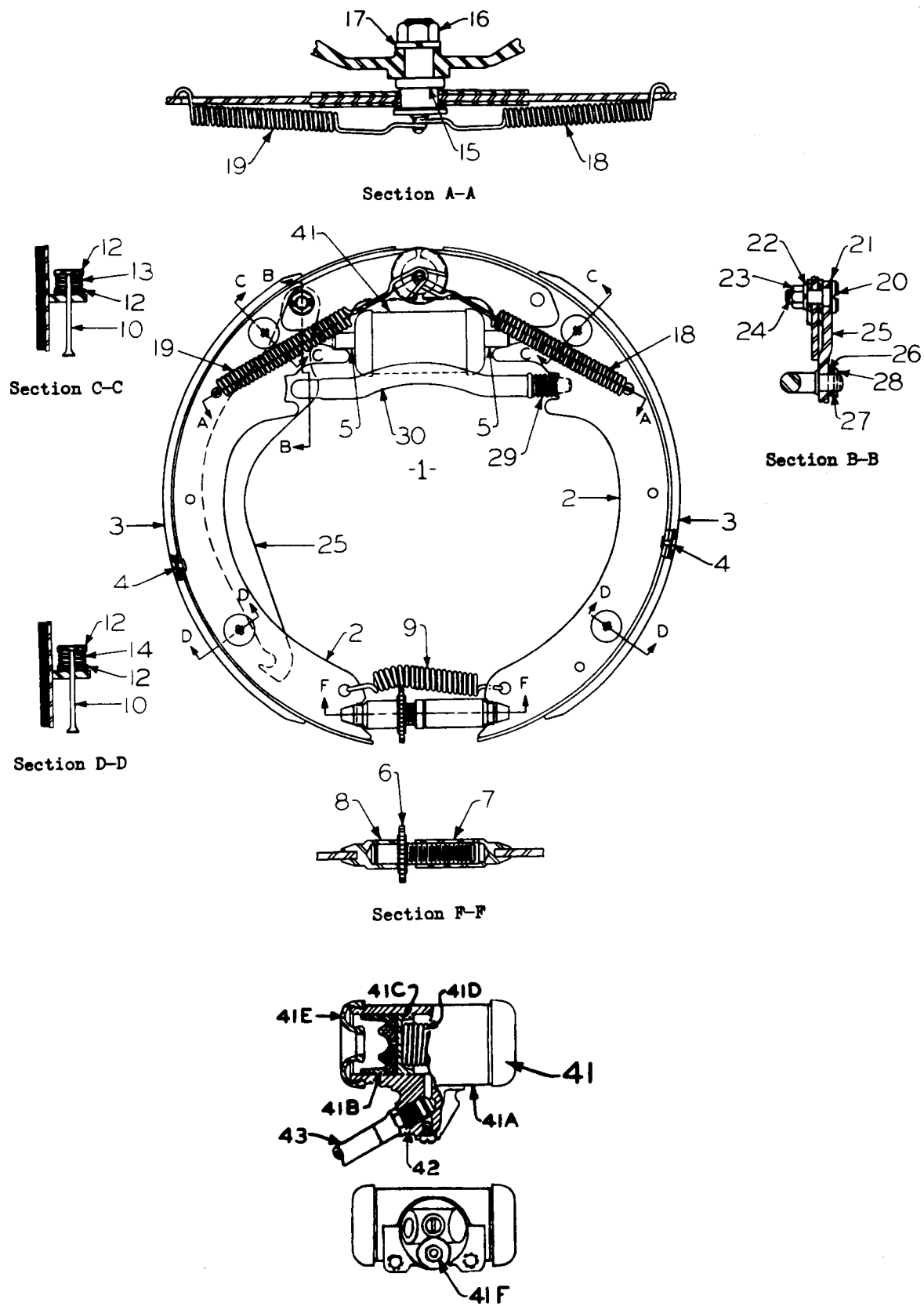


Figure 10. Propeller Shaft Brake

B/M PGU-1841-A

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-8968	1	Brake group (includes Ref. Nos. 2 to 29 inclusive)
2	PGF-8968-55	1 PK.	2 shoes with linings and rivets (includes Ref. Nos. 3 and 4)
3	PGF-8968-56	1 PK.	2 linings with rivets (includes Ref. No. 4)
4	331007	50	Tubular rivet
5	331070	2	Connecting link
6	331040	1	Adjusting screw
7	331072	1	Adjusting screw pivot nut
8	331073	1	Adjusting screw socket
9	331030	1	Adjusting screw spring
10	331029	4	Spring pin
12	331021	8	Spring cup
13	331031	2	Shoe hold down spring
14	331026	2	Shoe hold down spring
15	331071	1	Anchor pin and shoe guide
16	331069	1	Anchor pin nut
17	331028	1	Anchor pin lock washer
18	331037	1	Anchor to shoe spring
19	331042	1	Anchor to shoe spring
20	PGF-10904	1	Shoe and lever pin
21	PGF-10905	1	Lever pin washer
22	331096	1	Lever pin lock washer
23	331103	1	Lever pin nut
24	331108	1	Cotter pin
25	331067	1	Lever
26	PGF-10903	1	Strut to lever spring
27	PGF-10901	1	Washer
28	331099	1	Cotter pin
29	PGF-10902	1	Strut spring
30	ASF-5057	1	Strut

Propeller Shaft Brake Cylinder

41	PGF-11504	1	Drum cylinder group (includes Ref. Nos. 41A to 41F inclusive)
41A	333133	1	Casting
41B	333014	2	Piston
41C	333015	2	Cup
41D	333016	1	Return spring
41E	333117	2	Boot
41F	333146	1	Cylinder bleeder screw
42	ASF-5451	1	Washer
43	PGF-9018	1	Hose

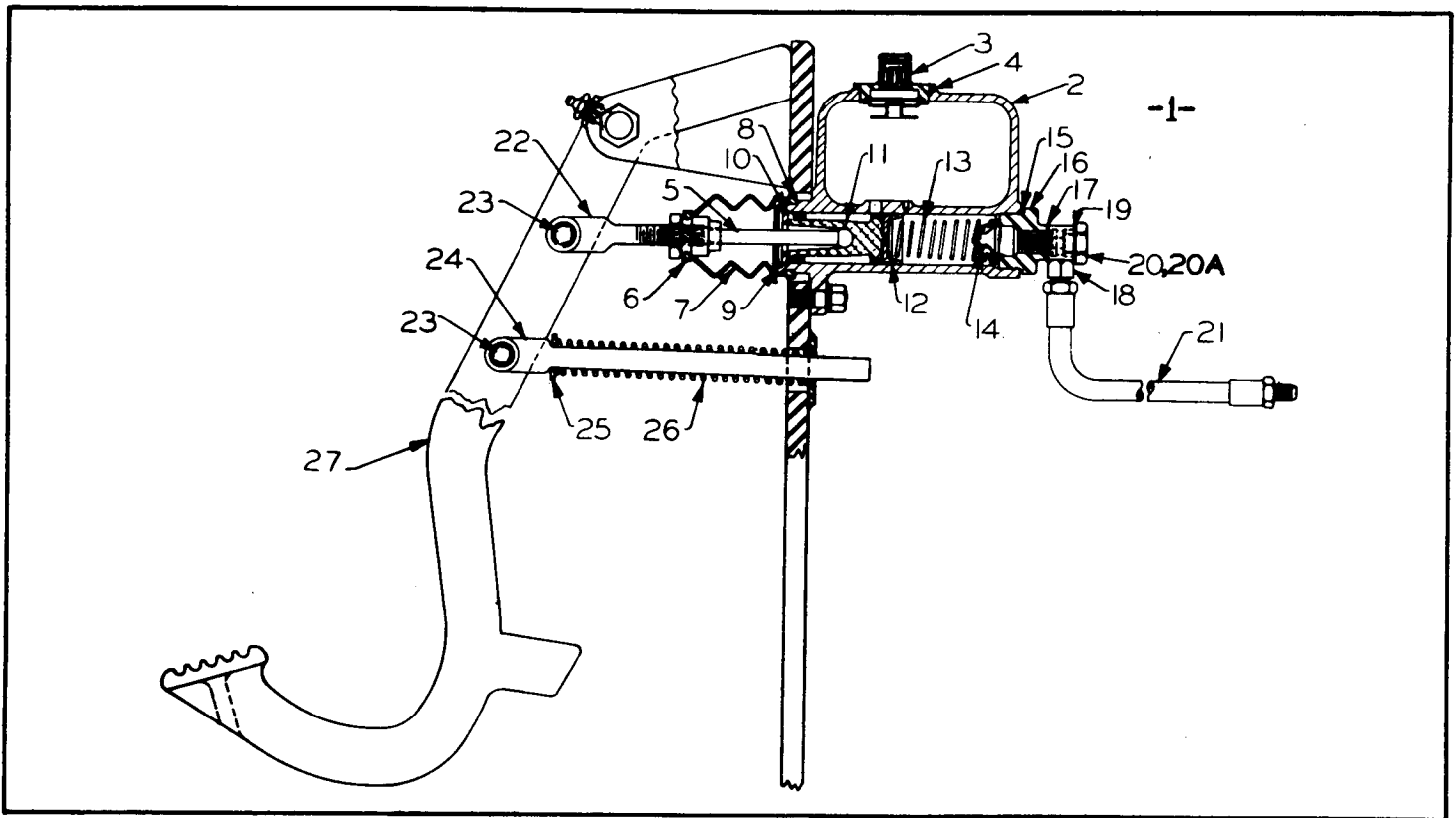


Figure 11. Foot Brake Mechanism

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-9485	1	Master cylinder group (includes Ref. Nos. 2 to 16 inclusive)
2	333131	1	Supply tank
3	333151	1	Filler plug
4	333141	1	Filler plug gasket
5	333082	1	Piston link
6	333032	1	Boot strap - small
7	333084	1	Boot
8	333085	1	Boot strap - large
9	333107	1	Piston stop wire
10	333108	1	Piston stop washer
11	333106	1	Piston group
12	333072	1	Cup
13	333099	1	Return spring
14	333152	1	Check valve group - dome type
15	333107	1	Head gasket
16	333111	1	Head
17	PGF-10896	1	Gasket
18	PGF-14185	1	Outlet connection
19	PGF-12248	1	Gasket
20	PGF-14186	1	Fitting bolt
20A	PGF-12249	1	Fitting bolt (has 1/8" NPT) (special order for machines with stop and tail lights)
21	PGF-9018	1	Hose
22	PGF-9766	1	Yoke
23	783005	2	Pin
24	PGF-9767	1	Rod
25	765006	1	Washer
26	MSF-853	1	Spring
27	PG-1828	1	Pedal

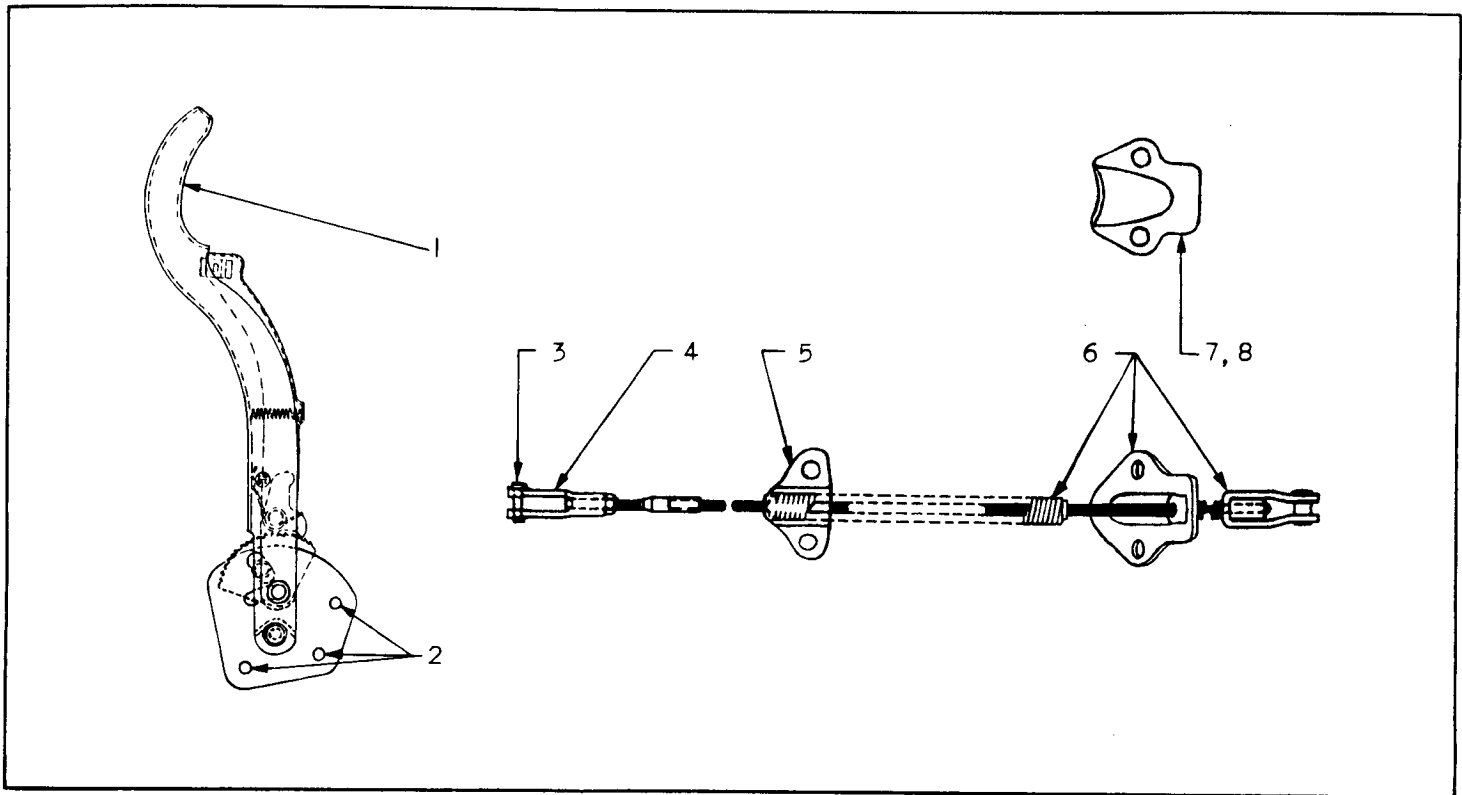
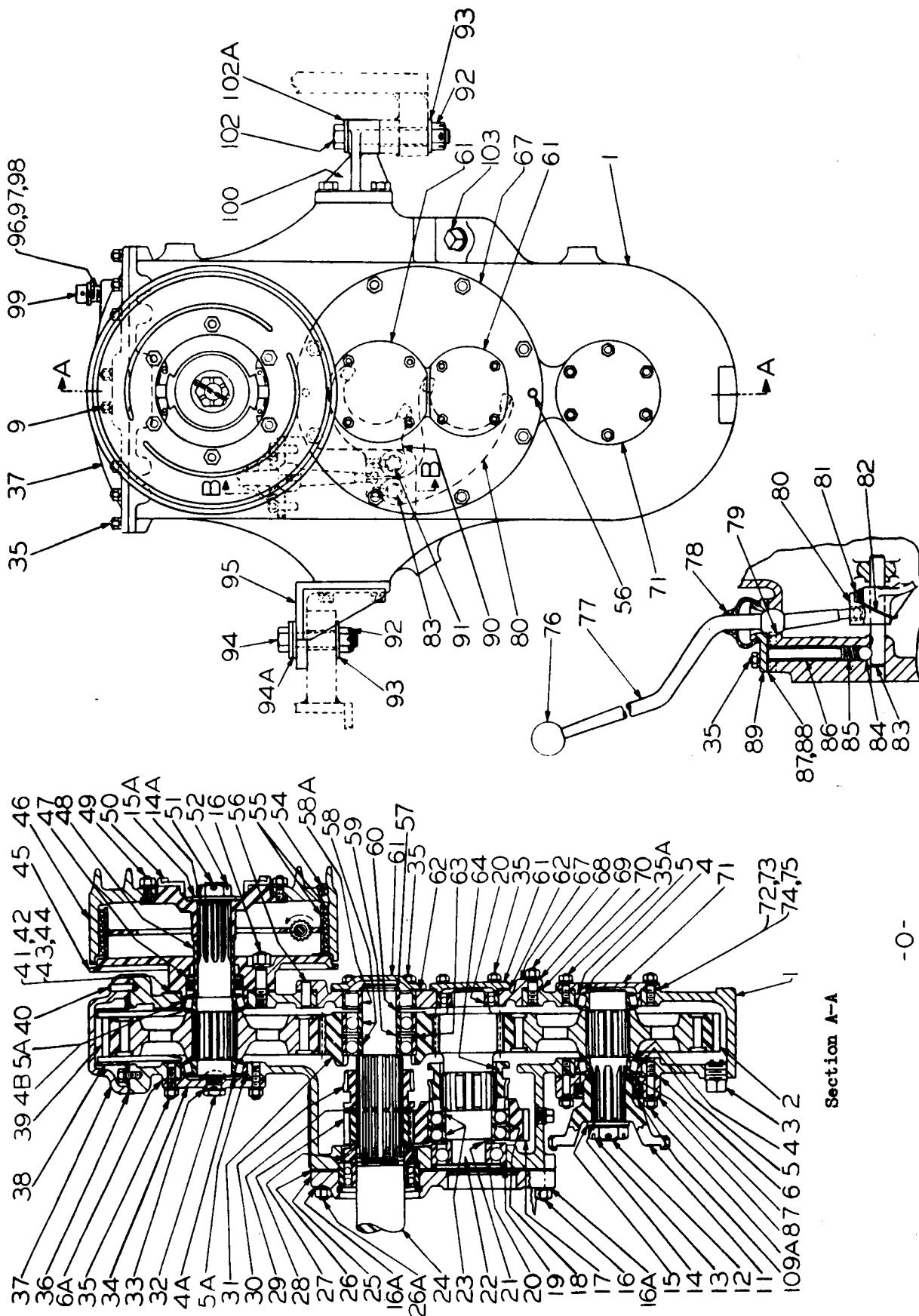


Figure 12. Hand Brake Mechanism

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-14797	1	Hand brake, complete
2	PGF-5982	3	Spacer
3	RGF-1332	1	Fork pin
4	PGF-6791	1	Rod end fork
5	PGF-8979	1	Conduit bracket
6	PGF-8971	1	Cable and conduit group
7	ASF-6009	1	Bracket cap
8	ASF-6008	1	Bracket seal



Section B-B

Section A-A

Refer to Pages 23 and 24 for Part Numbers

Figure 13. Transfer Case

B/M PGU-2388

-0-

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0		1	Transfer case group
1	PGF-2319	1	Gear housing with bearing support and studs (includes Ref. Nos. 56, 67 and 68)
2	PGF-14773	1	Gear - 64 teeth
3	PGF-9014	1	Drain plug
4	319002	2	Bearing cone and rollers
4A	312514	1	Bearing cone and rollers
4B	312505	1	Bearing cone and rollers
5	313459	2	Bearing cup
5A	313190	2	Bearing cup
6	PGF-14457	1	Gasket
6A	PGF-13326	2	Gasket
7	PGF-10423	1	Spacer
8	PG-2318	1	Bearing cap
9	PGF-8431	4	Stud
9A	HCF-1339	6	Stud
10	ASF-5727	1	Oil seal
11	PGF-8537-58	1	Fitting yoke
12	PGF-14458	1	Driven shaft - lower
13	PGF-15388	1	Slotted nut
14	PGF-4865	2	Gasket
14A	PGF-8521	2	Gasket
15	PGF-4864	1	Washer
15A	PGF-8706	1	Washer
16	PGF-8498	13	Stud
16A	766013	8	External tooth washer
17	PGF-14712	1	Idler gear - 28 teeth
18	PGF-14709	1	Snap ring
19	PGF-14459	1	Spacer
20	311367	2	Ball bearing
21	PGF-14710	1	Spacer
22	PGF-14714	1	Countershaft - 19 teeth
23	311330	2	Ball bearing
24		1	Transmission main shaft
25		1	Transmission case
26		1	Transmission case gasket
26A	PGF-11645	2	Stud
27	PGF-11405	1	Bearing retainer nut
28	PGF-11339	1	Drive pinion - 15 teeth
29	PGF-13557	1	Snap ring
30	PGF-8426	1	Shifter clutch gear - 21 teeth
31	PGF-14711	1	Drive gear - 35 teeth
32	PGF-3849	1	Plug (not required when odometer is used)
33	PGF-4217	1	Gasket
34	PG-2292	1	Bearing cap
35	PGF-8433	26	Stud
35A	HCF-1341	6	Stud
36	PGF-10376	1	Cover gasket
37	PG-1859	1	Gear housing cover
38	PGF-10425	2	Oil collector
39	PGF-14771	1	Gear - 64 teeth
40	PGF-8815	2	Dowel pin
41	PGF-13533	As req'd	Shim - .005" thick
42	PGF-13532	As req'd	Shim - .007" thick
43	PGF-13531	As req'd	Shim - .020" thick
44	PGF-13534	2	Gasket
45	PG-1682	1	Backing plate
46	PG-2141	1	Brake drum

{ see
transmission
page

(Refer to Figure 13 for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
47	PGF-8809	1	Oil seal
48	PGF-12593	1	Spacer
49	PGF-8855	6	Stud
50	PGF-8807-55	1	Brake flange
51	PGF-13149	1	Driven shaft - upper
52	PGF-8708	1	Slotted nut
54	812002	4	Pipe plug
55	PGF-8968	1	Propeller shaft brake group (see Fig. 10)
56	PGF-10589	2	Dowel pin
57	PGF-14707	1	Snap ring
58	311392	2	Ball bearing
58A	318508	1	Roller bearing
59	PGF-14705	1	Spacer
60	PGF-14706	1	Spacer
61	PG-2291	2	Bearing cap
62	PGF-14704	2	Gasket
63	PGF-14708	1	Snap ring
64	PGF-10101	1	Shifter clutch gear - 24 teeth
67	PG-2320	1	Bearing support
68	BRF-2061	8	Stud
69	766011	8	External tooth washer
70	PGF-10375	1	Gasket
71	PG-2294	1	Bearing cap
72	PGF-14715	As req'd	Shim - .005" thick
73	PGF-14716	As req'd	Shim - .007" thick
74	PGF-14717	As req'd	Shim - .020" thick
75	PGF-14718	2	Gasket
76	PGF-7721	1	Shift lever ball
77	PGF-10853	1	Shift lever
78	PGF-9157	1	Dust cover
79	PGF-11428	1	Shift lever pin
80	PG-1922	1	Shift fork - low range
81	PGF-11675	2	Lock screw
82	PGF-11756	2	Locking wire
83	PGF-10722	1	Shift rod - low range
84	PGF-8638	2	Ball
85	PGF-309	2	Spring
86	PGF-10849	2	Spring spacer
87	PGF-10843	6	Shim
88	PGF-10871	2	Gasket
89	PG-1949	1	Shift lever socket
90	PG-1923	1	Shift fork - high range
91	PGF-10719	1	Shift rod - high range
92	734009	2	Slotted nut
93	762009	2	Washer
94	PGF-8858	1	Cap screw - right hand support
94A	PGF-8867	2	Washer - right hand support
95	PGF-14474	1	Support - right hand
96	PGU-1741-A	1	Breather group (includes Ref. Nos. 97,98 and 99)
97	PGP-9974	1	Tube with pin
98	PGF-10037	1	Element
99	PGF-5166	1	Cap
100	PG-2327	1	Support - left hand
102	PGF-15085	1	Cap screw - left hand support
102A	PGF-8867	1	Washer - left hand support
103	810005	1	Oil level and filler plug

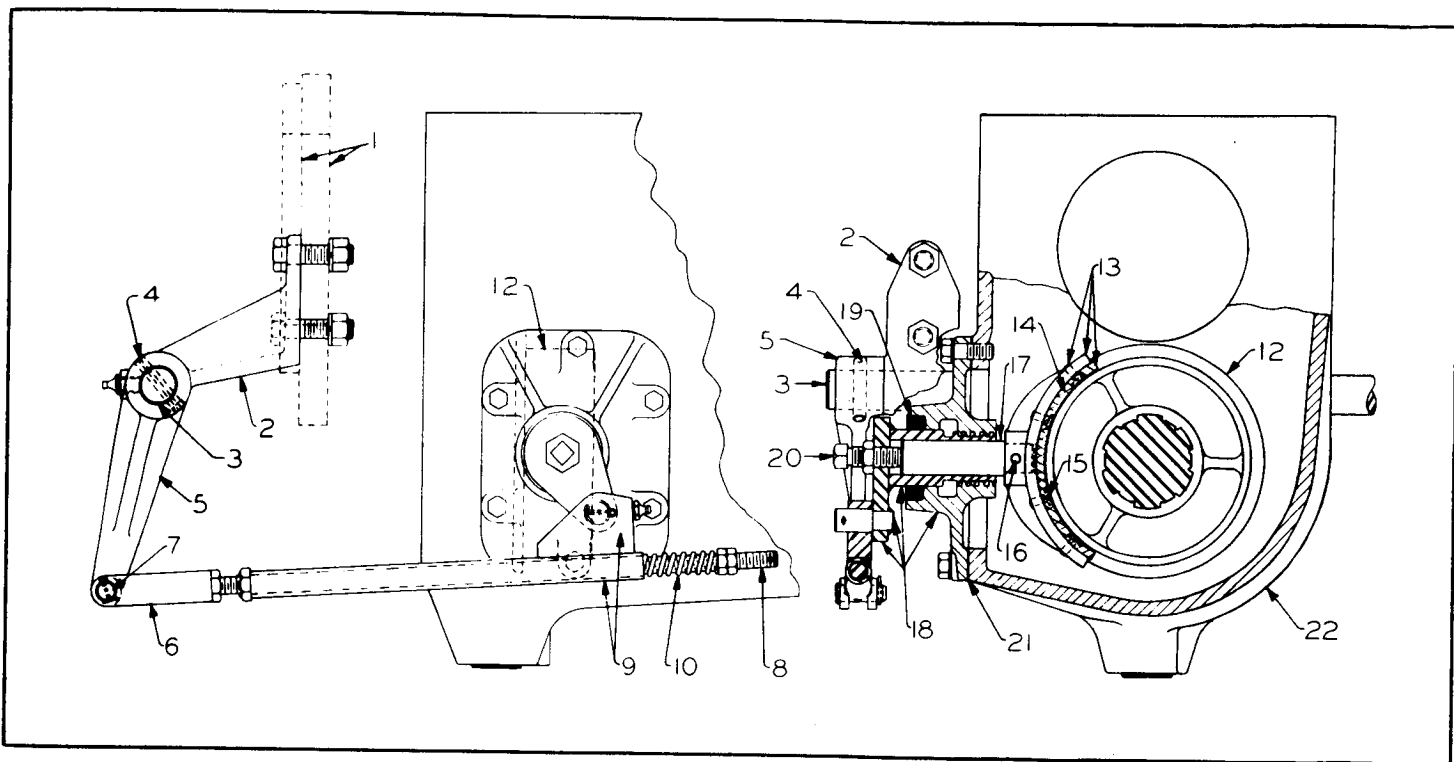
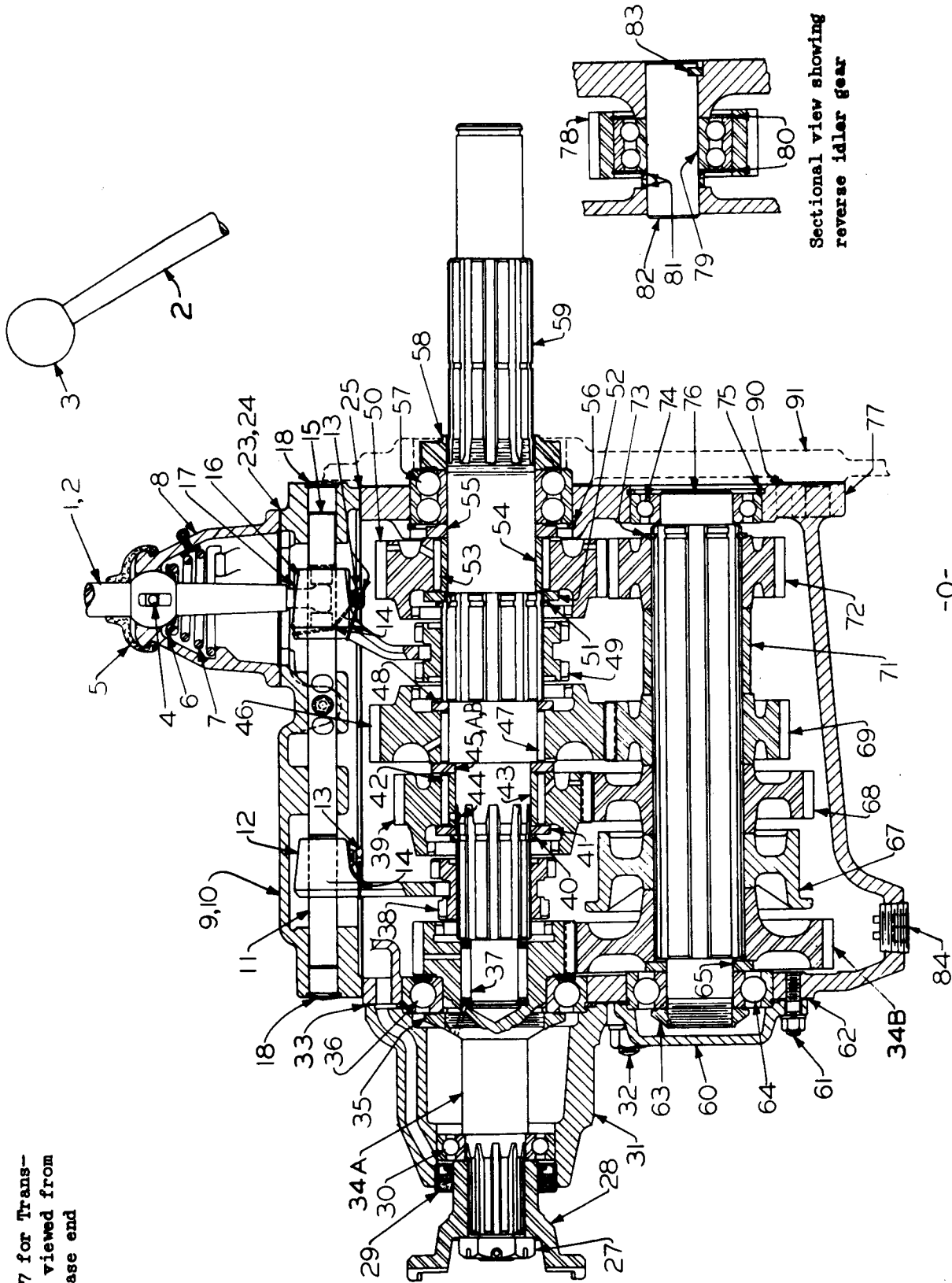


Figure 14. Clutch Brake

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-14488	1	Transmission support
2	PG-1769	1	Cross rod hanger
3	PGF-9260	1	Cross rod
4	PGF-9264	1	Pin
5	PG-1768	1	Lever
6	782005	1	Rod end fork
7	783005	1	Pin
8	PGF-8895	1	Pull rod
9	PGF-8970	1	Tube
10	PGF-7610	1	Spring
12	PG-1732	1	Brake drum
13	PGX-1414	1	Shoe with lining and rivets (includes Ref. Nos. 14 and 15)
14	PGF-7590	1	Lining
15	713128	6	Tubular rivet
16	BDF-345	1	Pin
17	PGF-8828	1	Shaft
18	PGF-8972	1	Screw with PG-1688 bracket
19	PGF-8857	1	Oil seal
20	755095	1	Set screw - cup point
21	PGF-9864	1	Gasket
22		1	Transmission (see Figs. 15A and 15B)

See Page 27 for Trans-
mission as viewed from
Transfer Case end



Sectional view showing
reverse idler gear

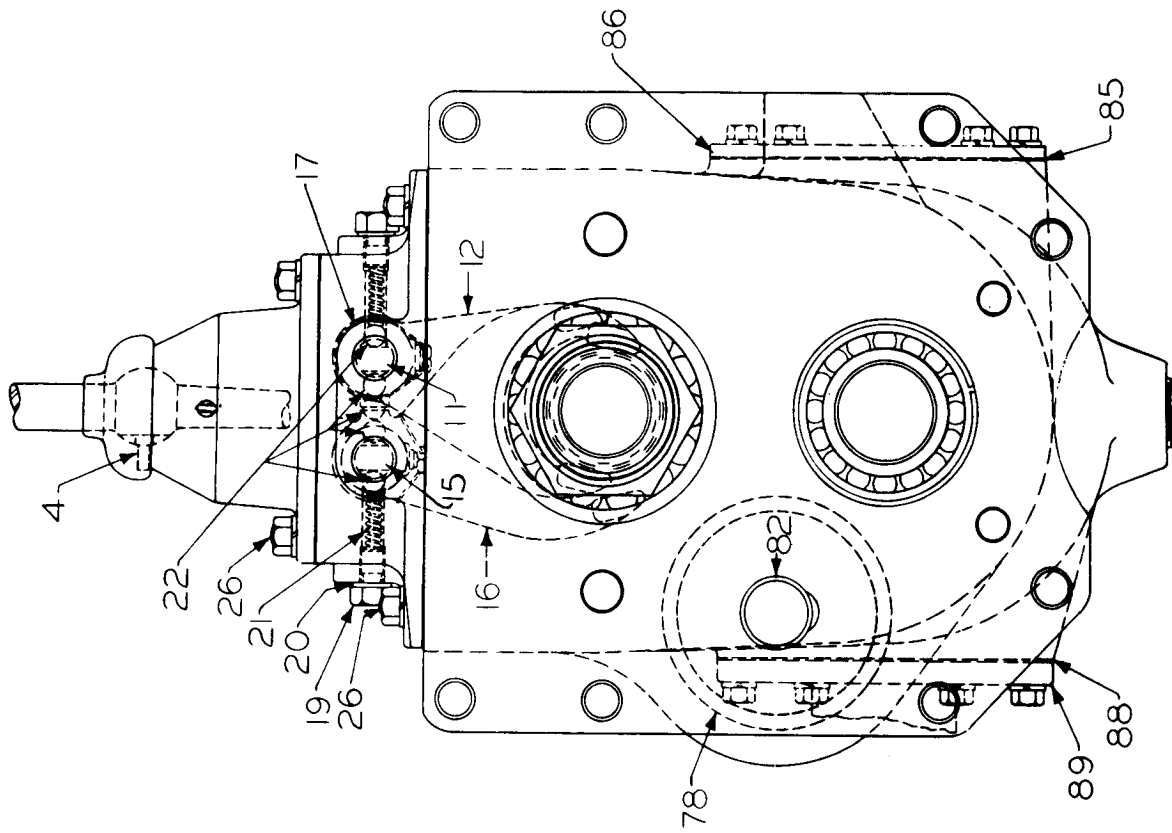
Refer to Pages 28 and
29 for Part Numbers

-0-

Figure 15A. Transmission

B/M PGU-8126-A
PGU-8312

See page 26 for cross
section side view of
Transmission



-0-

Refer to Pages 28 and
29 for Part Numbers

Figure 15B. Transmission

B/M PGU-8125-A
PGU-8312

(Refer to Figures 15A and 15B for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-8125-A	1	Transmission, complete (includes Ref. Nos. 9 to 89 inclusive)
1	PGU-8312	1	Gear shift lever group (includes Ref. Nos. 2 to 8 inclusive)
2	PGF-13871	1	Gear shift lever
3	PGF-7721	1	Gear shift lever ball
4	PGF-9130	1	Shift lever lock pin
5	PGF-9157	1	Shift tower dust cover
6	PGF-9122	1	Shift lever spring seat
7	PGF-9123	1	Shift lever spring
8	PG-1738	1	Shift tower
9	PGU-1738-A	1	Transmission case cover group (includes Ref. Nos. 10 to 22 inclusive)
10	PG-1868	1	Cover
11	PGF-10189	1	2nd & 3rd shift rod
12	PGPA-9127	1	2nd & 3rd shift fork with lock screw (includes one of Ref. No. 13)
13	PGF-9160	3	Shift fork locking screw
14	PGF-9738	3	Shift fork locking screw wire
15	PGF-10188	1	1st and reverse shift rod
16	PGPA-9126	1	1st and reverse shift fork with lock screw (includes one of Ref. No. 13)
17	PGF-9159	1	2nd and 3rd shift lug
18	164032	3	Expansion plug
19	PGF-9132	2	Shift rod lock cap screw
20	PGF-5717	2	Shift rod lock cap screw washer
21	PGF-9131	2	Shift rod lock spring
22	021003	5	Shift rod lock spring ball
23	PGF-9102	1	Shift tower gasket
24	PGF-10059	1	Oil guard
25	PGF-9112	1	Transmission cover gasket
26	PGF-8433	12	Stud
27	PGF-9133	1	Slotted nut
28	PGF-9079-56	1	Fitting yoke
29	PGF-3216	1	Oil seal
30	311167	1	Ball bearing
31	PG-1739	1	Bearing support housing
32	PGF-9091	6	Stud - housing to case
33	PGF-9125	1	Gasket
34A	PGF-11816	1	* Drive pinion - 24 teeth
34B	PGF-11816	1	* CS driven gear - 42 teeth
35	PGF-9082	1	Drive pinion bearing retainer nut
36	311596	1	Drive pinion bearing
37	318446	1	MS roller bearing
38	PGF-9068	1	MS 2nd and 3rd speed shifter clutch gear - 14 and 16 teeth
39	PGF-9070	1	MS 2nd speed gear - 30 teeth
40	PGF-9120	1	2nd speed gear snap ring
41	PGF-9063	1	2nd speed gear splined thrust washer
42	PGF-9084	42	2nd speed gear roller
43	PGF-9069	1	2nd speed gear bearing sleeve
44	PGF-9116	1	Bearing sleeve dowel pin

Note: * Drive pinion and CS driven gear sold in matched sets only.

(continued)

(Refer to Figures 15A and 15B for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
45	PGF-14436	1	2nd speed gear shim
45A	PGF-14437	1	2nd speed gear shim
45B	PGF-9115	1	2nd speed gear thrust washer
46	PGF-9072	1	MS 1st speed gear - 38 teeth
47	PGF-9084	42	MS 1st speed gear roller
48	PGF-9114	1	1st speed gear thrust washer
49	PGF-9074	1	MS 1st speed and reverse shifter clutch gear - 20 teeth
50	PGF-9076	1	MS reverse gear - 36 teeth
51	PGF-9119	1	MS reverse gear snap ring
52	PGF-9062	1	MS reverse gear splined thrust washer
53	PGF-9084	48	MS reverse gear roller
54	PGF-9075	1	MS reverse gear bearing sleeve
55	PGF-9134	1	MS bearing thrust washer
56	PGF-9158	1	MS bearing snap ring
57	311429	1	MS ball bearing
58	PGF-11405	1	MS bearing retainer nut
59	PGF-13558	1	Main shaft
60	PG-1736	1	CS bearing cap
61	BRF-1894	4	Stud - bearing cap to case
62	PGF-9110	1	CS bearing cap gasket
63	PGF-9083	1	CS bearing adjusting nut
64	311368	1	CS ball bearing with snap ring
65	PGF-9118	1	CS driven gear thrust washer
67	PG-1732	1	Clutch brake drum
68	PGF-9071	1	CS 2nd speed gear - 36 teeth
69	PGF-9073	1	CS 1st speed gear - 28 teeth
71	PGF-14187	1	Gear spacer
72	PGF-9078	1	CS reverse gear - 27 teeth
73	PGF-9117	1	CS reverse gear snap ring
74	311322	1	CS ball bearing
75	ASF-3268	1	CS ball bearing snap ring
76	PGF-9064	1	Countershaft
77	PG-1731	1	Transmission case
78	PGF-9077	1	Reverse idler gear - 25 teeth
79	311447	1	Reverse idler gear bearing
80	PGF-9121	2	Reverse idler gear bearing snap ring
81	PGF-9107	2	Reverse idler gear bearing spacer
82	PGF-9109	1	Reverse idler shaft
83	111010	1	Reverse idler shaft key
84	PGF-10846	1	Drain plug
85	PGF-9103	1	PTO cover plate gasket
86	PGF-9106	1	PTO cover plate
88	PGF-9864	1	Clutch brake bracket gasket
89	PGF-8972	1	Clutch brake screw and bracket
90	PGF-8479	1	Transmission case gasket
91		1	Transfer case

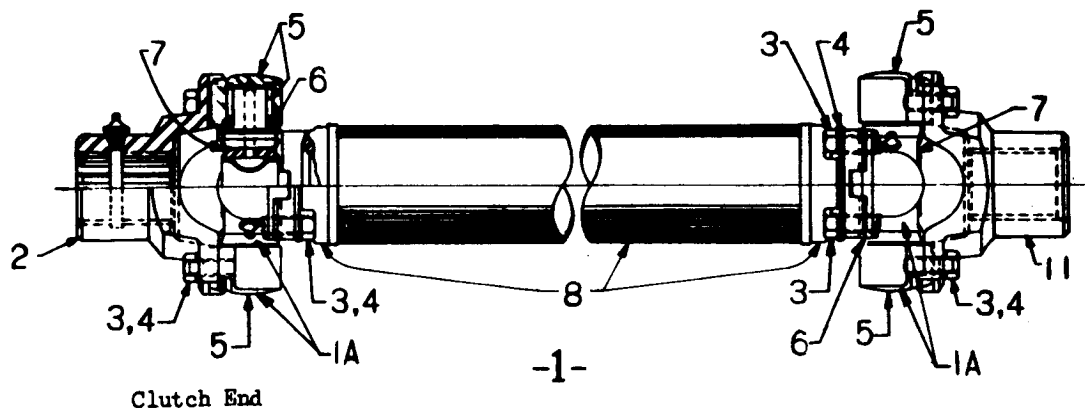


Figure 16. Propeller Shaft - Clutch to Transmission
(for GM-4080, GM-4055C or UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-14501	1	* Propeller shaft, complete
1	PGF-14533	1	@ Propeller shaft, complete
1	PGF-14535	1	% Propeller shaft, complete
1A	465076	2	Spider and bearing group (includes Ref. Nos. 5,6 and 7 assembled)
2	465143	1	Fitting yoke
3	TF-1592-59	16	Cap screw
4	TF-1592-58	8	Cap screw lock plate
5		8	Bearing group (not sold separately. Order Ref. No. 1A)
6	465145	8	Cork trunnion washer
7		2	Spider group (not sold separately. Order Ref. No. 1A)
8	465239	1	* Propeller tube and yoke group
8	465240	1	@ Propeller tube and yoke group
8	465238	1	% Propeller tube and yoke group
11	PGF-9079-56	1	Fitting yoke

Note: * Used with GM-4080 engine.
 @ Used with GM-4055-C engine.
 % For UD-14A engine.

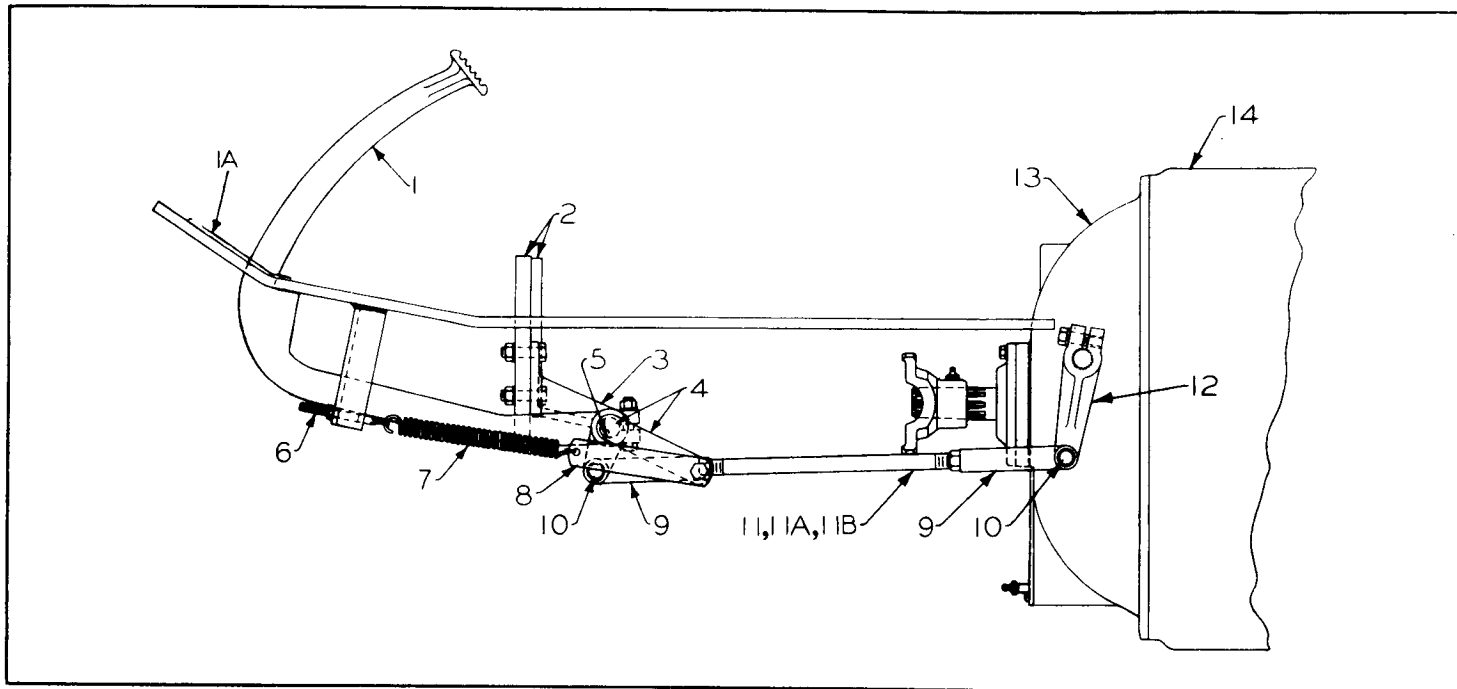


Figure 17. Clutch Operating Mechanism
(for GM-4080, GM-4055C or UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PG-1763	1	Pedal
1A	PGF-14732	1	Cover-clutch pedal opening
2	PGF-14488	1	Transmission support
3	PG-1769	1	Cross rod hanger
4	PGF-9260	1	Cross rod
5	111012	1	Woodruff key
6	PGF-7737	1	Spring eyebolt
7	MGF-2703	1	Spring
8	PGF-8977	1	Link
9	782010	2	Rod end fork
10	783007	2	Pin
11	PGF-14373	1	* Rod
11A	PGF-14787	1	% Rod
11B	PGF-15088	1	@ Rod
12		1	Clutch release lever
13		1	Clutch bell housing
14		1	Flywheel housing

Note: * Used with GM-4080 engine.
 % Used with GM-4055-C engine.
 @ Used with UD-14A engine.

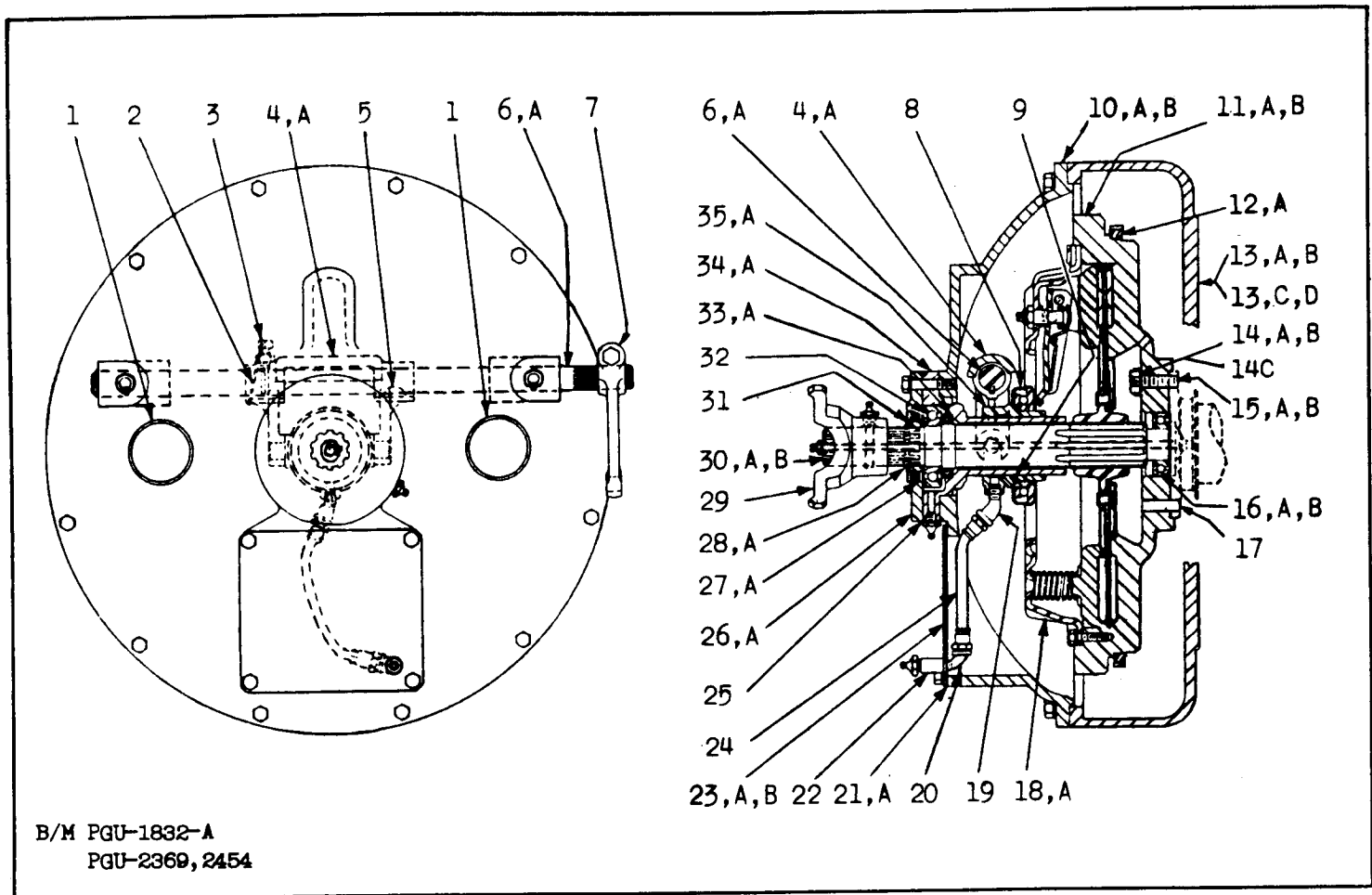


Figure 18. Clutch and Shaft Assembly
(Dry Clutch or Torque Converter Drive)
(For GM-4080, GM-4055C or UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	BTF-872	2	* Breather
2	PGF-9738	1	Lock wire
3	PGF-9269	1	Clutch yoke lock screw
4	PG-2015	1	% Clutch throwout yoke
4A	PG-1667	1	* Clutch throwout yoke
5	111010	1	Yoke key
6	HCF-2823	1	% Clutch yoke shaft
6A	PGF-8760	1	* Clutch yoke shaft
7	PGF-8978	1	Lever
8	PGF-11576	1	Clutch throwout bearing
9	PGF-11577	1	Clutch throwout bearing pin
10	PG-2277	1	% Clutch bell housing
10A	PG-1956	1	*@ Clutch bell housing (uses 3/8" bolts) (no longer furnished. Order Ref. No. 10B)
10B	PG-2359	1	*@ Clutch bell housing (uses 7/16" bolts)
11	040013	1	% Torque converter flywheel
11A	040002	1	* Engine flywheel with 040011 ring gear (for GM-4055C engine)
11B	IHC-252459R13	1	* Engine flywheel with 28173-DC ring gear (for UD-14A engine)
12	040011	1	* Engine flywheel ring gear (for GM-4055C engine)
12A	IHC-28173-DC	1	* Engine flywheel ring gear (for UD-14A engine)
13	040007	1	% Torque converter flywheel housing - SAE No. 2

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
13A	040009	1	*% Engine flywheel housing - SAE No. 1 (uses 3/8" bolts)(for GM-4055C engine) (no longer furnished. Order Ref. No. 13B)
13B	040045	1	*% Engine flywheel housing - SAE No. 1 (uses 7/16" bolts)(for GM-4055C engine)
13C	IHC-252474R21	1	*# Engine flywheel housing - SAE No. 1 (uses 3/8" bolts)(for UD-14A engine) (no longer furnished. Order Ref. No. 13D)
13D	IHC-252474R31	1	*# Engine flywheel housing - SAE No. 1 (uses 7/16" bolts)(for UD-14A engine)
14	040042	1	% Retainer (for Ref. No. 15)
14A	040041	1	* Retainer (for Ref. No. 16A)
14B	IHC-24943-DA	3	* Lock plate (for Ref. No. 15B)
14C	040046	3	* Lock wire (for Ref. No. 15A)
15	040044	6	% Torque converter flywheel bolt
15A	040043	6	* Engine flywheel bolt (for GM-4055C engine)
15B	IHC-32333-D	6	* Engine flywheel bolt (for UD-14A engine)
16	311158	1	% Pilot bearing
16A	311479	1	* Pilot bearing (for GM-4055C engine)
16B	311243	1	* Pilot bearing (for UD-14A engine)
17	IHC-32332-D	2	* Dowel pin (for Ref. No. 11B)
18	PGF-14503	1	Clutch - 15" (see Fig. 20)
18A	PGFA-10910	1	Clutch - 16" (see Fig. 19)
19	563001	1	Street ell
20	564001	1	* Street ell
21	HCF-1968	1	% Gasket
21A	PGF-8763	1	* Gasket
22	525001	1	Coupling
23	HCF-1969	1	% Inspection plate
23A	PGF-10915	1	* Inspection plate (machines below 99-584 with GM-4055C engine only)
23B	PGF-8762	1	* Inspection plate (machines 99-584 and up with GM-4055C engine only - standard for UD-14A engine)
24	PGF-4477	1	Grease hose
25	PGF-8766	1	Gasket
26	PG-2016	1	% Bearing cap
26A	PG-1670	1	* Bearing cap
27	PGF-11192	1	% Oil seal
27A	PGF-8839	1	* Oil seal
28	PGF-10452	1	% Snap ring
28A	PGF-8862	1	* Snap ring
29	465143	1	Fitting yoke
30	HCF-1923	1	% Clutch shaft
30A	PGF-14418	1	* Clutch shaft (for GM-4055C engine)
30B	PGF-9629	1	* Clutch shaft (for UD-14A engine)
31	PGF-11178	1	% Spacer
32	311167	1	Ball bearing
33	194262	1	% Oil seal
33A	PGF-8840	1	* Oil seal
34	PG-2017	1	% Bearing carrier sleeve
34A	PG-1686	1	* Bearing carrier sleeve
35	PG-2095	1	% Bearing carrier
35A	PG-2047	1	* Bearing carrier

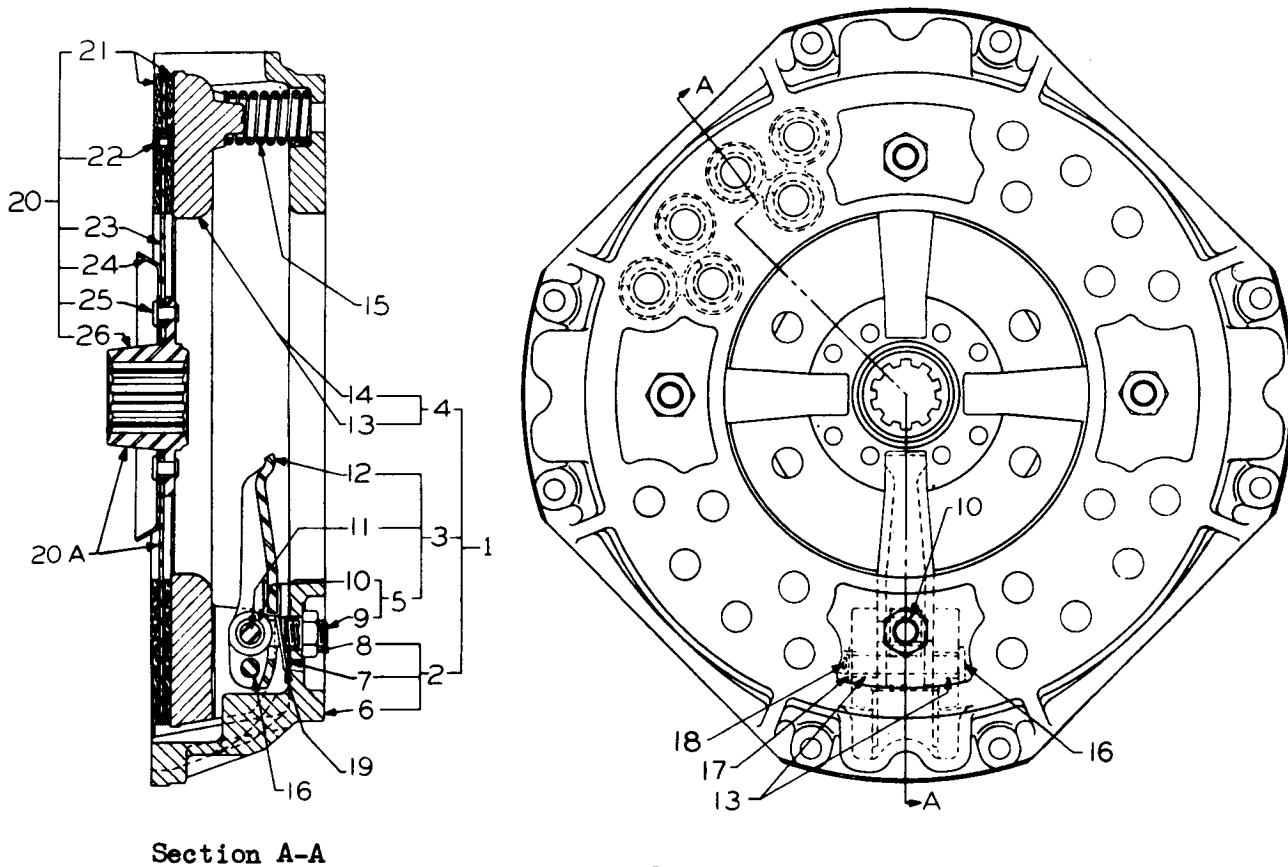
Note: * For machines with dry clutch drive.

% For machines with torque converter drive.

@ PG-1956 housing will interchange with PG-2359 housing if twelve (12)
27/64" diameter flange holes are redrilled to 15/32" diameter.

& 040009 housing will interchange with 040045 housing if twelve (12)
3/8" tapped holes are retapped to 7/16"-14 NC threads.

IHC-252474R21 housing will interchange with IHC-252474R31 housing
if twelve (12) 3/8" tapped holes are retapped to 7/16"-14 NC threads.



Section A-A

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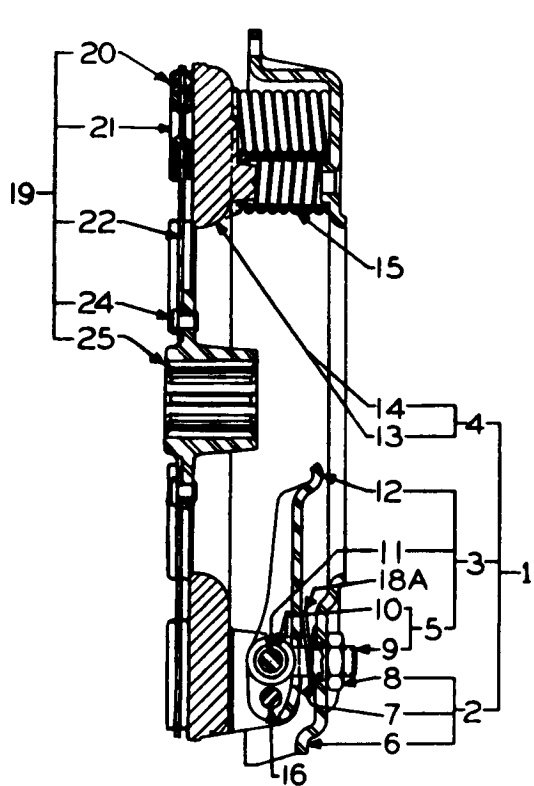
IMPORTANT NOTICE: Do not "over grease" clutch pilot bearing so that grease gets onto facings, Ref. 21. More clutch slippage and damage, or replacement, is caused by grease getting on the facings than by any other single cause. Warped and cracked pressure plates, also damaged facings are the result, and the warranty of same will be seriously affected.

Figure 19. Clutch for GM-4055C Engine
(Machines below 99-584)

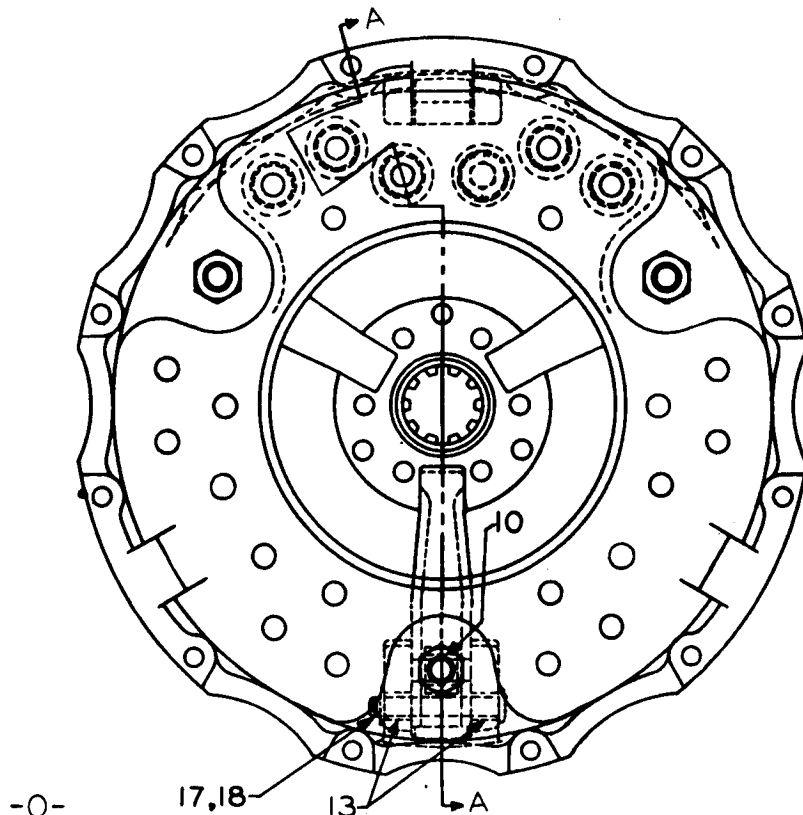
REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGFA-10910	1	Clutch group, complete (16")
1	382151	1	Cover group (includes Ref. Nos. 6 to 19 inclusive)
2	382150	1	Back plate group (includes Ref. Nos. 6,7 and 8)
3	382249	4	Lever group (includes Ref. Nos. 9,10,11 and 12)
4	382141	1	Pressure plate group (includes Ref. Nos. 13 and 14)
5	382240	4	Eyebolt group (includes Ref. Nos. 9 and 10)
6		1	* Back plate
7	382142	4	Adjusting nut washer
8	382143	4	Adjusting nut
9		4	@ Eyebolt
10	382153	4	Needle bearing
11	382129	4	Pivot pin
12	382133	4	Lever
13	382152	8	Needle bearing
14		1	% Pressure plate
15	382137	24	Pressure spring
16	382130	4	Lever pin
17	382131	4	Washer
18	382162	4	Cotter pin
19	382236	4	Anti-rattle spring
20	382168	1	Driven member group (woven lining type) (includes Ref. Nos. 21 to 26 inclusive). See Ref. 20A for heavy duty driven member group.
20A	382238	1	Driven member group (cerametallic disc type - 12 button) (special order - not illustrated)
21	382166	2	Facing
22	382009	30	Tubular rivet
23		1	& Clutch plate
24		1	& Oil slinger
25		12	& Rivet
26		1	& Splined center

Note: * Indicates parts not sold separately. Order Ref. No. 2.
 @ Indicates parts not sold separately. Order Ref. No. 5.
 % Indicates parts not sold separately. Order Ref. No. 4.
 & Indicates parts not sold separately. Order Ref. No. 20.

When replacing Ref. 3, part No. 382249 lever group, we recommend installing a complete set of four lever groups.



Section A-A



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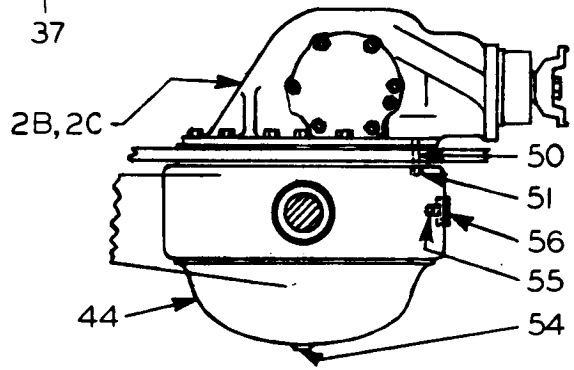
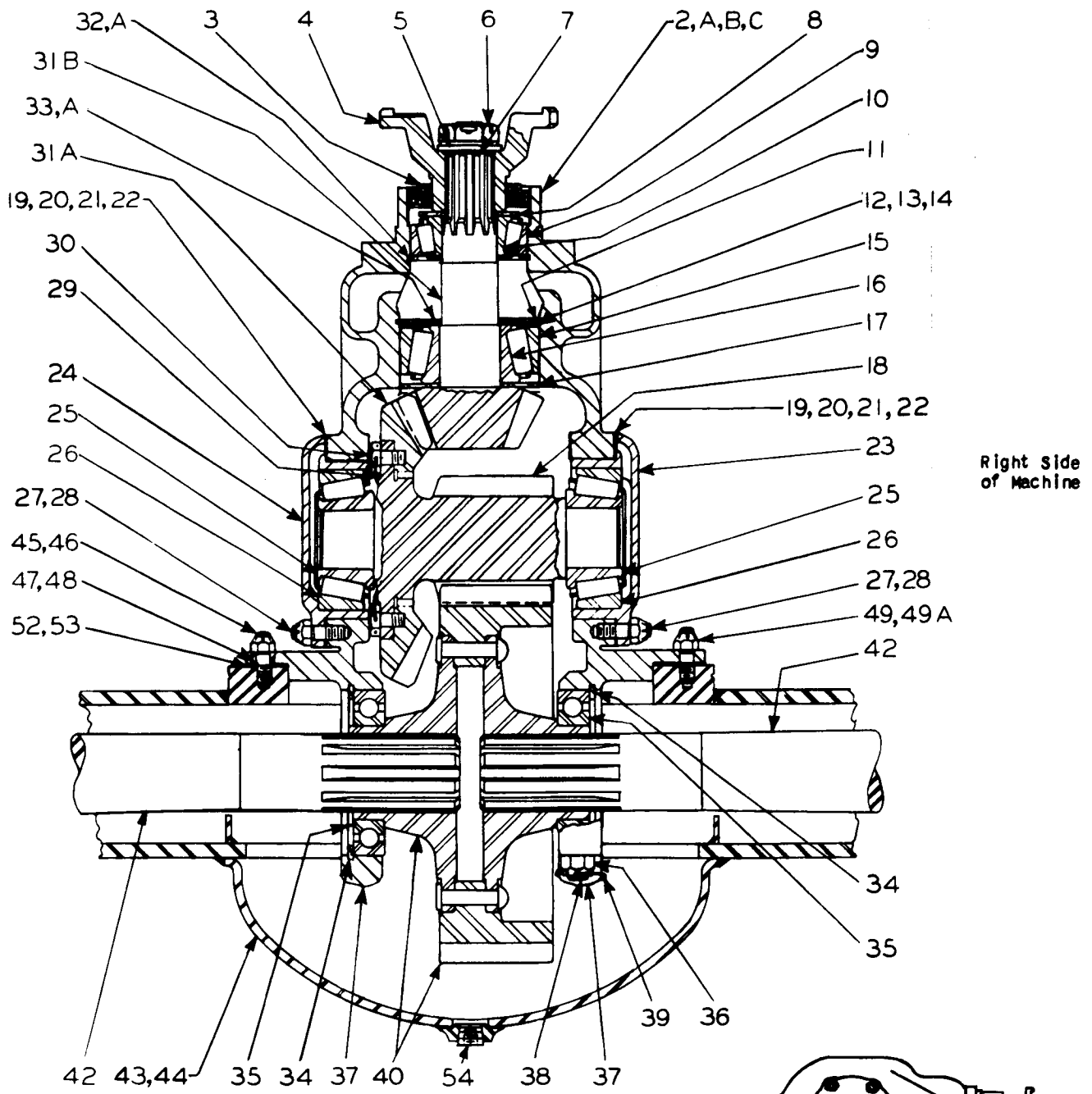
IMPORTANT NOTICE: Do not "over grease" clutch pilot bearing so that grease gets onto facings, Ref. 20. More clutch slippage and damage, or replacement, is caused by grease getting on the facings than by any other single cause. Warped and cracked pressure plates, also damaged facings are the result, and the warranty of same will be seriously affected.

Figure 20. Clutch for GM-4080 or UD-14A Engine
(Also for GM-4055C Engine in Machines 99-584 and up)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGF-14503	1	Clutch group, complete (15")
1	382247	1	Cover group (includes Ref. Nos. 6 to 18A inclusive)
2	382158	1	Back plate group (includes Ref. Nos. 6,7 and 8)
3	382239	3	Lever group (includes Ref. Nos. 9,10,11 and 12)
4	382160	1	Pressure plate group (includes Ref. Nos. 13 and 14)
5	382240	3	Eyebolt group (includes Ref. Nos. 9 and 10)
6		1	* Back plate
7	382142	3	Adjusting nut washer
8	382144	3	Adjusting nut
9		3	@ Eyebolt
10	382153	3	Needle bearing
11	382129	3	Pivot pin
12	382139	3	Lever
13	382152	6	Needle bearing
14		1	% Pressure plate
15	382137	18	Pressure spring
16	382130	3	Lever pin
17	382131	3	Washer
18	382162	3	Cotter pin
18A	382236	3	Anti-rattle spring
19	382248	1	Driven member group (cerametallic disc type - 8 button) (includes Ref. Nos. 20 to 25 inclusive)
20		16	& Facing
21		8	& Rivet ("H" type)
22		1	& Clutch plate
24		12	& Rivet
25		1	& Splined center

Note: * Indicates parts not sold separately. Order Ref. No. 2.
 @ Indicates parts not sold separately. Order Ref. No. 5.
 % Indicates parts not sold separately. Order Ref. No. 4.
 & Indicates parts not sold separately. Order Ref. No. 19.

When replacing Ref. 3, part No. 382239 Lever group, we recommend installing a complete set of three lever groups.



Refer to Pages 39 and 40 for Part Numbers

B/M PGU-2486
PGU-2551,A

Figure 21. Rear Axle Gear Carrier

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGU-2486	1	% Rear axle gear carrier group (uses snap rings Ref. 32 and 33) (no longer furnished. Order Ref. No. 1A)
1A	PGU-9271	1	* Rear axle gear carrier group (does not use snap rings Ref. 32 and 33) (includes Ref. Nos. 2A to 41 inclusive except Ref. Nos 2B, 2C, 32, 32A, 33 and 33A)
1B	PGU-2551	1	@ Rear axle gear carrier group (uses washers Ref. 32A and 33A) (no longer furnished. Order Ref. No. 1C)
1C	PGU-2551-A	1	& Rear axle gear carrier group (does not use washers Ref. 32A and 33A) (includes Ref. Nos. 2C to 41 inclusive except Ref. Nos. 32, 32A, 33 and 33A)
2	PGF-15148	1	% Gear carrier casting (used in Ref. 1 gear carrier group) (no longer furnished. Order Ref. No. 2A)
2A	PGFS-15533	1	* Gear carrier casting (includes Ref. Nos. 27, 28, 36, 37 and 38)
2B	PGF-15385	1	@ Gear carrier casting (used in Ref. 1B gear carrier group) (no longer furnished. Order Ref. No. 2C)
2C	PGFS-15380	1	& Gear carrier casting (includes Ref. Nos. 27, 28, 36, 37 and 38)
3	PGF-5240	1	Oil seal
4	PGF-8537-58	1	Fitting yoke
5	PGF-4864	1	Washer
6	PGF-15388	1	Slotted nut
7	PGF-4865	2	Washer gasket
8	PGF-4852	1	Spline shaft washer
9	313448	1	Bearing cup
10	312991	1	Bearing cone and rollers
11	PGF-11954	1	Oil retainer
12	PGF-11957	As req'd.	Shim - .005" thick
13	PGF-11956	As req'd.	Shim - .007" thick
14	PGF-11958	As req'd.	Shim - .020" thick
15	313209	1	Bearing cup
16	312549	1	Bearing cone and rollers
17	PGF-8595	1	Oil retainer
18	PGF-14592	1	Pinion and gear hub
19	PGF-15379	4	Gasket (brass) (2 each side)
20	PGF-12789	As req'd.	Shim - .005" thick
21	PGF-12790	As req'd.	Shim - .007" thick
22	PGF-12791	As req'd.	Shim - .020" thick
23	PGF-15070	1	Bearing cap with cup - R.H. (includes 1 of Ref No. 26)
24	PGF-15068	1	Bearing cap with cup - L.H. (includes 1 of Ref No. 26)
25	312547	2	Bearing cone and rollers
26	313208	2	Bearing cup
27	PGF-15052	12	Stud

Note: % Machines below 99SW-986 (use snap rings and 1/2" flange studs).
 * Machines below 99SW-986 (use 1/2" flange studs - no snap rings).
 @ 99SW-986 and up (uses washers and 5/8" flange studs).
 & 99SW and up (uses 5/8" flange studs - no washers).

(continued)

(Refer to Figure 21 for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
28	914005	12	Hex nut (hug-lock)
29	PGF-9436	2	Lock wire
30	PGF-13276	6	Bevel gear cap screw
31A	PGF-14796	1	\$ Spiral bevel gear
31B	PGF-14796	1	\$ Spiral bevel pinion
32	PGFA-11962	1	% Snap ring
32A	PGF-15384	1	@ Washer
33	PGFA-11963	1	% Snap ring
33A	PGF-15383	1	@ Washer
34	PGF-14407	2	Washer
35	311339	2	Ball bearing
36	727009	4	Castellated nut
37		2	# Bearing cap
38	PGF-14799	4	Stud
39	PGF-9486	2	Lock wire
40	PGF-14691	1	Gear and hub
41	PGF-4184	1	Gear carrier vent plug - top (not illustrated)
42	PGF-14493	2	Drive shaft or axle
43	PGP-14698	1	/* Rear axle housing with PGF-14806 liners
44	PGP-15516	1	@& Rear axle housing with PGF-14806 liners
45	HTF-890	12	/* Stud - 1/2" dia.
46	PGF-13550	12	@& Stud - 5/8" dia.
47	PGF-3084	1	/* Taper bushing
48	PGF-15512	1	@& Taper bushing
49	914005	12	/* Hex nut (hug-lock)
49A	914007	12	@& Hex nut (hug-lock)
50	PGF-15510	1	@& Gear carrier stud - 3/4" dia.
51	927008	1	@& Slotted nut
52	PGFB-14703	1	/* Gasket
53	PGF-15511	1	@& Gasket
54	812004	1	Drain plug - countersunk head
55	810004	1	Filler and oil level plug
56	812009	1	@& Pipe plug - countersunk head

Note: % Machines below 99SW-986 (use snap rings and 1/2" flange studs).
 * Machines below 99SW-986 (use 1/2" flange studs - no snap rings).
 @ 99SW-986 and up (uses washers and 5/8" flange studs).
 & 99SW and up (uses 5/8" flange studs - no washers).
 \$ Bevel gear and bevel pinion sold in matched sets only.
 # Bearing caps not sold separately - Order Ref. No. 2A or 2C complete gear carrier casting.

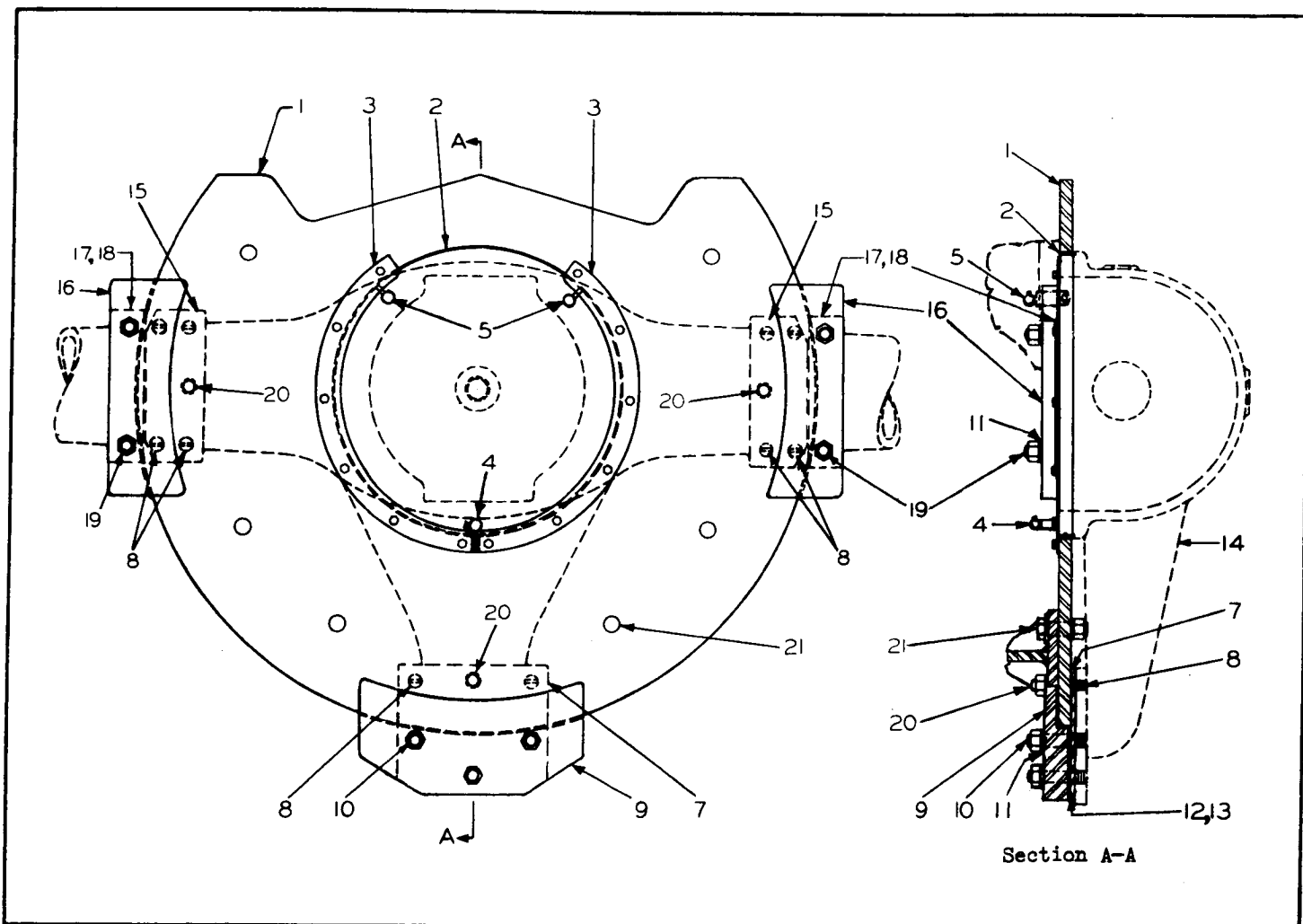


Figure 22. Rear Axle Circle

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-15185	1	Support plate
2	PGF-10869	1	Support plate bushing
3	PGF-14693	2	Dirt shield
4	064012	1	Lubrication fitting - long
5	064540	2	Lubrication fitting - short
7	PGF-14692	1	Wear plate
8	743019	10	Cap screw - flat head
9	PGF-15508	1	Guide
10	PGF-14701	3	Stud
11	766014	7	External tooth washer
12	PGF-14697	As req'd	Guide shim - .010" thick
13	PGF-14696	As req'd	Guide shim - .030" thick
14		1	Rear axle housing
15	PGF-14754	2	Wear plate
16	PGF-15509	2	Guide
17	PGF-14695	As req'd	Guide shim - .030" thick
18	PGF-14694	As req'd	Guide shim - .010" thick
19	PGF-14702	4	Stud
20	PGF-15242	3	Stud
21	PGF-15243	6	Bolt

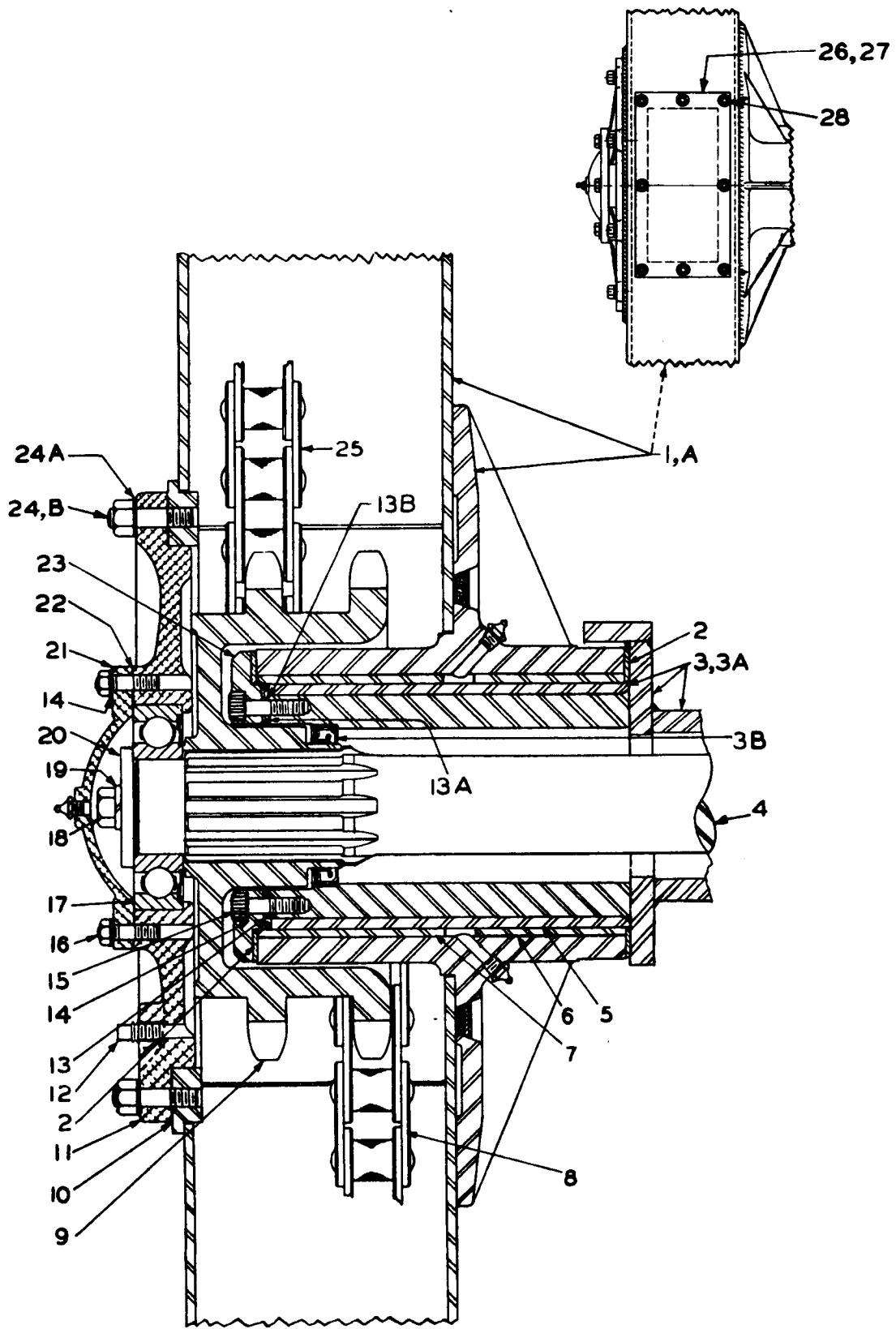
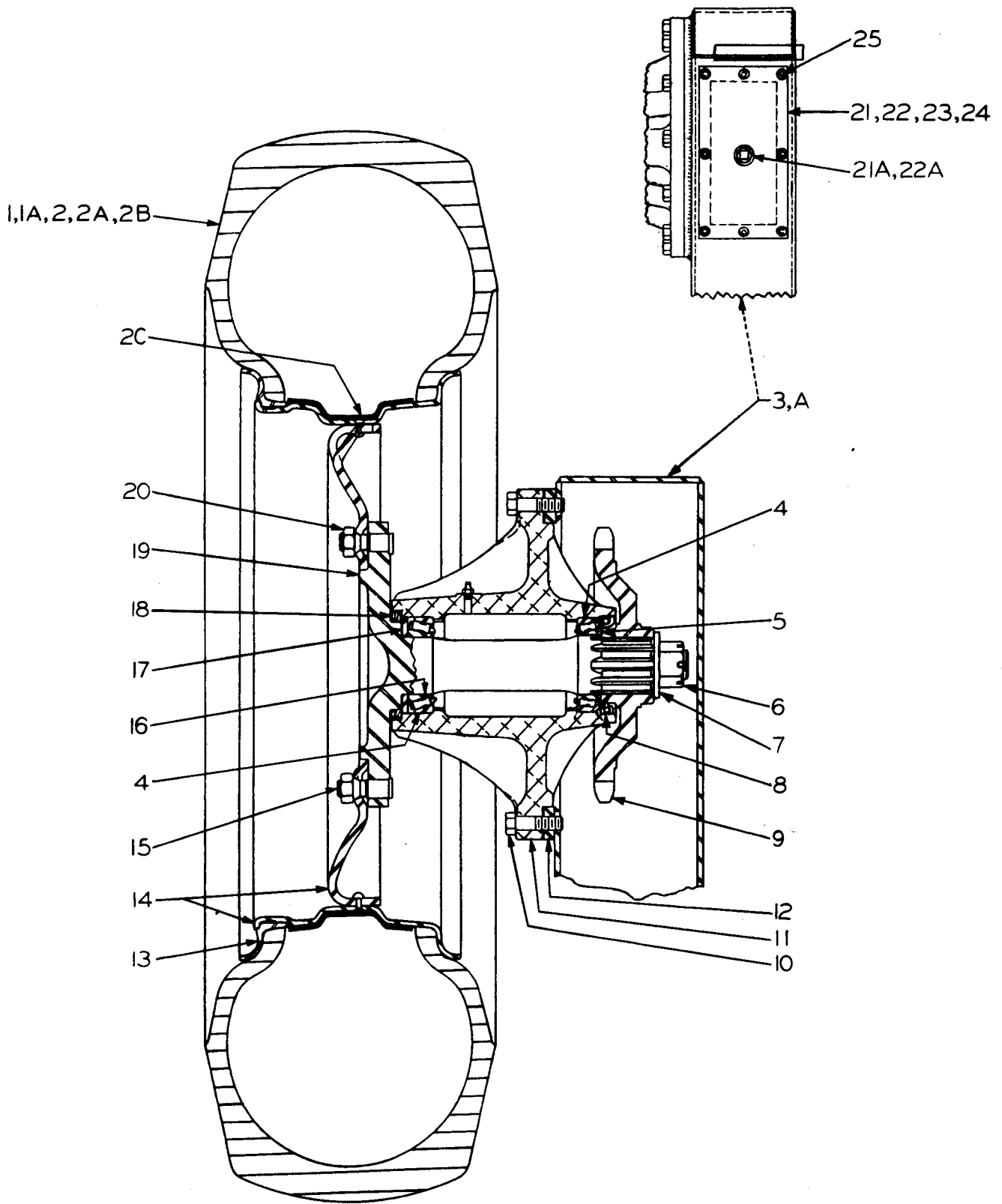


Figure 23. Rear Axle Pivot Case and Shaft

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-14808	1	Pivot case with liners - L.H. (includes Ref. Nos. 6 and 7)
1A	PGF-14807	1	Pivot case with liners - R.H. (includes Ref. Nos. 6 and 7)
2	PGF-11505	2	Thrust washer
3	PGP-14698	1	* Rear axle housing with liners (includes Ref. No. 5)
3A	PGF-15516	1	& Rear axle housing with liners (includes Ref. No. 5)
3B	194204	1	Oil seal
4	PGF-14493	1	Drive shaft or axle
5	PGF-14806	1	Liner - rear axle housing
6	PGF-14804	1	Liner, inner-pivot case
7	PGF-14805	1	Liner, outer-pivot case
8	PGF-11173	2	Drive chain (#474-53 pitches)
9	PG-2295	1	Double sprocket
10	PGF-13527	1	Gasket
11	PG-2284	1	Bearing housing
12	810001	1	Pipe plug - high and low oil level
13	PGF-14420	3	Shim - .010" thick
13A	PGF-9648-47	1	"O" ring
13B	PGF-14419	1	Washer
14	766009	16	Lock washer - external tooth
15	819029	10	Cap screw - hollow head
16	ASF-5320	6	Stud
17	311270	1	Ball bearing
18	742786	1	Cap screw
19	778015	1	Lock washer
20	PGF-10986	1	Washer
21	PG-2115	1	Bearing cap
22	PGF-10982	1	Gasket
23	PGF-12131	1	Pivot case retainer
24	PGF-13516	6	Stud (top and bottom)
24A	766013	6	Lock washer - external tooth (top and bottom)
24B	PGF-13814	6	Screw - ctsk. hollow head (for ends)
25	365033	2	Offset link (with pin and cotter)
26	PGF-14509	1	Pivot case cover - inspection hole (center)
27	PGF-14510	1	Cover gasket
28	ASF-3709	8	Stud

Note: * Machines below 99SW-986.
& Machines 99SW-986 and up.



B/M PGU-2489, 2490
 PGU-2499, 2508
 PGU-2527

Figure 24. Rear Wheel and Axle Assembly

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1		1	* Tire - 13.00 x 24 - 10 ply (tapered bead seat)
1A		1	Tube - 13.00 x 24 with TR-220 air-water valve
2		1	** Tire - 13.00 x 24 - 12 ply (special order) (tapered bead seat)
2A		1	*** Tire - 14.00 x 24 - 10 ply (special order) (tapered bead seat)
2B		1	Tube - 14.00 x 24 with TR-220 air-water valve
2C	PGF-15250	1	Tire flap
3	PGF-14808	1	Pivot case - L.H. with PGF-14804 and PGF-14805 liners (see Fig. 23)
3A	PGF-14807	1	Pivot case - R.H. with PGF-14804 and PGF-14805 liners (see Fig. 23)
4	313452	2	Bearing cup
5	312994	1	Bearing cone and rollers
6	734013	1	Wheel axle nut
7	PGF-9895	1	Washer
8	194256	1	Oil seal
9	PGF-10993	1	Wheel axle sprocket
10	PGF-12166	12	Cap screw - self locking
11	PGU-2488	1	Wheel axle hub (includes Ref. No. 4)
12	PGF-11007	1	Gasket
13	PGF-14475	1 Pr.	Lock ring (2 piece type) (Goodyear No. 1279-HR)
14	PGF-14548	1	Wheel with rim (less ring)
15	PGF-9391	10	Wheel stud
16	312995	1	Bearing cone and rollers
17	PGF-12571	1	Oil retainer
18	194294	1	Oil seal
19	PGF-14551	1	Wheel axle
20	PGF-7357	10	Wheel stud nut
21	PGF-14508	1	Pivot case cover - inspection hole (front- uses PGF-4184 vent plug) (no longer furnished. Order Ref. Nos. 22 and 22A)
21A	PGF-4184	1	Vent plug (used with Ref. 21)
22	PGF-15326	1	Pivot case cover - inspection hole (front - uses PGF-15330 vent and oil fill plug)
22A	PGF-15330	1	Vent and oil fill plug (used with Ref. 22)
23	PGF-14509	1	Pivot case cover - inspection hole - (rear)
24	PGF-14510	1	Gasket - front and rear covers
25	ASF-3709	8	Stud

Note: * Firestone curved-bar, ground-grip, low-pressure road builder, or Goodrich tractor grader, T-15 lug type, or Goodyear road grader sure-grip, or U. S. Rubber road grader full traction.

** Goodyear road grader sure-grip, or Firestone curved-bar, ground-grip, low-pressure road builder.

*** Goodyear road grader sure-grip.

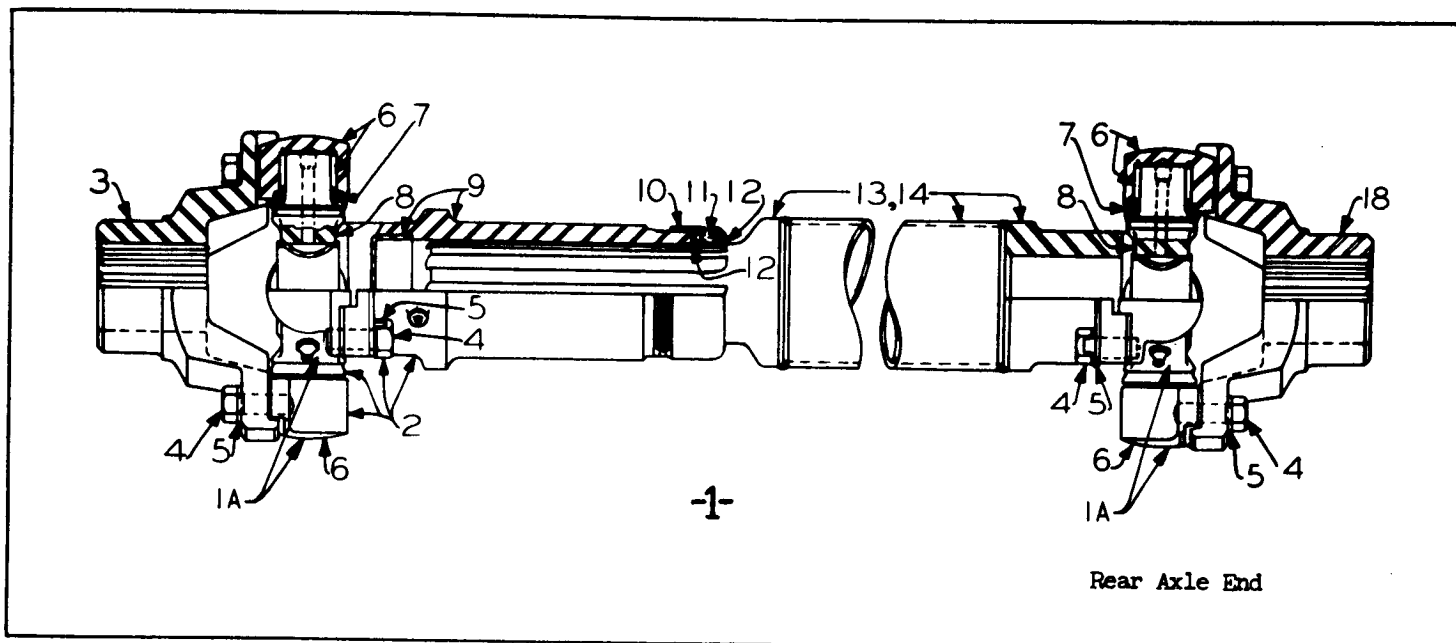


Figure 25. Rear Propeller Shaft

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-14522	1	Propeller shaft, complete
1A	PGF-8807-57	2	Spider and bearing group (includes Ref. Nos. 6,7 and 8 assembled)
2	465130	1	Joint group (includes Ref. Nos. 4 to 12 inclusive)
3	PGF-8537-58	1	Fitting yoke
4	PGF-9717-55	16	Cap screw
5	PGF-9717-56	8	Cap screw lock plate
6		8	Bearing group (not sold separately. Order Ref. No. 1A)
7	465149	8	Cork trunnion washer
8		2	Spider group (not sold separately. Order Ref. No. 1A)
9	465118	1	Slip yoke with dust cup
10	465013	1	Felt retainer
11	465017	1	Felt washer
12	465018	2	Felt retainer washer
13	465235	1	Propeller tube and joint group (includes Ref. Nos. 4,5,6,7,8 and 14)
14	465157	1	Propeller tube group
18	PGF-8537-58	1	Fitting yoke

B/M PGU-1842-C

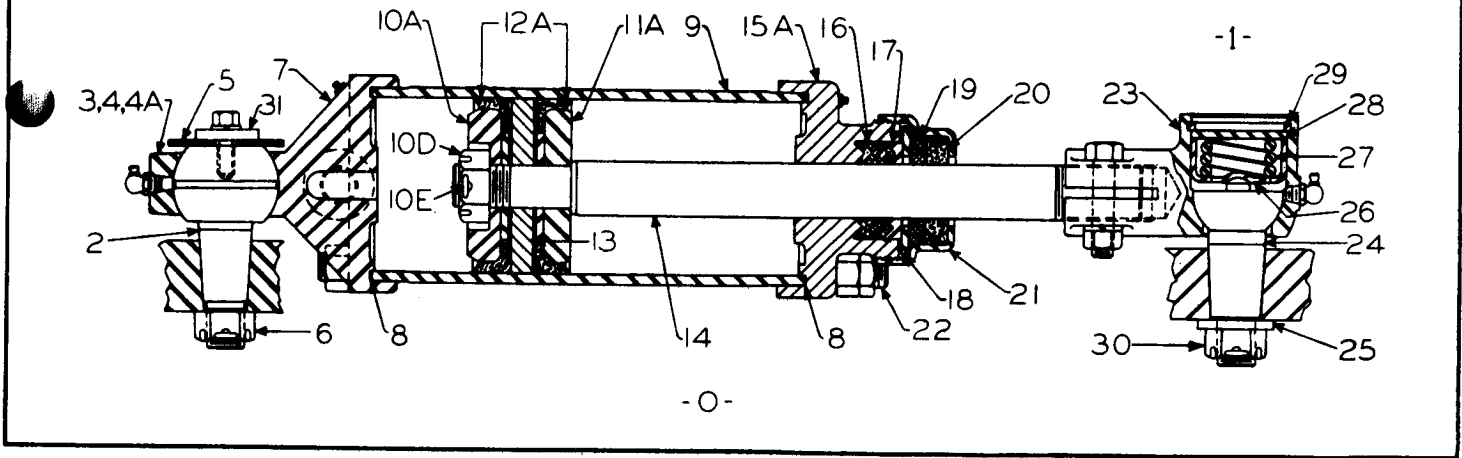


Figure 26. Front Axle Steering Ram

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-1842-C	1	Steering ram group (includes Ref. Nos. 2 to 31 inclusive)
1	PGUS-9206	1	Socket group (includes Ref. Nos. 23 to 30 inclusive)
2	PGF-8823	1	Ball stud
3	PGF-9487	1	Ball cap
4	MGF-1992	4	Ball cap shim - .024" thick
4A	PGF-11856	4	Ball cap shim - .010" thick
5	PGF-3318	1	Washer
6	734010	1	Slotted nut
7	PG-707	1	Base
8	PGF-1687	2	Gasket
9	PGF-8985	1	Cylinder
10A	PGF-10805	1	Outer spreader
10D	PGF-11547	1	Slotted nut
10E	166037	1	Cotter pin
11A	PGF-8227	1	Inner spreader
12A	PGF-11775	2	Cup
13	PGA-694	1	Piston
14	PGF-8982	1	Piston rod
15A	PG-1892	1	Head
16	PGF-12366	4	Chevron packing ring
17	PGF-8986	1	Press ring
18	PGF-7025	1	Retainer
19	PGF-7022	1	Felt
20	PGF-7026	1	Wiper
21	PGF-7019	1	Cap
22	PGF-8983	4	Tie rod
23	PGF-4256	1	Socket
24	PGF-9939	1	Ball stud
25	PGF-9944	1	Ball stud washer
26	PGF-4258	1	Spring seat
27	PGF-4259	1	Spring
28	PGF-4261	1	Plug
29	PGF-4260	1	Lock wire
30	737009	1	Slotted nut
31	PGF-10314	1	Washer plate

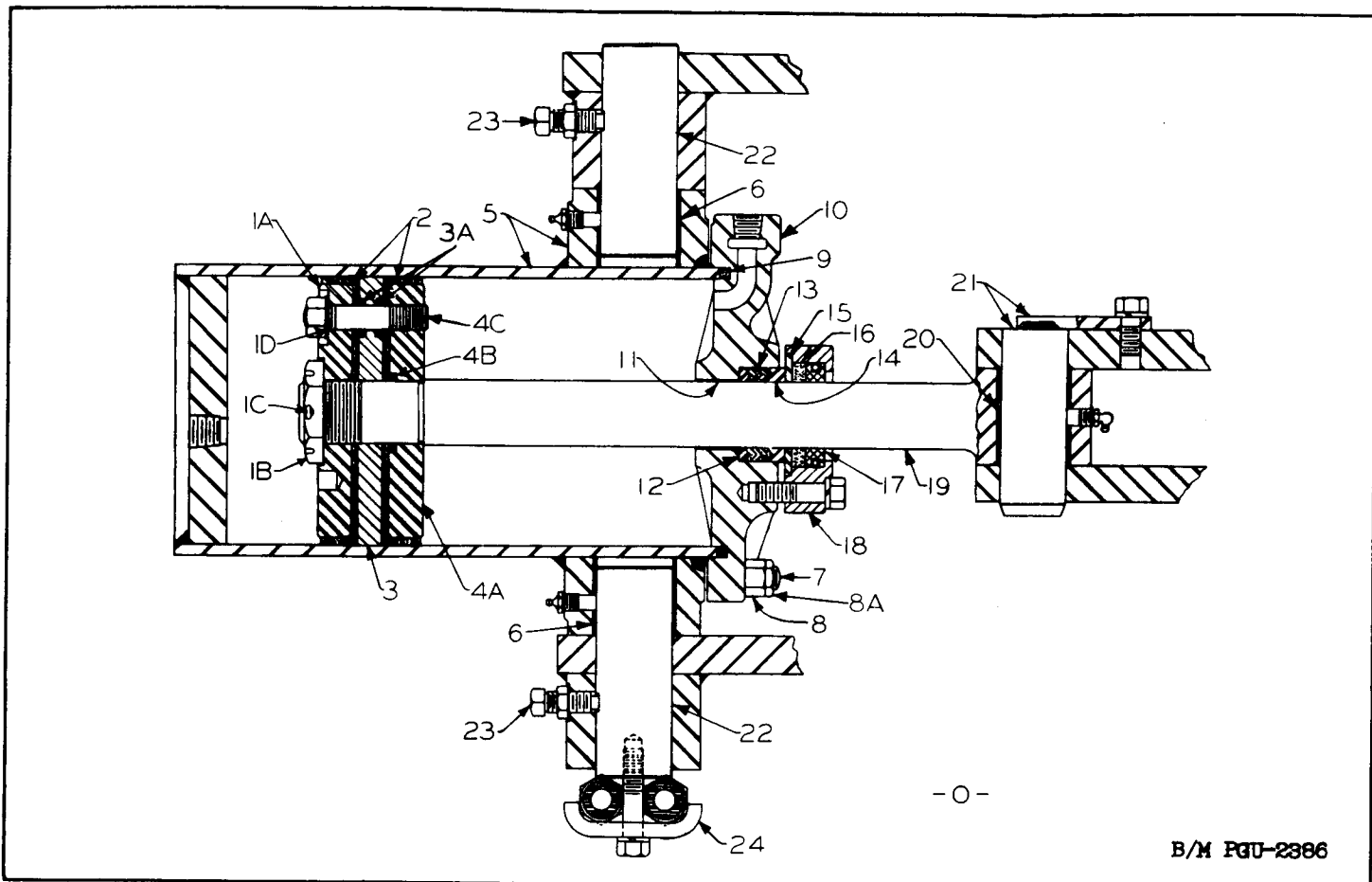


Figure 27. High Lift Ram

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-2386	1	High lift ram group (includes Ref. Nos. 1A to 20 inclusive)
1A	PGF-11818	1	Outer spreader
1B	PGF-11820	1	Slotted nut
1C	166041	1	Cotter pin
1D	770015	4	Shakeproof washer
2	PGF-11754	2	Cup
3	PGA-1909	1	Piston (also order Ref. 3A)
3A	PGF-9648-25	8	"O" ring (first used on 99-506)
4A	PGP-11802	1	Inner spreader with studs and nuts (includes Ref. No. 4C)
4B	PGF-9648-8	1	"O" ring
4C	PGF-10486	4	Stud
5	PGU-2389	1	Cylinder with bushings (includes Ref. No. 6)
6	PGF-9227	2	Bushing
7	PGF-9305	10	Stud
8	722007	10	Hex nut
8A	724007	10	Pal nut
9	PGF-9648-50	1	"O" ring
10	PG-2082	1	Head
11	PGF-12108	1	Head bushing
12	RGF-4279	1	Seal ring
13	RGF-4381	4	Chevron packing ring
14	PGF-12114	1	Press ring
15	PGF-12113	1	Retainer
16	PGF-10084	1	Felt
17	PGF-1727	1	Wiper
18	PG-2081	1	Cap
19	PGF-14938	1	Piston rod
20	PGF-9232	1	Bushing
21	PGF-15059	1	Rod pin
22	PGF-9224	2	Pivot pin
23	758094	2	Set screw - dog point
24	PGF-9530	1	Hose clamp

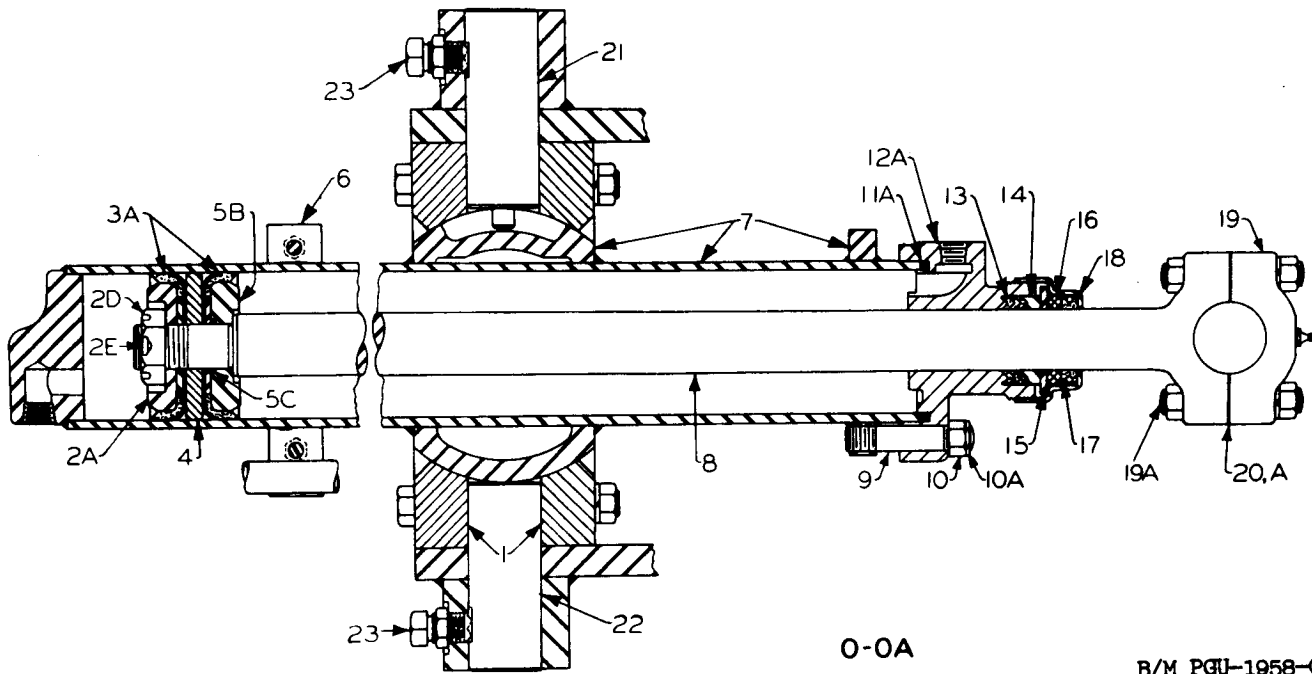


Figure 28. Blade Lift Ram

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-1958-C	1	Blade lift ram group - right hand (includes Ref. Nos. 1 to 20A inclusive except Ref. 6)
0A	PGU-1959-C	1	Blade lift ram group - left hand (includes Ref. Nos. 1 to 20A inclusive except Ref. 6)
1	PGU-1694	1	Ball socket - 2 halves
2A	PGF-10804	1	Outer spreader
2D	PGF-11546	1	Slotted nut
2E	166038	1	Cotter pin
3A	PGF-11753	2	Cup
4	PGA-320	1	Piston
5B	PGF-11801	1	Inner spreader
5C	PGF-9648-16	1	"O" ring
6	PGF-9521	1	Hose clamp
7	PGP-10839	1	Cylinder with studs and hex nuts (includes Ref. Nos. 9 and 10)
8	PGF-9240	1	Piston rod
9	PGF-10840	4	Stud
10	722007	4	Hex nut
10A	724007	4	Pal nut
11A	PGF-9648-14	1	"O" ring
12A	PG-1944	1	Head
13	PGF-9229	4	Chevron packing ring
14	PGF-9221	1	Press ring
15	PGF-9237	1	Retainer
16	PGF-9238	1	Felt
17	PGF-9239	1	Wiper
18	PGF-9243	1	Cap
19	PGF-9487	1	Ball cap
19A	PGF-10231	2	Ball cap stud
20	MGF-1992	4	Ball cap shim - .024" thick
20A	PGF-11856	4	Ball cap shim - .010" thick
21	PGF-9245	1	Pivot pin
22	PGF-9246	1	Pivot pin - short
23	755148	2	Set screw - cup point

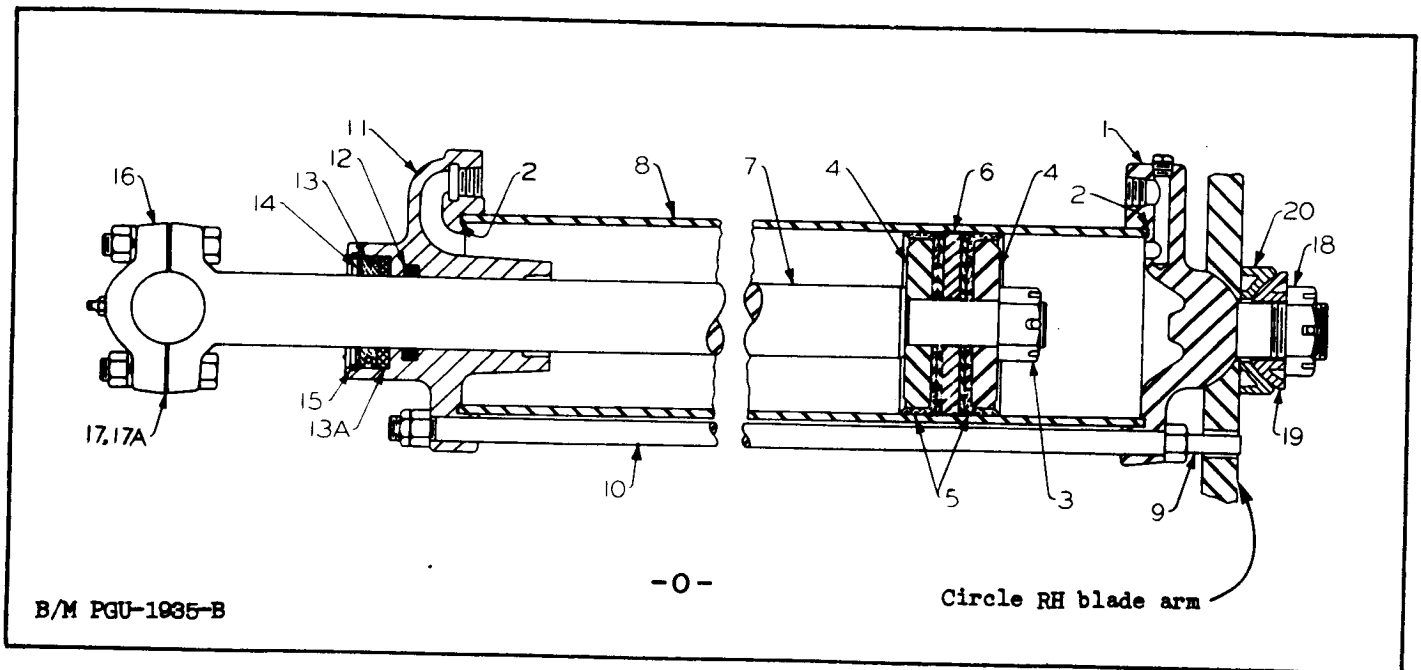
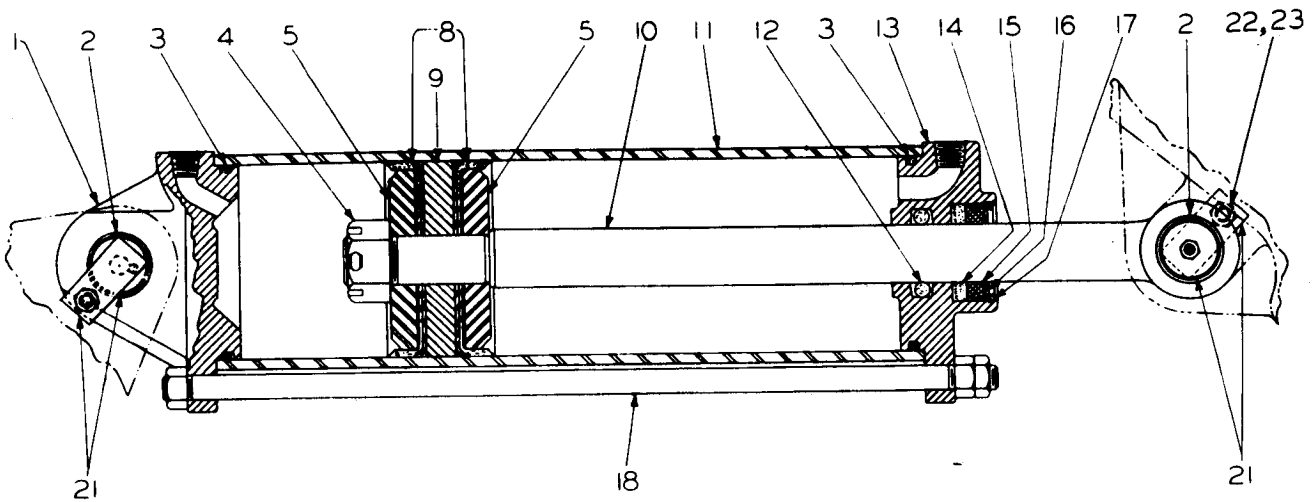


Figure 29. Blade Side Shift Ram

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-1935-B	1	Blade side shift ram group (includes Ref. Nos. 1 to 18 inclusive)
1	PGF-9422	1	Base
2	PGF-1688	2	Gasket
3	734013	1	Slotted nut
4	PGF-3255	2	Spreader
5	PGF-11776	2	Cup
6	PGA-862	1	Piston
7	PGF-10501	1	Piston rod
8	PGF-10500	1	Cylinder
9	PGF-10499	1	Tie rod
10	PGF-10496	4	Tie rod
11	PG-2026	1	Head
12	PGF-9648-30	1	"O" ring
13	PGF-1727	1	Wiper
13A	PGF-10084	1	Felt
14	RGF-1293	1	Washer
15	PGF-9420	1	Snap ring
16	PGF-9487	1	Ball cap
17	MGF-1992	6	Ball cap shim - .024" thick
17A	PGF-11856	4	Ball cap shim - .010" thick
18	PGF-3209	1	Ball plate nut
19	PG-890	1	Ball plate
20	PG-889	1	Ball socket



B/M PGU-2391,A

- 0 -

Figure 30. Rear Axle Steering Ram
(5" ID - Left Side)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-2391-A	1	Steering ram group (includes Ref. Nos. 1 to 18 inclusive)
1	PGP-1999	1	Base with bushing (includes Ref. No. 2)
2	PGF-10455	2	Bushing
3	PGF-9648-19	2	"O" ring
4	734013	1	Slotted nut
5	PGF-3255	2	Spreader
8	PGF-11776	2	Cup
9	PGA-862	1	Piston
10	PGF-13285	1	Piston rod
11	PGF-14489	1	Cylinder
12	PGF-9648-28 <i>5261657</i>	1	"O" ring
13	PGA-1998	1	Head
14	PGF-6997	1	Felt
15	PGF-1699	1	Wiper
16	SPF-1093	1	Washer
17	SPF-1095	1	Snap ring
18	PGF-12625	4	Tie rod
21	PGF-14755	2	Pin with keeper
22	HCF-666	1	Stud
23	727003	1	Slotted nut

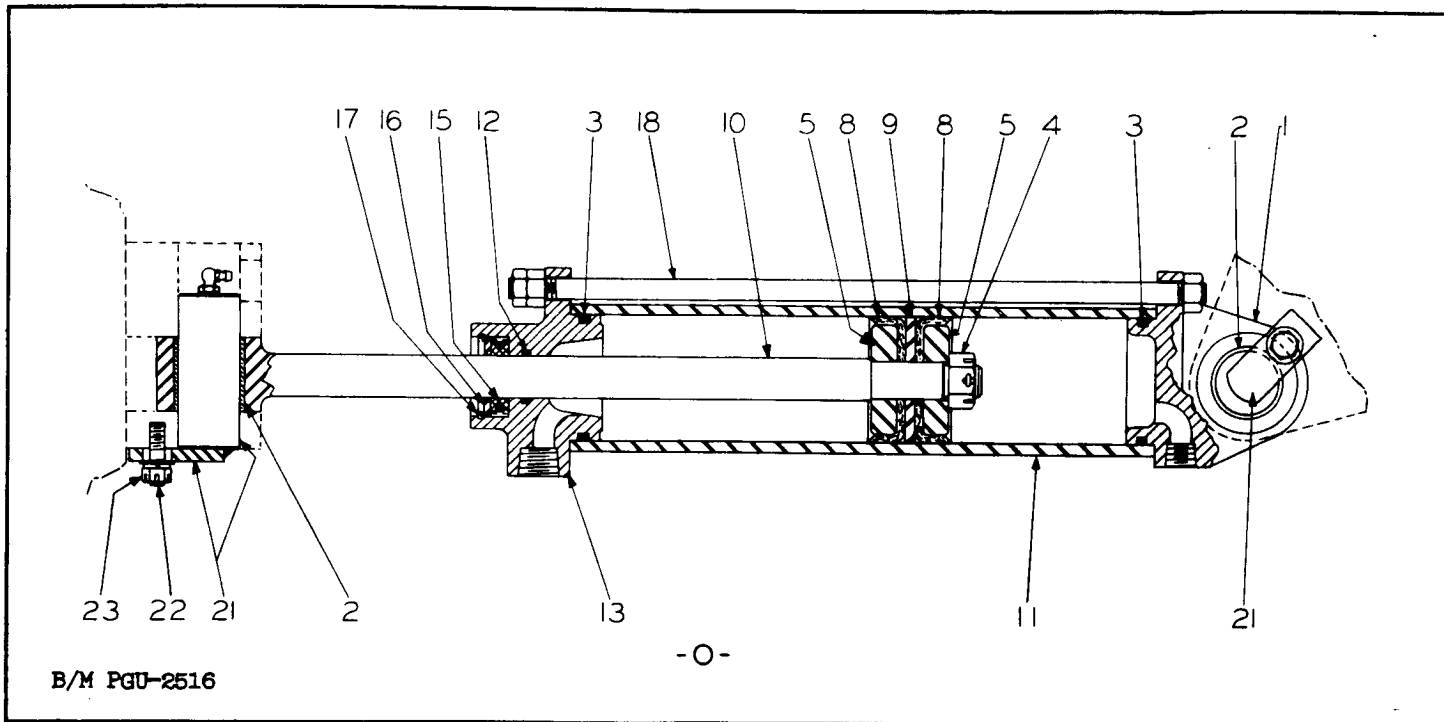


Figure 31. Rear Axle Steering Ram
 (3" ID - Right Side)
 (Machine 99SW-166 and up except 99SW-172, 174 and 180)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-2516	1	Steering ram group (includes Ref. Nos. 1 to 18 inclusive)
1	PG-2354	1	Base
2	PGF-10455	2	Bushing
3	PGF-9648-4	2	"O" ring
4	734009	1	Slotted nut
5	MSF-2112	2	Spreader
8	MSF-1926	2	Cup
9	MSF-2113	1	Piston
10	PGF-15094	1	Piston rod
11	PGF-15100	1	Cylinder
12	PGF-9648-3	1	"O" ring
13	PG-2355	1	Head
15	PGF-5364	1	Wiper
16	ASF-5292	1	Washer
17	HCF-3469	1	Snap ring
18	PGF-15101	4	Tie rod
21	PGF-14755	2	Pin with keeper
22	HCF-666	1	Stud
23	727003	1	Slotted nut

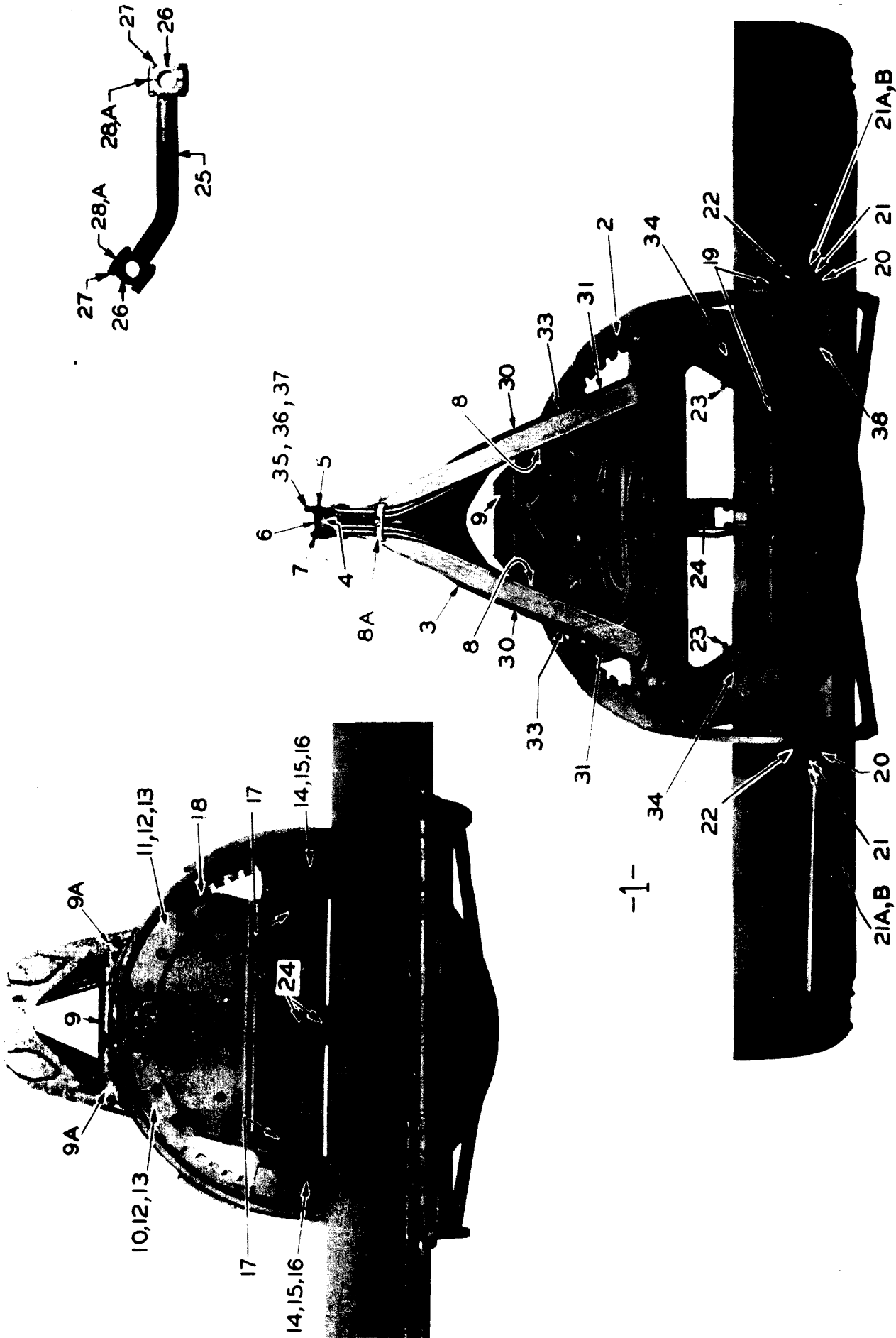
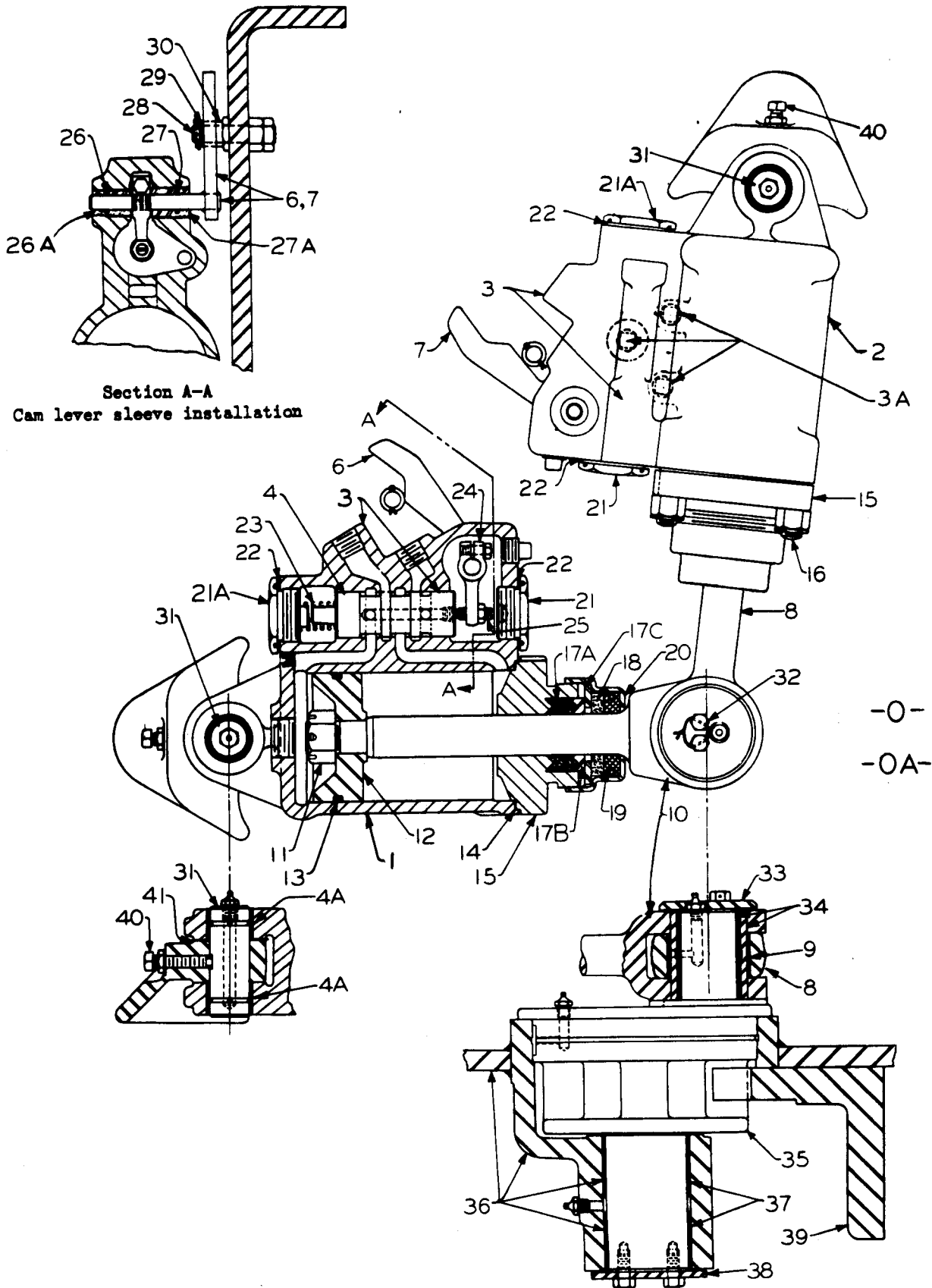


Figure 32. Circle and Draw Bar

B/M PGU-1936-F

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1		1	Circle and draw bar group (no blade)
2	PGF-15367	1	Circle group
3	PGF-14351	1	Circle draw bar group (includes Ref. Nos 4 and 5)
4	PGF-9236-3	1	Ball (welds on)
5	PG-2059	1	Ball cap
6	PG-2060	1	Ball socket
7	HTF-367	12	Ball cap shim
8	PGF-11680	2	Pipe clamp
8A	PGF-9529	1	Pipe clamp
9	PGU-1670	1	Circle front support with bushings PGF-8908
9A	PGF-10358	10	Support plate shim - .023" thick
10	PGF-9618	1	Front circle support - right hand
11	PGF-9617	1	Front circle support - left hand
12	PGF-8948	As req'd	Front circle support shim - .015" thick
13	PGF-8949	10	Front circle support shim - .032" thick
14	PGF-9620	2	Rear circle support
15	PGF-10414	As req'd	Rear circle support shim - .015" thick
16	PGF-10413	As req'd	Rear circle support shim - .030" thick
17	755288	2	Set screw - cup point
18	PGF-8996	1	Circle latch
19	PGF-11996	1	Tube with tilting links (includes Ref. No. 20)
20	PGF-10827-3	2	Tilt link (welds on)
21	PG-2065	2	Anchor lug (in circle assembly)
21A	PGF-12993-2	2	Anchor lug stud (welds on)
21B	PGF-12993-1	2	Anchor lug stud plate (welds on)
22	PGF-11931	2	Anchor lug plate washer
23	755153	2	Set screw - cup point
24		1	Circle reverse junction block with plug and rotating linkage (see hydraulic piping page, Fig. 37A)
25	PGF-9244	1	High lift link
26	PGF-9487	2	Ball cap
27	PGF-10231	4	Ball cap stud
28	MGF-1992	4	Ball cap shim - .024" thick
28A	PGF-11856	8	Ball cap shim - .010" thick
30	PGF-15325	2	Bolt
31	PGF-10495	2	Bolt
33	742890	2	Bolt
34	PGF-10607	6	Washer
35	PGF-11874	4	Stud
36	738009	8	Stud nut
37	778019	8	Stud lock washer
38	PGF-9752	1	Ram shield
	PGF-8779	2	Ram shield clamp (not illustrated)



Section A-A
Cam lever sleeve installation

B/M PGU-1684-A

Figure 33. Circle Reverse Hydraulic Motor

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-1684-A	1	Circle reverse hydraulic motor, complete with base plate and pinion
0A	HCU-244	1	Circle reverse hydraulic motor, less base plate and pinion (includes Ref. Nos. 1,2 and 34)
1	PGU-1683-A	1	Cylinder, valve and piston assembly - right hand (piston rod has forked end) (includes Ref. Nos. 3,3A,6 and 10 to 27 inclusive except Ref. Nos. 26A and 27A)
2	PGU-1682-A	1	Cylinder, valve and piston assembly - left hand (piston rod has single bushed end) (includes Ref. Nos. 3,3A,7,8 and 11 to 27 inclusive except Ref. Nos. 26A and 27A)
3	PGUS-9232	2	* Cylinder and valve body (R and L) with valve and bushings (includes Ref. Nos. 4,4A,21, 21A and 22)
3A	HCF-2159	3	Valve body plug
4		1	* Valve plug (movable)
4A	PGF-8902	2	Body bushing
6	PGF-9249	1	Valve control cam lever - right hand
7	PGF-9250	1	Valve control cam lever - left hand
8	PGU-1669	1	Piston rod with bushing (includes Ref. No. 9)
9	PGF-8909	1	Rod bushing
10	PGF-9761	1	Piston rod
11	734011	1	Slotted nut
12	PGF-9647	1	Piston
13	PGF-9648-1	1	"O" ring
14	PGF-9649	1	Gasket
15	PG-1826	1	Cylinder cap
16	PGF-9769	4	Stud
17A	PGF-12366	5	Chevron packing ring
17B	PGF-8986	1	Press ring
17C	PGF-7025	1	Retainer
18	PGF-7022	1	Felt
19	PGF-7026	1	Wiper
20	PGF-7019	1	Cap
21	PGF-13259	1	Plug (also order one of Ref. No. 22)
21A	PGF-13258	1	Plug (also order one of Ref. No. 22)
22	PGF-9648-40	2	"O" ring
23	HCF-2142	1	Valve spring
24	PGF-8938	1	Valve actuating lever
25	PGF-8252	1	Adjusting screw
26	PGF-9648-22	1	"O" ring
26A	PGF-13591	1	"O" ring sleeve
27	PGF-9648-21	1	"O" ring
27A	PGF-13590	1	"O" ring sleeve
28	PGF-9619	2	Cam pin
29	PGF-8731	2	Cam pin washer
30	PGF-8728	2	Cam pin roller
31	PGF-8896	2	Pivot pin
32	ASF-3784	2	Cap screw
33	PGF-8243	1	Pinion retainer washer
34	PGU-1668	1	Bushing group
35	PG-1825	1	Pinion
36	PGU-1670	1	Circle front support with bushings Ref. 37
37	PGF-8908	2	Support hub bushing
38	PGF-8903	1	Pinion retainer washer
39		1	Circle
40	758058	2	Set screw - dog point
41	PGF-8248	As req'd	Ram base shim

Note: * Movable valve plug not sold separately. Order Ref. 3, PGUS-9232.

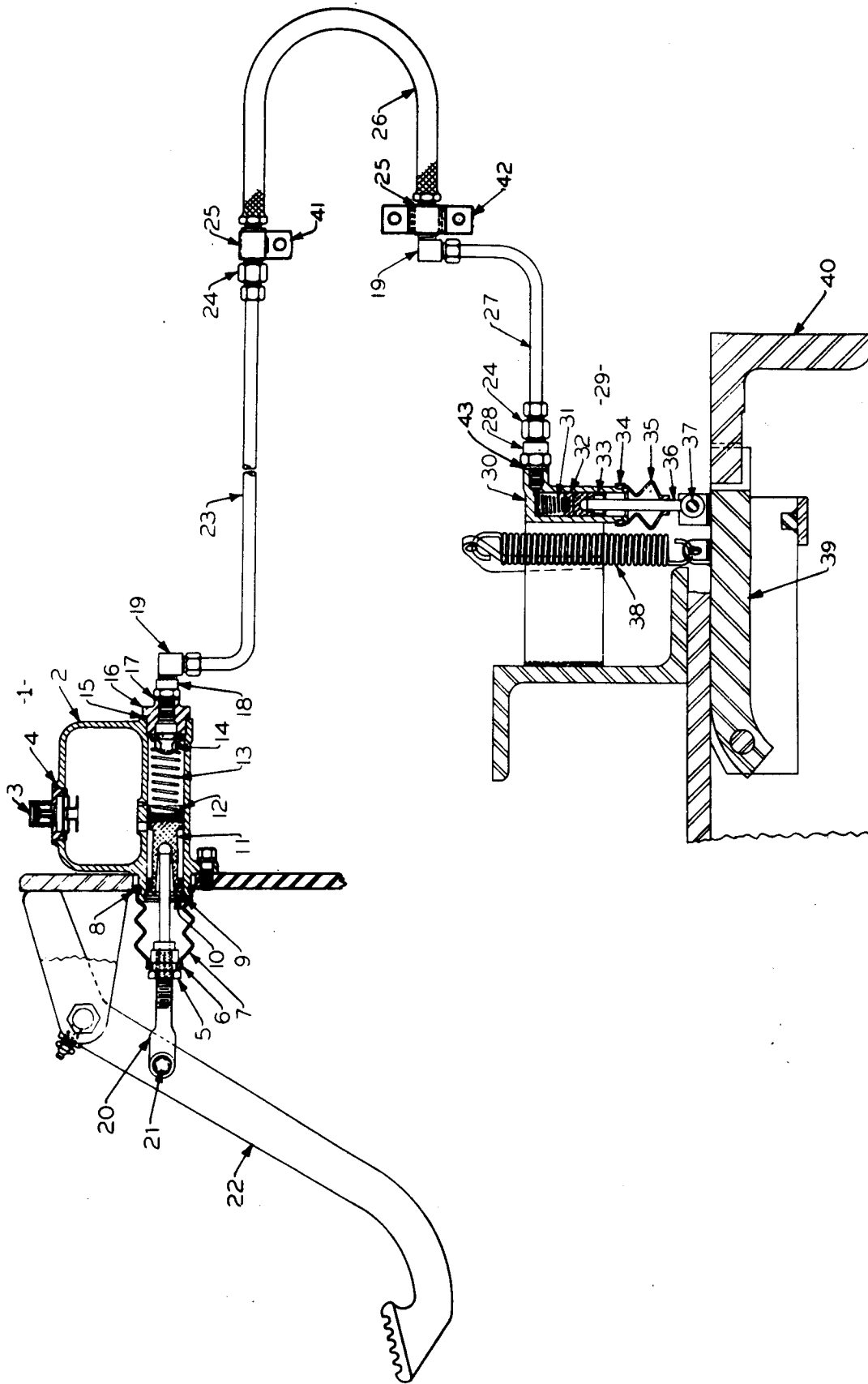


Figure 34. Circle Latch Mechanism

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-9485	1	Master cylinder group (includes Ref. Nos. 2 to 16 inclusive)
2	333131	1	Supply tank
3	333151	1	Filler plug
4	333141	1	Filler plug gasket
5	333082	1	Piston link
6	333032	1	Boot strap - small
7	333084	1	Boot
8	333085	1	Boot strap - large
9	333107	1	Piston stop wire
10	333108	1	Piston stop washer
11	333106	1	Piston group
12	333072	1	Cup
13	333099	1	Return spring
14	333152	1	Check valve group - dome type
15	333101	1	Head gasket
16	333111	1	Head
17	PGF-10896	1	Gasket
18	789006	1	Connector
19	788007	2	Elbow
20	PGF-9766	1	Yoke
21	783005	1	Pin
22	PG-1827	1	Pedal
23	PGF-9483	1	Tube
24	786005	2	Connector - male
25	PGF-10519	2	Coupling
26	PGF-9437	1	Hose
27	PGF-10057	1	Tube
28	789004	1	Connector
29	PGF-8991	1	Cylinder group (includes Ref. Nos. 30 to 35 inclusive)
30	333118	1	Body
	333146	1	Bleeder screw (not illustrated)
31	333121	1	Return spring
32	333119	1	Cup
33	333120	1	Piston
34	333116	1	Boot strap
35	333122	1	Boot
36	PGF-9013	1	Piston rod
37	783004	1	Pin
38	PGF-13172	1	Spring
39	PGF-8996	1	Latch
40		1	Circle
41	ASF-3678	1	Clip
42	PGF-9755	1	Clip
43	ASF-5451	1	Gasket

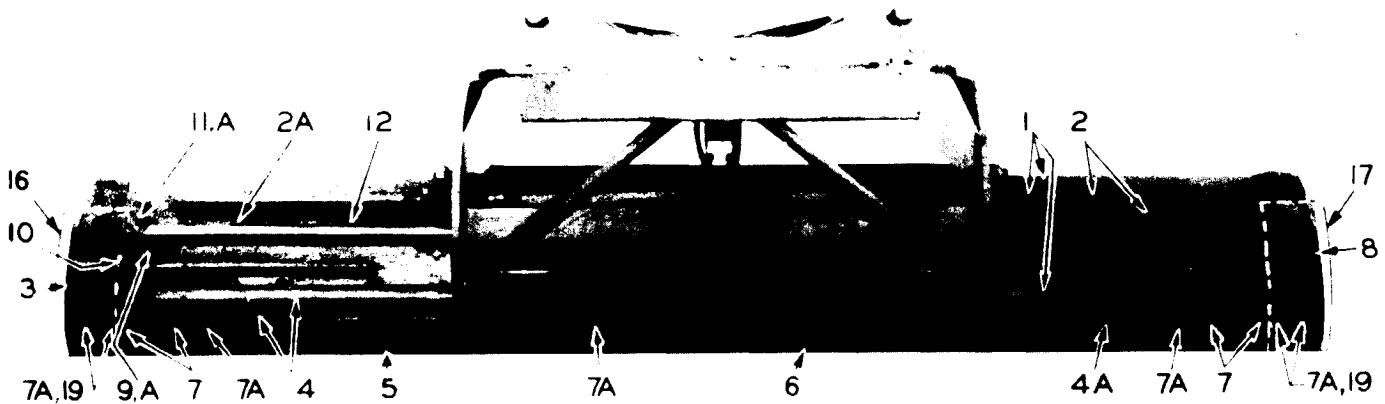


Figure 35. Blade

12' BLADE AND PARTS

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-2376	1	Blade group with bits (includes Ref. Nos. 1, 3 and 5 to 13 inclusive)
1	PGF-14594	1	Blade group less bits (incl. Ref. Nos. 2, 2A, 4 and 4A)
2	PGF-12053	1	Upper shaft with supports (rivets to moldboard)
2A	572226	16	Upper shaft support rivet - button head (3/4" x 2")
3	PGF-14750	1	End bit - left hand
4	PGF-13055	1	Lower tube with supports (rivets to moldboard)
4A	572226	20	Lower tube support rivet - button head (3/4" x 2")
5	RGF-2780-98	1	Bit or cutting edge (L.H.) 5/8" x 6" x 6"
6	RGF-2780-99	1	Bit or cutting edge (R.H.) 5/8" x 6" x 6"
7	RGF-6461	4	Bit bolt
7A	RGF-6462	24	Bit bolt
8	PGF-14749	1	End bit - right hand
9	PGX-10433	1	Side shift ball support (includes Ref. No. 10)
9A	PGF-11249	2	Ball support shim - .036" thick
10	PGF-11223	2	Ball support pin - 2-3/8" long
11	RGF-6479	1	Ball support bolt
11A	PGF-12155	1	Nut - ball support bolt
12	PGF-10819	1	Moldboard plug bolt
16	PGF-13058	1	Overlaid end bit - left hand (special order)
17	PGF-13057	1	Overlaid end bit - right hand (special order)
19	RGF-6465	10	Overlaid bit bolt

13' BLADE AND PARTS

0	PGU-2377	1	Blade group with bits (includes Ref. Nos. 1, 3 and 5 to 13 inclusive)
1	PGF-14593	1	Blade group less bits (incl. Ref. Nos. 2, 2A, 4 and 4A)
2	PGF-11979	1	Upper shaft with supports (rivets to moldboard)
2A	572226	16	Upper shaft support rivet - button head (3/4" x 2")
3	PGF-14750	1	End bit - left hand
4	PGF-12680	1	Lower tube with supports (rivets to moldboard)
4A	572226	20	Lower tube support rivet - button head (3/4" x 2")
5	RGF-2764-98	1	Bit or cutting edge (L.H.) 5/8" x 6" x 7"
6	RGF-2780-99	1	Bit or cutting edge (R.H.) 5/8" x 6" x 6"
7	RGF-6461	4	Bit bolt
7A	RGF-6462	25	Bit bolt
8	PGF-14749	1	End bit - right hand
9	PGX-10433	1	Side shift ball support (includes Ref. No. 10)
9A	PGF-11249	2	Ball support shim - .036" thick
10	PGF-11223	2	Ball support pin - 2-3/8" long
11	RGF-6479	1	Ball support bolt
11A	PGF-12155	1	Nut
12	PGF-10819	1	Moldboard plug bolt
16	PGF-13058	1	Overlaid end bit - left hand (special order)
17	PGF-13057	1	Overlaid end bit - right hand (special order)
19	RGF-6465	10	Overlaid bit bolt

BLADE EXTENSIONS are provided to enlarge the usefulness of your machine for LIGHT WORK ONLY.

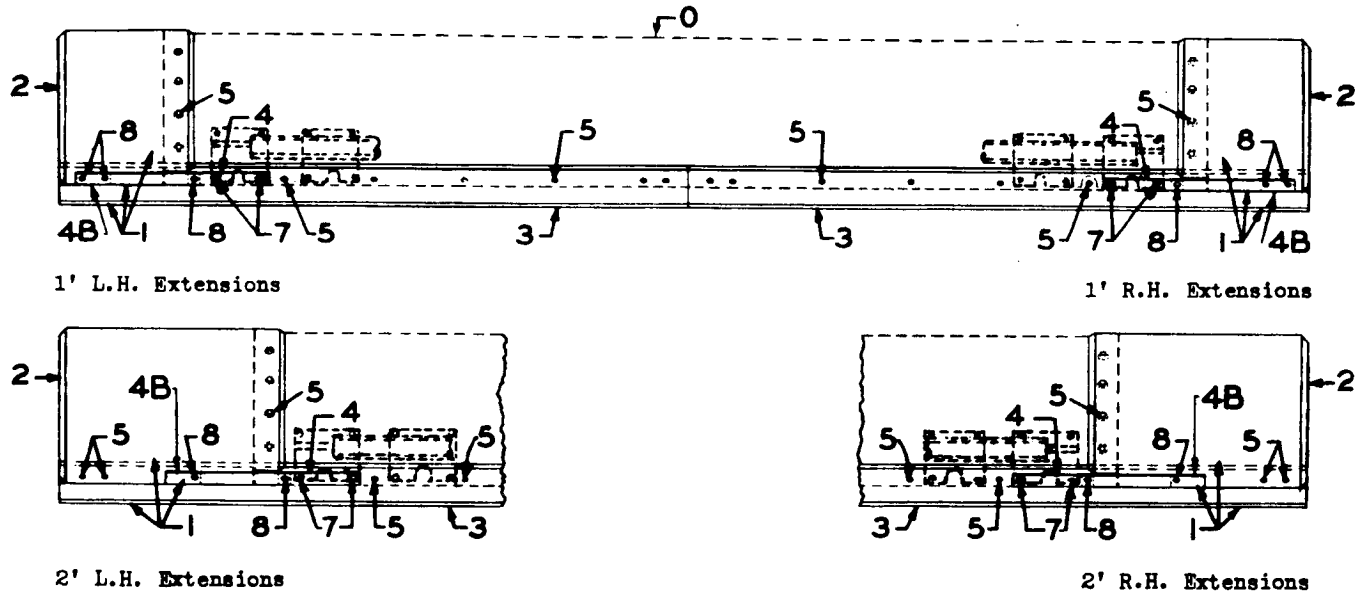


Figure 36. Blade Extension and Cutting Edges

12' Blade Extensions

REF.	DESCRIPTION	QTY.	1' LH EXT.	2' LH EXT.	1' RH EXT.	2' RH EXT.
0	Blade	1				
1	Extension group	1	PGU-2380	PGU-2383	PGU-2378	PGU-2381
2	Extension only	1	PGF-14598	PGF-14596	PGF-14597	PGF-14595
3	Bit	1	* RGF-2764-98	% RGF-2778-98	* RGF-2764-99	% RGF-2778-99
4	Stiffener	1	PGF-10601	PGF-10601	PGF-10601	PGF-10601
4B	Stiffener shim	1	PGF-11502	PGF-11502	PGF-11502	PGF-11502
5	Plow bolt	10	RGF-6462		RGF-6462	
5	Plow bolt	13		RGF-6462		RGF-6462
7	Plow bolt	2	RGF-6473	RGF-6473	RGF-6473	RGF-6473
8	Plow bolt	3	RGF-6487		RGF-6487	
8	Plow bolt	2		RGF-6487		RGF-6487

13' Blade Extensions

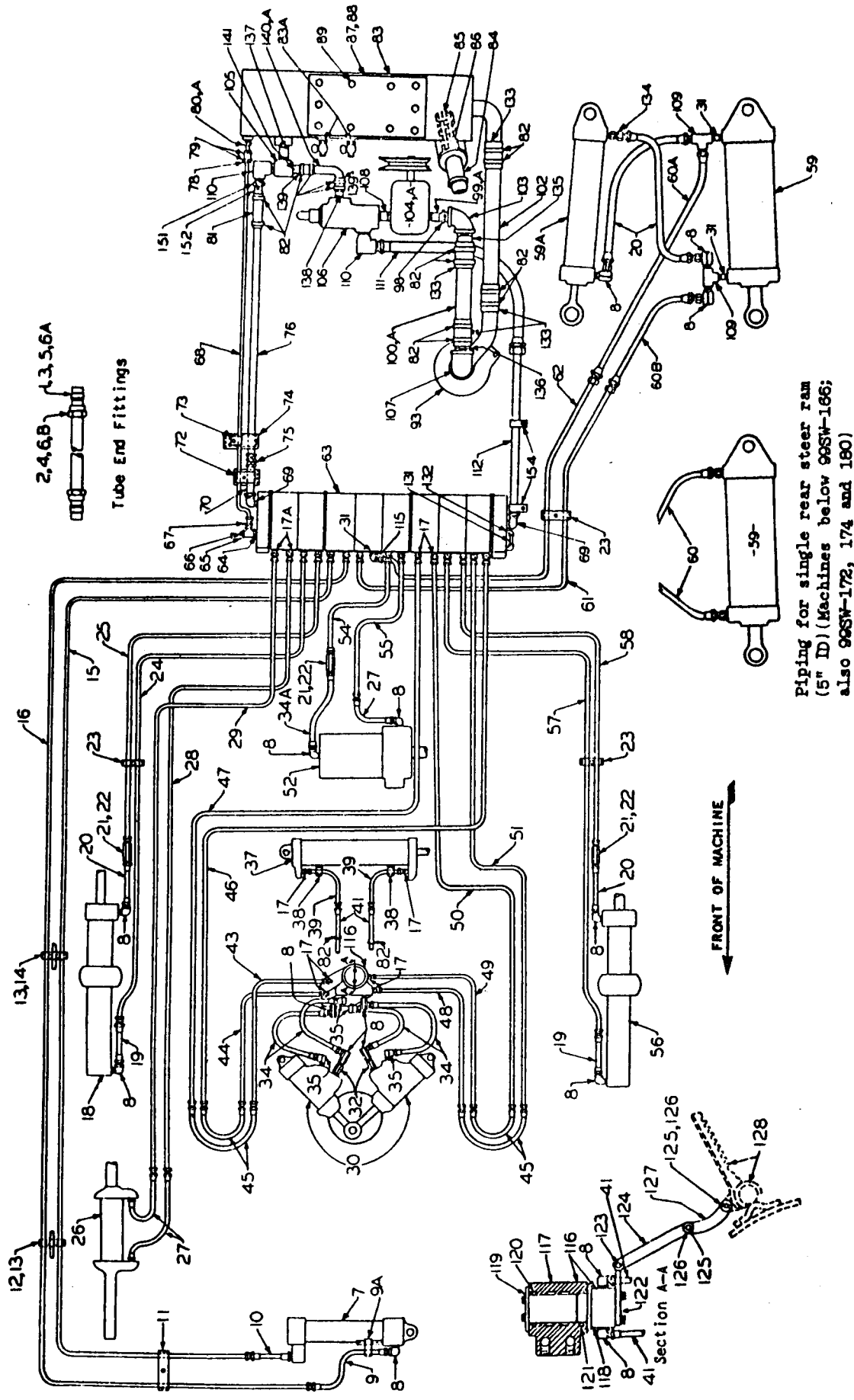
REF.	DESCRIPTION	QTY.	1' LH EXT.	2' LH EXT.	1' RH EXT.	2' RH EXT.
0	Blade	1				
1	Extension group	1	PGU-2379	PGU-2382	PGU-2378	PGU-2381
2	Extension only	1	PGF-14598	PGF-14596	PGF-14597	PGF-14595
3	Bit	1	% RGF-2778-98	£ RGF-2776-98	* RGF-2764-99	% RGF-2778-99
4	Stiffener	1	PGF-10601	PGF-10601	PGF-10601	PGF-10601
4B	Stiffener shim	1	PGF-11502	PGF-11502	PGF-11502	PGF-11502
5	Plow bolt	11	RGF-6462			
5	Plow bolt	13		RGF-6462		
5	Plow bolt	10			RGF-6462	
5	Plow bolt	12				RGF-6462
7	Plow bolt	2	RGF-6473	RGF-6473	RGF-6473	RGF-6473
8	Plow bolt	3	RGF-6487		RGF-6487	
8	Plow bolt	2		RGF-6487		RGF-6487

Note: * Indicates 5/8" x 6" x 7' bit or cutting edge.
 % Indicates 5/8" x 6" x 8' bit or cutting edge.
 £ Indicates 5/8" x 6" x 9' bit or cutting edge.
 Blade bit or cutting edges are always shipped less the necessary bolts and nuts for installation unless otherwise specified.

Refer to Pages 63 through 67 for Part Numbers

Note: For additional hydraulic hose data, see page 68

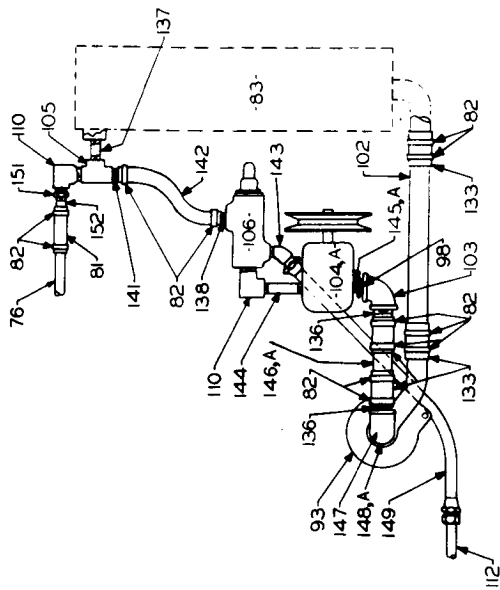
Note: For piping at pump and tank for GM-4055C or UD-14A engine, see page 62



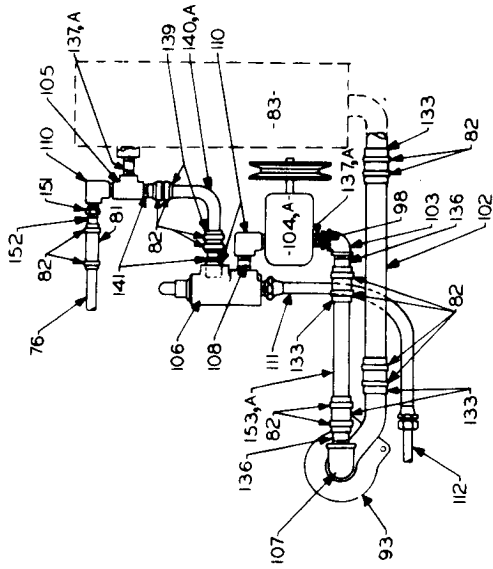
Piping for single rear steer ram (5" ID) (Machines below 99SW-166; also 99SW-172, 174 and 180)

FRONT OF MACHINE

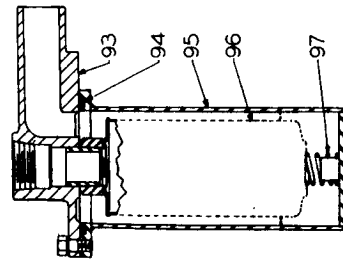
Figure 37A. Hydraulic Piping Diagram for GM-4080 Engine



Piping at Pump and Tank
(For GM-4055C Engine)



Piping at Pump and Tank
(For IHC UD-14A Engine)



Strainer Group

Refer to Pages 63 through
67 for Part Numbers

Note: For balance of grader
piping, see page 61

Note: For additional hydraulic
hose data, see page 68

Figure 37B. Hydraulic Piping Diagram for GM-4055C or UD-14A Engine

(Refer to Figures 37A and 37B for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-9496-5	3	Coupling sleeve (for 3/8" OD tube)
2	PGF-9497-5	3	Coupling nut (for 3/8" OD tube)
3	PGF-9496-7	44	Coupling sleeve (for 5/8" OD tube)
4	PGF-9497-7	44	Coupling nut (for 5/8" OD tube)
5	PGF-9496-8	5	Coupling sleeve (for 3/4" OD tube)
6	PGF-9497-8	5	Coupling nut (for 3/4" OD tube)
6A	PGF-9496-10	1	Coupling sleeve (for 1" OD tube)
6B	PGF-9497-10	1	Coupling nut (for 1" OD tube)
7		1	Front steer ram
8	PGF-12282-5	16	Right angle adapter union
9	PGF-9450	1	Hydraulic hose - 72-3/4" overall length
9A	PGF-10532	1	Hose clamp
10	PGF-9449	1	Hydraulic hose - 61-1/8" overall length
11	PGF-9529	3	Pipe clamp
12	PGF-9531	1	Pipe clamp
13	PGF-9532	5	Plate
14	PGF-9533	4	Pipe clamp
15	PGF-11836	1	* Tube - 5/8" OD x 194" (approx.)
16	PGF-11837	1	* Tube - 5/8" OD x 193-1/2" (approx.)
17	PGF-10143-7	21	Coupling connector
17A	810003	3	Square head pipe plug (used only on machines not equipped with scarifier)
18		1	R.H. blade lift ram
19	PGF-9445	2	Hydraulic hose - 35-7/8" overall length
20	PGF-9444	4	Hydraulic hose - 29-1/8" overall length
21	PGF-9455	3	Check valve body
22	PGF-9454	3	Check valve poppet
23	PGF-11680	10	Pipe clamp
24	PGF-11834	1	* Tube - 5/8" OD x 70-1/4" (approx.)
25	PGF-11835	1	* Tube - 5/8" OD x 70-3/4" (approx.)
26		1	Scarifier ram
27	PGF-9442	3	Hydraulic hose - 22" overall length
28	PGF-11825	1	* Tube - 5/8" OD x 134" (approx.)
29	PGF-11826	1	* Tube - 5/8" OD x 134-1/2" (approx.)
30		1	Circle reverse hydraulic motor
31	530139	3	- Pipe nipple
32	PGF-10893	2	Fitting
34	PGF-9441	4	Hydraulic hose - 19" overall length
34A	PGF-14942	1	Hydraulic hose - 21" overall length
35	PGF-10104-4	4	Elbow
37		1	Blade side shift ram
38	PGF-9970	2	Pipe clamp
39	PGF-10491	2	* Tube - 5/8" OD x 13-1/2" (approx.)
41	PGF-10490	2	Hydraulic hose - 31-3/8" overall length
43	PGF-14352	1	* Tube - 5/8" OD x 105-1/2" (approx.)
44	PGF-14353	1	* Tube - 5/8" OD x 102" (approx.)
45	PGF-9446	4	Hydraulic hose - 42-1/2" overall length
46	PGF-11840	1	* Tube - 5/8" OD x 153-1/4" (approx.)
47	PGF-11845	1	* Tube - 5/8" OD x 157" (approx.)
48	PGF-14355	1	* Tube - 5/8" OD x 95-1/2" (approx.)

Note: Hydraulic hose dimensions given are overall lengths including end fittings.
 * Includes two, Ref. 3, PGF-9496-7 sleeves, and two, Ref. 4, PGF-9497-7 nuts.
 \$ Machines 99SW-166 and up; except 99SW-172, 174 and 180.

(continued)

(Refer to Figures 37A and 37B for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
49	PGF-14354	1	* Tube - 5/8" OD x 99-3/4" (approx.)
50	PGF-11841	1	* Tube - 5/8" OD x 157" (approx.)
51	PGF-11844	1	* Tube - 5/8" OD x 158-1/4" (approx.)
52		1	High lift ram
54	PGF-11838	1	* Tube - 5/8" OD x 41-1/2" (approx.)
55	PGF-11839	1	* Tube - 5/8" OD x 44-1/2" (approx.)
56		1	L.H. blade lift ram
57	PGF-11842	1	* Tube - 5/8" OD x 68-1/4" (approx.)
58	PGF-11843	1	* Tube - 5/8" OD x 68-5/8" (approx.)
59		1	5" Rear steer ram
59A		1	\$ 3" Rear steer ram
60	BRF-2293	2	# Hydraulic hose - 18-7/16" overall length
60A	PGF-10517	1	Hydraulic hose - 11-7/8" overall length
60B	BRF-2299	1	Hydraulic hose - 23-5/8" overall length
61	PGF-14936	1	* Tube - 5/8" OD x 146" (approx.)
62	PGF-14935	1	* Tube - 5/8" OD x 131" (approx.)
63		1	Valve bank group
64	532046	1	Pipe nipple
65	537002	1	Tee
66	810001	3	Square head pipe plug
67	PGF-10143-5	1	Coupling connector
68	PGF-14932	1	Tube - 3/8" OD x 119-1/4" (approx.) (includes one only of Ref. Nos. 1 and 2)
69	PGF-10144-8	2	Elbow
70	PGF-9825	1	*** Tube - 3/4" OD x 7-15/16"
72	PGF-9522	2	Pipe clamp
73	PGF-9520	1	Pipe clamp
74	PGF-10046	1	Pipe clamp
75	PGF-9812-8	1	Coupling union
76	PGF-14933	1	Tube - 3/4" OD x 109-5/8" (approx.) (includes 1 only of Ref. Nos. 5 and 6)
78	PGF-12412	1	Hose
79	034105	2	Hose clamp
80	533004	1	Nipple
80A	526001	1	Reducer
81	PGF-12413	1	Hose
82	034014	14	Hose clamp
83	PGP-14516	1	Oil tank with cover, gasket and screws (includes Ref. Nos. 87, 88 and 89)
83A	ASF-5766	2	Oil tank pet cock
84	PGF-9374	1	Breather
85	PGF-14733	1	Filler screen
86	PGF-8975	1	Filler screen flange gasket
87	PGF-14530	1	Cover
88	PGF-14529	1	Cover gasket
89	742160	10	Screw - cover to tank
93	PG-2343	1	Head

Note: * Includes two, Ref. 3, PGF-9496-7 sleeves, and two, Ref. 4, PGF-9497-7 nuts.

*** Includes two, Ref. 5, PGF-9496-8 sleeves, and two, Ref. 6, PGF-9497-8 nuts.

Machines below 99SW-166; also 99SW-172, 174 and 180.

\$ Machines 99SW-166 and up; except 99SW-172, 174 and 180.

(continued)

(Refer to Figures 37A and 37B for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
94	PGF-9648-14	1	"O" ring
95	PGF-12968	1	Tank
96	PGF-12842	1	Screen
97	NRS-997	1	Spring
98	526015	1	¾ Reducer bushing
99	BRF-1100	1	¾ Nipple
99A	WRF-1304	1	@ Nipple
100	PGF-15150	1	¾ Pipe
100A	PGF-14860	1	@ Tube
102	PGF-14857	1	Tube
103	902004	1	Elbow - reducer
104	PGF-15000	1	@ Hydraulic oil pump (see Fig. 39)
104A	PGF-15081	1	¾ Hydraulic oil pump (see Fig. 40)
105	PGF-12290-3	1	Tee
106	PGF-14565	1	Relief valve
107	563007	1	Elbow
108	PGF-14854	1	Nipple
109	PGF-12290-2	2	Tee
110	PGF-12291-4	2	Elbow
111	PGF-14930	1	Hydraulic hose - 28-3/8" overall length
112	PGF-14934	1	Tube - 1" OD x 94" (approx.) (includes 2 of Ref. No. 5 and 1 only of Ref. Nos. 6, 6A and 6B)
115	PGF-10145-7	1	Elbow
116	PGP-1813	1	Swivel junction group (includes Ref. Nos. 117 and 118)
117		1	& Junction block
118		1	& Swivel plug
119	PGF-8989	1	Washer
120	PGF-9648-2	1	"O" ring
121	PGF-9648-6	1	"O" ring
122	PGF-9413	1	Connection plate
123	PGF-9414	1	Pin
124	PGF-9751	1	Link
125	PGF-13175	4	Pin
126	PGF-5930	4	Washer
127	PGF-10503	1	Connector
128		1	Tilting arm group
131	PGF-11054	1	** Tube - 3/8" OD x 7-3/8" (approx.)
132	PGF-10144-5	2	Elbow
133	PGF-14858	4	Hose
134	HCF-1568-6	1	Fitting
135	PGF-14999	1	Nipple
136	PGF-3815	1	Nipple
137	532185	1	Nipple
138	533188	1	Nipple
139	PGF-12397	2	Hose

Note: ** Includes two, Ref. 1, PGF-9496-5 sleeves, and two, Ref. 2, PGF-9497-5 nuts.
 @ Machines below 99-400.
 ¾ Machines 99-400 and up.
 & Indicates parts not sold separately. Order Ref. No. 116 - PGP-1813 swivel junction group from your nearest Austin-Western distributor.

(continued)

(Refer to Figures 37A and 37B for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
140	PGF-14861	1	¾ Tube
140A	PGF-14860	1	@ Tube
141	533186	1	Nipple
151	526010	1	Reducer
152	533143	1	Nipple
154	PGF-3710	2	Clip

PIPING AT PUMP AND TANK (FOR GM-4055C ENGINE)
(Refer to Figure 37B)

76	PGF-14933	1	Tube - 3/4" OD x 109-5/8" (approx.) (includes 1 only of Ref. Nos. 5 and 6)
81	PGF-12413	1	Hose
82	034014	12	Hose clamp
83		1	Hydraulic tank (for tank and related parts see Fig. 37A, Ref. Nos 83 thru 89 inclusive)
93	PG-2343	1	Head
98	526015	1	Reducer bushing
102	PGF-14857	1	Tube
103	902004	1	Elbow - reducer
104	PGF-15000	1	@ Hydraulic oil pump (see Fig. 39)
104A	PGF-15081	1	¾ Hydraulic oil pump (see Fig. 40)
105	PGF-12290-3	1	Tee
106	PGF-14565	1	Relief valve
110	PGF-12291-4	2	Elbow
112	PGF-14934	1	Tube - 1" OD x 94" (approx.) (includes 2 of Ref. No. 5 and 1 only of Ref. Nos. 6, 6A and 6B)
133	PGF-14858	4	Hose
136	PGF-3815	2	Nipple
137	532185	1	Nipple
138	533188	1	Nipple
141	533186	1	Nipple
142	PGF-15028	1	Hose
143	564005	1	Elbow
144	PGF-1845	1	Nipple
145	AJF-2356	1	¾ Nipple
145A	HCF-2152	1	@ Nipple
146	PGF-15149	1	¾ Pipe
146A	PGF-14873	1	@ Pipe
147	522007	1	Elbow
148	532277	1	¾ Nipple
148A	532275	1	@ Nipple
149	PGF-15029	1	Hydraulic hose - 22-3/4" overall length
151	526010	1	Reducer
152	533143	1	Nipple

Note: @ Machines below 99-400.
¾ Machines 99-400 and up.

(continued)

(Refer to Figures 37A and 37B for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
PIPING AT PUMP AND TANK (FOR IHC UD-14A ENGINE)			
(Refer to Figure 37B)			
76	PGF-14933	1	Tube - 3/4" OD x 109-5/8" (approx.) (includes 1 only of Ref. Nos. 5 and 6)
81	PGF-12413	1	Hose
82	034014	12	Hose clamp
83		1	Hydraulic tank (for tank and related parts see Fig. 37A, Ref. Nos. 83 thru 89 inclusive)
93	PG-2343	1	Head
98	526015	1	Reducer bushing
102	PGF-14857	1	Tube
103	902004	1	Elbow - reducer
104	PGF-15000	1	@ Hydraulic oil pump (see Fig. 39)
104A	PGF-15081	1	% Hydraulic oil pump (see Fig. 40)
105	PGF-12290-3	1	Tee
106	PGF-14565	1	Relief valve
107	563007	1	Elbow
108	PGF-14854	1	Nipple
110	PGF-12291-4	3	% Elbow (@ uses 2 only of this part)
111	PGF-14930	1	Hydraulic hose - 28-3/8" overall length
112	PGF-14934	1	Tube - 1" OD x 94" (approx.) (includes 2 of Ref. No. 5 and 1 only of Ref. Nos. 6, 6A and 6B)
133	PGF-14858	4	Hose
136	PGF-3815	2	Nipple
137	PGF-14854	2	% Nipple
137A	AJF-2356	2	@ Nipple
139	PGF-12397	2	Hose
140	PGF-14861	1	% Hose
140A	PGF-14860	1	@ Pipe
141	533186	2	Nipple
151	526010	1	Reducer bushing
152	533143	1	Nipple
153	PGF-15151	1	% Pipe
153A	PGF-15103	1	@ Pipe

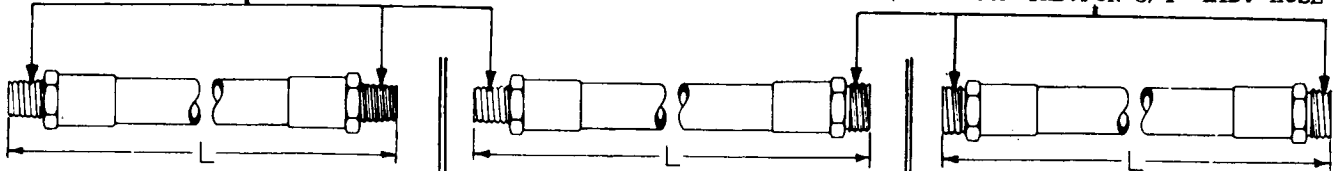
Note: @ Machines below 99-400.
 % Machines 99-400 and up.

FACTORY ATTACHED CONNECTIONS

Note: In ordering hose always be governed by the overall length. See (L)

1/2"-14 NPTF FOR 1/2" HYD. HOSE
3/4"-14 NPTF FOR 3/4" HYD. HOSE

15/16"-16UN THD. FOR 1/2" HYD. HOSE
1-5/16"-16UN THD. FOR 3/4" HYD. HOSE



1/2" I.D. HYD. HOSE		1/2" I.D. HYD. HOSE		1/2" I.D. HYD. HOSE	
Length (L)	Part No.	Length (L)	Part No.	Length (L)	Part No.
19" 21" 29-1/8"	PGF-9441 PGF-14942 PGF-9444	18-7/16" 22" 23-5/8" 31-3/8" 35-7/8" 61-1/8" 72-3/4"	BRF-2293 PGF-9442 BRF-2299 PGF-10490 PGF-9445 PGF-9449 PGF-9450	42-1/2"	PGF-9446
3/4" I.D. HYD. HOSE		3/4" I.D. HYD. HOSE		3/4" I.D. HYD. HOSE	
		22-3/4" 28-3/8"	PGF-15029 PGF-14930		



Field Service Hydraulic Hose and Connections

REF. NO.	PART NO. (1/2" I.D. HOSE)	PART NO. (3/4" I.D. HOSE)	QTY. PER HOSE END	DESCRIPTION
1	HCF-368 (1/2"-14 NPTF)	HCF-334 (3/4"-14 NPTF)	1	Stem
2	PGF-9946 (15/16"-16UN THD.)	PGF-15648 (1-5/16"-16UN THD.)	1	Stem
3	PGF-2077	HC-47	2	Clamp
4	742166	742323	2	Cap screw
5	778010	778011	2	Lock washer
6	722002	722003	2	Hex nut
7	1/2" I.D.	3/4" I.D.		Hydraulic hose-specify length wanted

Make up your own hose by keeping a supply of hydraulic hose (in random length) and hose clamps on hand. To determine length of hose required measure the overall length of the hose you wish to duplicate and deduct 2". Cut hose with a high speed hacksaw blade having 18 or 24 teeth per inch.

Figure 38. Hydraulic Hose Chart

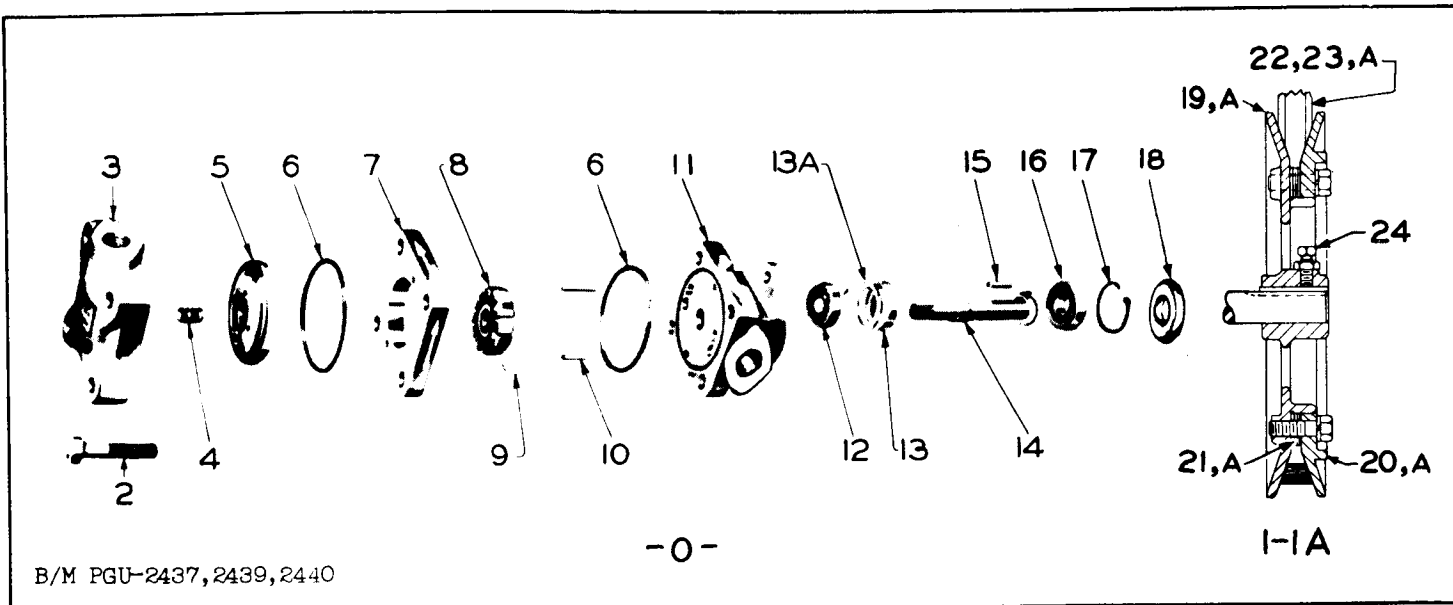
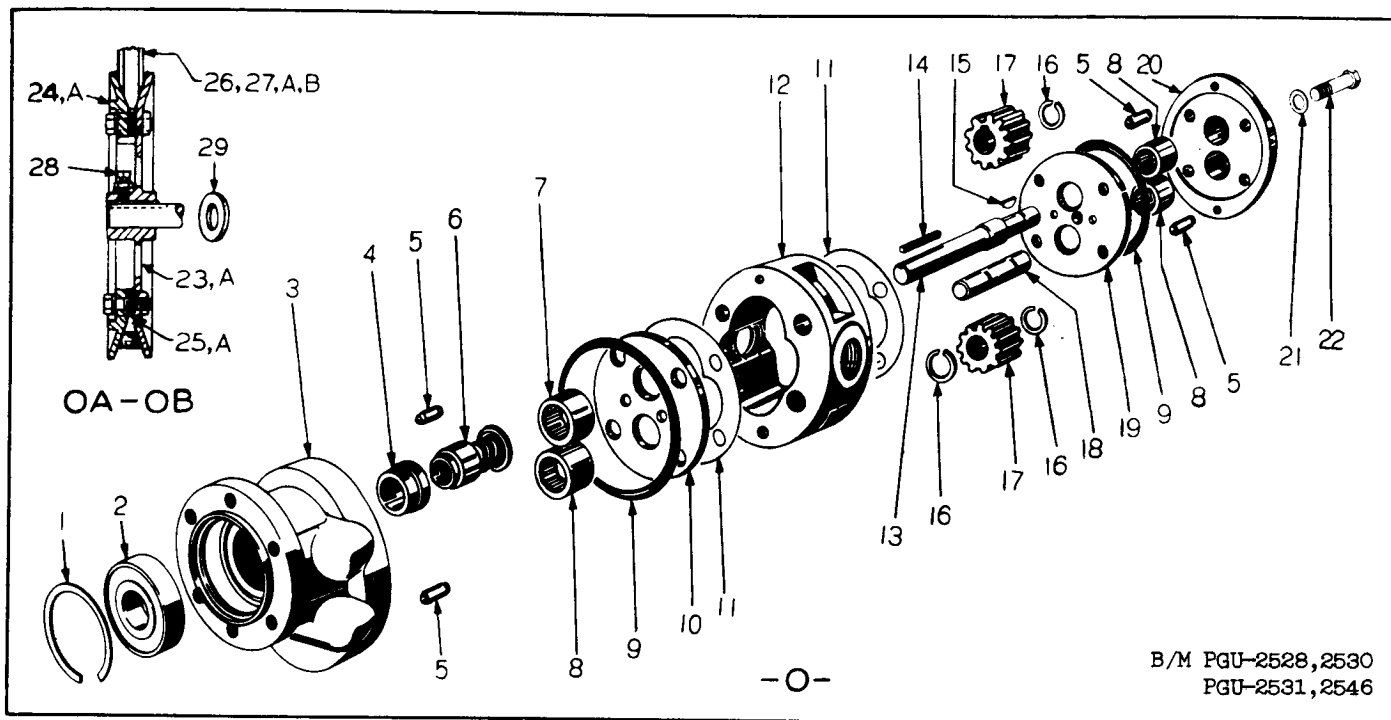


Figure 39. Hydraulic Pump and Pulley
 (For GM-4080, GM-4055C or UD-14A Engine)
 (Machines below 99-400)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGF-15000	1	Pump group - model V230-8-1A-12-S68 or -S80 (RH rotation)(includes Ref. 2 to 17 inclusive)
1	PGUS-9213	1	* Pulley group (includes Ref. 19,20,21 and 24)
1A	PGUS-9161	1	%@ Pulley group (includes Ref. 19A,20A,21A & 24)
2	503201	4	Cap screw
3	503116	1	Cover
4	503087	1	Spring
5	503283	1	Pressure plate
6	503145	2	Seal ring
7	503275	1	Ring
8	503203	1	Rotor
9	503172	1	Vane kit (12 pcs.)
10	503192	2	Pin
11	503284	1	Body
12	503008	1	Bearing
13	503101	1	Oil seal
13A	503105	1	Oil seal spacer
14	503093	1	Shaft
15	503032	1	Shaft key
16	503064	1	Bearing
17	503083	1	Snap ring
18	PGF-13623	1	Felt
19	PG-1907	1	* Pulley - inner half
20	PG-1908	1	* Pulley - outer half
21	PGF-10478	As req'd.	* Shim (6 supplied in PGUS-9213 pulley group)
19A	PG-921	1	%@ Pulley - inner half
20A	PG-920	1	%@ Pulley - outer half
21A	PGF-3923	As req'd.	%@ Shim (4 supplied in PGUS-9161 pulley group)
22	PGF-15156	1	* "v" belt
23	PGF-15157	1	% "v" belt
23A	PGF-15155	1	@ "v" belt
24	755030	1	Set screw - cup point

Note: * Used with GM-4080 engine.
 % Used with GM-4055C engine.

@ Used with UD-14A engine.



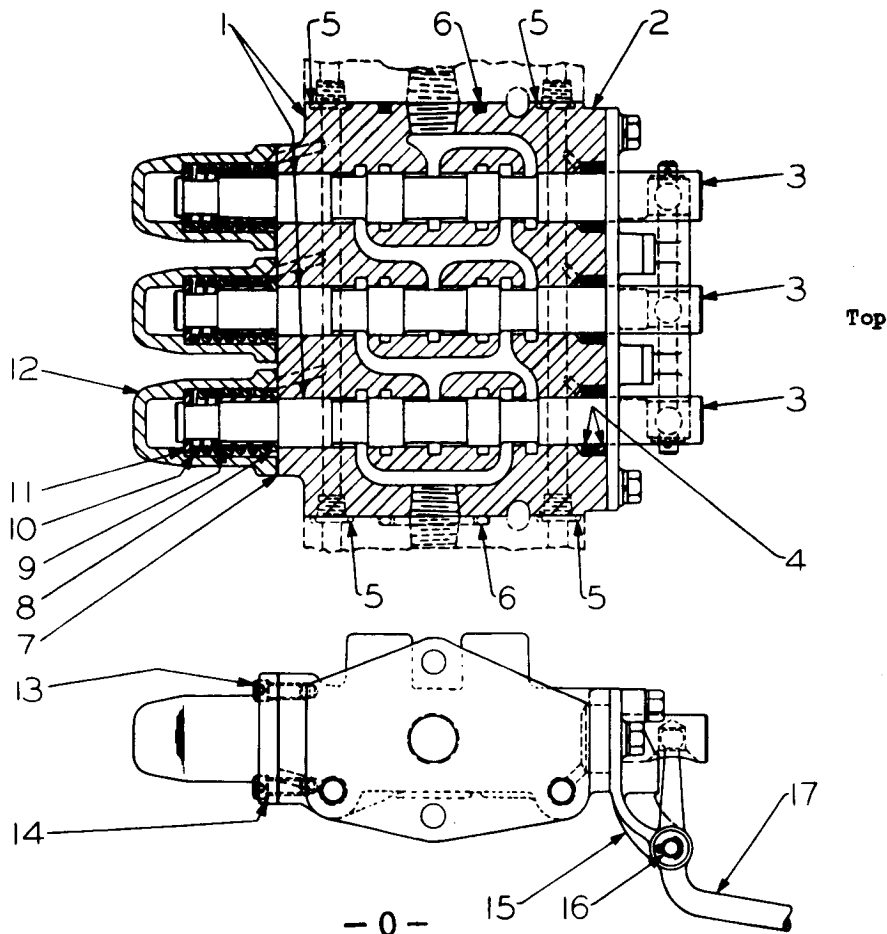
B/M PGU-2528,2530
PGU-2531,2546

Figure 40. Hydraulic Pump and Pulley
(For GM-4080, GM-4055C or UD-14A Engine)
(Machines 99-400 and up)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
O	PGF-15081	1	Pump group - model 1515T19B1 (includes Ref. Nos. 1 to 22 inclusive)
OA	PGUS-9213	1	* Pulley group (includes Ref. Nos. 23,24,25 and 28)
OB	PGUS-9161	1	% Pulley group (includes Ref. Nos. 23A,24A,25A and 28)
1	513066	1	Snap ring
2	513067	1	Bearing
3	513068	1	Adapter
4	513069	1	Seal seat
5	513070	4	Dowel pin
6	513071	1	Seal assembly
7	513037	1	Bearing
8	513036	2	Bearing
9	513072	2	Seal ring
10	513073	1	Wear plate
11	513074	As req'd.	Gasket
11	513075	As req'd.	Gasket
12	513076	1	Housing
13	513077	1	Drive shaft
14	513078	1	Key
15	513034	1	Key
16	513053	3	Snap ring
17	513079	2	Gear
18	513080	1	Driven shaft
19	513081	1	Wear plate
20	513082	1	Cover
21	513083	4	Washer
22	513084	4	Cap screw
23	PG-1907	1	* Pulley - inner half
24	PG-1908	1	* Pulley - outer half
25	PGF-10478	As req'd.	* Shim (6 supplied in PGUS-9213 pulley group)
23A	PG-921	1	% Pulley - inner half
24A	PG-920	1	% Pulley - outer half
25A	PGF-3923	As req'd.	% Shim (4 supplied in PGUS-9161 pulley group)
26	PGF-15156	1	* "V" belt
27	PGF-15157	1	* "V" belt
27A	PGF-15155	1	⊙ "V" belt (machines below 99-884)
27B	PGF-15157	1	⊙ "V" belt (machines 99-884 and up)
28	755030	1	Set screw - cup point
29	PGF-13623	1	Felt

Note: * Used with GM-4080 engine.
% Used with GM-4055C engine.

⊙ Used with UD-14A engine.

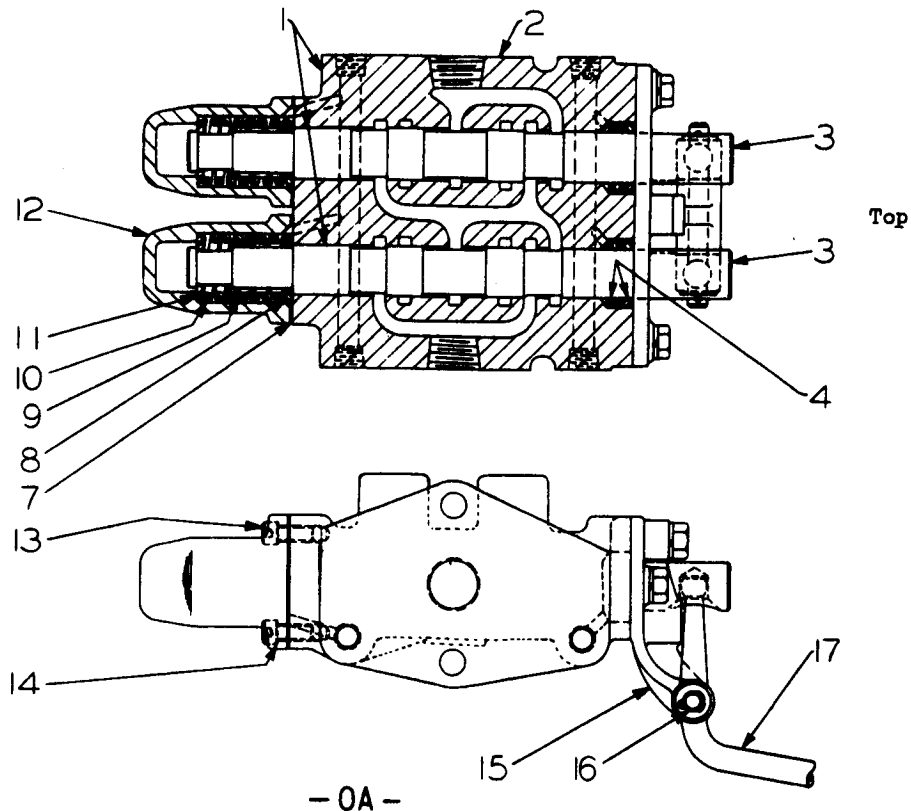


B/M PGU-8158

Figure 41. Hydraulic Control Triple Valve

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
	PGU-9233	1	Valve bank group (consists of two PGU-8158 and one PGU-8157 bolted together)
0	PGU-8158	1	Triple valve assembly (includes Ref. Nos. 1, 4, and 7 to 15 inclusive)
1	PGPA-1931	1	Body with triple valve plugs (includes Ref. Nos. 2 and 3)
2		1	* Valve body
3		3	* Valve plug (movable)
4	PGF-12365	6	Oil seal
5	PGF-9648-25	4	"O" ring
6	PGF-9648-2	2	"O" ring
7	ASF-5105	3	Valve spring cap gasket
8	PGF-8785	3	Washer
9	PGF-8781	3	Sleeve
10	PGF-8775	3	Valve spring
11	PGF-8780	3	Washer
12	AS-1010	3	Valve spring cap
13	819133	12	Cap screw - hollow head
14	HCF-373	12	Cap screw washer
15	PG-1863	1	Valve lever bracket
16	PGF-10105	1	Pin
17		3	Control lever

Note: * Indicates parts not sold separately. Order Ref. 1, PGPA-1931, body with triple valve plugs, from your nearest Austin-Western distributor.



B/M PGU-8157

Figure 42. Hydraulic Control Twin Valve

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
	PGU-9233	1	Valve bank group (consists of two PGU-8158 and one PGU-8157 bolted together)
OA	PGU-8157	1	Twin valve assembly (includes Ref. Nos. 1, and 4 to 15 inclusive)
1	PGPA-1930	1	Body with twin valve plugs (includes Ref. Nos. 2 and 3)
2		1	* Valve body
3		2	* Valve plug (movable)
4	PGF-12365	4	Oil seal
7	ASF-5105	2	Valve spring cap gasket
8	PGF-8785	2	Washer
9	PGF-8781	2	Sleeve
10	PGF-8775	2	Valve spring
11	PGF-8780	2	Washer
12	AS-1010	2	Valve spring cap
13	819133	8	Cap screw - hollow head
14	HCF-373	8	Cap screw washer
15	AS-1011	1	Valve lever bracket
16	ASF-5109	1	Pin
17		2	Control lever

Note: * Indicates parts not sold separately. Order Ref. 1, PGPA-1930, body with twin valve plugs, from your nearest Austin-Western distributor.

B/M PGU-1847
PGU-2034

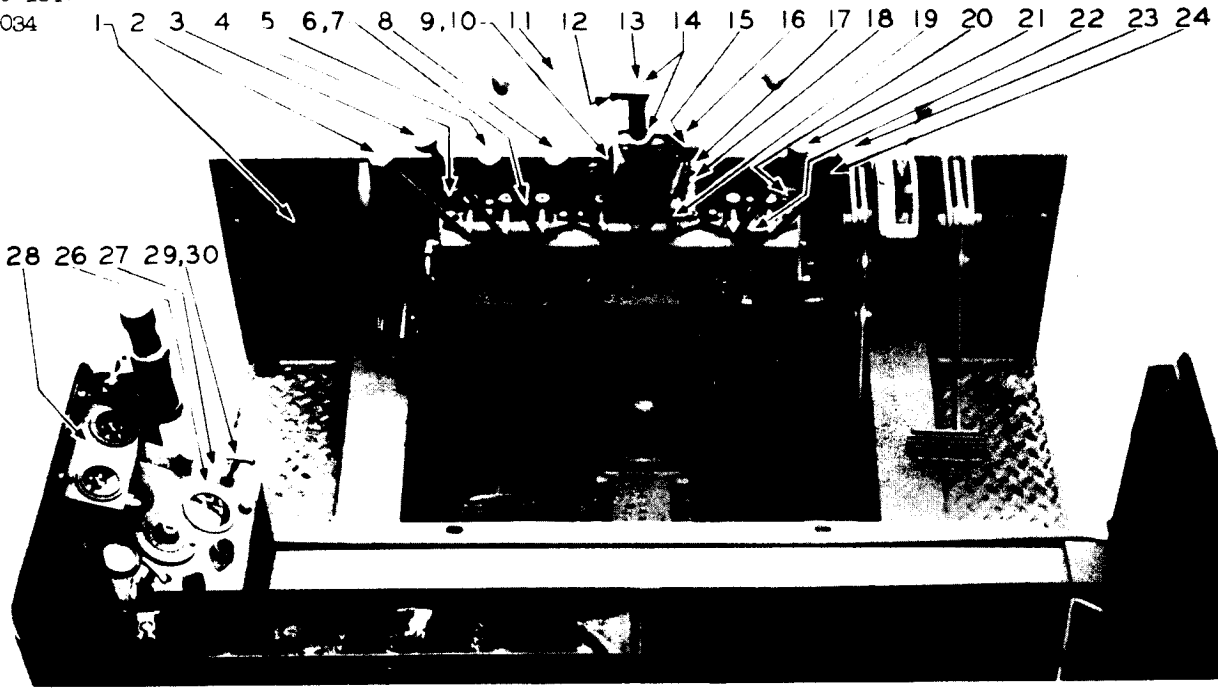


Figure 43. Hydraulic Valve Controls

NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-15193	1	Instruction plate
2	PGF-10886	1	Circle reverse valve lever
3	PGF-10883	1	L.H. blade lift valve lever
4	PGF-12615	1	Valve bank bracket - left hand
5	PGF-10885	1	Blade side shift valve lever
6	PGF-12043	1	* Valve bank cover plate
7	PGF-10754	16	* Valve bank cover plate felt
8	PGF-10884	1	High lift valve lever
9	PG-1785	1	Steering column
10	PGF-9406	2	* Steering column bushing
11	PG-1386	1	Steering lever
12	755053	1	Steering lever set screw - cup point
13	PGF-9404	1	Steering column shaft
14	111009	3	Woodruff key
	PG-1786	1	* Steering shaft collar
	755032	2	* Steering shaft collar set screw - cup point
15	PGF-10887	1	Rear steer valve lever
16	PG-1787	1	Steering shaft lever
17	PGF-10975	2	Ball and socket joint
18	PGF-9405	1	Steering link adjusting rod
19	PGF-9407	1	Steering valve lever
20	PGF-12616	1	Valve bank bracket - right hand
21	PGF-10882	1	R.H. blade lift valve lever
22	HTF-382	1	* Valve lever spacer (used only on machines not equipped with scarifier)
23	PG-1400	7	Valve lever ball
24	PGF-10881	1	Scarifier valve lever
26	PGF-11231	1	Instrument panel
27	PGF-11250	1	Instrument panel support
28	PGF-14424	1	Instrument panel - torque converter (for GM-4080 engine)
29	PGF-13569	1	Engine fuel shut-off - shown (for GM-4080 engine)
30	BRF-2114	1	* Choke control wire (for UD-14A engine)

Note: * Indicates parts not illustrated.

GM-71 DIESEL ENGINE AND RELATED PARTS

GM-4080 OR GM-4055C ENGINE AND ATTACHING PARTS

PART NO.	QUANTITY	DESCRIPTION
PGF-14675	1	Engine with torque converter - GM-4080 (see engine parts catalog)
PGF-14789	1	Engine - GM-4055C (uses 3/8" dia. bolts in flywheel housing and PGFA-10910 clutch) (no longer furnished. Order PGF-15197 engine and PGF-14503 clutch) (machines below 99-584) (see engine parts catalog)
PGF-15053	1	Engine - GM-4055C (uses 3/8" dia. bolts in flywheel housing) (no longer furnished. Order PGF-15197 engine) (machines 99-584 to 99-790 inclusive) (see engine parts catalog)
PGF-15197	1	Engine - GM-4055C (uses 7/16" dia. bolts in flywheel housing) (machines 99-792 and up) (see engine parts catalog)
PG-2124	1	Pump drive pulley (GM-4080 engine)
PGF-13075	10	Stud - pump pulley (GM-4080 engine)
PGF-15156	1	Hydraulic pump belt (GM-4080 engine)
PGF-15157	1	Hydraulic pump belt (GM-4055C engine)
PGF-13820	1	Generator belt
PGF-14507	1	Engine support - front (GM-4080 engine)
PGF-14549	1	Engine support - front (GM-4055C engine)
PGF-12977	2	Stud - front engine support
WRF-1262	2	Bolt - front engine support
PGF-14519	2	Engine support - rear (on engine)
PGF-14520	2	Engine support - rear (on frame)
PGF-11326	16	Engine support stud
737005	2	Slotted nut
PGF-15086	1	Bolt - engine support (rear R.H.)
PGF-14877	3	Capscrew - engine support (rear)
PGF-5652	1	Rest back
PGF-10111	2	Rest back support
PGF-11232	1	Tool and battery box - regular
PGF-15481	1	Tool and battery box (special order - for lock)
PGF-11627	2	Battery box lock (special order)
PGF-15309	1	Tool and battery box cover - regular
PGF-15482	1	Tool and battery box cover (special order - for lock)
740003	2	Wing nut - battery box cover
PGF-11248	2	Battery spacer
PGF-11710	4	Bumper - battery terminal
PGF-11246	2	Base - battery
PGF-14742	1	Battery box partition
PGF-11638	1	Seat cushion
PGF-12000	1	Seat cushion - air foam rubber (special order)
PGF-10114	1	Cab tie plate
PGF-14741	1	Fuel tank
PGF-10808	4	Fuel tank cushion
PGF-14505	1	Fuel tank support

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GM4-71 DIESEL ENGINE AND RELATED PARTS

RADIATOR, CONNECTIONS AND ATTACHING PARTS

PART NO.	QUANTITY	DESCRIPTION
PGF-14490	1	Radiator (GM-4080 engine) (see Fig. 47)
PGF-14526	1	Radiator (GM-4055C engine) (see Fig. 47)
PG-2296	1	Elbow - lower
PG-2297	1	Elbow - upper
PGF-14564	1	Cover - lower outlet
PGF-10792	3	Gasket - upper and lower elbows
WRF-760	2	Hose - upper and lower
PG-2353	1	Elbow - oil cooler inlet (GM-4080 engine)
PG-2128	1	Elbow - oil cooler inlet (GM-4055C engine)
PGF-14523	2	Tie rod - radiator
034014	4	Hose clamp
PGF-9520	2	Clip - tail light wires

AIR CLEANER AND ATTACHING PARTS

PGF-15425	1	Air cleaner (see Fig. 46)
PGF-12479	1	Pre-cleaner - air cleaner stack
PGF-15275	1	Stack extension - air cleaner
PGF-15552	1	Bracket - air cleaner
PGF-15079	1	Plate - air cleaner support
PGF-15417	2	Band - air cleaner
PGF-15429	1	Tube - air cleaner
PGF-12206	1	Adapter - air cleaner (engine blower end)
PGF-15072	1	Hose - air cleaner (3-1/2" ID x 4")
PGF-13910	1	Hose - air cleaner (4" ID x 4")
HCF-4452-6	8	Clamp - air cleaner hose

MUFFLER AND ATTACHING PARTS

PGF-11167	1	Muffler
PGF-11243	1	Rain cap - muffler (special order)
PGF-12640	1	Clamp - muffler
PGF-12639	1	Elbow - muffler
PGF-12774	1	Exhaust pipe
MGF-2950	1	Clamp - exhaust pipe
PGF-12778	4	Stud - exhaust pipe
921005	4	Nut - exhaust pipe stud (brass)

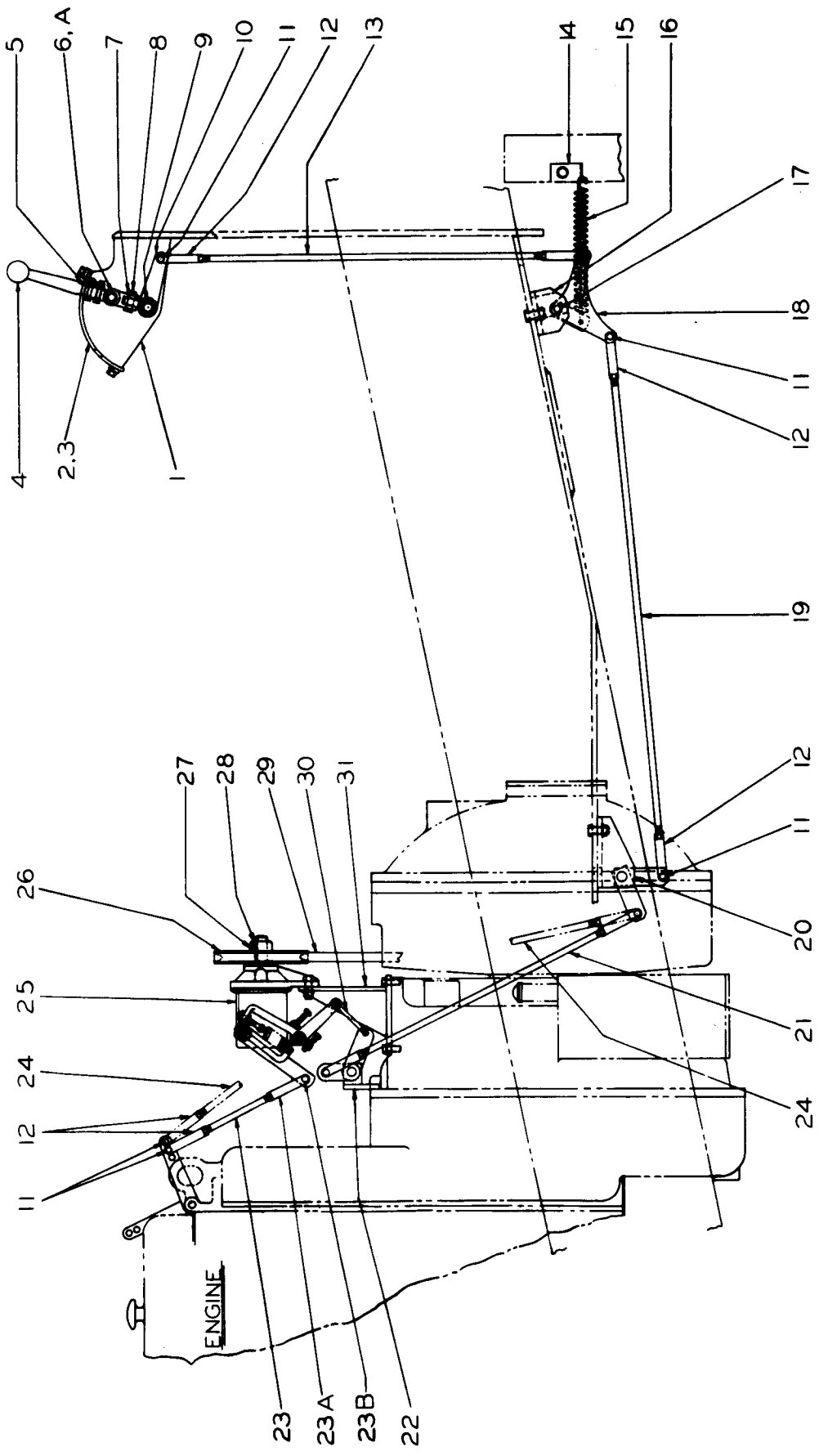


Figure 44. Governor Control Mechanism
 (For GM-4080 or GM-4055C Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-11500	1	Governor control lever support (welds on)
2	PGF-13703	1	* Ratchet
3	PGF-12382	1	% Ratchet
4	PG-2100	1	Governor control lever
5	PGF-12415	1	Ratchet clip
6	PGF-12377	1	Pin
6A	MSF-854	1	Spring
7	762004	1	Washer
8	783004	1	Rod end pin
9	PGF-13949	1	Throttle lever pivot
10	PG-2098	1	Arm - throttle handle
11	783003	7	Rod end pin
12	782003	7	Rod end fork
13	PGF-14728	1	Control rod
14	PGF-15058	1	Spring support
15	PGF-268	1	Spring
16	PGF-13887	1	Bell crank bracket
17	PGF-11471	1	Bell crank cross pin
18	PGF-15060	1	Bell crank
19	PGF-14580	1	Control rod
20	PGF-14426	1	Throttle linkage bracket
21	PGF-14579	1	* Control rod
22	PGF-14683	1	* Governor control rod support
23	PGF-14578	1	* Control rod
23A	782002	1	* Rod end fork
23B	783002	1	* Rod end pin
24	PGF-14788	1	% Control rod
25	PGF-14676	1	* Tail-shaft governor group (model GC-3922)
26	PGF-14677	1	* Pulley
27	753053	1	* Set screw
28	PGF-14783	1	* Key
29	PGF-15038	1	* Belt
30	PGF-14581	1	* Governor control rod
31	PGF-14679	1	* Governor support

Note: * Used with GM-4080 engine.
 % Used with GM-4055C engine.

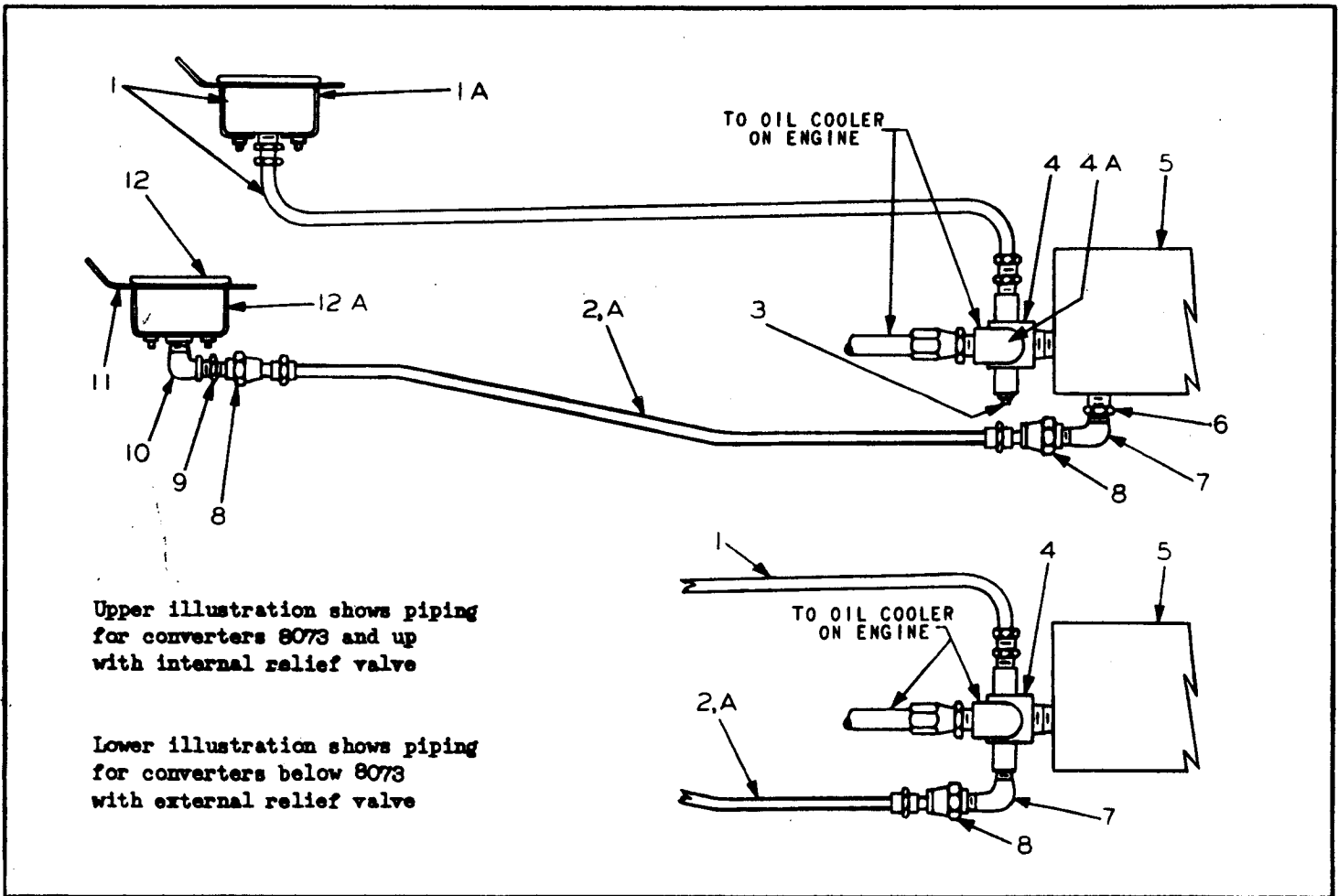
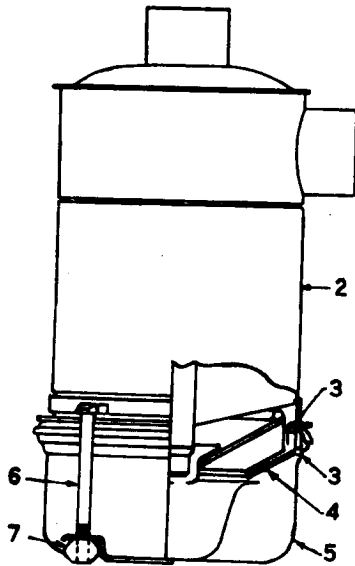


Figure 45. Torque Converter Instruments and Connections
(For GM-4080 Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-13955	1	Oil temperature gauge
1A	PGF-14790	2	Clamp - oil temperature gauge
2	PGF-14546	1	Hose - torque converter oil pressure gauge (includes Ref. Nos. 2A and 8)
2A	451013	1	Hose - 5/16" ID x 54-7/8" long
3	810001	1	Pipe plug
4	PGF-14636	1	Tee
4A	563854	1	Street ell
5		1	Torque converter
6	526008	1	Reducer bushing
7	835004	1	Elbow
8	PGF-13619-7	2	Hose fitting - female thread
9	840003	1	Connector
10	563001	1	Street ell
11		1	Instrument panel
12	PGF-13954	1	Oil pressure gauge
12A	PGF-14587	1	Clamp - oil pressure gauge

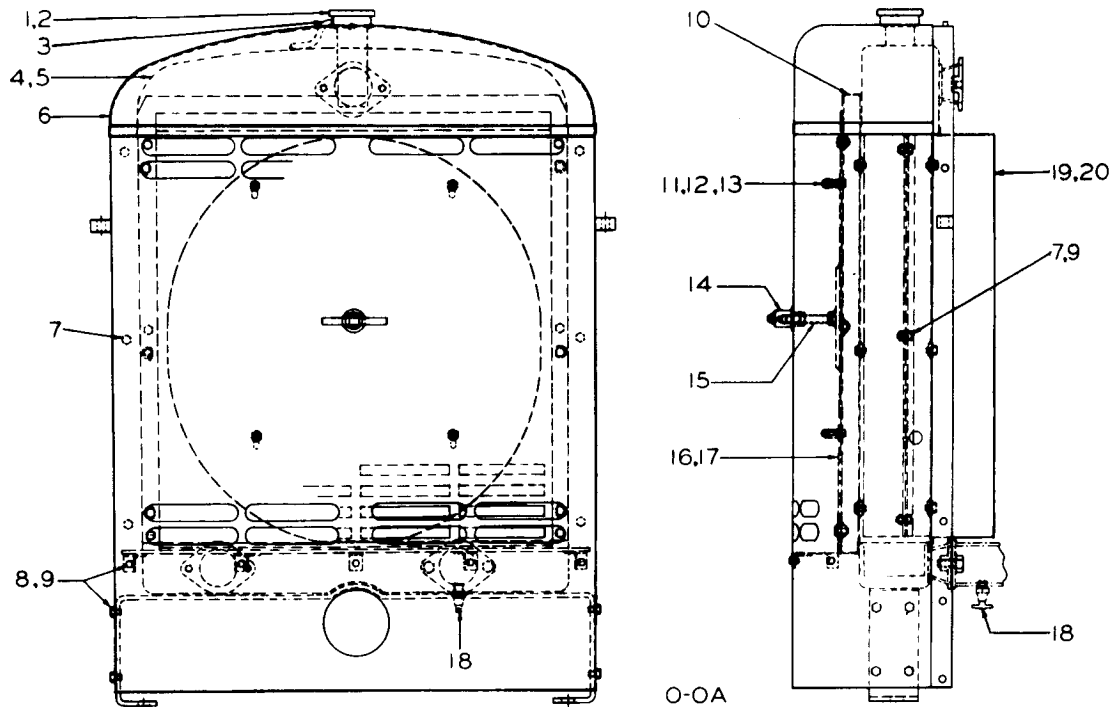


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Figure 46. Air Cleaner
(For GM 4-71 Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-15425	1	Air cleaner group (includes Ref. 2 to 6 inclusive)
2	035031	1	* Body
3	035030	2	Rubber gasket
4	035032	1	Tray
5	035035	1	Oil cup
6	035033	2	Side rod (includes Ref. No. 7)
7	035034	2	Wing nut

Note: * If replacing Ref. 2 Body, we
Recommend purchasing a new
PGF-15425 air cleaner complete.



B/M PGU-2511-A

Figure 47. Radiator and Shutter
(For GM-4080, GM-4055C or UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGF-14490	1	*@ Radiator group (includes Ref. Nos. 1 to 9 inclusive except Ref. No. 5)
0	PGF-14526	1	% Radiator group (includes Ref. Nos. 1 to 9 inclusive except Ref. No. 4)
OA	PGU-2511-A		Radiator shutter group (special order) (includes Ref. Nos. 10 to 17 inclusive)
1	033007	1	Radiator cap
2	562044	1	Radiator cap washer
3	562045	1	Overflow tube
4	562043	1	*@ Radiator (core and tanks)
5	562050	1	% Radiator (core and tanks)
6	562046	1	Radiator shell
7	562047	6	Hex head bolt
8	562048	13	Hex head bolt
9	562049	19	Lockwasher
10	PGF-14856	1	Support-radiator shutter
11	PGF-6505	4	Spring
12	PGF-15217	4	Spring bolt
13	727001	4	Castellated nut
14	PGF-15218	1	Shutter handle
15	PGF-15206	1	Stud
16	PGF-15208	1	Plate - outer
17	PGF-15244	1	Plate - inner
18	PGF-15087	1	@ Drain cock
19	PGF-14566	1	*% Fan shroud
20	PGF-14567	1	@ Fan shroud

Note: * Used with GM-4080 engine.
% Used with GM-4055C engine.

@ Used with UD-14A engine.

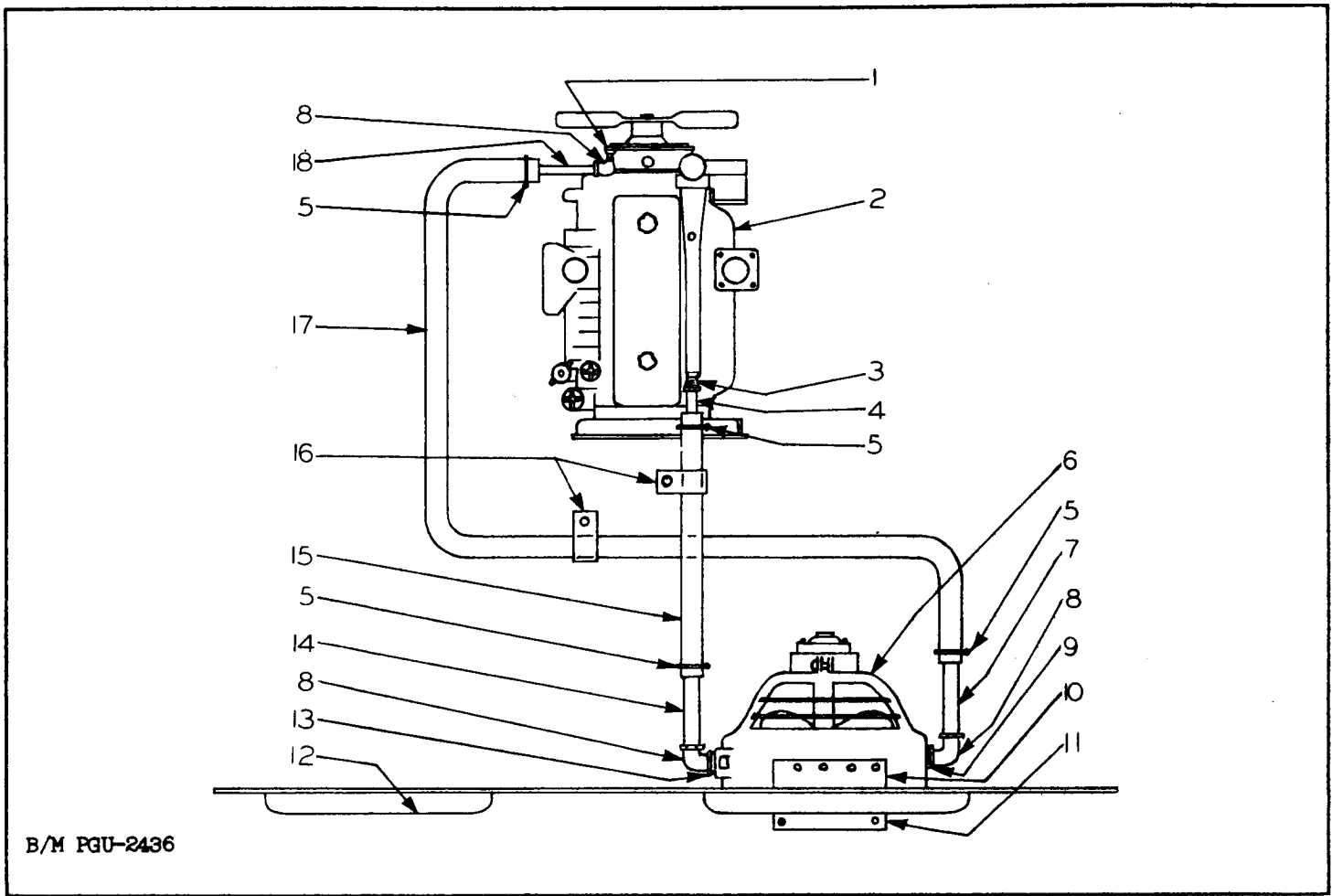
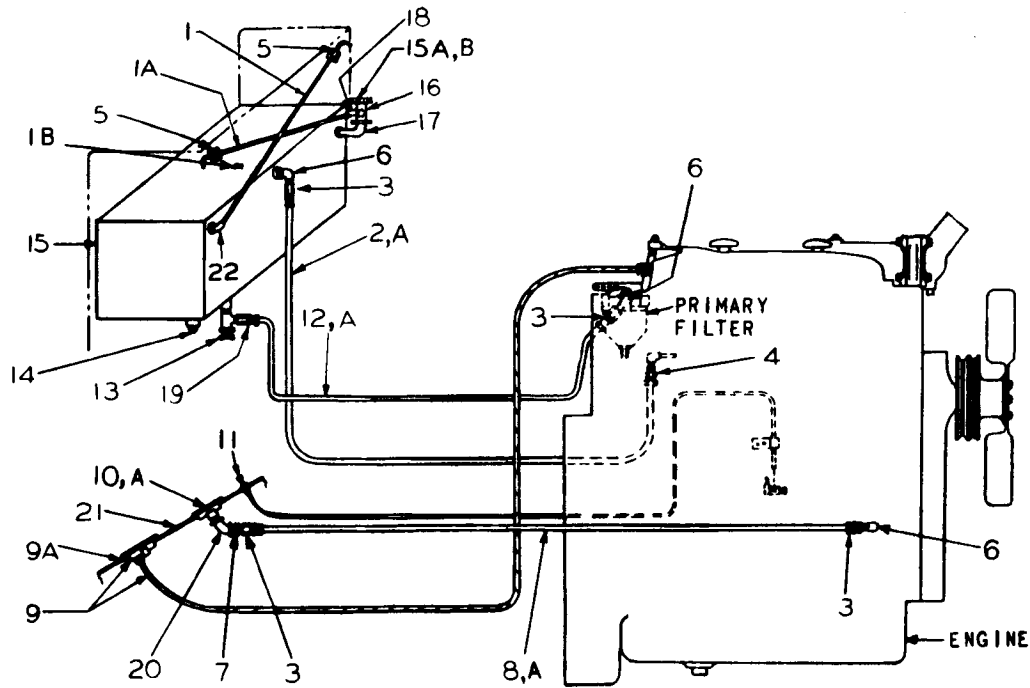
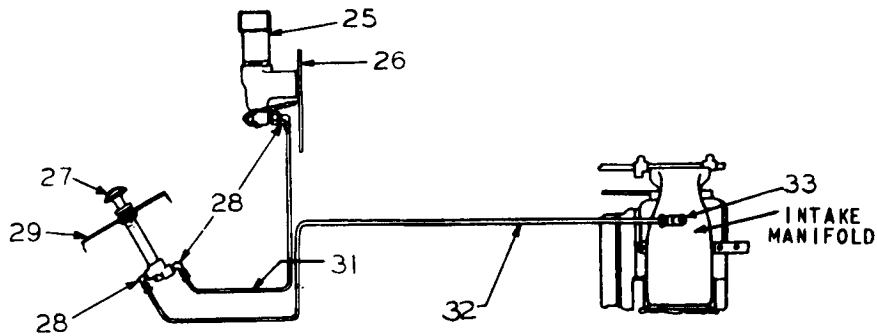


Figure 48. Heater Piping Diagram
(For GM4-71 Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1		1	Oil cooler housing
2		1	Engine
3	884004	1	Reducer bushing
4	556101	1	Nipple
5	034010	4	Hose clamp
6	PGF-12649	1	Heater - 12 volt
7	PGF-12565	1	Pipe
8	563852	3	Elbow
9	PGF-13987	1	Face bushing
10	PGF-15077	1	Heater support angle
11	PGF-15076	1	Heater support plate
12	PGF-14498	1	Cab tie plate
13	884008	1	Reducer bushing
14	556121	1	Pipe nipple
15	PGF-13963	1	Hose
16	PGF-9960	2	Clip
17	PGF-15078	1	Hose
18	556095	1	Pipe nipple



Fuel and Oil Lines



Ether Starting System

Figure 49. Fuel System
(For GM-4080 or GM-4055C Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-14572	1	Breather tube
1A	PGF-14571	1	Breather tube
1B	818005	1	Fuel tank plug
2	PGF-14395	1	Fuel hose - return line (includes Ref. No. 2A, one Ref. No. 3 and Ref. No. 4)
2A	451013		Hose - 5/16" ID x 39-3/8" long
3	PGF-13619-3	4	Hose fitting - female thread
4	PGF-13617-3	1	Hose fitting - male thread
5	PGF-13173	2	Breather tube clip
6	835006	3	Elbow
7	840005	1	Connector
8	PGF-14524	1	Hose - engine oil pressure gauge (includes Ref. No. 8A and two Ref. No. 3)
8A	451013		Hose - 5/16" ID x 73-5/8" long
9	PGF-9549	1	Water temperature gauge
9A	PGF-9280	1	Gauge gasket
10	TF-1530	1	Engine oil pressure gauge
10A	PGF-9282	1	Gauge gasket
11	PGF-13569	1	Engine emergency shut-off control
12	PGF-14668	1	Fuel hose - tank to primary filter (includes Ref. No. 12A, one Ref. No. 3 and Ref. No. 19)
12A	451013		Hose - 5/16" ID x 35-1/8" long
13	PGF-9338	1	Needle valve
14	816003	1	Drain plug
15	PGF-14741	1	Fuel tank
	PGF-10808	4	Fuel tank cushion (not illustrated)
15A	PGF-11696	1	Filler tube cap
15B	TF-1161	1	Filler tube cap gasket
16	PGF-13806	1	Filler neck
17	565009	1	Filler neck elbow
18	835007	1	Breather tube elbow
19	PGF-13619-6	1	Hose fitting - female thread
20	568001	1	Elbow
21		1	Instrument panel
22	835008	1	Breather tube elbow
25	PGF-12309	1	Puncturing tool
26	PGF-14756	1	Bracket
27	PGF-11400	1	Engine primer
28	PGF-11523	3	Elbow with nut
29		1	Instrument panel support
31	PGF-15054	1	Tube - puncturing tool to primer
32	PGF-15071	1	Tube - primer to intake manifold
33	PGF-11414	1	Elbow nozzle

B/M PGU-2029-A, 2385, A
PGU-8281-A

Refer to Pages 85 and
86 for Part Numbers

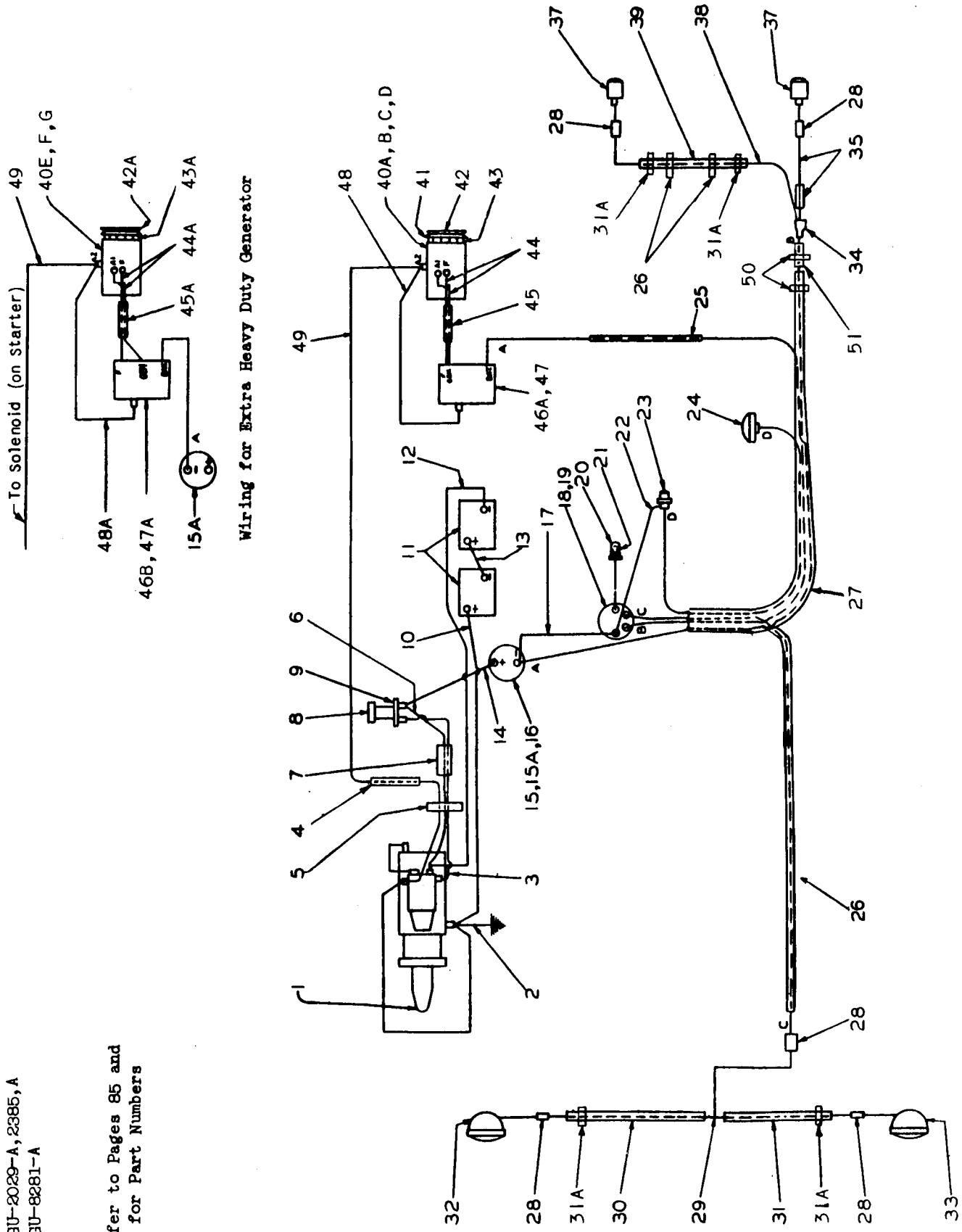


Figure 50. Wiring Diagram for GM4-71 Engine

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-13795	1	Starting motor (Delco-Remy No. 1108802)
2	PGF-13894	1	Ground strap
3	PGF-14725	1	Wire - switch to starter
4	PGF-14412	1	Loom - starter to generator wire
5	BRF-2206	1	Clamp (for GM-4055C engine)
6	PGF-14562	1	Wire - switch to starter
7	PGF-14659	1	Loom - switch to starter wire
8	ASF-7071	1	Starter button
9	PGF-11327	1	Starter switch plate
10	PGF-14662	1	Cable - battery (positive) to starter
11	PGF-10122	2	Battery - 6 volt (19 plate)
	PGF-11710	4	Bumper - battery terminals (not illustrated)
12	PGF-14661	1	Cable - battery (negative) to starter solenoid
13	PGF-10118	1	Cable - jumper
14	PGF-13902	1	Wire - starter switch to ammeter
15	PGF-9349	1	* Ammeter (30/30)
15A	ASF-6273	1	** Ammeter (60/60)
16	PGF-9282	1	Ammeter gasket
17	PGF-9506	1	Wire - ammeter to light and ignition switch
18	PGF-9351	1	Light and ignition switch
19	PGF-9279	1	Switch gasket
20	ASF-5372	1	Dash light (less bulb)
21	PGF-11968	1	Dash light bulb (3CP-SC;12-16V)
22	PGF-9547	1	Wire - switch to horn button
23	PGF-9343	1	Horn button
24	PGF-9342	1	Horn
25	PGF-11697	1	Loom - regulator wire
26	PGF-9520	2	Clip - tail light wire loom
27	PGF-12662	1	Wiring harness assembly
28	PGF-10421	5	Connector
29	PGF-12654	1	Wire - connector to headlights
30	PGF-11986	1	Loom to right hand headlight
31	PGF-11987	1	Loom to left hand headlight
31A	PGF-10046	4	Clip - headlights and tail light loom
32	PGF-11983	1	Headlight - right hand
33	PGF-11982	1	Headlight - left hand } (see Fig. 51)
34	PGF-12627	1	Connector
35	PGF-12653	1	Wire, with HCF-2777 loom - connector to left hand tail light connector
37	PGF-14849	2	Tail light
38	PGF-12652	1	Wire - connector to right hand tail light connector
39	PGF-11967	1	Loom - right hand tail light wire
40	PGF-13793	1	## Generator (standard) (Delco-Remy No. 1102983)
40A	PGF-14438	1	@* Generator (standard) (Delco-Remy No. 1102024)
40B	PGF-13819	1	* Generator bracket
40C	PGF-13818	1	* Generator strap
40D	PGF-13911	1	* Generator spacer
41	PGF-13796	1	* Generator baffle

Note: * Parts used with either PGF-13793 or PGF-14438 (standard) generator only.
 ** Parts used with PGF-13573 (special - extra heavy duty) generator only.
 # Machines below 99-304.
 @ Machines 99-304 and up.

(continued)

(Refer to Figure 50 for Reference Numbers)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
42	PGF-13817	1	* Generator pulley
	PGF-13820	1	* Generator belt (not illustrated)
43	PGF-9357	1	* Generator fan
44	PGF-5163	2	* Wire - generator to regulator
45	PGF-11389	1	* Loom - generator to regulator wires
46	PGF-11681	1	** Voltage regulator (Delco-Remy No. 1118903)
46A	PGF-14568	1	@* Voltage regulator (Delco-Remy No. 1118955)
47	PGF-12929	1	* Voltage regulator bracket
48	PGF-13914	1	* Wire - regulator to generator
40E	PGF-13573	1	** Generator (special - extra heavy duty) (Delco-Remy No. 1106824)
40F	PGF-14277	1	** Generator bracket
40G	PGF-14770	1	** Generator strap
42A	PGF-14276	1	** Generator pulley
	PGF-13820	1	** Generator belt (not illustrated)
43A	PGF-11536	1	** Generator fan
44A	PGF-5163	2	** Wire - generator to regulator
45A	PGF-11389	1	** Loom - generator to regulator wires
46B	PGF-13568	1	** Voltage regulator (Delco-Remy No. 1118883)
47A	PGF-12929	1	** Voltage regulator bracket
48A	PGF-13914	1	** Wire - regulator to generator
49	PGF-14383	1	Wire - starter to generator
50	PGF-2897	1	Clip
51	PGF-11424	1	Loom

Note: * Parts used with either PGF-13793 or PGF-14438 (standard) generator only.

** Parts used with PGF-13573 (special - extra heavy duty) generator only.

Machines below 99-304.

@ Machines 99-304 and up.

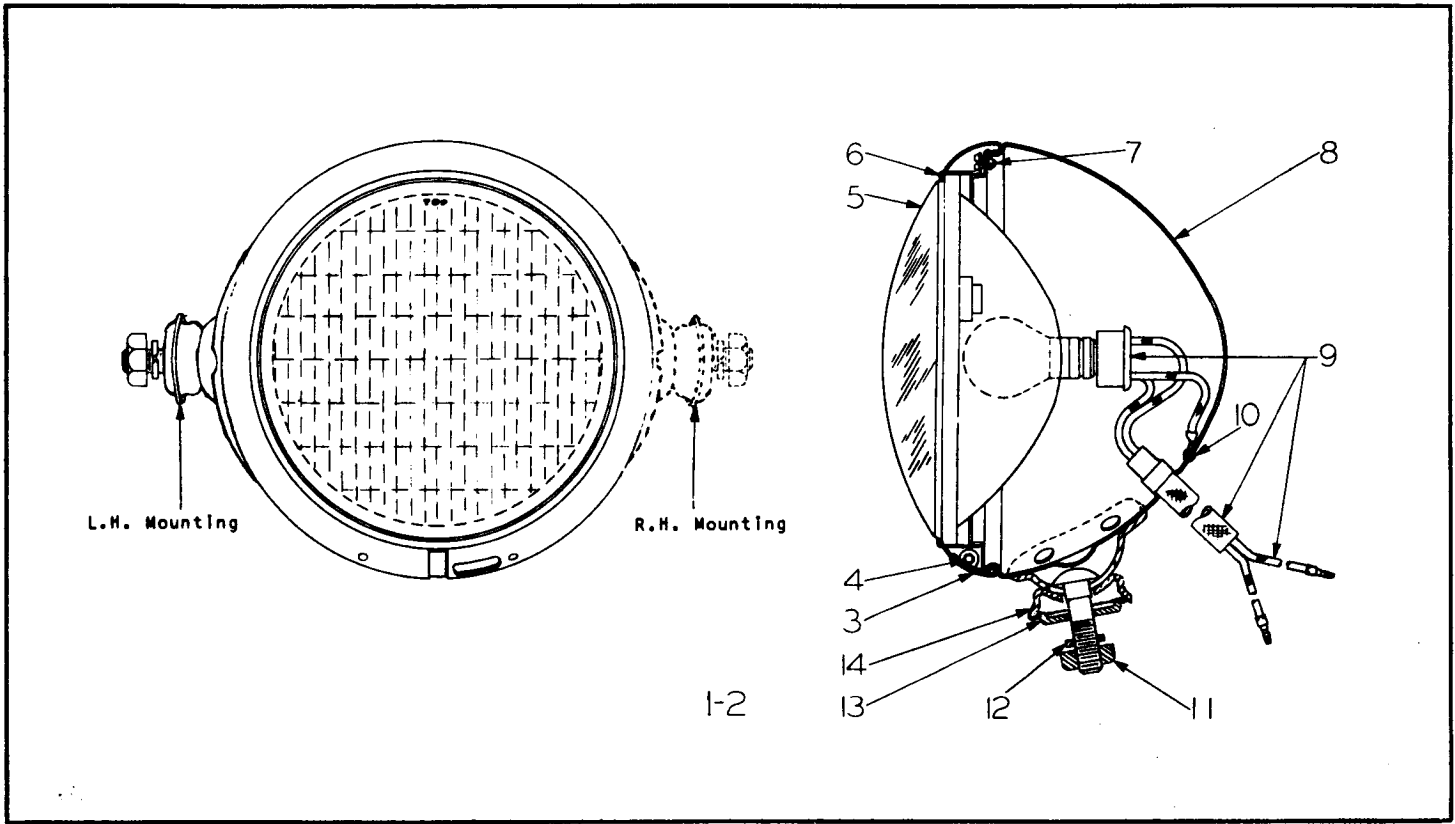


Figure 51. Sealed Beam Headlights

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-11982	1	Headlight, complete - L.H. shown (12 volt)
2	PGF-11983	1	Headlight, complete - R.H. opposite (12 volt)
3	121037	1	Moulding group
4	121035	1	Moulding screw
5	121052	1	Sealed unit
6	121038	1	Retaining ring
7	121036	3	Retaining ring screw
8	121058	1	Body (for Ref. Nos. 1 and 2)
9	121059	1	Wiring group (connector to headlight)
10	121060	1	Rivet - ground clip
11	121013	1	Nut
12	121014	1	Lock washer
13	121061	1	Bearing washer
14	121062	1	Adapter washer

IHC UD-14A DIESEL ENGINE AND RELATED PARTS

ENGINE AND ATTACHING PARTS

PART NO.	QUANTITY	DESCRIPTION
PGF-14719	1	Engine - UD-14A (per IHC B/M No. 92 or 92A) (uses 3/8" dia. bolts in flywheel housing) (no longer furnished. Order PGF-15214 engine) (see engine parts catalog)
PGF-15214	1	Engine - UD-14A (per IHC B/M No. 92B or 92C) (uses 7/16" dia. bolts in flywheel housing) (see engine parts catalog)
IHC-ISK-9279		Crank case oil pan (for PGF-14719 engine)
IHC-276327R11	1	Crankcase oil pan (for PGF-15214 engine)
IHC-118-114A-6	1	Lubricating oil pump (for PGF-14719 engine)
IHC-276329R91	1	Lubricating oil pump (for PGF-15214 engine)
IHC-ISK-9417	1	Oil level gauge assembly (used on PGF-14719 engine with either IHC B/M No. 92 or 92A; also used on PGF-15214 engine with IHC B/M No. 92B only)
IHC-274473R11	1	Oil level gauge assembly (used on PGF-15214 engine beginning with IHC B/M No. 92C)
IHC-0250670R93	1	Thermostat
IHC-254753R1	1	Thermostat seal
PG-1799	1	Thermostat housing
IHC-50273-DB	1	Thermostat housing gasket
IHC-274876R91	1	Fan blade group
IHC-8120-DA	1	Fan drive pulley
IHC-269292R1	2	Fan drive pulley dowel pin
PGF-3062	1	Fan drive belt
PGF-8422	1	Generator belt
IHC-10319-D	1	Crankshaft pin
PG-1074	1	Pump drive pulley
PGF-15155	1	Hydraulic pump belt (machines below 99-884)
PGF-15157	1	Hydraulic pump belt (machines 99-884 and up)
PGF-14552	1	Engine support - front (machines below 99-884)
PGF-15504	1	Engine support - front (machines 99-884 and up)
PGF-14545	2	Engine support bolt - front
PGF-14531	2	Cushion spacer - front engine support
PGF-9900	9	Cushion
PGF-6114	3	Engine support rebound
PGF-5909	6	Washer - 17/32" ID x 1-3/4" OD x 3/16"
PGF-14547	2	Washer - 1-1/8" ID x 1-3/4" OD x 3/8"
PGF-14537	2	Engine support - rear (on engine)
PGF-14538	2	Engine support - rear (on frame)
PGF-11326	14	Engine support stud
737005	6	Slotted nut
762006	2	Washer - rear
PGF-9932	3	Engine support bolt - rear (1/2" x 5-1/2")
WRF-1262	1	Engine support bolt - rear (1/2" x 4-1/4")
PGF-9931	3	Cushion spacer - 3-3/16" long (rear engine support)
PGF-15108	1	Cushion spacer - 2-5/8" long (rear engine support)
PGF-5652	1	Rest back
PGF-10111	2	Rest back support
PGF-11232	1	Tool and battery box - regular
PGF-15481	1	Tool and battery box (special order - for lock)
PGF-11627	2	Battery box lock (special order)
PGF-15309	1	Tool and battery box cover - regular
PGF-15482	1	Tool and battery box cover (special order - for lock)
740003	2	Wing nut - battery box cover
PGF-11248	2	Battery spacer
PGF-11710	4	Bumper - battery terminal
PGF-11246	2	Base - battery
PGF-14742	1	Battery box partition

(continued)

IHC UD-14A DIESEL ENGINE AND RELATED PARTS

ENGINE AND ATTACHING PARTS (Contd.)

PART NO.	QUANTITY	DESCRIPTION
PGF-11638	1	Seat cushion
PGF-12000	1	Seat cushion - air foam rubber (special order)
PGF-10114	1	Cab tie plate
PGF-14741	1	Fuel tank
PGF-10808	4	Fuel tank cushion
PGF-14505	1	Fuel tank support
IHC-49094-DD	1	Magneto group (see page 56, IHC parts catalog PU-19C)
IHC-62493-D	2	Magneto bolt washer
IHC-20586-D	1	Cross shaft operating lever pin
IHC-263345R92	1	Intake manifold end cover, front - complete
IHC-29371-D	1	Starter flange cover
IHC-267041R91	1	Lifting eye attachment (GPS-207)
IHC-11858-DA	1	Water pump wrench

RADIATOR, CONNECTIONS AND ATTACHING PARTS

PGF-14490	1	Radiator (see Fig. 47)
PGF-15087	1	Drain cock
PGF-14564	1	Cover - lower outlet
PGF-10792	3	Gasket - upper and lower elbows
PG-2328	1	Elbow - upper
PG-2326	1	Elbow - lower
PGF-5691	1	Hose - 2" ID x 2-3/4" (lower)
PGF-5692	2	Hose - 2" ID x 3-7/8" (upper and lower)
PG-2298	1	Pipe - lower radiator connection
PGF-14523	2	Tie rod - radiator
034016	8	Hose clamp
PGF-9520	2	Clip - tail light wires

AIR CLEANER AND ATTACHING PARTS

PGF-9912	1	Air cleaner (see Fig. 55)
PGF-13274	1	Pre-cleaner - air cleaner stack
PGF-15276	1	Stack extension - air cleaner
PGF-14751	1	Support - air cleaner bracket
PGF-15079	1	Plate - air cleaner bracket support
PGF-9908	1	Bracket - air cleaner (upper)
PGF-9934	1	Bracket - air cleaner (lower)
PGF-9909	2	Cushion - air cleaner bracket
PGF-9906	2	Hose - air cleaner
PGF-15106	1	Tube - air cleaner
PGF-15107	1	Tube - air cleaner
IHC-50529-D	1	Gasket - air cleaner pipe (engine end)
PGF-15230	1	Tube - air cleaner air line (short)
PGF-15231	1	Tube - air cleaner air line (long)
HCF-4452-4	4	Clamp - air cleaner hose

MUFFLER AND ATTACHING PARTS

PGF-11272	1	Muffler
PGF-12641	1	Clamp - muffler elbow outlet
BRF-2336	1	Elbow - muffler outlet
PGF-9053	1	Exhaust pipe
MGF-2950	1	Clamp - exhaust pipe
IHC-50677-D	4	Stud - exhaust pipe
921006	4	Nut - exhaust pipe stud (brass)

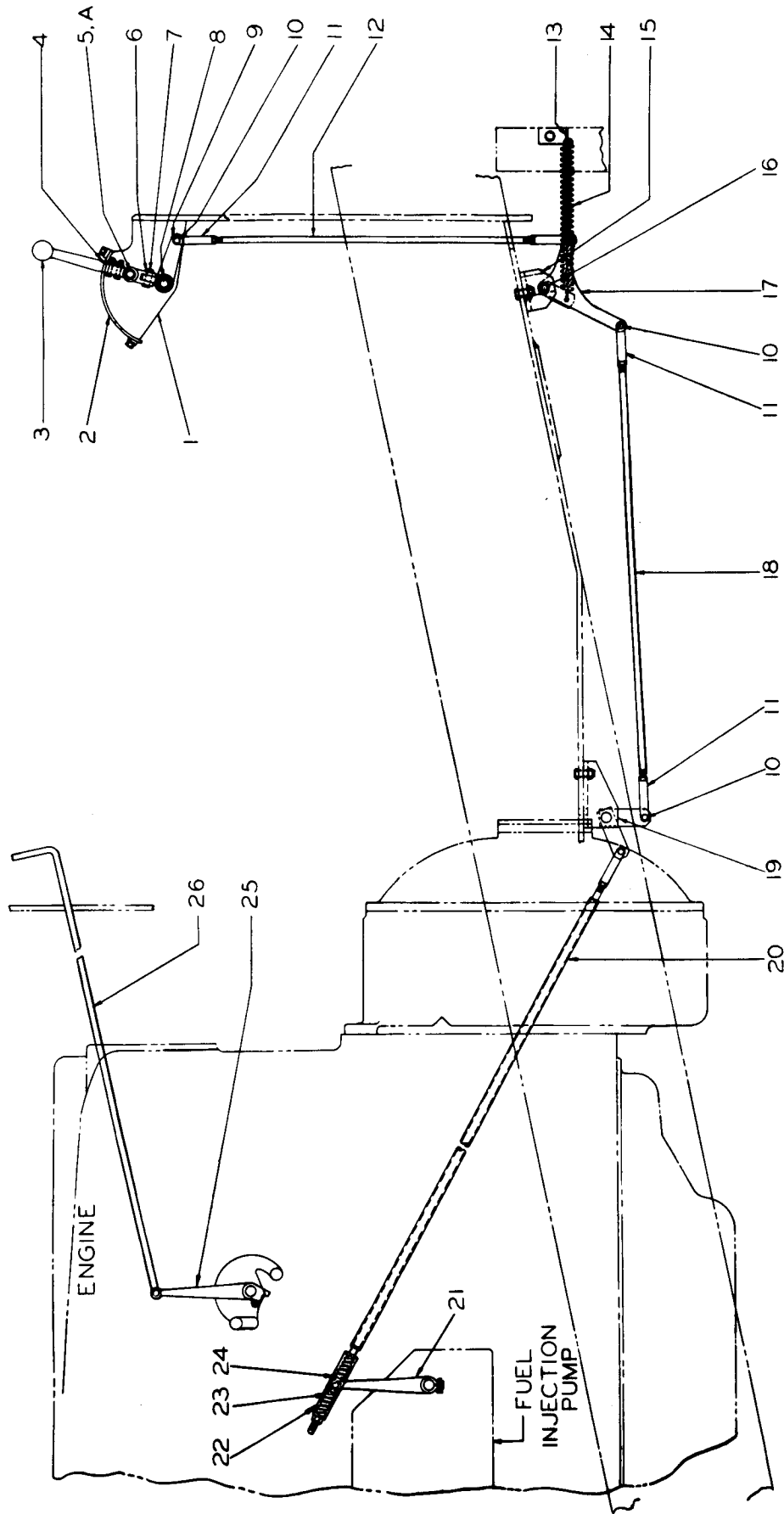
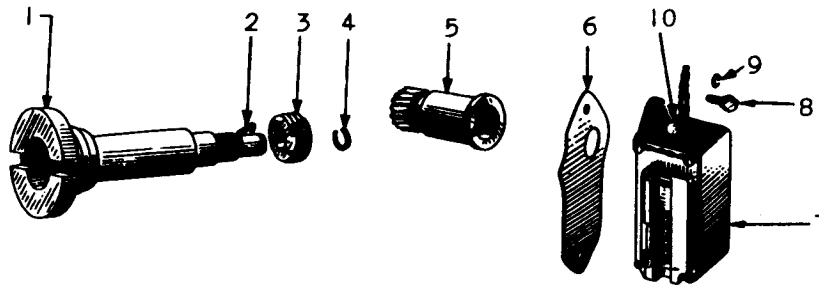


Figure 52. Governor Control Linkage
(For UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-11500	1	Governor control lever support (welds on)
2	PGF-13675	1	Ratchet
3	PG-2100	1	Governor control lever
4	PGF-12415	1	Ratchet clip
5	PGF-12377	1	Pin
5A	MSF-854	1	Spring
6	762004	1	Washer
7	783004	1	Rod end pin
8	PGF-13949	1	Throttle lever pivot
9	PG-2098	1	Arm - throttle handle
10	783003	5	Rod end pin
11	782003	5	Rod end fork
12	PGF-15210	1	Control rod
13	PGF-15058	1	Spring support
14	PGF-268	1	Spring
15	PGF-13887	1	Bell crank bracket
16	PGF-11471	1	Bell crank cross pin
17	PGF-15207	1	Bell crank
18	PGF-15209	1	Control rod
19	PGF-14426	1	Throttle linkage bracket
20	PGF-15098	1	Control rod
21	PGF-14388	1	Lever
22	PGF-14387	1	Trunnion guide
23	PGF-14386	2	Spring
24	PGF-12261	1	Control rod swivel
25	PG-1362	1	Lever - trip mechanism
26	PGF-15091	1	Control rod - carburetor trip



-0-

B/M PGU-1944-A

Figure 53. Hourmeter for UD-14A Engine

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-1944-A	1	Hourmeter head and gear group - special order (includes Ref. Nos. 5 to 10 inclusive)
1	IHC-352560R1	1	Magneto drive shaft
2	IHC-103904	1	Drive gear key
3	IHC-51001-D	1	Drive gear
4	IHC-21362-D	1	Drive gear retainer
5	PGF-10196	1	Driven gear, complete (IHC-51002-D)
6	PGF-10197	1	Gasket (IHC-49451-DA)
7	PGF-13109	1	Hourmeter (IHC-261805R91)
8	PGF-10200	2	Cap screw (IHC-23086-D)
9	778009	2	Lock washer (IHC-103319)
10	PGF-10198	1	Lead seal (IHC-12736-D)

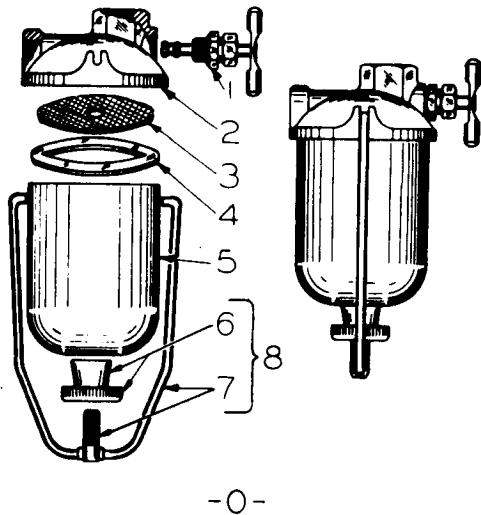


Figure 54. Gas Strainer
(For UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGF-9336	1	Gas strainer group (includes Ref. 1 to 7 inclusive)
1	355013	1	Shut-off valve
2	355012	1	Cover
3	355010	1	Screen
4	355008	1	Gasket
5	355009	1	Bowl
6	355072	1	Thumb nut with cup
7	355011	1	Clamp wire with stud
8	355014	1	Clamp wire group (includes Ref. Nos. 6 and 7)

Note: To insure perfect seal always replace gasket, Ref. 4, when cleaning out strainer.

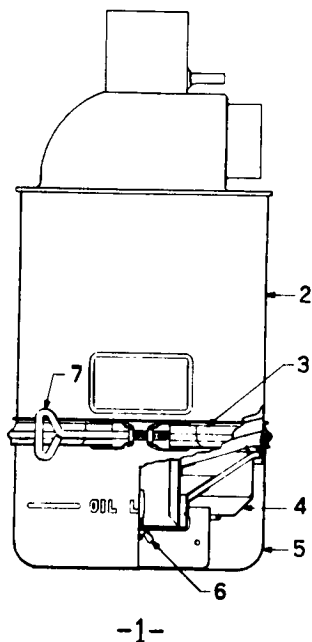


Figure 55. Air Cleaner
(For UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-9912	1	Air cleaner group (includes Ref. 2 to 5 inclusive)
2	035019	1	* Body (includes Ref. No. 6)
3	035012	1	Oil cup retaining clamp (includes Ref. No. 7)
4	035013	1	Tray
5	035014	1	Oil cup
6	035004	2	Wing nut
7	035010	1	Clamp bolt

Note: * When replacing Ref. 2 Body, we recommend purchasing a new PGF-9912 air cleaner complete.

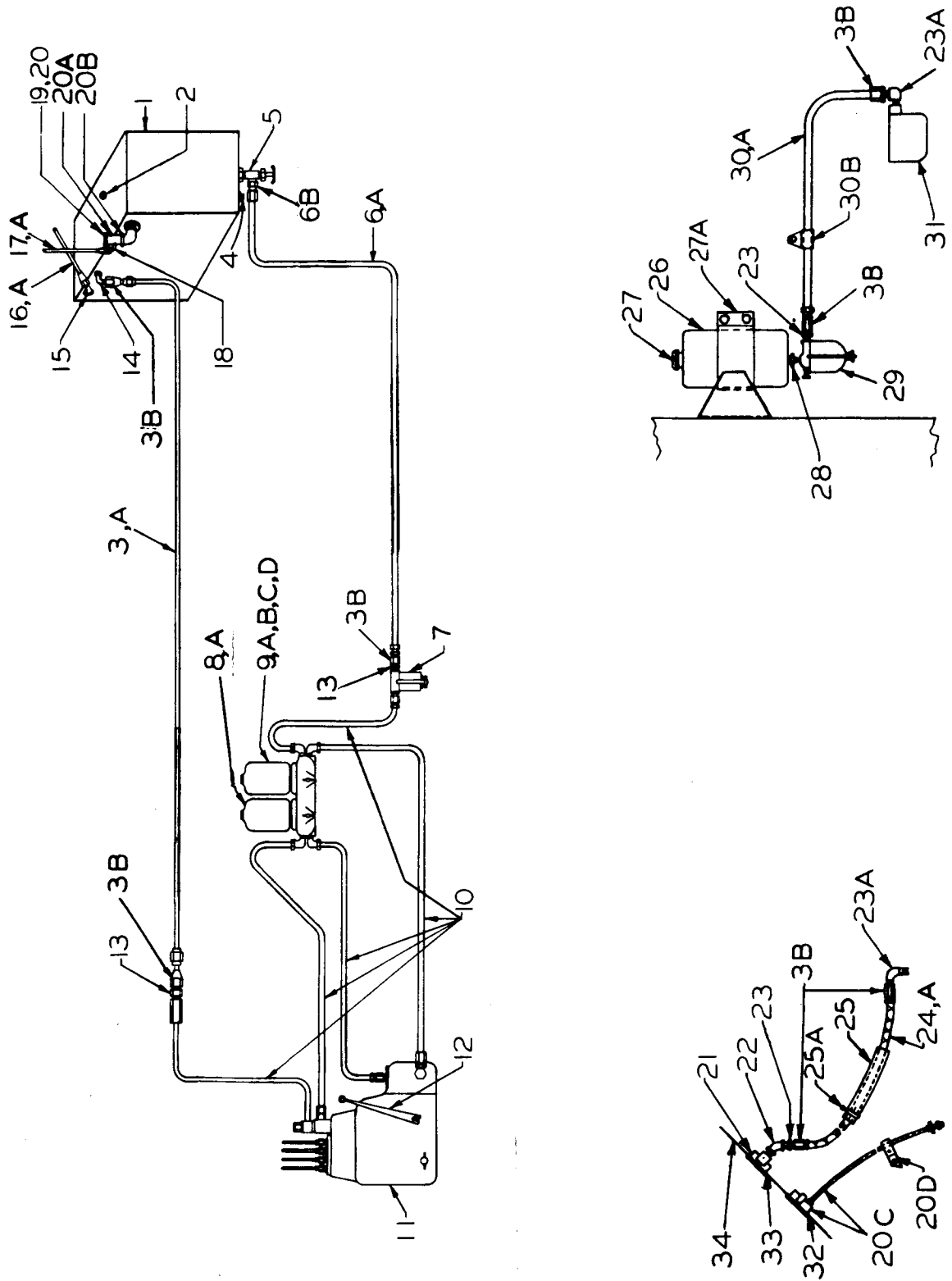
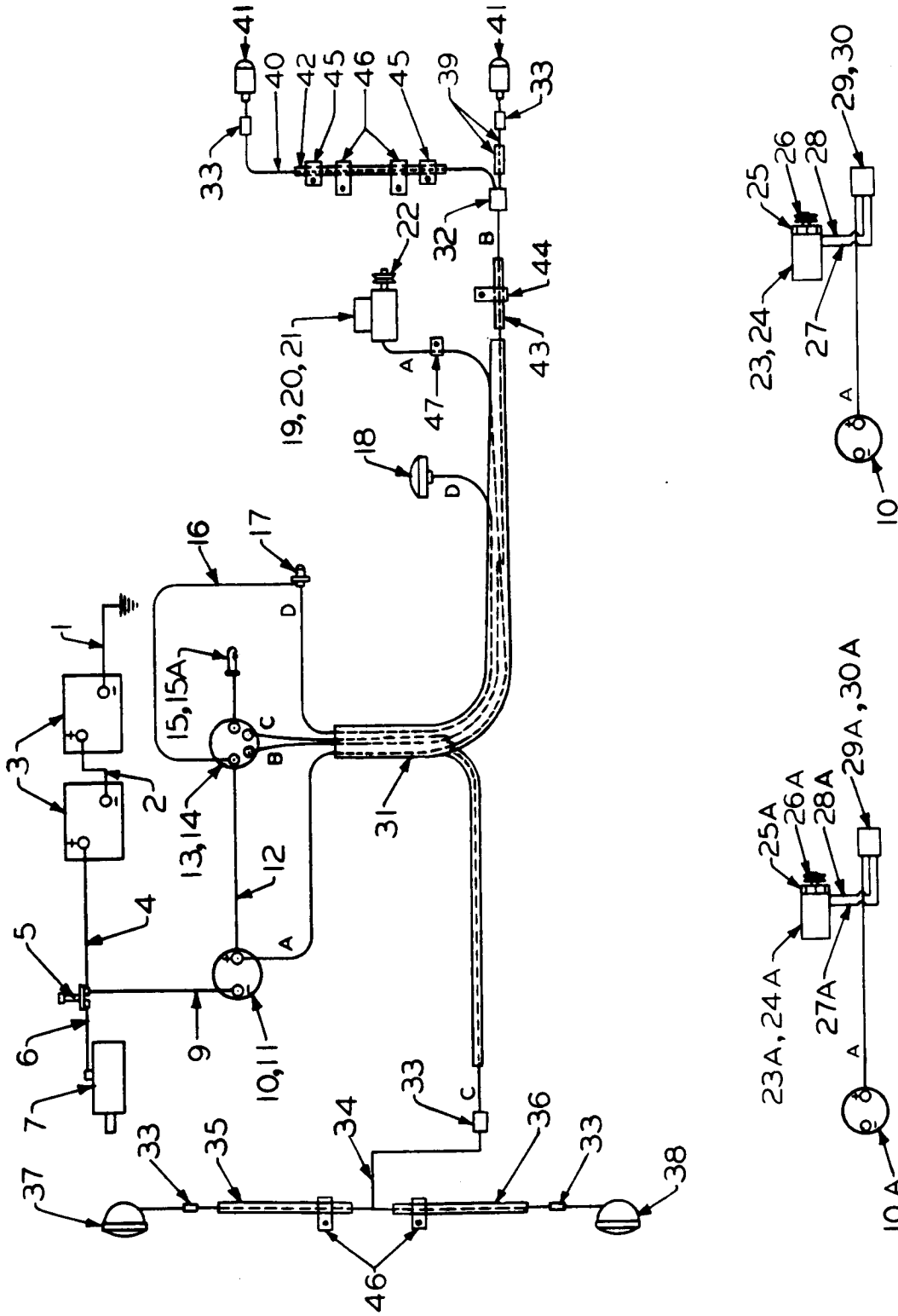


Figure 56. Fuel System for UD-14A Engine

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-14741	1	Fuel tank
2	818005	1	Counter sunk head pipe plug - brass
3	PGF-13626	1	Fuel hose - return line (includes Ref. No. 3A and two Ref. No. 3B)
3A	451013		Hose - 5/16" ID x 59" long
3B	PGF-13619-3	7	Hose fitting - female thread
4	816003	1	Drain plug
5	PGF-9338	1	Needle valve
6	PGF-13641	1	Fuel hose - tank to water trap (includes Ref. No. 6A, one Ref. No. 3B and Ref. No. 6B)
6A	451013		Hose-5/16" ID x 46" long
6B	PGF-13619-6	1	Hose fitting - female thread
7	IHC-251355R91	1	Water trap, complete (see page 49, IHC parts catalog PU- 19C)
8	IHC-	1	Final fuel filter (see page 50, IHC parts catalog PU-19C)
8A	IHC-259479R92	1	Final fuel filter element (radial fin type) (IHC-266839R91 optional. Will work for 259479R92)
9	IHC-	1	Auxiliary fuel filter (see page 50, IHC parts catalog PU-19C)
9A	IHC-62948-D	1	Auxiliary fuel filter top plate
9B	IHC-62946-DA	1	Auxiliary fuel filter element
9C	IHC-64520-DA	1	Auxiliary fuel filter bottom plate
9D	IHC-64521-D	1	Auxiliary fuel filter bottom plate gasket
10	IHC-		Fuel lines (see UD-14A engine parts catalog)
11	IHC-270122R91	1	* Fuel injection pump complete with primary pump (1800 engine RPM)
12	PGF-14388	1	Fuel injection pump control lever
13	840006	2	Connector
14	835006	1	Elbow
15	835008	1	Elbow
16	PGF-14572	1	Breather tube - short
16A	PGF-13173	1	Clip - breather tube (not illustrated)
17	PGF-14571	1	Breather tube - long
17A	PGF-13173	1	Clip - breather tube (not illustrated)
18	835007	1	Elbow
19	PGF-11696	1	Filler tube cap - fuel tank
20	TF-1161	1	Filler tube cap gasket
20A	PGF-13806	1	Filler tube
20B	565009	1	Filler tube elbow - brass
20C	PGF-9549	1	Water temperature gauge
20D	PGF-2721	1	Clip
21	TF-1530	1	Oil pressure gauge
22	568001	1	Elbow
23	840005	2	Connector
23A	835005	2	Elbow
24	PGF-14528	1	Oil gauge hose (includes Ref. No. 24A and two Ref. No. 3B)
24A	451013		Hose - 5/16" ID x 62" long
25	PGF-11040	1	Guard - oil hose and wiring harness
25A	034012	1	Hose guard clamp
26	PGF-13753	1	Gas tank
27	033003	1	Gas tank cap
27A	PGF-13752	1	Gas tank support
28	PGF-5756	1	Adapter
29	PGF-9336	1	Gas strainer (see Fig. 54)
30	PGF-15090	1	Gas hose (includes Ref. No. 30A and two Ref. No. 3B)
30A	451013		Hose - 5/16" ID x 35 1/2" long
30B	PGF-6422	1	Hose clip
31	IHC-271491R92	1	Carburetor (per GPS-190A) (see IHC parts catalog PU-19C and IHC parts pamphlet 1013385R1)
32	PGF-9280	1	Water temperature gauge gasket
33	PGF-9282	1	Oil pressure gauge gasket
34		1	Instrument panel

Note: * When ordering a replacement pump from IHC be sure to give the pump part number stamped on the name plate attached to the pump. With this information IHC will be able to supply a pump set at the proper governed speed.

Refer to Pages 97 and 98 for Part Numbers



Wiring for Extra Heavy Duty Generator

Wiring for Heavy Duty Generator

B/M PGU-1858, 2029-A
PGU-2118, 2441

Figure 57. Wiring Diagram for UD-14A Engine

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGF-10117	1	Cable - battery to ground
2	PGF-10118	1	Cable - jumper
3	PGF-10122	2	Battery - 6 volt (19 plate)
	PGF-11710	4	Bumper - battery terminals (not illustrated)
4	PGF-14478	1	Cable - battery to starter switch
5	PGF-9350	1	Starter switch
6	PGF-15089	1	Cable - starter switch to starter
7	PGF-10700	1	Starting motor (Delco-Remy No. 1109155)
9	PGF-9508	1	Wire - starter switch to ammeter
10	PGF-9349	1	Ammeter (30/30) For standard and heavy duty generators only)
10A	ASF-6273	1	*** Ammeter (60/60)
11	PGF-9282	1	Ammeter gasket
12	PGF-9506	1	Wire - ammeter to light and ignition switch
13	PGF-9351	1	Light and ignition switch
14	PGF-9279	1	Switch gasket
15	ASF-5372	1	Dash light (less bulb)
15A	PGF-11968	1	Dash light bulb (3CP-SC;12-16V)
16	PGF-9547	1	Wire - switch to horn button
17	PGF-9343	1	Horn button
18	PGF-9342	1	Horn
19	PGF-9352	1	* Generator with DR-5838 Regulator (standard) (Delco-Remy No. 1101738)
20	PGF-11573	1	* Generator bracket
21	IHC-50892-DA	1	* Generator brace
22	PGF-11572	1	* Generator pulley
	PGF-8422	1	* Generator belt (not illustrated)
23	PGF-9354	1	** Generator (special - heavy duty) (Delco-Remy No. 1102976)
24	PGF-5161	1	** Generator support
25	PGF-9357	1	** Generator fan
26	PGF-9356	1	** Generator pulley
	PGF-8422	1	** Generator belt (not illustrated)
27	PGF-5162	1	** Wire - generator to regulator (#14 Ga. wire - green)
28	PGF-5163	1	** Wire - generator to regulator (#10 Ga. wire - red)
29	PGF-9355	1	** Voltage regulator (Delco-Remy No. 1118355 or 1118902)
30	PGF-12852	1	** Regulator support
23A	PGF-13572	1	*** Generator (special - extra heavy duty) (Delco-Remy No. 1106822)
24A	PGF-13596	1	*** Generator support
25A	PGF-11536	1	*** Generator fan
26A	PGF-13804	1	*** Generator pulley
	PGF-8422	1	*** Generator belt (not illustrated)
27A	PGF-5162	1	*** Wire - generator to regulator (#14 Ga. wire - green)
28A	PGF-5163	1	*** Wire - generator to regulator (#10 Ga. wire - red)
29A	PGF-13608	1	*** Voltage regulator (Delco-Remy No. 1118881)
30A	PGF-13595	1	*** Regulator support

Note: * Parts used with PGF-9352 (standard) generator only.

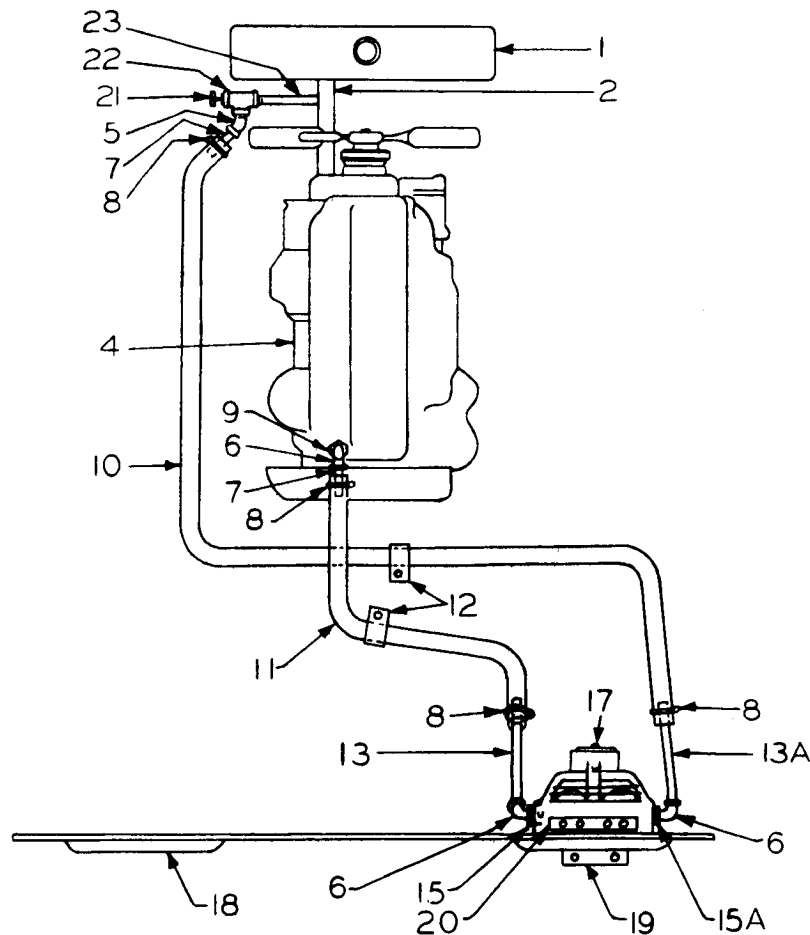
** Parts used with PGF-9354 (special - heavy duty) generator only.

*** Parts used with PGF-13572 (special - extra heavy duty) generator only.

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(Refer to Figure 57 for Reference Numbers)

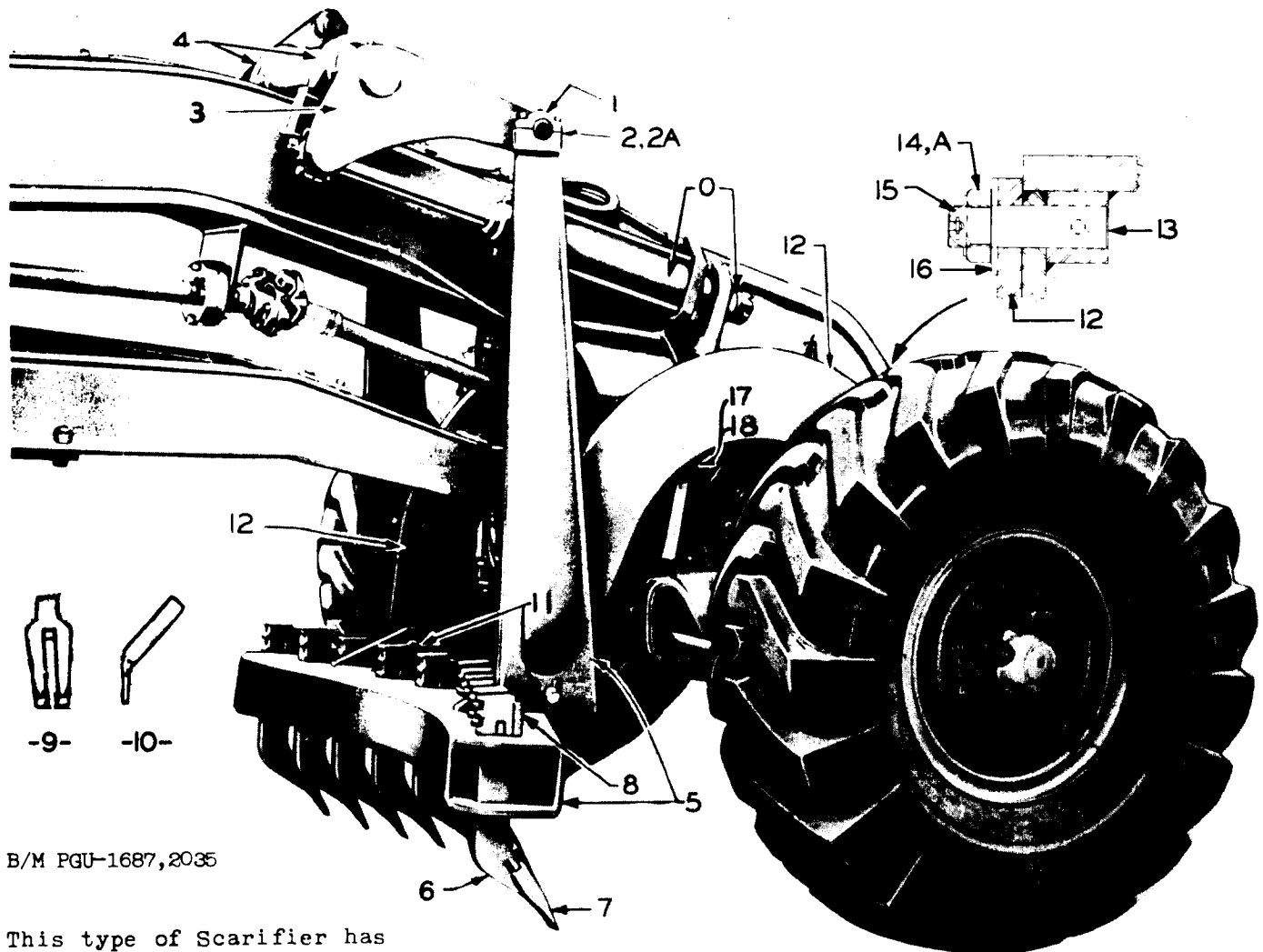
REF. NO.	PART NO.	QUANTITY	DESCRIPTION
31	PGF-12662	1	Wiring harness assembly
32	PGF-12627	1	Connector (3 wire)
33	PGF-10421	5	Connector
34	PGF-12654	1	Wire - connector to headlight connectors
35	PGF-11986	1	Loom to right hand headlight
36	PGF-11987	1	Loom to left hand headlight
37	PGF-11983	1	Headlight - right hand
38	PGF-11982	1	Headlight - left hand
39	PGF-12653	1	Wire (with loom) - connector to L.H. tail light connector
40	PGF-12652	1	Wire - connector to R.H. tail light connector
41	PGF-14849	2	Tail light
42	PGF-11967	1	Loom to right hand tail light
43	PGF-11424	1	Loom
44	PGF-2897	1	Clip
45	PGF-9520	2	Clip
46	PGF-10046	4	Clip
47	PGF-10775	1	Clip - generator wire



B/M PGU-2435

Figure 58. Heater Piping Diagram
(For UD-14A Engine)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1		1	Radiator
2		1	Outlet elbow
4		1	Engine
5	564051	1	Elbow
6	563852	3	Elbow
7	556101	2	Pipe
8	034010	4	Hose clamp
9	884004	1	Reducer bushing
10	PGF-5738	1	Heater hose
11	ASF-6029	1	Heater hose
12	PGF-9960	2	Hose clip
13	556121	1	Pipe
13A	PGF-12565	1	Pipe
15	884008	1	Reducer bushing
15A	PGF-13987	1	Face bushing
17	PGF-12649	1	Heater - 12 volt
18	PGF-14498	1	Cab tie plate
19	PGF-15076	1	Heater support plate
20	PGF-15077	1	Support plate angle
21	PGF-15087	1	Radiator draincock
22	538003	1	Tee
23	555092	1	Nipple



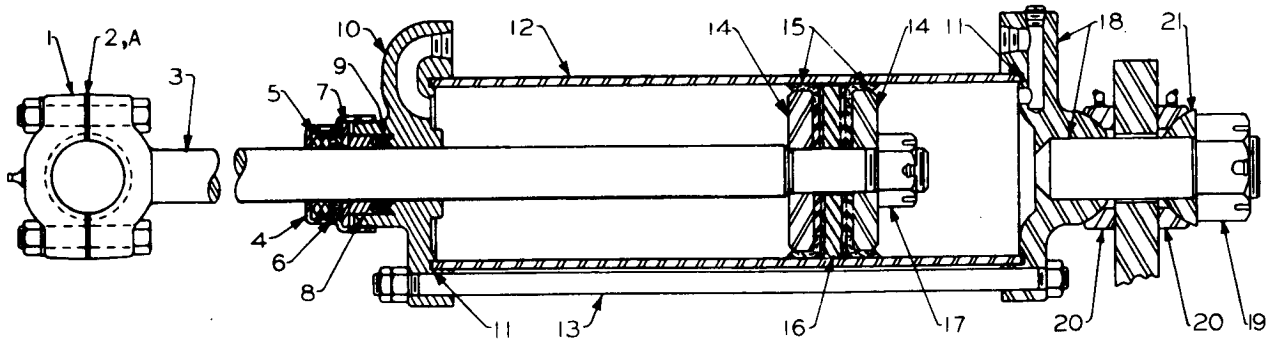
B/M PGU-1687,2035

This type of Scarifier has
PGU-1687 stamped on name plate

Figure 59. Scarifier

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0		1	Scarifier ram group (see Fig. 60)
1	PGF-9487	2	Ball cap
2	MGF-1992	4	Ball cap shim - .024" thick
2A	PGF-11856	8	Ball cap shim - .010" thick
3	PGF-14634	1	Lift shaft
4	PGF-8390	2	"U" bolt
5	PGFA-9790	1	Block
6	PGF-5375	11	Tooth shank
7	PGF-5376	11	Tooth point
8	PGF-3579	11	Tooth wedge
9	PGF-5698	1	Tooth point remover
10	MGF-2454	1	Tooth wedge remover
11	PGF-9049	2	Pin
12	PGF-15530	2	Arm
13	PGF-6640	2	Pin
14	PGF-5405	2	Nut (no longer furnished. Order Ref. No. 14A)
14A	PGF-6641	2	Slotted nut
15	PGF-7191	2	Nut clip (used with Ref. No. 14)
16	MGF-1185	2	Washer
17	PGF-13637	1	* Arm latch - R.H.
18	PGF-13638	1	* Arm latch - L.H.

Note: * Indicates parts used when machine is equipped with a bulldozer or snow plow in addition to scarifier.



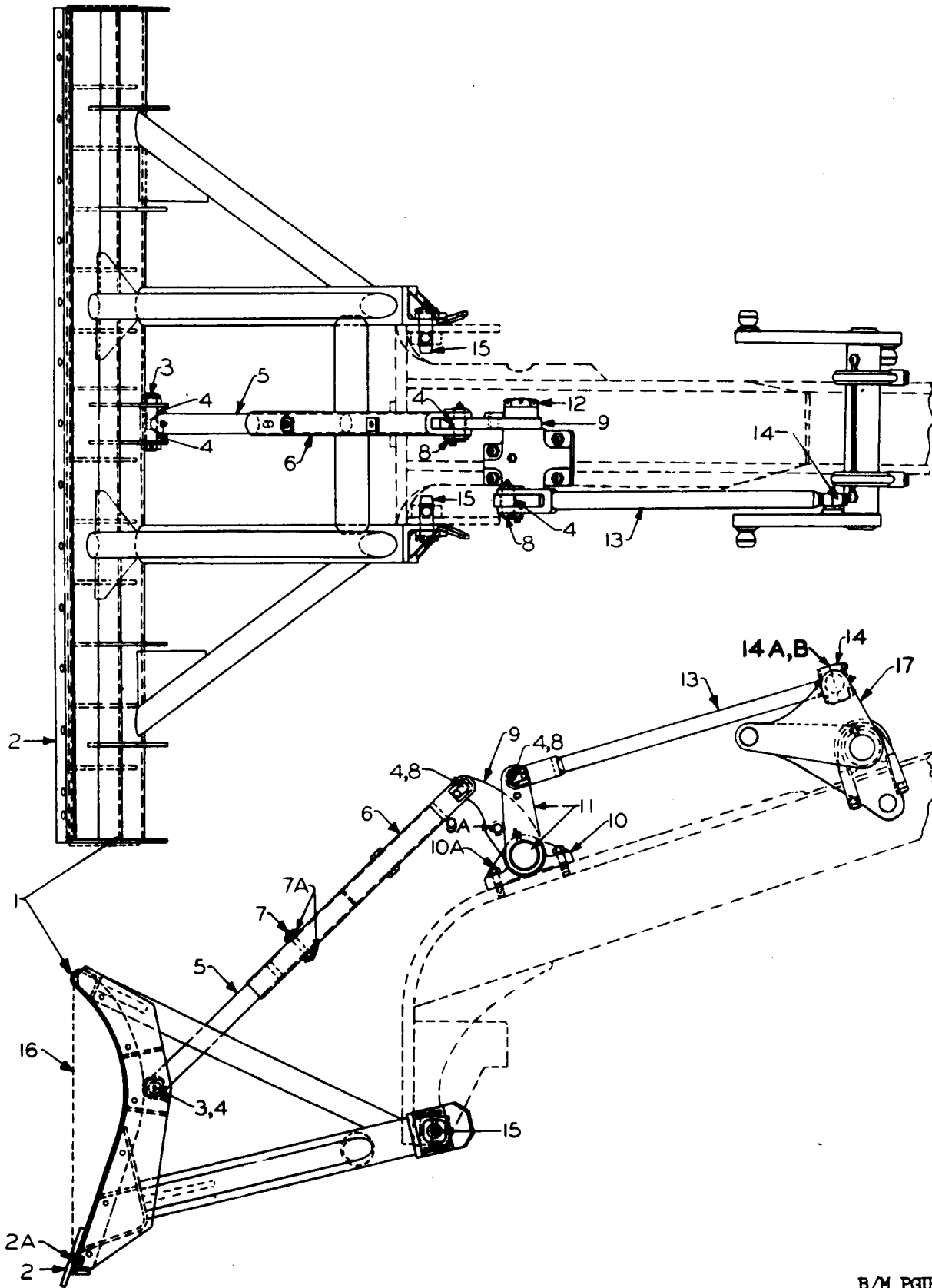
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B/M PGU-1960

Figure 60. Scarifier Ram
(Also used with Bulldozer and front Snow Plows)

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
0	PGU-1960	1	Ram group (includes Ref. Nos. 1 to 18 inclusive)
1	PGF-9487	1	Ball cap
2	MGF-1992	4	Ball cap shim - .024" thick
2A	PGF-11856	4	Ball cap shim - .010" thick
3	PGF-14465	1	Piston rod
4	PGF-9243	1	Cap
5	PGF-9239	1	Wiper
6	PGF-9238	1	Felt
7	PGF-9237	1	Retainer
8	PGF-9221	1	Press ring
9	PGF-9229	4	Chevron
10	PG-1981	1	Head
11	PGF-1688	2	Gasket
12	PGF-7857	1	Cylinder
13	PGF-7858	4	Tie rod
14	PGF-3255	2	Spreader
15	PGF-11776	2	Cup
16	PGA-862	1	Piston
17	734013	1	Slotted nut
18	PGX-10699	1	Base with shaft and nut Ref. 19
19	PGF-6641	1	Slotted nut
20	PG-1709	2	Socket
21	PG-1926	1	Ball plate

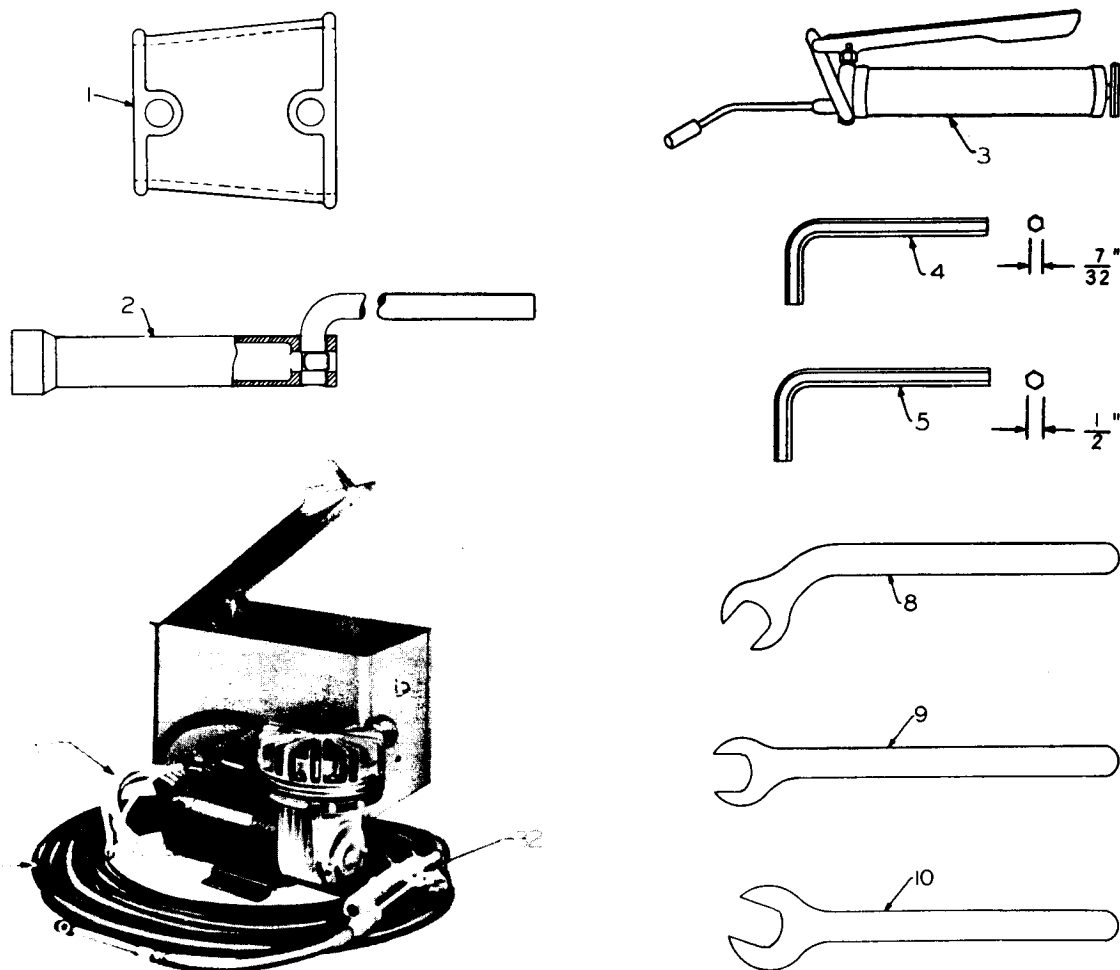
This type of Bulldozer has
PGU-1948-A stamped on name plate



B/M PGU-1947-B
PGU-1948-A
PGU-2035

Figure 61. Bulldozer

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PGU-1949-A	1	Blade assembly with bit (includes Ref. Nos. 2 and 2A)
2	PGF-9556	1	Bit - 5/8" x 8" x 9'
2A	RGF-6461	15	Bit bolt
3	PGF-10726	1	Pin
4	SPF-1100	4	Bushing
5	PGF-10733	1	Lift rod
6	PGF-10721	1	Lift tube
7	SPF-1085	1	Pin
7A	762009	2	Washer
8	PGF-10731	2	Pin
9	PGF-10734	1	Arm
9A	SPF-1193	1	Bushing
10	PG-1815	1	Support
10A	PGF-10730	4	Stud
11	PGF-11849	1	Lift shaft
12	PG-728	1	Lift shaft nut
13	PGF-10720	1	Connecting rod
14	PGF-9487	1	Ball cap
14A	MGF-1992	4	Ball cap shim - .024" thick
14B	PGF-11856	4	Ball cap shim - .010" thick
15	PGF-10736	2	Pivot pin
16	PGU-1690	1	Blade landside (special order)
17	PGF-14634	1	Scarifier lift shaft



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Figure 62. Tools

REF. NO.	PART NO.	QUANTITY	DESCRIPTION
1	PG-934	1	Front wheel bearing nut wrench
2	PGF-6510	1	Wheel stud wrench
3	ASF-6993	1	Grease gun
4	848007	1	Hollow head cap screw wrench (hydraulic control valves)
5	848032	1	Hollow head cap screw wrench (front axle universal joint bearing ring)
8	PGF-10149	1	Hydraulic coupling wrench (1-1/8" opening) for 5/8" fitting (special order)
9	PGF-10150	1	Hydraulic coupling wrench (1-1/8" opening) for 5/8" fitting (special order)
10	PGF-10148	1	Hydraulic coupling wrench (1-1/4" opening) for 3/4" fitting (special order)
15	PGF-13961	1	Electric tire pump - battery operated (model 127-12V) (special order). Obtain repair parts from Johnson Service Company, Milwaukee, Wisconsin
32	515003	1	In-line air gage and switch
33	515004	1	Battery cable (9')
34	515005	1	Hose and wire assembly (30')

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