

M-91-21  
JULY, 1991

MAINTENANCE

MANUAL

**SL-20 A**

**SL-30 A**

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MAXON INDUSTRIES INC.

**MAXON**  
INDUSTRIES, INC.

1960 SLAUSON AVENUE  
HUNTINGTON PARK CA. 90255

## WARNINGS

1. READ THIS MANUAL AND UNDERSTAND COMPLETELY BEFORE OPERATION OR MAINTAINING THIS UNIT.
2. READ THE RED URGENT WARNING DECAL ON THE SIDE OF THE VEHICLE CLOSE TO THE UNIT BEFORE OPERATING.
3. IF DECAL IS DIRTY CLEAN IT. IF DECAL IS DEFACED OR MISSING REPLACE IT. FREE REPLACEMENTS ARE AVAILABLE FROM MANUFACTURER. SEE INFORMATION AT END OF WARNINGS LIST.
4. IF YOUR MAINTENANCE PROCEDURE REQUIRES MORE THAN ONE PERSON, CHECK THE LOCATION OF OTHER PERSON BEFORE OPERATING UNIT.
5. STAND TO ONE SIDE OF PLATFORM WHEN LOWERING OR RAISING.
6. KEEP FINGERS, HANDS, ARMS, LEGS AND FEET CLEAR OF MOVING PARTS WHEN OPERATING UNIT.
7. DO NOT STAND IN SUCH A POSITION THAT THE PLATFORM WILL STRIKE YOUR FEET WHEN PLATFORM IS LOWERED TO GROUND.
8. IF DURING YOUR MAINTENANCE PROCEDURE, IT IS NECESSARY TO RIDE THE PLATFORM DURING OPERATION, KEEP YOUR FEET AWAY FROM THE REAR EDGE OF THE PLATFORM, OTHERWISE YOUR FEET COULD BE TRAPPED BETWEEN EDGE OF PLATFORM AND VEHICLE BED.
9. CHECK THAT ALL ROLL PINS ARE SECURE AND NOT BROKEN EVERY WEEK.
10. INSPECT HYDRAULIC HOSE FOR CRACKS AND DETERIORATION EVERY YEAR.
11. WHEN REPLACING PARTS OR SERVICING UNIT DISCONNECT BATTERY.
12. DO NOT ALLOW CHILDREN TO RIDE OR PLAY WITH UNIT.
13. CHECK AROUND LIFT AREA FOR CHILDREN AND OTHER PERSONS BEFORE OPERATING UNIT.
14. IN EVENT OF AN EMERGENCY, WHEN OPERATING UNIT, RELEASE TOGGLE SWITCH AND UNIT WILL STOP IMMEDIATELY.
15. LIFT SHOULD OPERATE SMOOTHLY. THE ONLY NOISE DURING OPERATION SHOULD BE FROM PUMP UNIT DURING RAISE OPERATION. ANY SCRAPING, GRATING OR AUDIBLE SUGGESTIONS OF ROUGH RUNNING SHOULD BE INVESTIGATED. CAUSE SHOULD BE PIN-POINTED AND ELIMINATED BEFORE FURTHER DETERIORATION OCCURS.
16. USE ONLY FACTORY AUTHORIZED PARTS FOR PART REPLACEMENT. REPLACEMENT PARTS SHOULD BE ORDERED FROM:  
MAXON INDUSTRIES PARTS DEPARTMENT  
1960 SLAUSON AVE., HUNTINGTON PARK, CA. 90255  
PHONE (213) 589-7321

## MONTHLY MAINTENANCE CHECK LIST

THE FOLLOWING MAINTENANCE SHOULD BE UNDERTAKEN MONTHLY.

1. GREASE ALL AREAS WHERE ROTATION OCCURS.
2. CHECK THE OIL IN THE PUMP RESERVOIR. THE OIL SHOULD BE DEXTRON II AUTOMATIC TRANSMISSION FLUID. \*SEE BELOW FOR COLD WEATHER OPERATION.
3. CHECK HOSE FOR CRACKING AND LEAKS.
4. CHECK THE ELECTRICAL WIRING FOR CONTINUITY AND THE CABLE ENDS FOR CORROSION.
5. VISUALLY CHECK THE COMPLETE UNIT FOR EXCESSIVE WEAR, WORN PARTS OR BROKEN WELDS. FOR PARTS REPLACEMENT SEE THE BREAKDOWN DRAWINGS.
6. CHECK ALL BOLTS FOR TIGHTNESS.
7. CHECK THAT ALL WARNING DECALS ARE IN PLACE AND READABLE.
8. CHECK THAT ALL ROLL PINS ARE PROPERLY INSTALLED. REPLACE IF NECESSARY.
9. CHECK THAT THE PLATFORM HANGER STRAPS ARE PROPERLY SEATED IN THE SADDLE ASSEMBLIES. THE SADDLE LATCH SHOULD BE OILED.

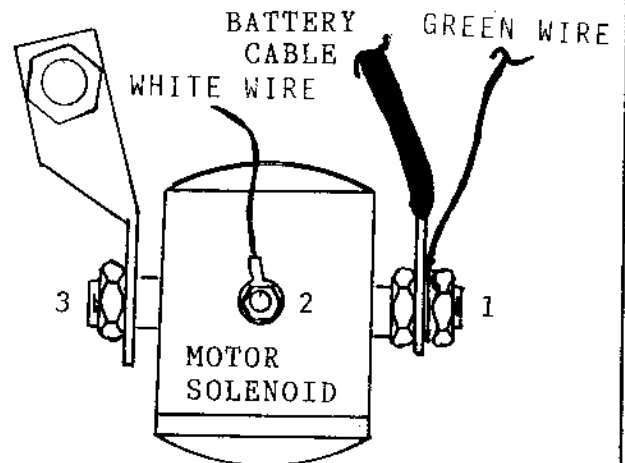
\* COLD WEATHER OPERATION

FOR COLD WEATHER OPERATION (BELOW - 10 F) USE MOBIL D.T.E. 13. IF THIS OIL IS NOT AVAILABLE USE AN EQUIVALENT OIL.

TROUBLE SHOOTING

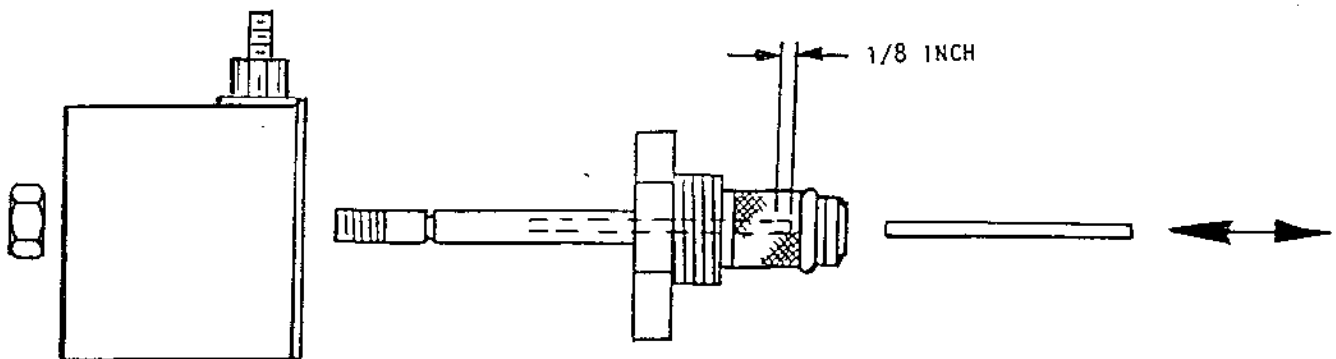
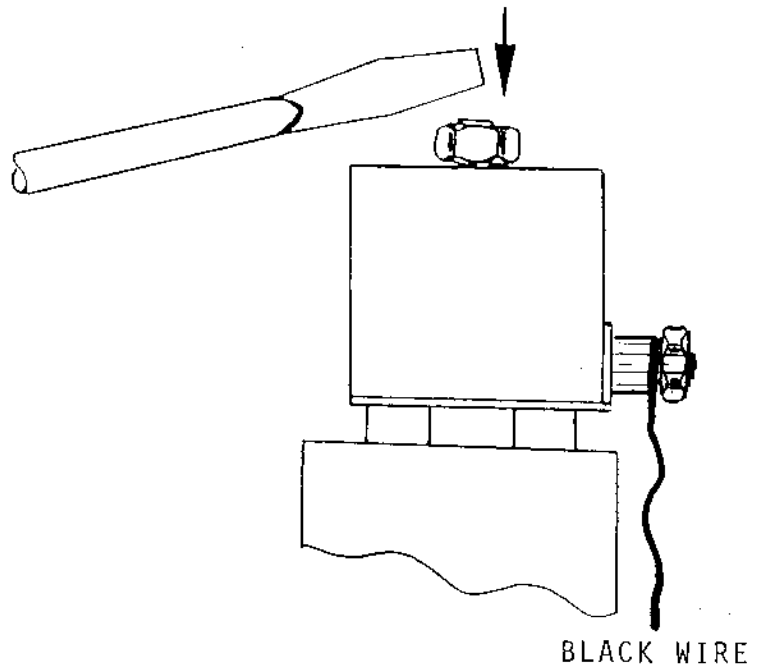
PLATFORM WILL NOT RAISE.  
MOTOR WILL NOT RUN.

1. CHECK BATTERY VOLTAGE  
AT TERMINAL #1.  
IF VOLTAGE IS LESS  
THAN 12 VOLTS  
RECHARGE BATTERY.
2. TOUCH A JUMPER  
WIRE ON TERMINALS  
#1 AND #2.  
IF MOTOR RUNS  
CHECK SWITCH, SWITCH  
CONNECTIONS AND WHITE  
WIRE. CORRECT CONNECTIONS  
OR REPLACE SWITCH.
3. TOUCH HEAVY JUMPER CABLE  
TO TERMINALS #1 AND #3.  
  
IF MOTOR RUNS, REPLACE  
MOTOR SOLENOID.  
  
IF MOTOR DOES NOT RUN  
REPAIR OR REPLACE MOTOR.



PLATFORM WILL NOT LOWER

4. AT "DOWN" VALVE ON TOP OF PUMP, CHECK IF COIL HAS 12 VOLTS WHEN "DOWN" SWITCH IS ACTIVATED. IF VOLTAGE IS LOW, RECHARGE BATTERY. IF NO VOLTAGE IS AT COIL, CHECK CONNECTIONS ON BLACK WIRE AND SWITCH. IF SWITCH IS DEFECTIVE, REPLACE SWITCH. CHECK BATTERY, RECHARGE OR REPLACE.
5. TO CHECK "DOWN" VALVE COIL, HOLD SCREW DRIVER 1/8 INCH FROM NUT AT END OF COIL. ACTIVATE SWITCH, IF SCREW DRIVER IS DRAWN TO NUT COIL IS GOOD -- IF NOT, COIL MUST BE REPLACED.
6. THE SMALL PLUNGER INSIDE THE VALVE MAY BE STUCK. REMOVE COIL AND "DOWN" VALVE, INSERT A SMALL ROD INSIDE THE VALVE. PLUNGER SHOULD MOVE 1/8 INCH. IF PLUNGER IS STUCK, WASH IN SOLVENT. IF PLUNGER REMAINS STUCK, REPLACE VALVE.



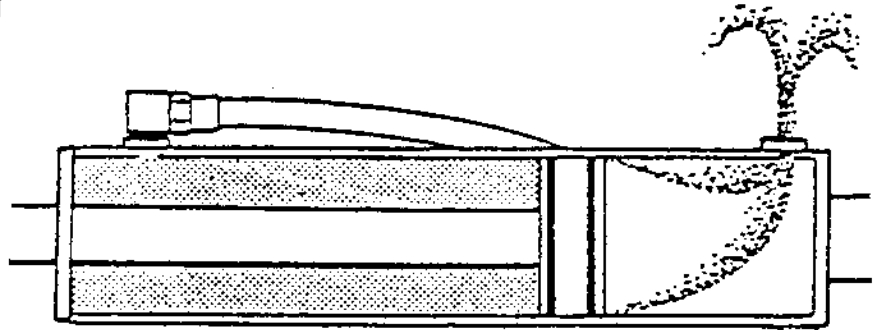
PLATFORM RAISES BUT LEAKS DOWN

7. CHECK "DOWN" VALVE AS NOTED IN PARAGRAPH 6.

8. CHECK HYDRAULIC CYLINDER.

WITH PLATFORM ON GROUND, REMOVE BREATHER PLUG FROM BUTT END OF CYLINDER. OPERATE CONTROL SWITCH TO RAISE PLATFORM. AS PLATFORM RAISES, IF OIL SPRAYS OR SPURTS FROM CYLINDER PORT, THIS INDICATES PISTON SEALS ARE WORN.

SEAL KITS ARE AVAILABLE. SEE BREAKDOWN DRAWING.

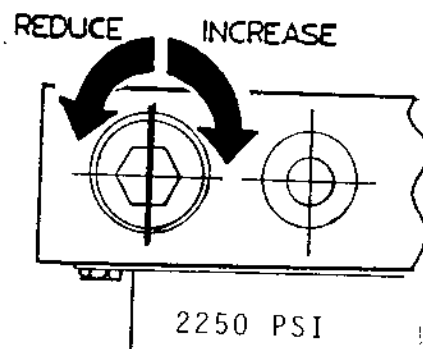


LIFT GATE WILL NOT PICK UP RATED CAPACITY.

9. ADJUST RELIEF VALVE ON TOP OF PUMP. WITH PLATFORM ON GROUND, REMOVE HOSE AND INSTALL A PRESSURE GAUGE. ACTIVATE "UP" SWITCH AND TURN RELIEF VALVE CAP CLOCKWISE UNTIL GAUGE SHOWS 2250 PSI PRESSURE.

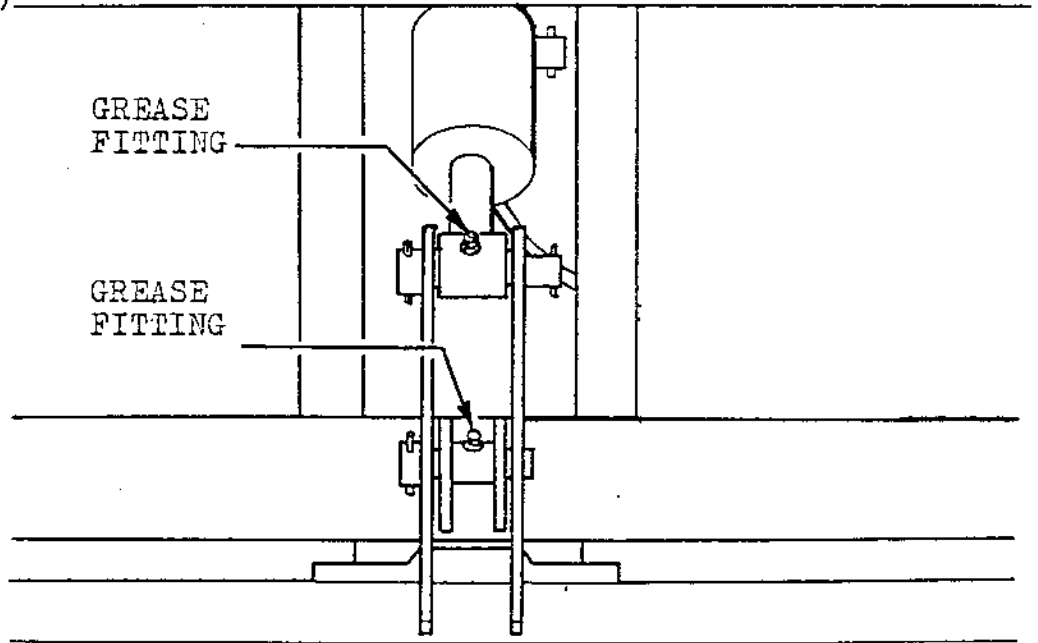
10. CHECK HYDRAULIC CYLINDER PER PARAGRAPH 8.

11. IF PUMP CAN NOT PRODUCE 2200 TO 2300 PSI AND A MINIMUM OF 12 VOLTS ARE AVAILABLE, PUMP IS WORN AND REQUIRES REPLACEMENTS.

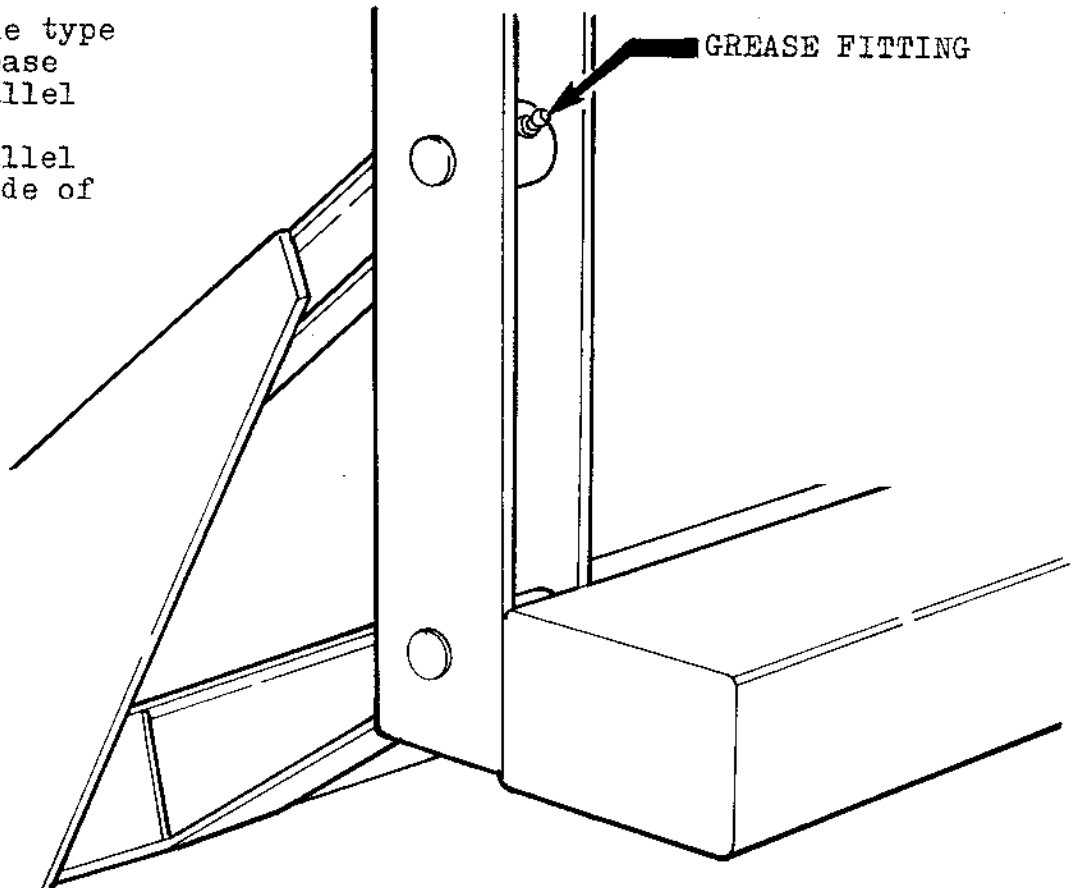


LUBRICATION (MONTHLY)

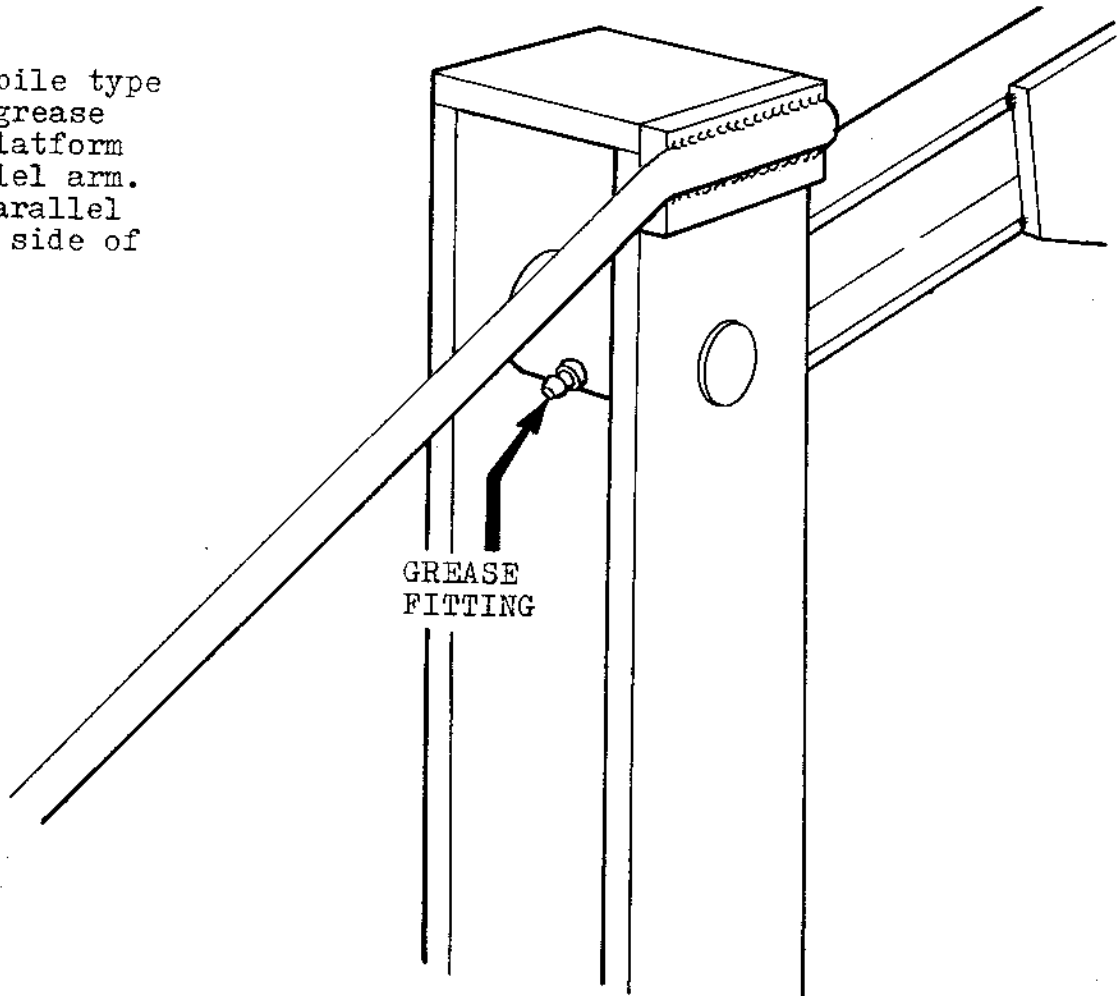
Lower platform to ground.  
Grease where shown.  
Use Automobile type grease.



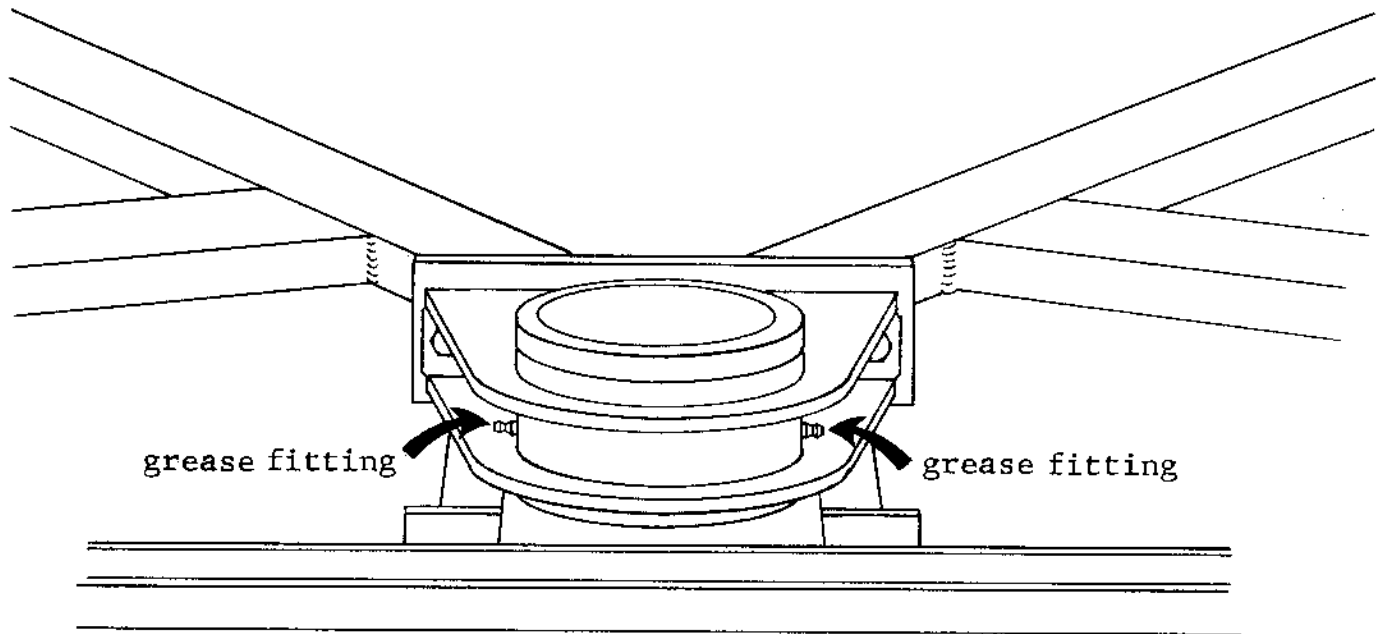
Apply Automobile type grease thru grease fitting in parallel arm.  
Repeat for parallel arm on other side of main frame.



Apply Automobile type grease thru grease fitting at platform end of parallel arm. Repeat for parallel arm at other side of platform.



Apply automobile type grease thru grease fittings on sides of top and bottom bearings. ( Top bearing shown )



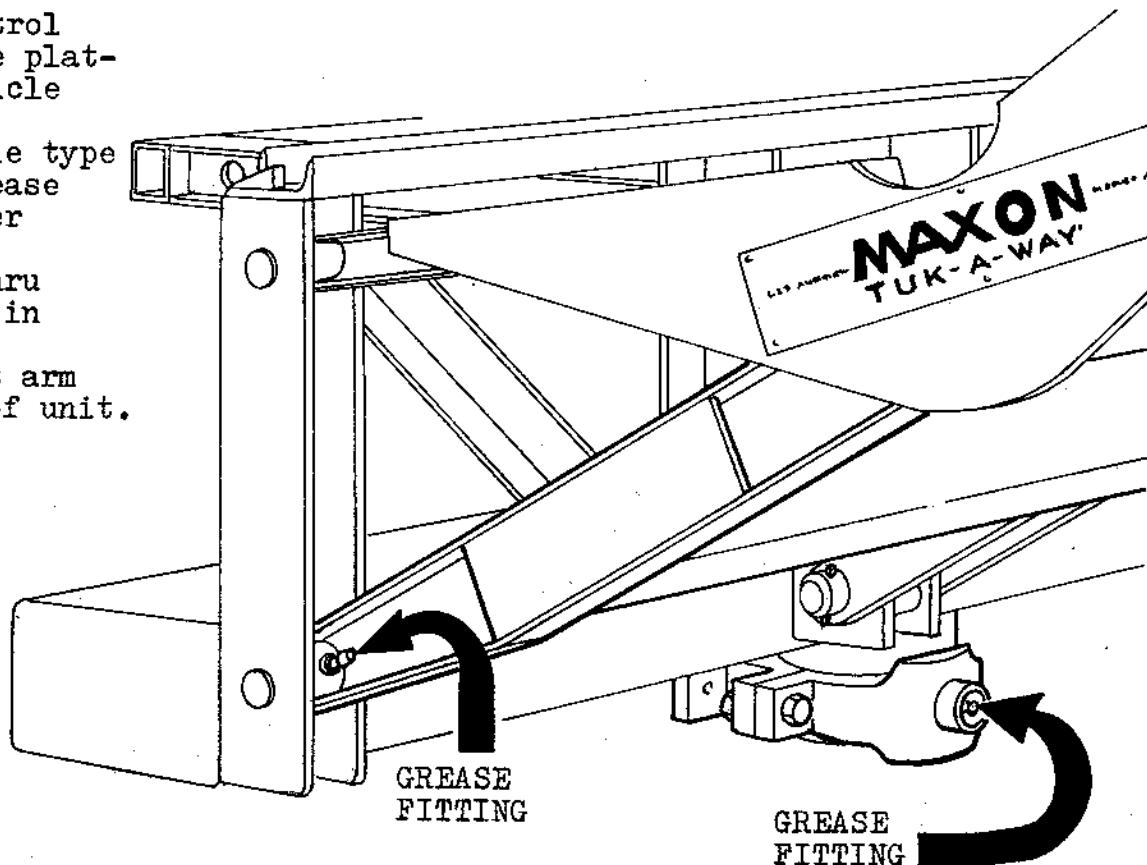


Use remote control switch to raise platform up to vehicle bed height.

Apply Automobile type grease thru grease fitting in lower half cap.

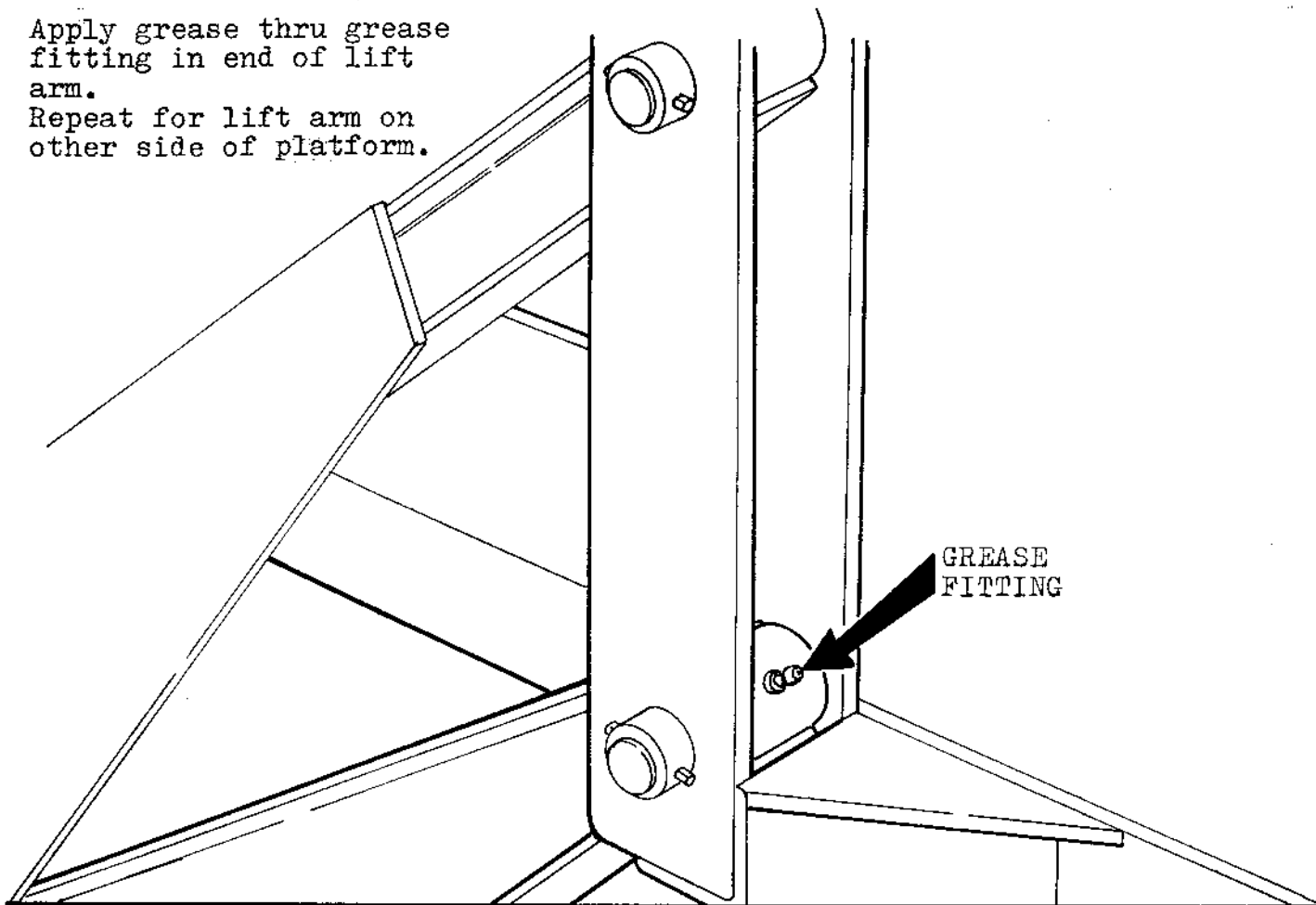
Apply grease thru grease fitting in lift arm.

Repeat for lift arm on other side of unit.

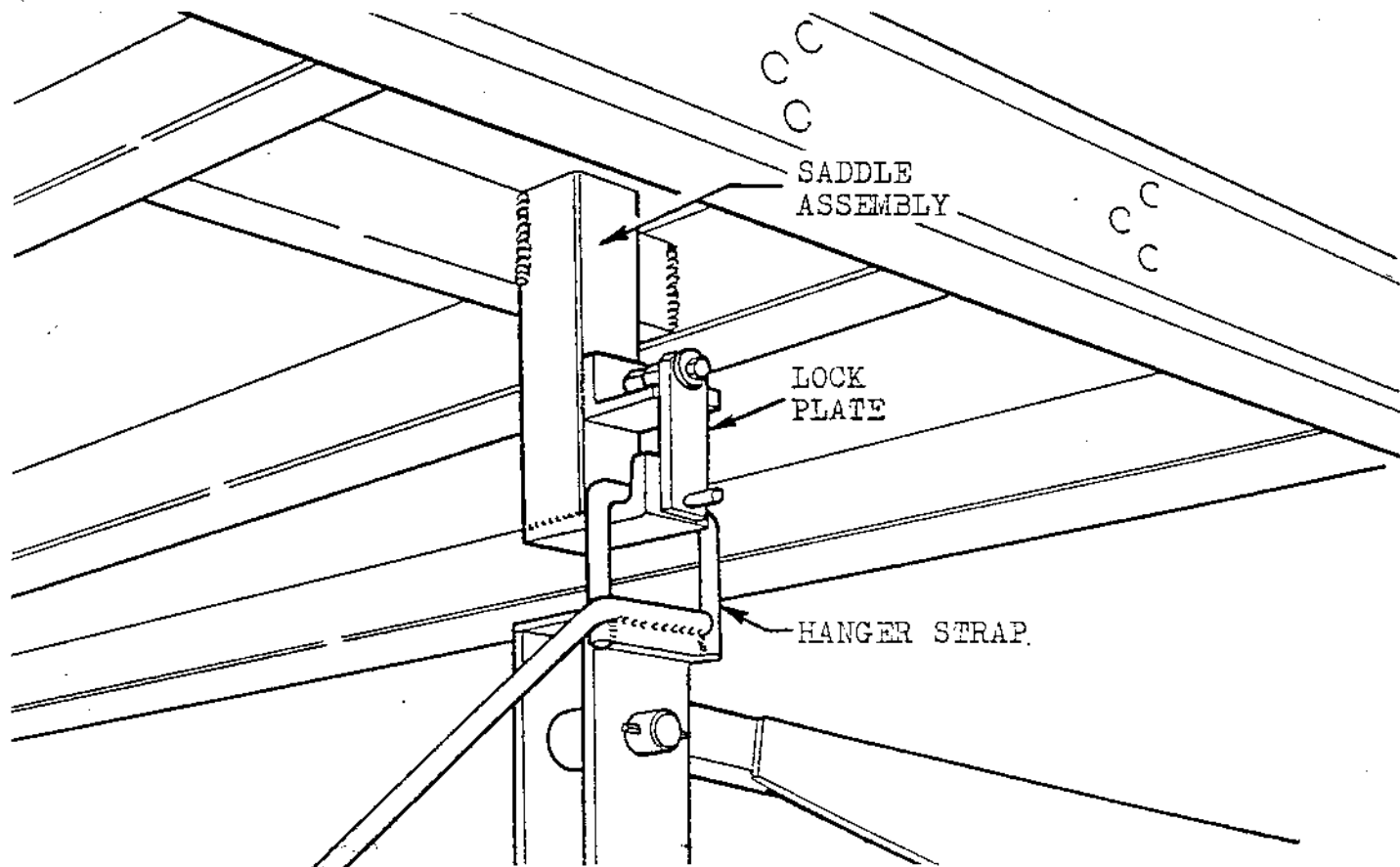


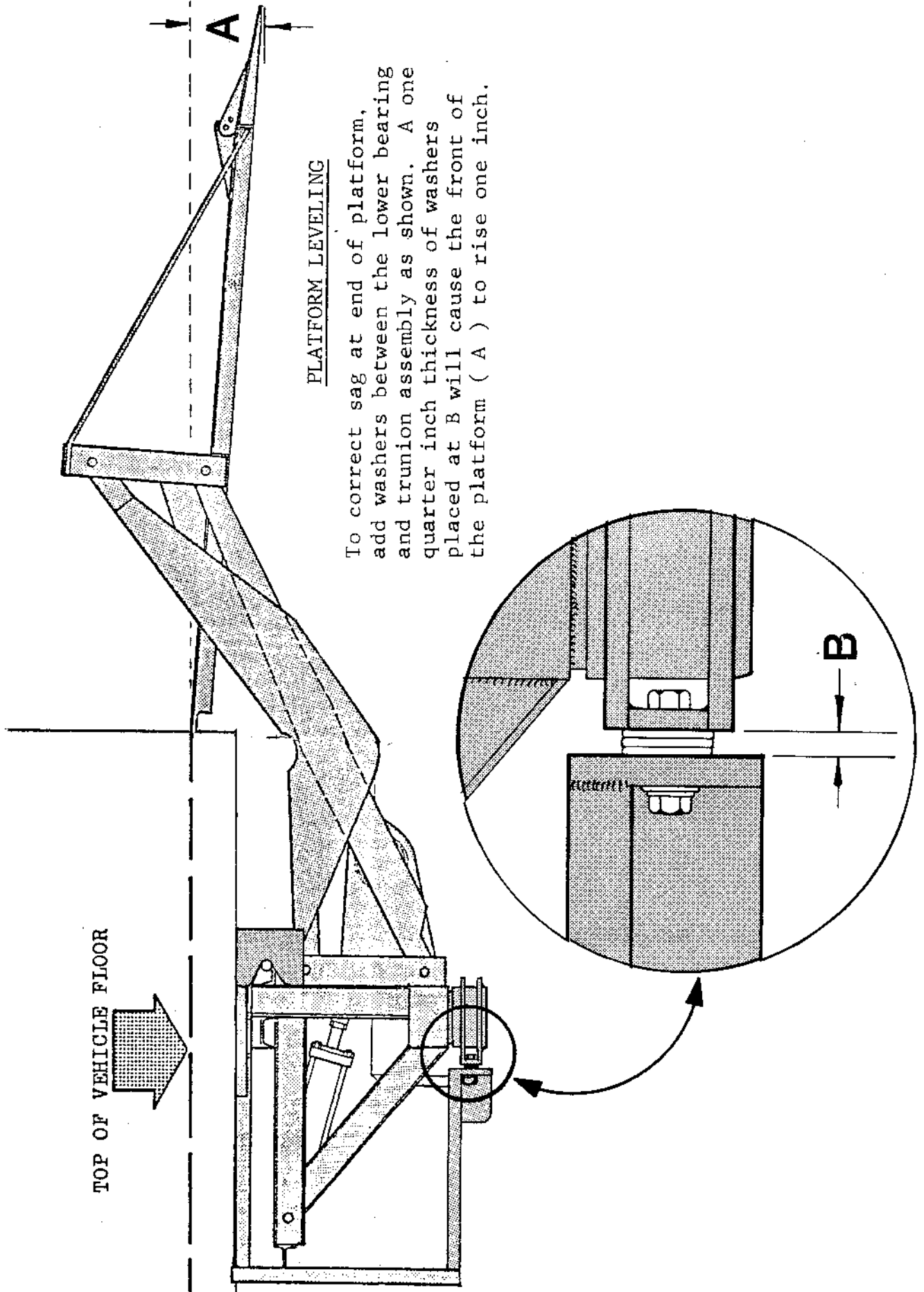
Apply grease thru grease fitting in end of lift arm.

Repeat for lift arm on other side of platform.



Check saddle assembly and hanger strap for security. Oil lock plate where it pivots about the bolt.



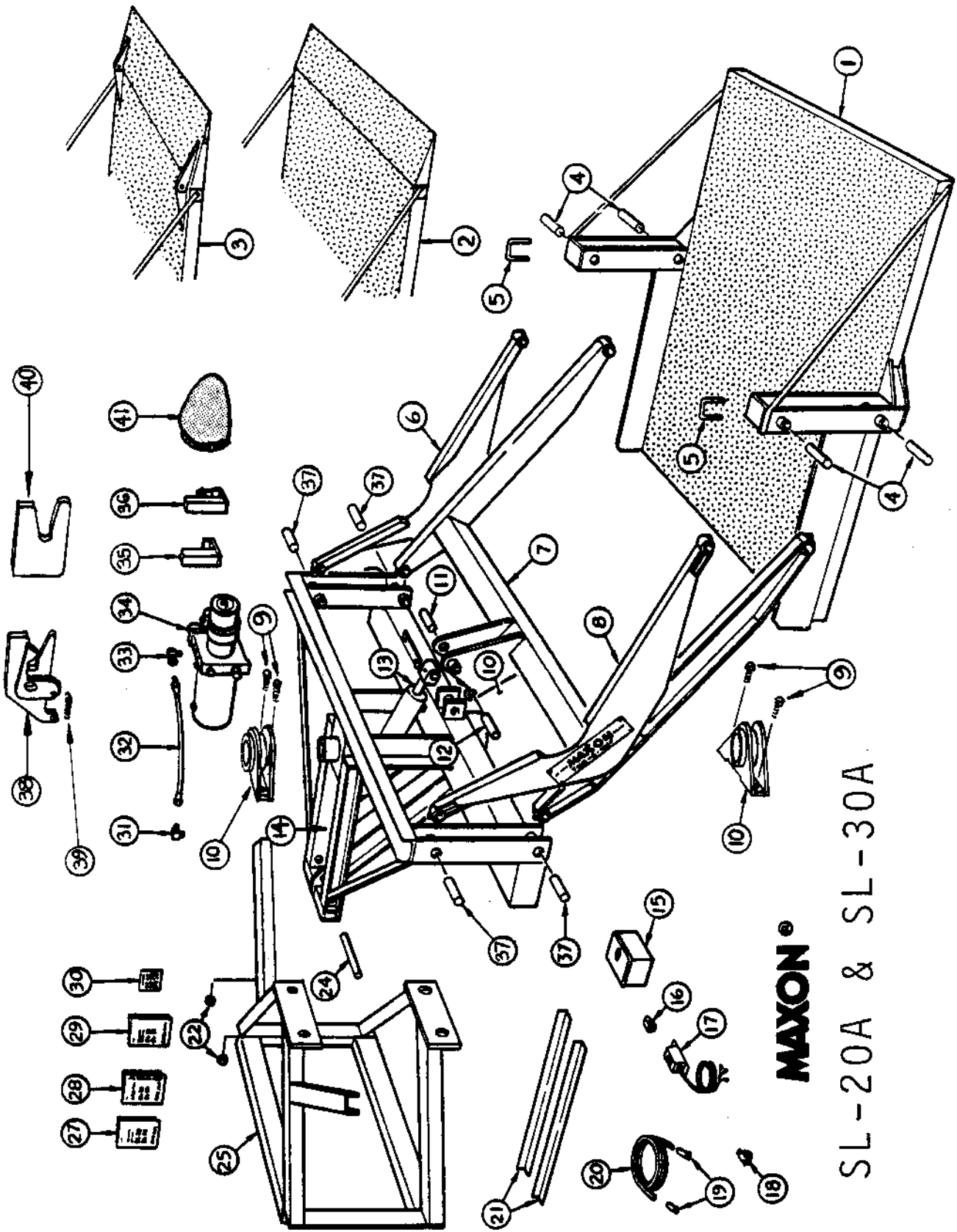


PLATFORM LEVELING

To correct sag at end of platform, add washers between the lower bearing and trunion assembly as shown. A one quarter inch thickness of washers placed at B will cause the front of the platform ( A ) to rise one inch.

TOP OF VEHICLE FLOOR

SECTION 2: PARTS BREAKDOWN DRAWINGS



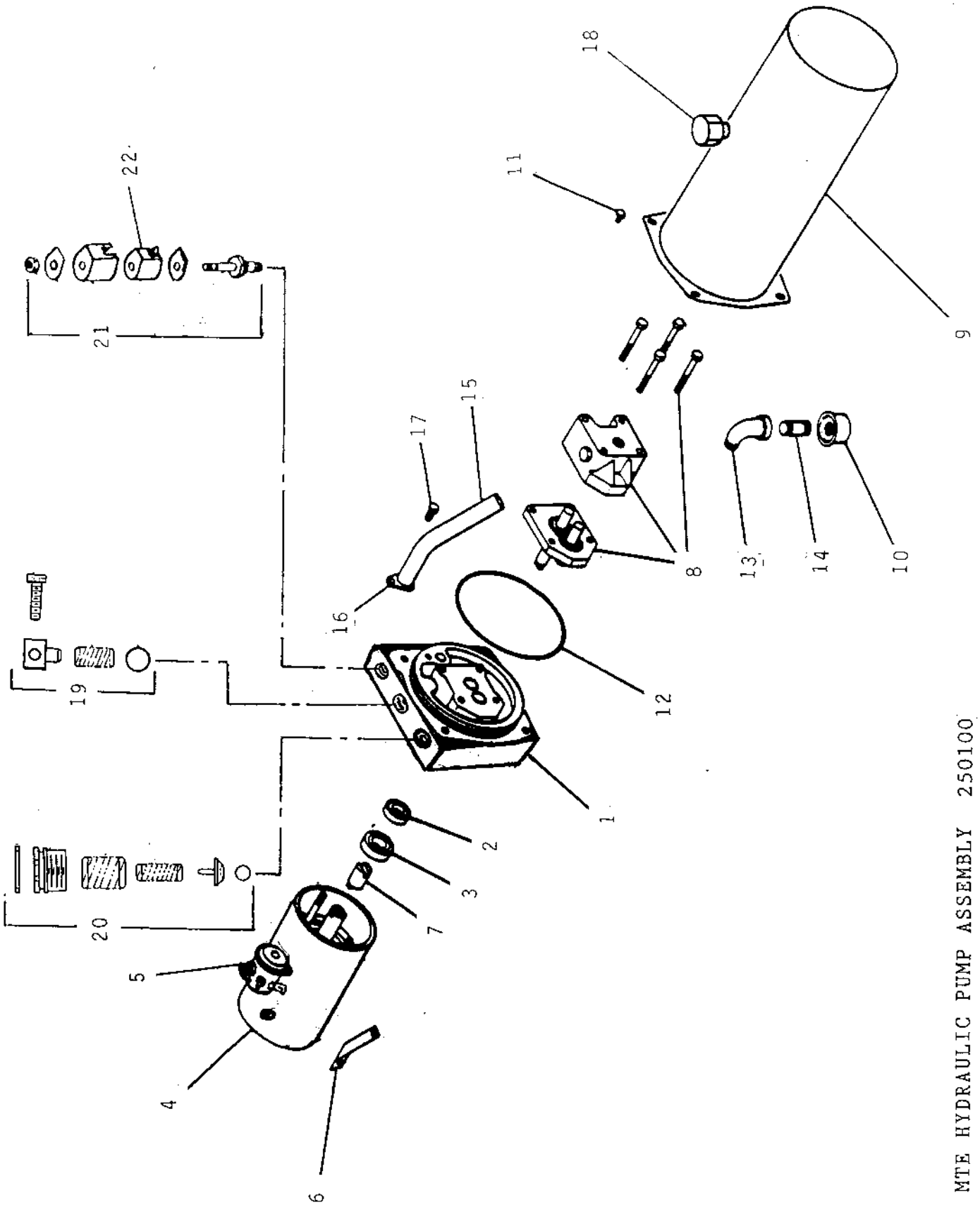
**MAXON®**

SL-20A & SL-30A

PARTS LIST- SL-20A & SL-30A

| No. | DESCRIPTION                         | PART No. | QTY |
|-----|-------------------------------------|----------|-----|
| 1   | Platform assy. 42" x 42"            | 23067    | 1   |
|     | Platform assy. 42" x 60"            | 25215    | 1   |
| 2   | Platform assy. 42" x 42"+12"Ramp    | 222795-2 | 1   |
|     | Platform assy. 42" x 60"+12"Ramp    | 222796-2 | 1   |
| 3   | Platform assy. 42" x 42"+Ret.Ramp   | 222795-1 | 1   |
|     | Platform assy. 42" x 60"+Ret.Ramp   | 222796-1 | 1   |
| 4   | Pin                                 | 223353   | 8   |
| 5   | Hanger strap                        | 207868   | 2   |
| 6   | Parallel arm assy. RIGHT HAND       | 207499-2 | 1   |
| 7   | Lift frame assy.                    | 207715   | 1   |
| 8   | Parallel arm assy. LEFT HAND        | 207499-1 | 1   |
| 9   | Bolt, Bearing .S.A.E. 5/8"-18UNFx2" | -----    | 4   |
| 10  | Bearing                             | 221970   | 2   |
| 11  | Pin. Cylinder clevis                | 207621   | 1   |
| 12  | Pin. Lift frame assy.               | 203405-7 | 1   |
| 13  | Cylinder. 3" x 10" (SL-20)          | 225642.  | 1   |
|     | Seal kit                            | 227387   | 1   |
|     | Cylinder. 3 1/2" x 10" (SL-30)      | 225643   | 1   |
|     | Seal kit                            | 227388   | 1   |
| 14  | Main frame assy.                    | 222733   | 1   |
| 15  | Enclosure assy.                     | 207611   | 1   |
|     | Air breather- Cylinder              | 201695   | 1   |

| No. | DESCRIPTION                | PART No. | QTY |
|-----|----------------------------|----------|-----|
| 16  | Cord strain relief bush.   | 207612   | 1   |
| 17  | Remote control box         | 53513    | 1   |
| 18  | Clamp                      | 801681   | 20  |
| 19  | Cable end #4               | 55007    | 4   |
| 20  | Cable #4 (25ft.)           | 50172    | 1   |
| 21  | Support angle              | 207879   | 2   |
| 22  | Self-lock nut. 5/8"UNF     | 50041    | 4   |
|     |                            |          |     |
| 24  | Pin. Cylinder. Butt end.   | 207622   | 1   |
| 25  | Trunnion assy.             | 222746   | 1   |
| 26  | Latch assy.                | 207874   | 1   |
| 27  | Installation Instructions  | M-19-20  | 1   |
| 28  | Operator's Manual          | M-91-22  | 1   |
| 29  | Maintenance Manual         | M-91-21  | 1   |
| 30  | Decal "URGENT WARNING"     | 50159    | 1   |
| 31  | EL. 90°. 3/8" M-1/4" M     | 50206    | 1   |
| 32  | Hose assy. HI Pressure     | 800234-1 | 1   |
| 33  | Sw. EL. 90°. 3/8" M-1/4" F | 50207    | 1   |
| 34  | Pump. E/H. Remote control  | 250100   | 1   |
| 35  | Saddle assy.               | 223354   | 1   |
| 36  | Saddle assy. with lock     | 25163    | 1   |
|     |                            |          |     |
| 38  | Hook Pin guide & Stop.     | 222758   | 1   |
| 39  | Spring                     | 201681   | 1   |
| 40  | Pin guide & Stop           | 222986   | 1   |
| 41  | Pump cover                 | 50065    | 1   |



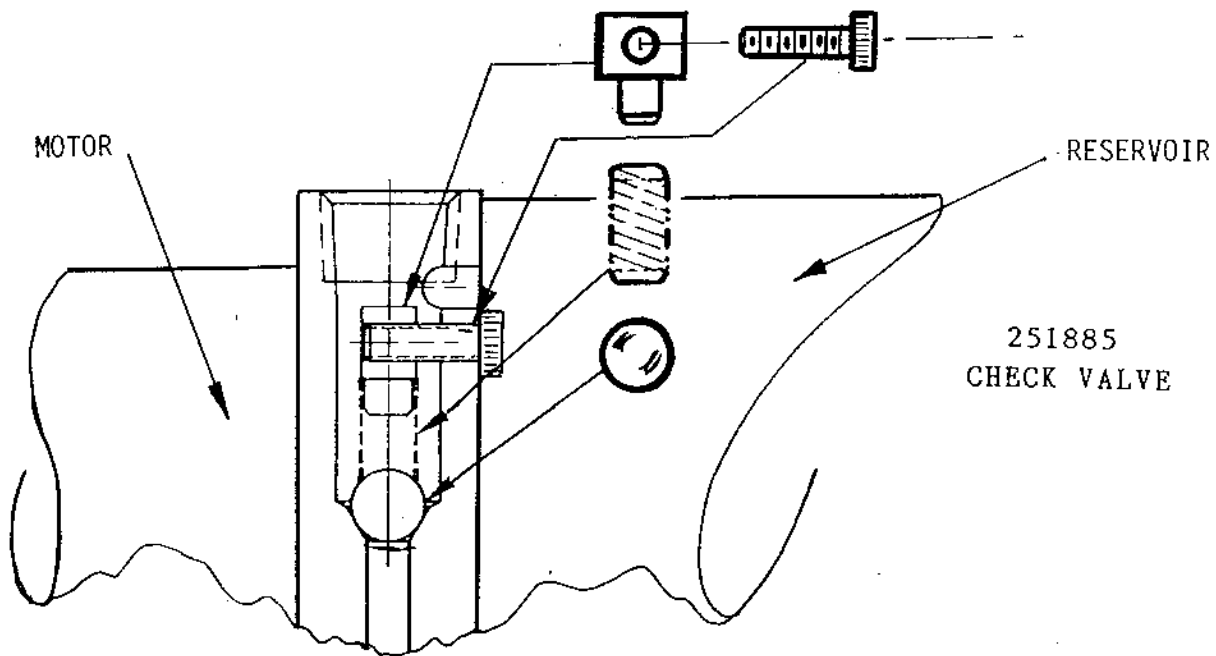
MTE HYDRAULIC PUMP ASSEMBLY 250100

PARTS LIST - MTE HYDRAULIC PUMP ASSEMBLY 250100

| ITEM | DESCRIPTION                  | PART NO. | QTY. |
|------|------------------------------|----------|------|
| 1    | DRIVE PLATE                  | 251879   | 1    |
| 2    | OIL SEAL                     | 229288   | 1    |
| 3    | BEARING                      | 229287   |      |
| 4    | MOTOR                        | 229272   | 1    |
| 5    | SOLENOID SWITCH, 12 V DC     | 251880   | 1    |
| 6    | BUS BAR                      | 229199   | 1    |
| 7    | COUPLING                     | 229200   | 1    |
| 8    | PUMP UNIT ASSEMBLY           | 251881   | 1    |
| 9    | RESERVOIR                    | 251882   | 1    |
| 10   | FILTER                       | 229280   | 1    |
| 11   | HEX WASHER HEAD CAP SCREW    | 251883   | 4    |
| 12   | O-RING                       | 251884   | 1    |
| 13   | STREET ELBOW                 | 229278   | 1    |
| 14   | PIPE NIPPLE                  | 229279   | 1    |
| 15   | OUTLET TUBE                  | 229276   | 1    |
| 16   | RETURN TUBE CLAMP            | 229289   | 1    |
| 17   | HEX WASHER HEAD CAP SCREW    | 229277   | 1    |
| 18   | FILLER BREATHER              | 229193   | 1    |
| 19   | CHECK VALVE                  | 251885   | 1    |
| 20   | RELIEF VALVE                 | 251886   | 1    |
| 21   | DOWN VALVE AND COIL ASSEMBLY | 229194   | 1    |
| 22   | DOWN VALVE SOLENOID COIL     | 229195   | 1    |

CHECK VALVE

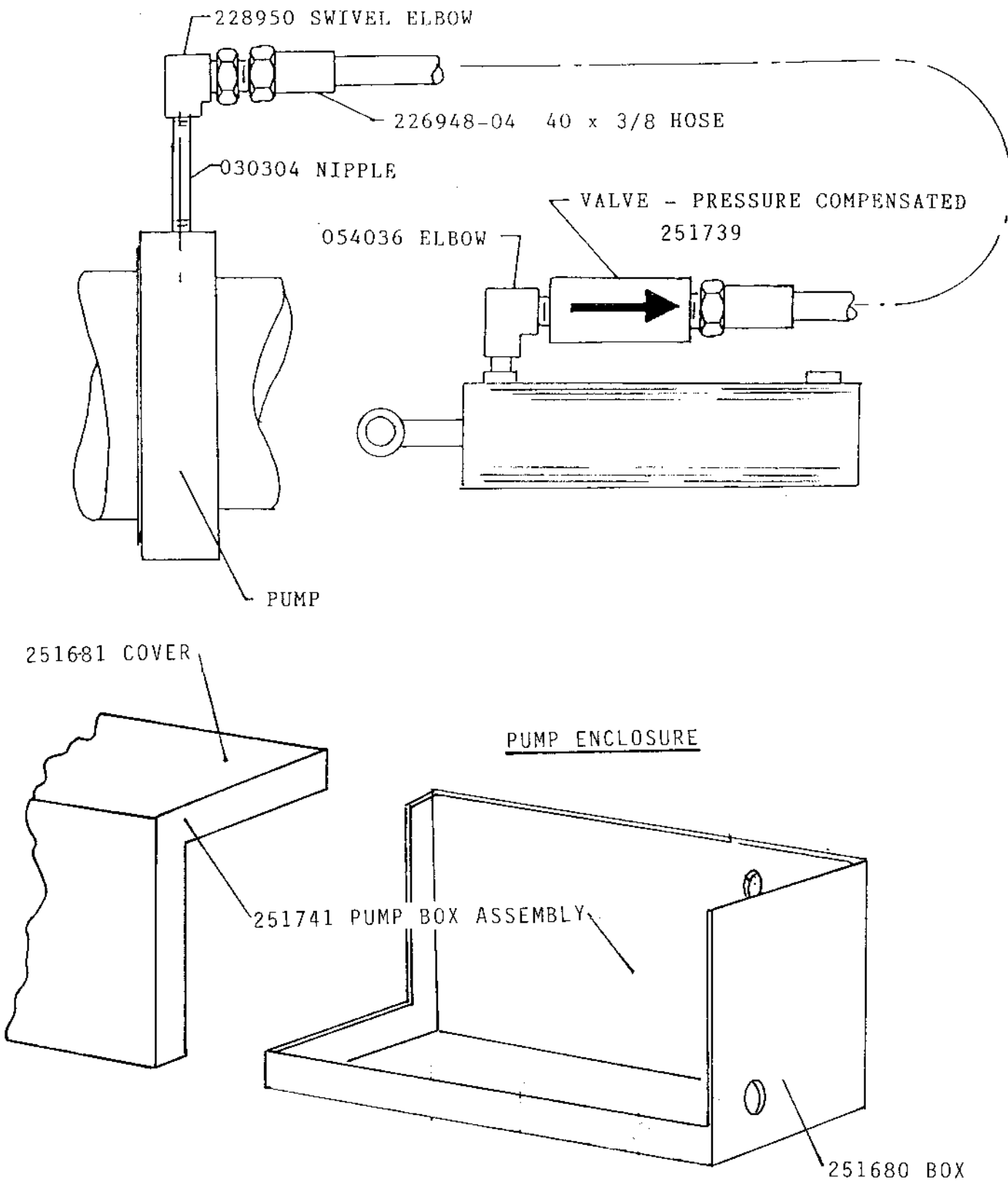
WHEN REINSTALLING CHECK VALVE BE SURE TO INSERT SCREW  
INTO HOLE IN SPRING RETAINER, NOT ON TOP OF THE RETAINER



TO REMOVE CHECK VALVE THE RESERVOIR MUST BE REMOVED.



HYDRAULIC ASSEMBLY



53417  
BOOT

203558  
SWITCH BOX

TOGGLE SWITCH  
223722

203557  
COVER .20/GASKET

53422  
CORD ASSEMBLY  
(10 FEET)

REMOTE CORD SET  
P/N 53513

