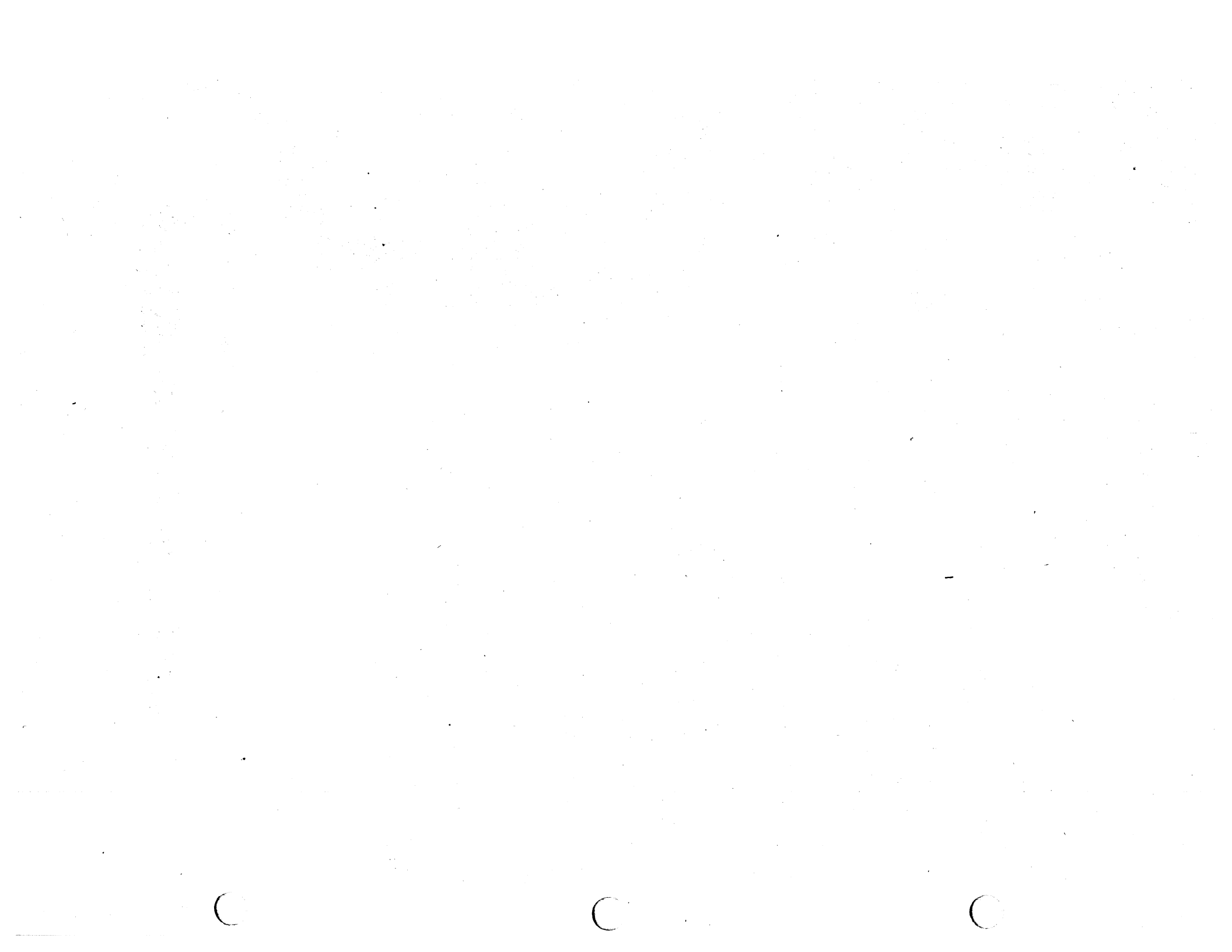


# B21 BULLDOZER

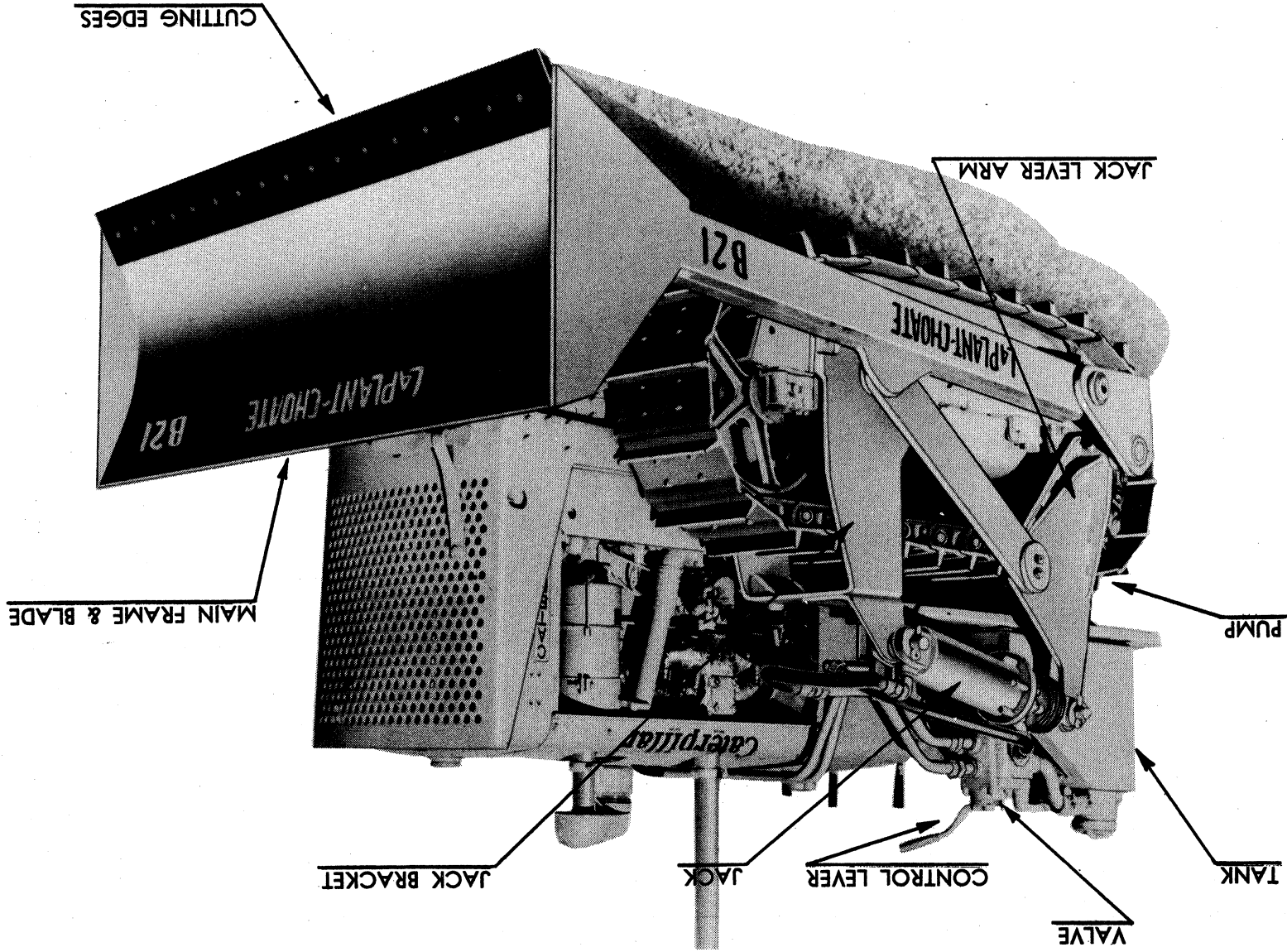
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**LA PLANT & GROATE**



B21 BULLDOZER — GENERAL ARRANGEMENT





# MOUNTING INSTRUCTIONS

## B21 BULLDOZER

For use with "Caterpillar" D-2 and R-2 Track Type Tractors

The following instructions should be followed closely to insure satisfactory results in a minimum of time.

### PREPARING TRACTOR PRIOR TO MOUNTING EQUIPMENT

1. Remove dirt shields from both track roller frames.
2. Knock out plugs in the outside and inside track roller frame channels, both tracks.
3. Remove pivot shaft cap and turn  $\frac{1}{4}$  turn so that grease fitting is to top side and reassemble.
4. Under front edge of seat on R. H. side, cut or burn out the small extension plate only for piping clearance.
5. Back tractor up on blocks to prevent oil from running out of transmission case and remove inspection plate on rear face of housing.
6. If gas tractor, remove crank and crank bearing from lower radiator tank.

### WHEN TRACTOR IS EQUIPPED WITH EXTRAS

1. If tractor is equipped with crankcase guard, same must be lowered in order to install cap screws on inside lower edge of cylinder bracket plates. This applies to standard gauge tractors only.
2. If R-2 gas tractor is equipped with radiator guard, same must be removed to allow installation of front crank. Remove tractor crank and crank bearing from lower radiator tank.

### TO MOUNT PUMP AND ADAPTER

1. Screw 6 STUDS into place on rear face of transmission case and place cover GASKET over studs.
2. Place INSIDE PUMP EXTENSION SHAFT (coupling end) over lower transmission shaft.
3. Line up pump CLUTCH HUB COUPLING with INSIDE EXTENSION SHAFT and slide PUMP AND ADAPTER PLATE GROUP into place. Tighten down, using nuts and lockwashers.

### TO MOUNT TANK, VALVE, BASE PLATE GROUP AND CROSS PIPING GROUP

1. Place BASE PLATE GROUP on R. H. fender, front edge of base plate to be flush with front edge of fender on either R-2 or D-2 tractors.
2. Using the BASE PLATE for a template drill down through fender the necessary holes for attaching BASE PLATE to tractor. Fasten BASE

PLATE down using two  $\frac{3}{8}$ " x  $1\frac{1}{4}$ " SAE capscrews with lockwashers and nuts, rear holes only.

3. Place CROSS PIPING GROUP over hood and fasten R. H. PIPE SUPPORT in place, locating over two holes in front of BASE PLATE using two  $\frac{3}{8}$ " x  $1\frac{1}{4}$ " SAE capscrews, lockwashers and nuts.

4. Line up CROSS PIPING GROUP and using LEFT HAND PIPE SUPPORT ASSEMBLY as template, drill holes through fender and fasten assembly into place using two  $\frac{3}{8}$ " x  $1\frac{1}{4}$ " SAE capscrews, lockwashers, and nuts.

5. Connect SUCTION LINE ASSEMBLY from TANK to PUMP.

6. Connect HIGH PRESSURE HOSE ASSEMBLY from PUMP to VALVE.

## TO MOUNT JACK BRACKETS AND TRACTOR MOUNTING GROUP

1. Place the above over tracks, line up holes and bolt in place using the following SAE capscrews with lockwashers, and nuts.

a. On outside channel, four rear holes and one front hole, use  $\frac{3}{4}$ " x 2".

b. On outside channel, two remaining holes, use  $\frac{3}{4}$ " x  $2\frac{1}{4}$ ".

c. On inside channel, three holes, use  $\frac{3}{4}$ " x  $2\frac{1}{4}$ ".

2. Reassemble dirt shields to track frame assemblies.

## TO MOUNT JACK GROUPS

1. Assemble JACKS in place between CYLINDER BRACKET and JACK LEVER ARM with shaft end of JACK to the rear.

2. Connect the HIGH PRESSURE HOSE ASSEMBLIES from JACK to CROSS PIPING. Base end of JACK connects to front pipe and head end of JACK connects to rear pipe.

## TO MOUNT FRAME AND BLADE GROUP

1. Fill OIL TANK with SAE 20 in winter, SAE 40 in summer, asphalt base motor oil. Start tractor, and with PUMP in gear, operate VALVE several times to fill all lines. Check oil level and fill TANK to within 5 or 6 inches of top.

2. Block rear end of MAIN FRAME to proper height and drive tractor into frame.

3. Connect rear of MAIN FRAME to TRACTOR MOUNTING and LIFT LINKS to JACK LEVER ARMS.

## MOUNTING CRANK ASSEMBLY—GAS TRACTORS ONLY

1. Mount CRANK BRACKET on front lower radiator tank—use two  $\frac{3}{8}$ " x  $1\frac{3}{4}$ " SAE capscrews.

2. Slide CRANK ASSEMBLY into place, placing washer behind inside face of outer edge of BRACKET. Use crank strap now on tractor.

3. If tractor is equipped with radiator guard place CRANK ASSEMBLY through guard and slide the complete unit up into place, placing washer behind inside face of outer edge of CRANK BRACKET.

## CARE OF THE EQUIPMENT

This unit is completely equipped with greasing facilities at all wear points. In addition, all wear points are equipped with replaceable bushings and pins.

For satisfactory performance and long life we recommend greasing this unit once each working day. Use standard pressure gun grease, semi-fluid, heavy in summer and medium in winter.

**PUMP** — All rear pumps are equipped with a solid plug in the drain port. This is to prevent oil from draining out of the transmission case should the gasket and coupling seal become worn and leak.

Fill the clutch housing of the pump with one pint of SAE 90 gear oil and check level each 50 hours of operation.

**OIL TANK** — Check the oil level in the oil tank each time you grease the machine. Keep the oil within 5 or 6 inches of the top. Use only good, clean oil, SAE 20 in winter, SAE 40 in summer, asphalt base oil preferred. If the oil level drops and air can get into the lines, it causes the oil to foam and come out of the breather.

Filling the tank too full causes the oil to come out of the breather when the valve is placed in float position with the blade raised. In float position oil rushes into the tank from one end of the jack and is not forced into the other end.

**FILTER** — Remove the filter in the oil tank and wash in gasoline once each week of operation. Keeping the oil clean and free of abrasives will assure trouble-free service.

**VALVE** — Keep the valve core seated properly in the valve body. Valve core should work freely at all times. If valve core is too loose it will not hold pressure. Set screw at the bottom of the body directly beneath core should be backed out till core binds and then tightened only enough to allow core to work freely. Lock set screw with jaw nut.

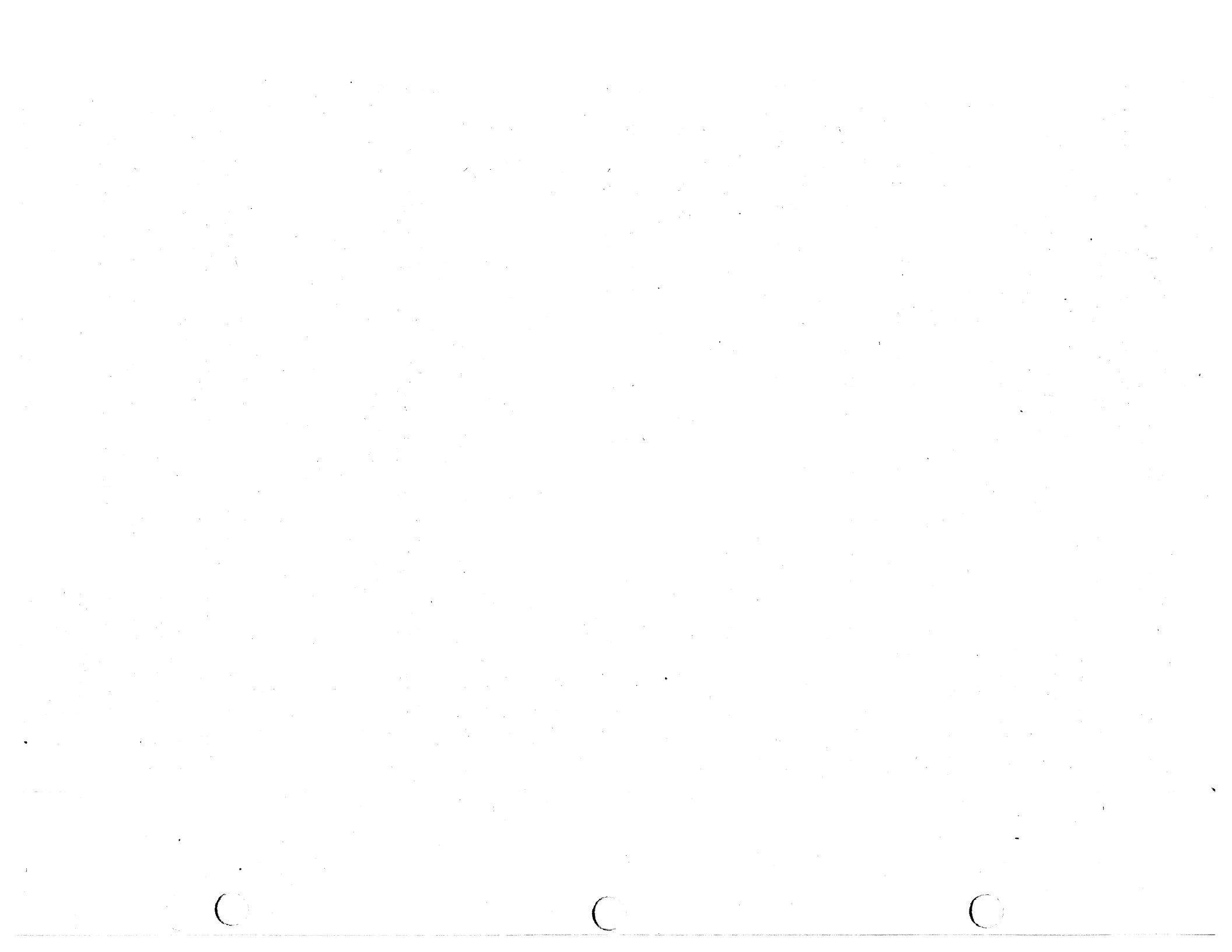
## OPERATING INSTRUCTIONS

### VALVE OPERATION

1. To raise blade, pull lever back or towards operator 45°.
2. To apply down pressure on blade, push lever forward 45°.
3. To hold, lever should be parallel to tractor seat.
4. To float, lever should be parallel to fender.

**CAUTION** — Do not leave valve or hoist in down pressure position after jack has travelled its full stroke. This causes oil to be forced through relief valve under pressure and causes over-heating which will damage the hydraulic system.

**NOTE** — When it is necessary to adjust the tracks of the tractor it will be necessary to disconnect the lifting link which connects the main frame to the jack lever arm.





MAIN FRAME AND BLADE

B21 - 1 AND UP

33289 MAIN FRAME & BLADE GROUP FOR B21 BULLDOZER

P 657

2-RUNNER LOCK PIN ASSEM. 2482A  
24838-RUNNER ASSEM (INCLUDES HALF SOLE)  
24839-RUNNER HALF SOLE  
2632-FLWBOLTS 5/8 X 1-1/2

2-LIFTING LINK 24968B  
33245-BUSHING 2

1-CUTTING EDGE 22952  
12-FLWBOLTS 5/8 X 1-3/4 3HD 2624

