

the punch a light tap with a small hammer. This will have the effect of reseating the ball on its seat. Install the screen washer. Screw in ram cylinder tightly. Replace washers top and bottom of oil chamber install ram assembly, and screw in top nut.

b) Cup seal for the ram may be worn. This is likely only in jacks that have given very heavy service. Follow above procedure 2-a until access to ram assembly is made. Remove worn seal by pulling away or cutting with a small knife. Take caution not to damage the new ram seal when installing.

c) Dirt in the release valve will cause jack to lower under load. Remove release valve. Clean valve seat replace valve.

### 3. If Jack Will Not Lower Completely When Raised

a) Return spring for lifting arm may be broken or unhooked. Replace return spring.

b) It probably needs inbrication, clean and oil all moving parts in the lifting arm mechanism.

c) Hydraulic unit may contain too much oil and vent valve may be closed. Open vent plug.

### 4. If Jack Will Not Lift Full 2 tons Capacity

#### CHECK THE FOLLOWING

a) The O-ring seal for piston pump may be worn. See instructions V, I-c.

b) The unit may have air trapped in the system. See instructions V, I-b.

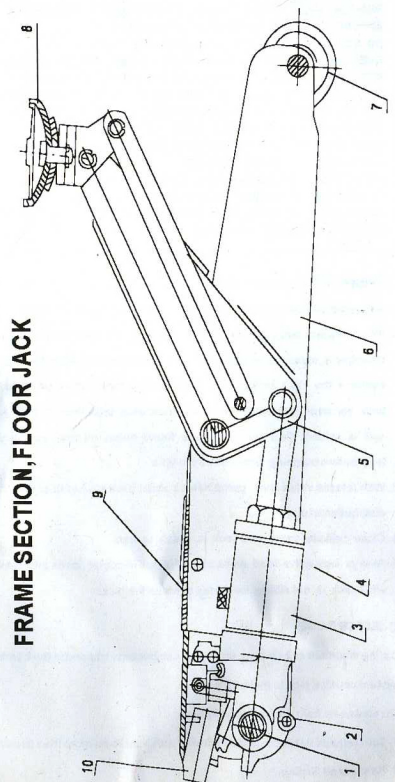
c) The overload valve is factory adjusted for the jack to lift 2 tons load and should not be altered, Examine jack for binding, causing loss of load.

## 5. TROUBLE SHOOTING CHECK LIST

| TROUBLE                           | CAUSE   | REMEDY   |
|-----------------------------------|---|--|
| Jack will not lower completely    | 1 Air in hydraulic system<br>2 Release valve stuck                                | 1 Purge air from hydraulic system<br>2 Transfer weight load and clean valve  |
| Jack will not lower weight        | 1 Release valve in open position  | 1 Close release valve tightly  |
| Jack will not lift to full height | 1 Oil level low<br>2 Air in hydraulic system                                      | 1 Fill to recom mended level<br>2 Purge air from hydraulic system  |
| Weak lifting                      | 1 Air in hydraulic system<br>2 Dirty oil<br>3 Release valve not completely closed | 1 Purge air from hydraulic system<br>2 Change oil Use SAE 6W<br>3 Close release valve tightly                            |
| Jack will not lift load           | 1 Excessive weight<br>2 Release valve in open position<br>3 Oil level low         | 1 Decrease weight or change to higher capacity jack<br>2 Turn valve clockwise and tighten<br>3 Fill to recommended level |

## PARTSLIST

| ITEM NUMBER | PART NUMBER | DESCRIPTION             | QUANTITY REQUIRED |
|-------------|-------------|-------------------------|-------------------|
| 1           | 0001        | Spindle                 | 2                 |
| 2           | 0005        | Spring, Tension         | 1                 |
| 3           | 3000        | Hydraulic Unit Assembly | 1                 |
| 4           | 5002        | Caster Wheel            | 2                 |
| 5           | 4000        | Lifting Arm Assembly    | 1                 |
| 6           | 1000        | Side Member Assembly RH | 1                 |
| 7           | 2000        | LH                      | 1                 |
| 7           | 0011        | Front wheel             | 2                 |
| 8           | 7201        | Saddle                  | 1                 |
| 9           | 0006        | Cover plate             | 1                 |
| 10          | 6000        | Handle Base Assembly    | 1                 |



## WARNING

THIS IS A LIFTING DEVICE ONLY. LOAD MUST BE SUPPORTED BY PROPER RATED CAPACITY JACK STANDS UNDER THE VEHICLE BEFORE STARTING INSPECTION OR WORK. DO NOT OVERLOAD. JACK CAPACITY IS 2 TONS. OVERLOADING CAN CAUSE DAMAGE TO JACK AND/OR FAILURE RESULTING IN PERSONAL INJURY OR PROPERTY DAMAGE. THIS JACK IS DESIGNED FOR USE ON HARD LEVEL SURFACES. USE ON OTHER THAN HARD SURFACES CAN RESULT IN JACK INSTABILITY AND POSSIBLE LOSS OF LOAD. ONLY ATTACHMENTS AND/OR ADAPTERS SUPPLIED BY THE MANUFACTURER SHALL BE USED. NO ALTERATIONS TO THE JACK SHALL BE MADE. FAILURE TO HEED THESE WARNINGS MAY RESULT IN LOSS OF LOAD, DAMAGE TO THE JACK, AND/OR FAILURE RESULTING IN PERSONAL INJURY OR PROPERTY DAMAGE.

## I. OPERATING INSTRUCTIONS

- Assemble handle front section to larger section using pin provided.
- When this jack leaves the factory for shipment. The vent plug on top of the oil chamber is closed to prevent the oil from being spilled. Also the oil chamber contains the right amount of oil before shipment; Before using for the first time, remove cover plate, unscrew vent plug until there is 1/16" gap. If oil spill is evident. Or if vent plug was found open, it is necessary to check oil level before pumping. See instruction V, I-a
- With release valve open, pump handle about 6 full strokes to assure complete distribution of oil.
- Close release valve, and jack is ready to use.
- Always center the load on saddle of jack. Off-center loads and loads lifted while jack is not sitting, level may damage the jack.

## II. BEFORE USE

During shipment or handling, air in jack can become trapped in the hydraulic system causing jack to malfunction.

To release air from the hydraulic system;

- Turn release valve counter-clockwise with handle no more than two full turns.
- Remove oil fill plug.
- Pump jack handle quickly in several full strokes.
- Repeat above steps as needed, Remember to replace oil fill plug.

## III. INSTRUCTIONS FOR USE

### TO RAISE:

- With one end of jack handle, close release valve tightly by turning it clockwise.
- Place vehicle in PARK (in gear on standard transmissions) and apply emergency brake.
- Place jack under vehicle at proper lifting location. (Refer to vehicle Owner's Manual). If needed, turn extension screw on jack counter clockwise until it comes in contact with vehicle.
- Insert jack handle into handle socket, Pump the handle to lift vehicle to desired heights.

### TO LOWER:

- Remove handle use small end to SLOWLY open release valve. (To open turn SLOWLY in counter clockwise direction).
- When vehicle fully lowered, remove jack. If extension screw has been extended, turn it clockwise until it retracts enough to remove from vehicle.
- When jack has been removed from vehicle, close release valve for storage.

## IV. GENERAL CARE OF YOUR JACK

- When jack is not in use lifting arm and pump lever should be in full down position. This will protect precision machined surfaces of the ram and the piston from corrosion.
- Container is filled with 7 fl. oz of hydraulic jack oil.
- Keep your jack clean and well lubricated, as well as the outside moving parts such as the lifting arm spindle, wheel bearings and cross head pin.
- Should any other parts be required, please refer to the sectional drawings and quote appropriate serial number of the jack when ordering.
- ADDING OIL: With ram fully lowered and jack on level ground, remove oil fill plug. Add oil if level is more than 1/2" below hole replace cover plate.
- REPLACING OIL: Oil should be replaced at least once every year. To drain oil, remove cover plate, Oil filler plug and release valve. Be VERY CAREFUL to not allow dirt or any foreign matter into the system.
- LUBRICATION: Put grease in fitting on base and lubricate lifting arm spindle with oil, every 3 months.
- RUST PREVENTION: Clean and wipe with an oily cloth, the piston ram and pump piston every 3 months or when signs of rust or corrosion appear. When not in use, always leave the saddle and pump piston in the completely down position.

## V. HOW TO LOCATE AND REMEDY TROUBLE

### 1. If Jack Will Not Raise or Lift Load

- a) Before attempting to locate the specific trouble, inspect Oil level in the following manner. Place jack on level position. Open release valve. Correct oil level is at bottom of thread inside oil chamber when lifting arm is at full down position. If lacking oil, remove vent plug located under cover plate. Fill with oil to correct level and install and tighten the plug. Close release valve and pull lifting arm up to its full height. Then open release valve and by stepping on saddle. Force it to lower as rapidly as possible. Repeat this operation three or four times. This procedure will thoroughly flush the valves and assure complete distribution of oil. In most cases it will restore the jack to proper working order. Close release valve tightly. Try jack under load.
- b) The jack may have air trapped in the system. Open release valve. Pump handle 6 full strokes. Close release valve and try jack again.
- c) O-ring seat for pump may be worn: this will happen only after months of service. A new O-ring seal or a complete new piston can be purchased and easily installed.

d) Release valve may be held open by dirt on seat. Flush by pulling lifting arm up and down several times while release valve is open. If necessary, the release valve may be removed for cleaning the valve and valve seat.

### 2. If Jack Lowers Under Load

- a) The discharge valve may be held open by dirt on ball seat: When a dirty discharge valve or ball seat exists, the jack may lower quickly, causing handle to fly back with force. This is caused by the oil rushing back into the pump chamber through the open ball seat. When this happens, it is advisable to repeat procedure I-a before going through the partial disassembly of the hydraulic unit. The discharge valve is located at the bottom of ram cylinder there is a screen washer. This must be removed carefully and if damaged a new one must be fitted. NOW remove the discharge valve ball and clean valve seat. Wipe ball and replace and reseat. Use 1/4" diameter 1x3" long punch and small hammer place the punch on top of ball and give