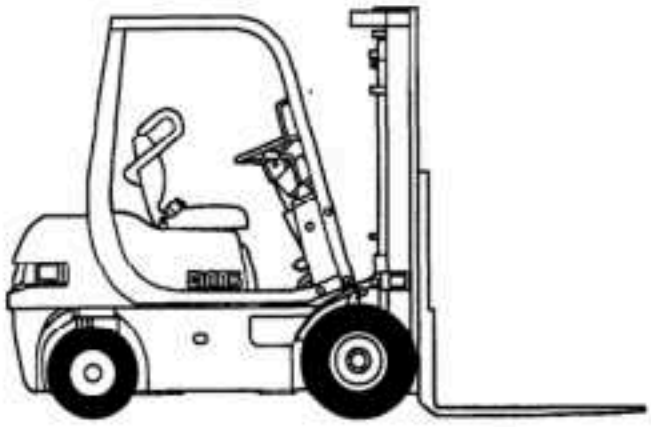
Service Manual

SM 638



CMP 15/18/20/25/30

Revision 1. October, 1998

CLARK Technical Publications Lexington, KY 40508

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Section 2.

Lifting, Jacking, and Blocking

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⚠ WARNING

Lifting or jacking any large piece of equipment such as your fork truck presents obvious hazards. It must be done with great care and forethought. Consult the truck weight tabulations in Group 40, "Specifications" to ensure that your lifting equipment is of adequate capacity.

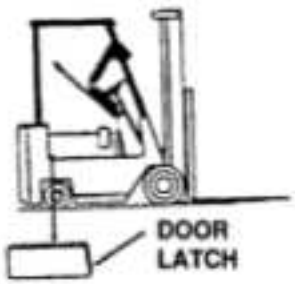
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1. Remove the overhead guard (OHG). Fasten a chain hoist of proper capacity to the top portion of the OHG and lift slightly to remove all chain slack.



Remove the two fasteners connecting the rear legs of the OHG to the counterweight. Then, remove the four fasteners (two per leg) connecting the front legs to the cowl. Lift the OHG off the truck and store in a safe place.

2 Open and remove the engine compartment side doors by lifting upward and off the pivot pins.

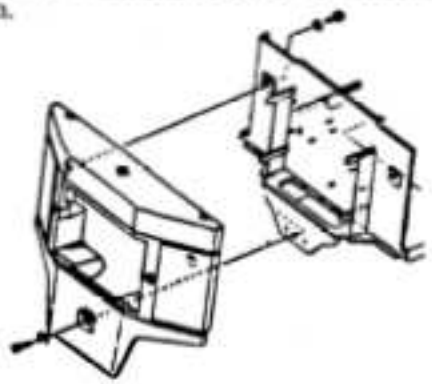


SIDE DOOR MAY BE REMOVED BY LIFTING DOOR AFTER OPEN

3. Remove the counterweight. First insert eyebolts into the holes provided in the top surface of the counterweight.

Connect a short length of chain of correct capacity between the eyes using bolts to connect the chain to the eyes. Connect the hook of a chain hoist to the lifting chain connecting the eyes and raise the hoisting chain slightly to remove all slack.

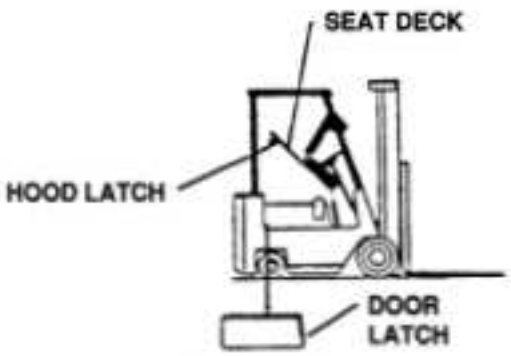
Remove the two fasteners at the lower end of thecounterweight (near the tow-pin). Remove the two fasteners attaching the counterweight to the frame stanchions in the engine compartment. NOTE - The counterweight rests on hooks on the frame which will normally hold the counterweight in position when these bolts are removed. Carefully lift and move the counterweight from the truck and store in a safe position.



4. Remove the seat deck and seat as an assembly. The seat deck is retained by two pivot pins and a gas assist(support) cylinder.

First lift the seat to the fully-raised position. Use a chain hoist or similar holding means to support the seat deck in this position. Remove the clips retaining the pivot pins. Remove the nut holding the gas cylinder to the seat deck and disconnect the gas cylinder.

Lift the seat deck off the truck and store in a safe position.



SIDE DOOR MAY BE REMOVED BY LIFTING DOOR AFTER OPEN

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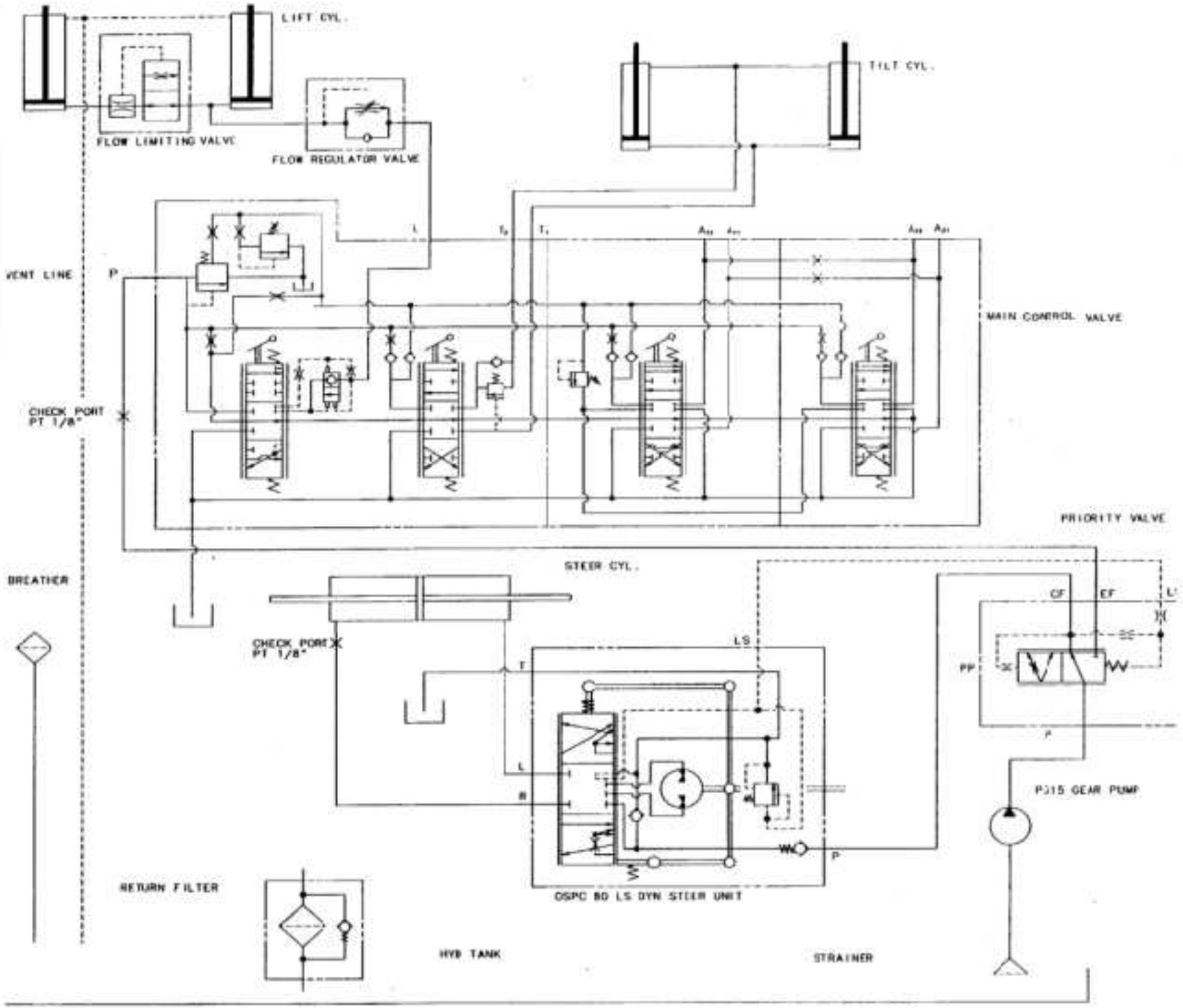
Section 2.

Steering System Troubleshooting

Fault	Possible cause	Remedy
Steering wheel is heavy to turn	• Insufficient oil pressure. -Pump drive defective. -Pump is worn out. • Pressure relief valve is stuck in open position or setting pressure is too low. • Priority valve spool stuck. • Too much friction in the mechanical parts of the steering system.	• Check the oil pressure. -Replace pump drive. -Replace pump. • Repair or clean pressure relief valve. Adjust the valve to the correct pressure. • Clean or replace valve. • Grease/repair axle knuckle pins, steering cylinder pins, steering column bearings. • Check the hydraulic cylinder for malfunction.
Constant steering is necessary for straight travel. ("Snake-like driving")	• Leaf springs without spring force or broken. Spring in relief valve broken. • Gerotor assy worn. • Cylinder scored or piston seals worn	• Replace leaf springs. • Replace relief valve. • Replace gerotor assy. • Replace defective parts.
Neutral position of steering wheel can not be obtained, i.e. there is a tendency towards "motoring".	• Steering column and steering unit out of alignment. • Too little or no end play between steering column and steering unit input shaft. • Pinching between inner and outer spools.	• Align the steering column with steering unit. • Adjust the end play and if necessary, shorten the splined shaft. • Dismantle the steering unit and repair as required.
"Motoring" effect. The steering wheel can turn on its own.	• Leaf springs are stuck or broken and therefore have reduced spring force. • Inner and outer spools sticking possibly due to dirt.	• Replace leaf springs. • Dismantle the steering unit and clean/repair as required
Backlash	• Cardan shaft fork worn or broken. • Leaf springs without spring force or broken. • Worn splines on the steering column.	• Replace cardan springs. • Replace leaf springs. • Replace steering column/shaft.

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Hydraulic Schematic



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