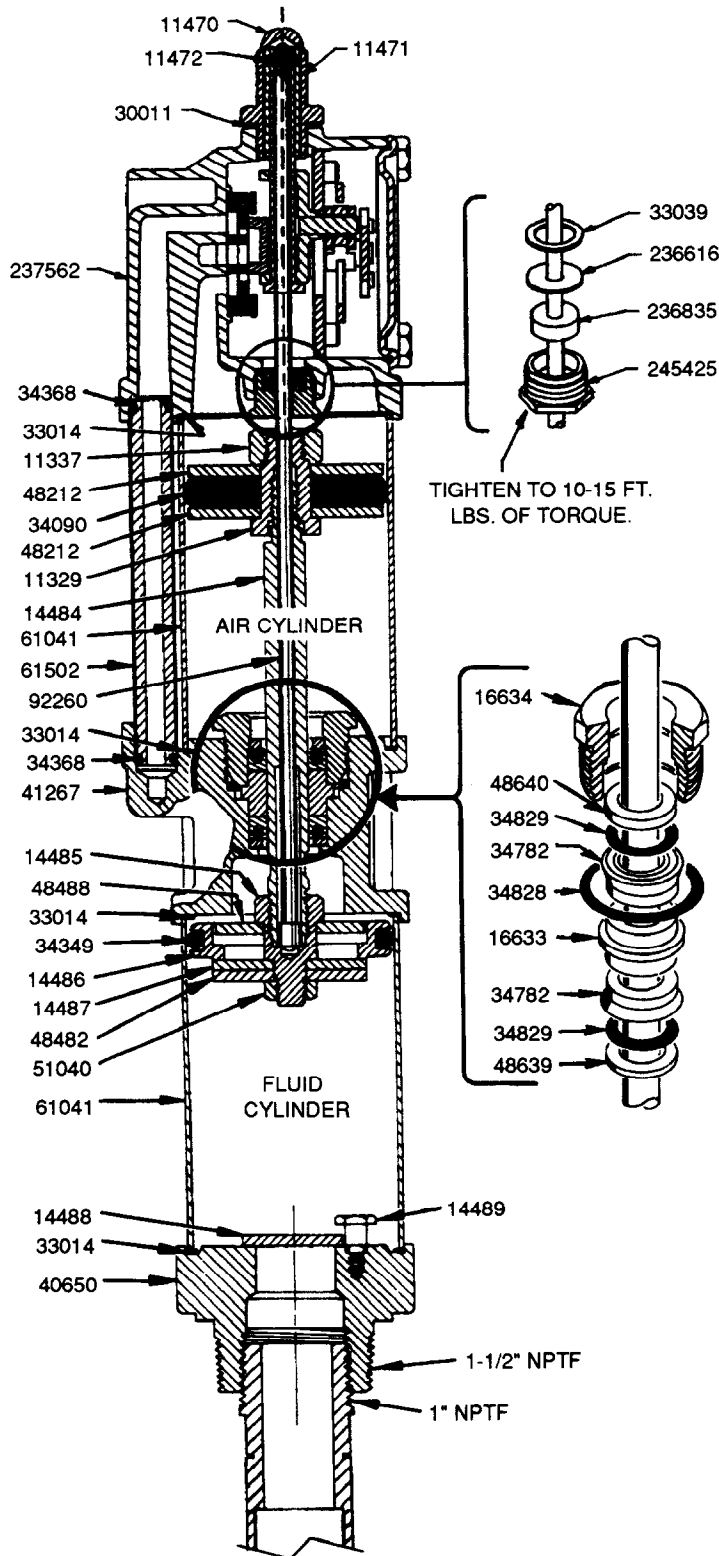


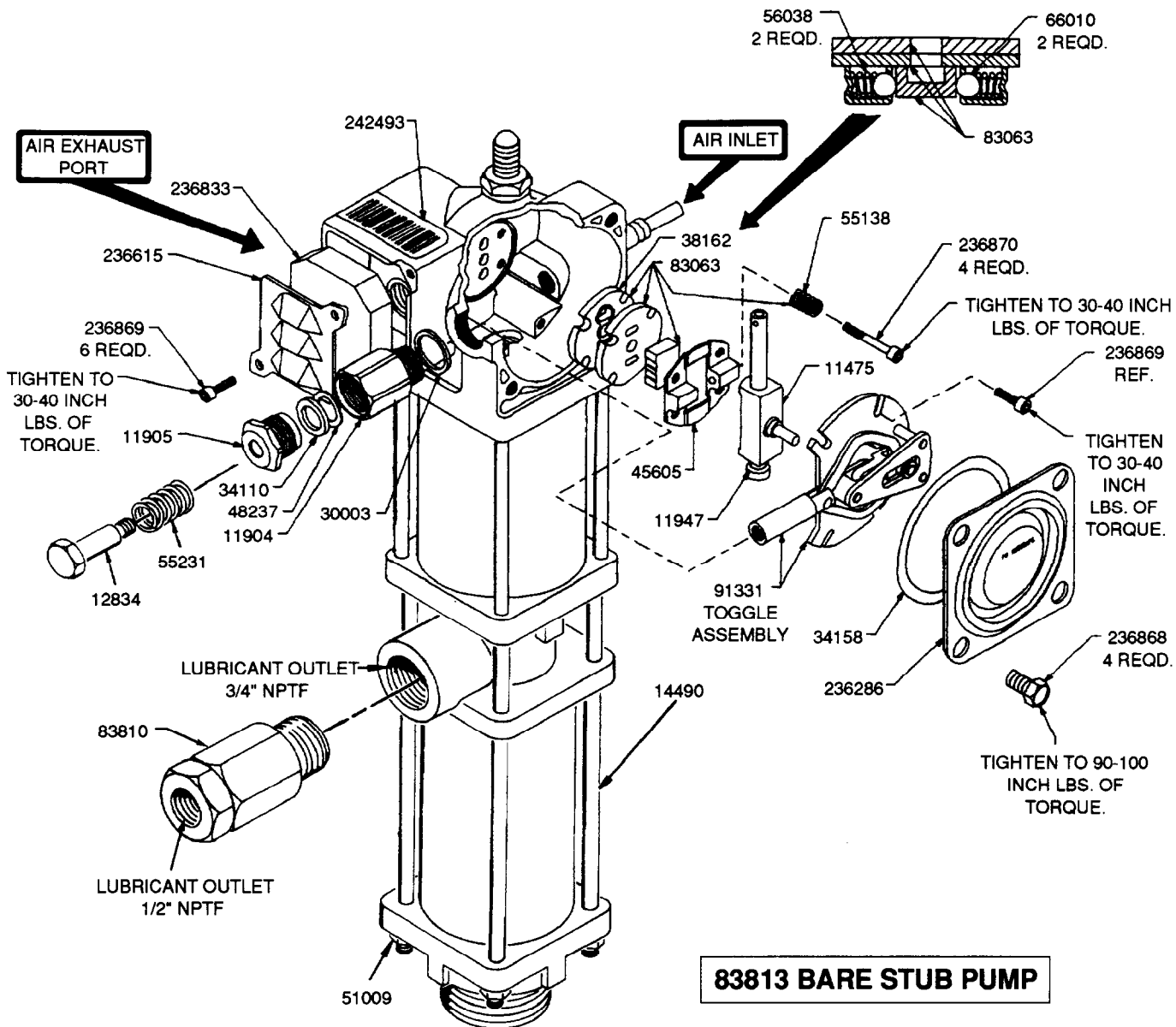
SERVICE PARTS LIST



TIGHTEN TO 10-15 FT.
LBS. OF TORQUE.

PARTS	QTY	DESCRIPTION
11329	1	Air piston rod
11337	1	Air piston nut
11470	1	Air valve cap
11471	1	Trip collar
11472	1	Trip rod pin
11475	1	Trip shoe
11904	1	Packing nut
11905	1	Packing cap
11947	1	Trip sleeve
12834	1	Spring retainer
12898	1	Valve body
14484▲	1	Piston rod
14485	1	Piston bolt
14486	1	Pump piston
14487	1	Piston check
14488	1	Check
14489	3	Check retaining screw
14490	4	Tie rod
16633	1	Gland packing spacer
16634	1	Gland nut
30003▲	1	Packing nut gasket
30011▲	1	Valve cap gasket
33014▲	4	Air cylinder gasket
33039▲	1	Gasket
34090▲	1	Air piston packing
34110▲	1	Plunger packing
34158▲	1	Cover gasket
34256▲	1	O-ring
34349▲	1	Pump piston O-ring
34368▲	2	O-ring
34398▲	1	O-ring
34782▲	2	Gland packing
34828▲	1	O-ring
34829▲	1	O-ring
38162▲	1	Valve seat gasket
40650	1	Inlet casting
41267	1	Outlet body
45605	1	Valve guide
45776	1	Toggle bracket
45790	1	Valve toggle
48212	2	Air piston washer
48237	1	Plunger packing washer
48482	1	Washer
48488	1	Star washer
48639	1	Washer
48640	1	Washer
51009	4	Nut
51040	1	Nut
55138	4	Spring
55231	1	Spring
56038▲	2	Spring
61041▲	2	Air cylinder
61396	1	Valve tube
61502	1	Air passage tube
61610	1	Tube
66010▲	2	Ball
66725	1	Retaining ring
66727	1	Roll pin
66728▲	1	Check ball
66729	1	Float and spring arm
82466	1	Low level cut-off
83063	1	Valve slide, seat and gasket
83810	1	Check assembly
84380	1	Extendable suction tube
91331▲	1	Toggle plate
92260	1	Trip rod
93357	1	Suction tube
236286	1	Cover
236615	1	Muffler cover
236616▲	1	Trip rod packing washer
236833	1	Muffler
236835▲	1	Trip rod packing
236868	4	Valve cover screw
236869	6	Toggle plate screw
236870	4	Valve seat bolt
237562	1	Air valve casting
245425	1	Packing nut

▲ Included in 83073 Repair Kit.



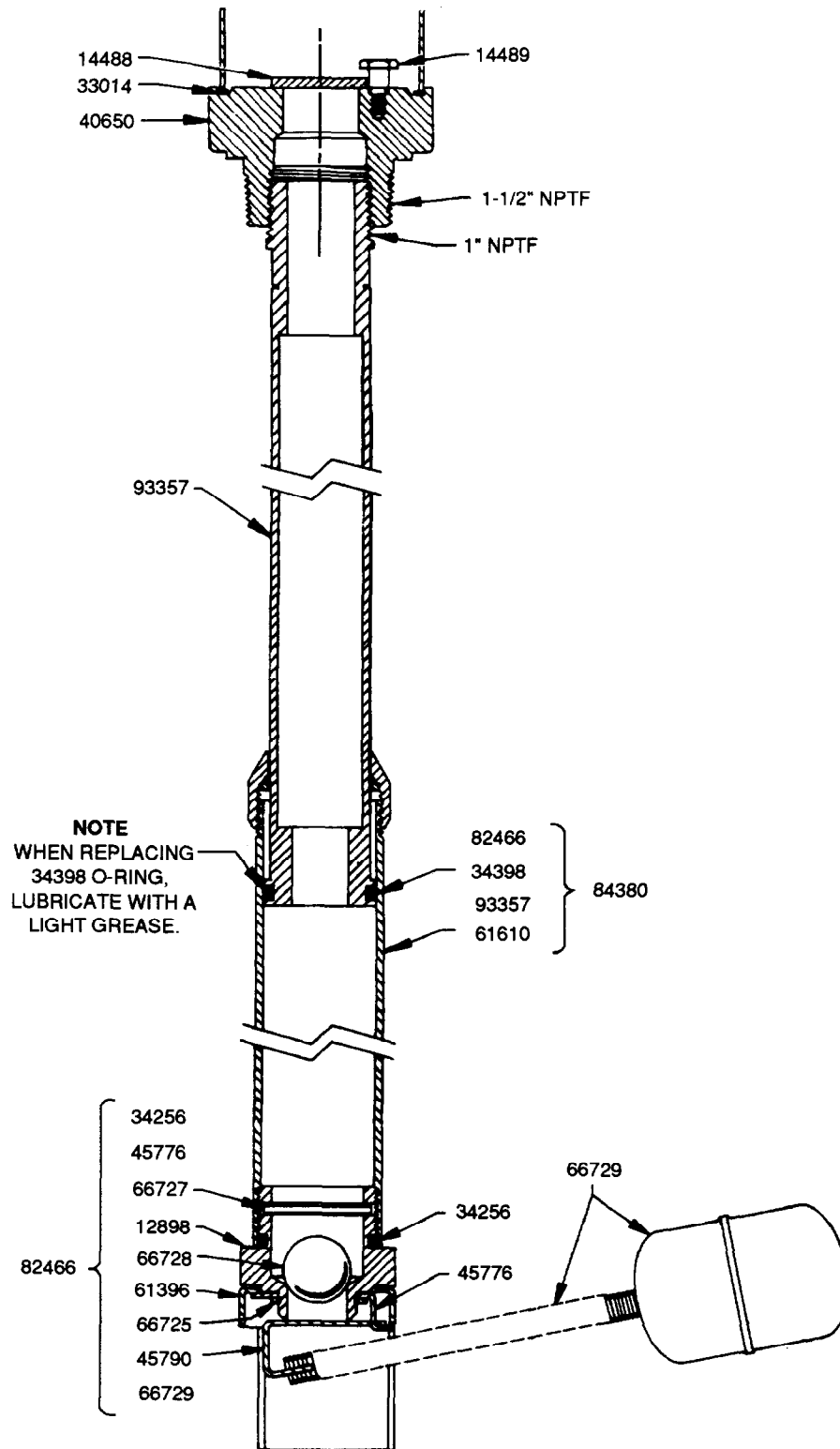
83813 BARE STUB PUMP

NOTE
83813-1 PUMP IS SAME AS 83813 LESS THE 83810 CHECK ASSEMBLY.

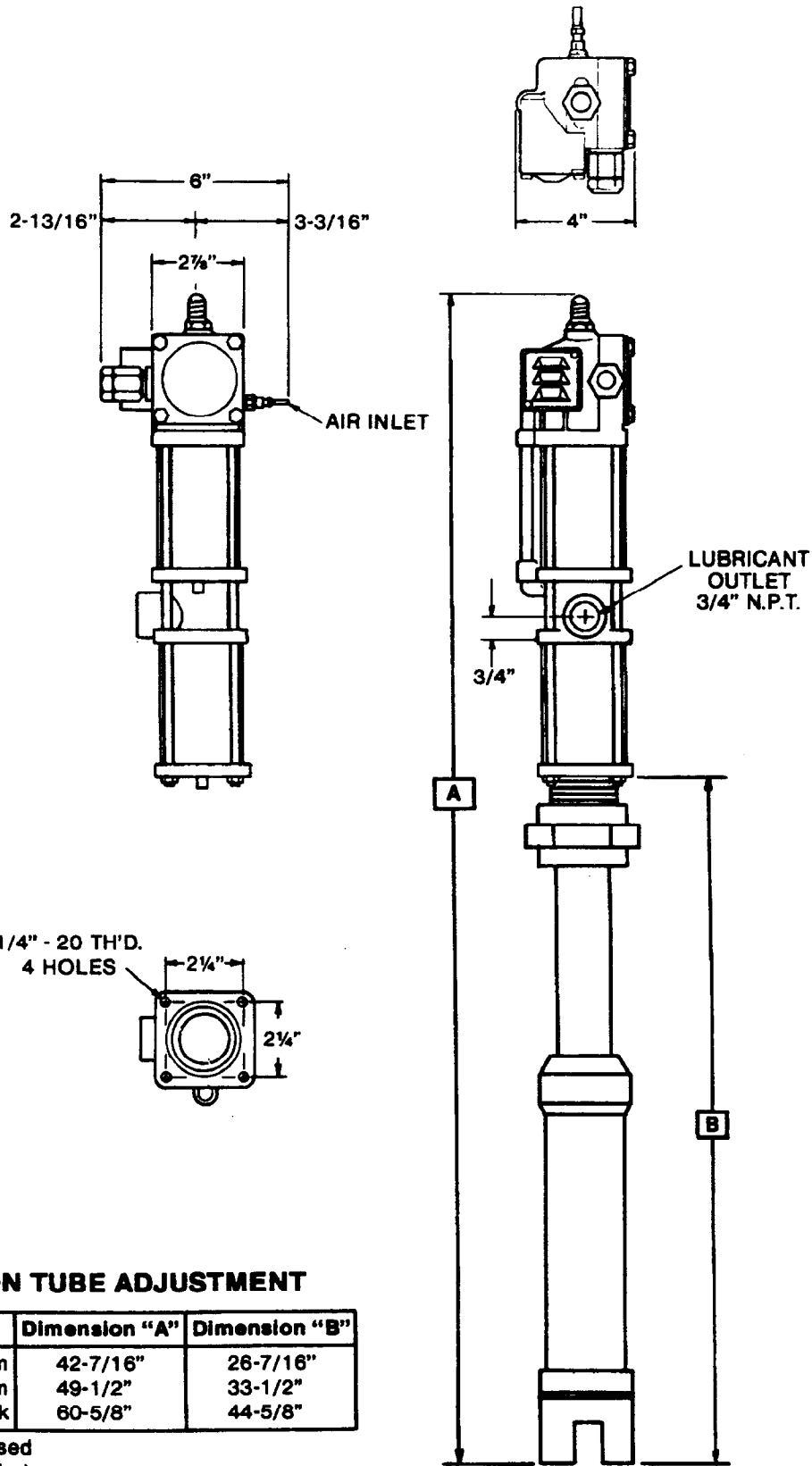
NOTE
83813-1 BASIC PUMP IS USED ON 478 AND 82438 OIL PUMPS.

IMPORTANT
START FASTENERS BY HAND TO AVOID STRIPPING THREADS WHEN REASSEMBLING.

- TO LUBRICATE AIR VALVE MECHANISM**
- A. DISCONNECT AIR TO PUMP.
 - B. PERFORM PRESSURE RELIEF PROCEDURE.
 - C. REMOVE FOUR COVER SCREWS, COVER PLATE AND COVER PLATE GASKET.
 - D. PACK GREASE BEHIND TOGGLE PLATE. USE APPROX. 1-1/2 OUNCES OF N.L.G.I. NO. 1 (LIGHT GRADE) WATER REPELLENT GREASE 220, SP2.
 - E. IF TOGGLE PLATE HAS BEEN REMOVED FROM AIR VALVE CASTING, PACK CAVITY WITH GREASE BEFORE REPLACING TOGGLE PLATE.
 - F. REPLACE COVER PLATE GASKET, COVER PLATE AND COVER SCREWS. TIGHTEN TO PREVENT AIR LEAKS.
 - G. PERIODIC INSPECTION OF PARTS AT LEAST ONCE A YEAR IS ADVISED.



84381 SUCTION TUBE ASSEMBLY



SUCTION TUBE ADJUSTMENT

Drum Size	Dimension "A"	Dimension "B"
* 16 Gal. Drum	42-7/16"	26-7/16"
55 Gal. Drum	49-1/2"	33-1/2"
** 275 Gal. Tank	60-5/8"	44-5/8"

* Fully Collapsed
 ** Fully Extended

PUMP SHOWN WITH OPTIONAL 84381 SUCTION TUBE ASSEMBLY

GENERAL DIMENSIONS

PRESSURE RELIEF PROCEDURE

Always perform this procedure when the pump is shut off and before checking, servicing, installing, cleaning or repairing any part of this system.

Perform the following procedure:

- A. Disconnect the air supply to the pump.
- B. Point the dispensing valve away from yourself and others.
- C. Open the dispensing valve into an appropriate container until the pressure is relieved.

If the above procedure does not relieve the pressure, the dispensing valve or hose may be restricted. To relieve the pressure, very slowly loosen the hose end coupling. Then loosen completely and clear the dispensing valve and/or hose.

DISASSEMBLY



WARNING

To prevent personal injury, perform PRESSURE RELIEF PROCEDURE before and after operating the pump and before performing any disassembly or assembly.

NOTE

If complete disassembly is required, order the repair kit and replace ALL gaskets, o-rings and packings.

- A. Remove valve cap (11470), trip rod pin (11472) and trip collar (11471).
- B. Remove four tie nuts (51009) from tie rods (14490).
- C. Unscrew trip sleeve (11947) from the trip rod (92260) and lift air valve casting (237562) off of air cylinder (61041).
- D. Remove packing nut (11904) and packing cap (11905) from air valve casting. Remove the packing (34110) and packing washer (48237).

- E. Remove four screws (236868) and cover (236286) with the O-ring (34158).
- F. Remove four screws (236869), toggle plate (91331), trip shoe (11475) and trip sleeve (11947).
- G. Remove four valve seat screws (236870), four springs (55138), valve guide plate (45605) with two springs (56038), two balls (66010) and valve slide and seat with gasket (83063).
- H. Unscrew trip rod packing nut (245425) from air valve casting and remove all packing and gaskets.
- I. Remove inlet casting (40650) and suction tube (84380) from liquid cylinder (61040).
- J. Remove air cylinder and air passage tube (61502) from outlet body (41267).
- K. Remove fluid cylinder and tie rods from outlet body.
- L. Unscrew air piston nut (11337) from air piston bolt (11329) and remove air piston nut, air piston washers (48212) and air piston packing (34090).
- M. Extend piston rod (14484) out bottom of outlet body. Place wrenches on air piston bolt and on wrench flats of piston rod and unscrew piston rod. Thread piston rod through pump gland to prevent damaging gland packings.
- N. Unscrew nut (51040) from piston bolt (14485) and remove washer (48482) and check (11487).
- O. Place wrenches on piston bolt and on wrench flats of piston rod and unscrew piston rod. Withdraw trip rod (99260) from piston rod.

ASSEMBLY

To reassemble, perform DISASSEMBLY procedures in reverse.

TROUBLESHOOTING

If the following procedures do not correct the problem, contact a factory authorized service center. When submitting equipment to be repaired, be sure to state the nature of the problem and indicate if a repair cost estimate is required.

PROBLEMS

AIRMOTOR DOES NOT OPERATE.

- Check air supply to pump.
- Check trip rod pin (11472), trip rod (92260) and toggle assembly (91331) for breakage or loose parts.

AIR SEEPAGE FROM AIR EXHAUST WHILE PUMP IS NOT OPERATING

- Check valve slide and seat and gasket (83063), trip rod packing (236835) and gasket (33039). Replace if necessary.

LOSS OF PRESSURE, VOLUME OR CONTINUOUS OPERATION OF PUMP WHEN NOT IN NORMAL USE.

- Clean piston seat and foot valve.
- If worn or damaged, replace piston (14486), piston check (14487) and pump piston O-ring (34349).
- Check inside diameter of fluid cylinder (61041). If scored, replace pump tube.

EXCESSIVE AMOUNT OF AIR IN LUBRICANT OR EXCESSIVE AMOUNT OF LUBRICANT COMING FROM AIR EXHAUST.

NOTE

Some lubricant exhausts with air normally.

- Replace U-cup (34782) and O-ring (34828).

REPAIR

Repair is limited to replacement of listed service parts. Special procedures and tools are required. Contact Lincoln Customer Service, One Lincoln Way, St. Louis, MO 63120-1578, (314) 679-4300 for your nearest authorized service center.

When ordering replacement parts, list: part number, description, model number and series letter.

LIMITED WARRANTY

Lincoln, A Pentair Company, warrants that lubrication equipment, materials dispensing equipment and other related equipment manufactured by it will be free from defects in material and workmanship during the one (1) year following the date of purchase. If equipment proves to be defective during this warranty period, it will be repaired or replaced without charge, provided that factory examination indicates the equipment to be defective. To obtain repair or replacement, it must be shipped, transportation charges prepaid, with proof of date of purchase to a Lincoln authorized Warranty and Service Center, within the one (1) year following the date of purchase.

This warranty is extended to the original retail purchaser only. This warranty does not apply to equipment damaged from accident, overload, abuse, misuse, negligence, faulty installation or abrasive or corrosive materials, or to equipment repaired or altered by anyone not authorized by Lincoln to repair or alter the equipment. This warranty applies only to equipment installed and operated according to the recommendations of Lincoln or its authorized field personnel. No other express warranty applies to lubrication equipment, materials dispensing equipment, and other related equipment manufactured by Lincoln.

ANY IMPLIED WARRANTIES applicable to lubrication equipment, materials dispensing equipment, and other related equipment manufactured by Lincoln INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL LAST ONLY FOR ONE (1) YEAR FROM THE DATE OF PURCHASE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

In no event shall Lincoln be liable for incidental or consequential damages. The liability of Lincoln on any claim for loss or damage arising out of the sale, resale, or use of lubrication equipment, materials dispensing equipment, and other related equipment shall in no event exceed the purchase price. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.