

**MIN. AIR PRESSURE - 30 PSI**  
**MAX. AIR PRESSURE - 200 PSI**

**OWNERS MANUAL**

IT IS THE RESPONSIBILITY OF THE OWNER AND/OR OPERATOR TO PROPERLY USE AND MAINTAIN THIS EQUIPMENT. CAREFULLY READ AND UNDERSTAND THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL BEFORE OPERATING THIS EQUIPMENT.

If the operator is not fluent in English, the instructions and warnings shall be read and discussed in the operator's native language, making sure the operator comprehends the contents.

This equipment complies with OSHA Standards where applicable.

**WARNING**

This air pressure specification is for the air motor only. Never exceed the maximum air or fluid working pressure of the lowest rated system component.

**WARNING**

DO NOT exceed the stated maximum working pressure of the pump or of the lowest rated component in your system.

DO NOT alter or modify any part of this equipment.

DO NOT operate this equipment with combustible gas.

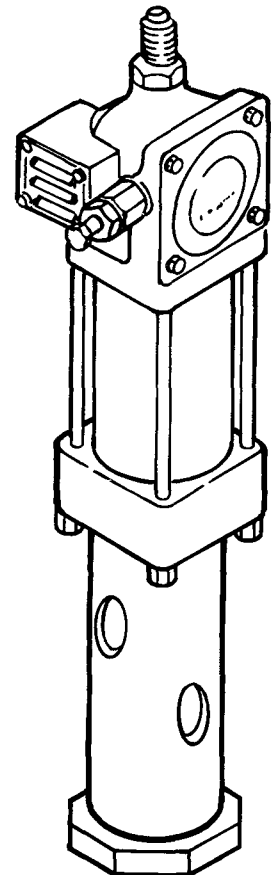
DO NOT attempt to repair or disassemble the equipment while the system is pressurized.

TIGHTEN all fluid connections securely before using this equipment.

ALWAYS read and follow the fluid manufacturer's recommendations regarding fluid compatibility, and the use of protective clothing and equipment.

CHECK all equipment regularly and repair or replace worn or damaged parts immediately.

IMPORTANT: Failure to heed these warnings including misuse, overpressurizing, modifying parts, using incompatible chemicals and fluids, or using worn or damaged parts, may result in equipment damage and/or serious personal injury, fire, explosion, or property damage.



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This manual contains **IMPORTANT WARNINGS** and **INSTRUCTIONS** READ AND RETAIN FOR REFERENCE

## SAFETY INSTRUCTIONS

This equipment for professional use only. Observe all warnings. Read and understand all instructions before operating equipment. Extreme caution should be used when operating this equipment as personal injury and/or property damage can result from equipment misuse.



### WARNING

**ALWAYS check equipment for proper operation before each use, making sure safety devices are in place and operating properly. Tighten all connections before each use. DO NOT alter or modify any part of the equipment as this may cause a malfunction and result in serious bodily injury.**



### WARNING

**ALWAYS disconnect air to pump and relieve system pressure before checking, cleaning and lubricating, or servicing air motor. Periodic inspection of air motor parts at least once each year is recommended.**

## INSPECTION INSTRUCTIONS

If overpressurizing of the equipment is believed to have occurred, contact the factory authorized warranty and service center nearest you for inspection of the pump.

Any equipment that appears to be damaged in any way, is badly worn, or operates abnormally shall be removed from use until repairs are made. Specialized equipment and knowledge is required for repair of this air motor. Contact the factory authorized warranty and service center nearest you for repair or adjustments other than maintenance specified in this manual.

Annual inspection by the factory authorized warranty and service center nearest you is recommended.

A list of factory authorized warranty and service centers is available upon request.

## INSTALLATION

Use of an air line filter/regulator/lubricator is recommended to remove harmful dirt and moisture from the compressed air supply, and to provide automatic lubrication to your Lincoln air motor.

Contact your Lincoln representative for assistance in designing a system to meet your specific needs.

Flush supply lines and hoses with mineral spirits or oil based solvent and blow dry with air before connecting them to the system. This is to purge any contaminants such as dirt, moisture, or metal shavings that could damage the air motor.

## OPERATION

To start the pump, turn on the main air supply. Slowly open the air regulator until the air motor runs smoothly.

In a direct supply system, with adequate air pressure supplied to the air motor, the pump starts when the dispensing valve is opened and stalls against pressure when dispensing valve is closed.

In a circulating system, the pump runs continuously and slows down or speeds up as supply demands until the air supply is shut off.

Use the air regulator to control pump speed and fluid pressure. Always use the lowest pressure required to achieve the desired results. Higher pressures will cause pump packings to wear prematurely.



### WARNING

**To reduce the risk of serious bodily injury or property damage, NEVER exceed the maximum air or fluid working pressure of the lowest rated system component.**

## MAINTENANCE



### WARNING

**To reduce the risk of serious bodily injury, ALWAYS disconnect air to pump and relieve system pressure before checking, cleaning and lubricating, or servicing air motor.**

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## **LINCOLN LUBRICATING EQUIPMENT 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.

**————— RETAIN THIS INFORMATION FOR FUTURE REFERENCE —————**

When ordering replacement parts, list: Part Number, Description, Model Number, and Series Letter.

LINCOLN provides a Distributor Network that stocks equipment and replacement parts.

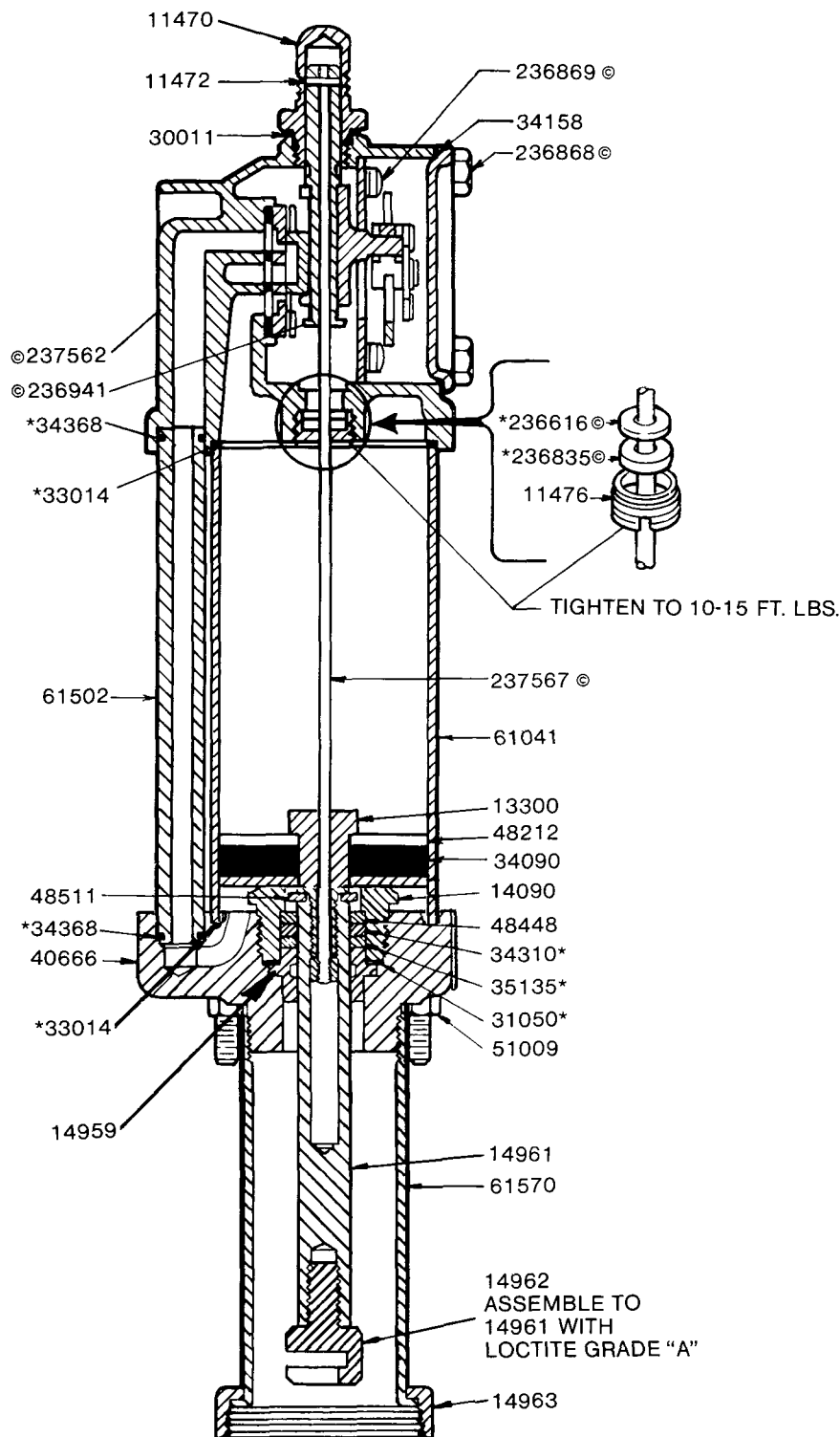
## DISASSEMBLY PROCEDURE

1. Unscrew Body Cap (14963) securing air motor to the pump body.
2. Lift air motor straight up to move air piston to its extreme "down" position.
3. Shift air motor to one side to disengage the air motor coupling from the pump rod and lift upward to complete separation.
4. Remove Valve Cap (11470) and Trip Rod Pin (11472).
5. Unscrew four Nuts (51009) from Tie Rods (14960) and lift Air Valve Casting (237562) off of Air Cylinder (61041).
6. Remove Packing Nut (11904) and Packing Cap (11905) from Air Valve Casting.
7. Remove four Screws (236868) and Cover (236286).
8. Remove four Screws (236869), Toggle Plate (91331) and Trip Shoe Assembly (236941).
9. Remove four Valve Seat Bolts (236870), Springs (55138), Valve Guide Plate (45605) and Valve Slide, Seat and Gasket (83063).
10. Unscrew Trip Rod Packing Nut (11476) from Air Valve Casting and remove all packing parts.
11. Unscrew Tube (61570) from Adapter Casting (40666).
12. Remove Air Cylinder (61041) and Air Passage Tube (61502) from adapter casting.
13. Place wrenches on Piston Bolt (13300) and on wrench flats of Piston Rod (14961) and loosen.
14. Remove Piston Bolt, Trip Rod (237567), Air Piston Washers (48212), Air Piston Packing (34090) and Washer (48511) from Piston Rod.
15. Remove Piston Rod through bottom of Adapter Casting.
16. Unscrew Gland Packing Nut (14090) from Adapter Casting and remove all gland parts.
17. To reassemble, reverse procedure. Tighten fasteners per torque specifications provided.

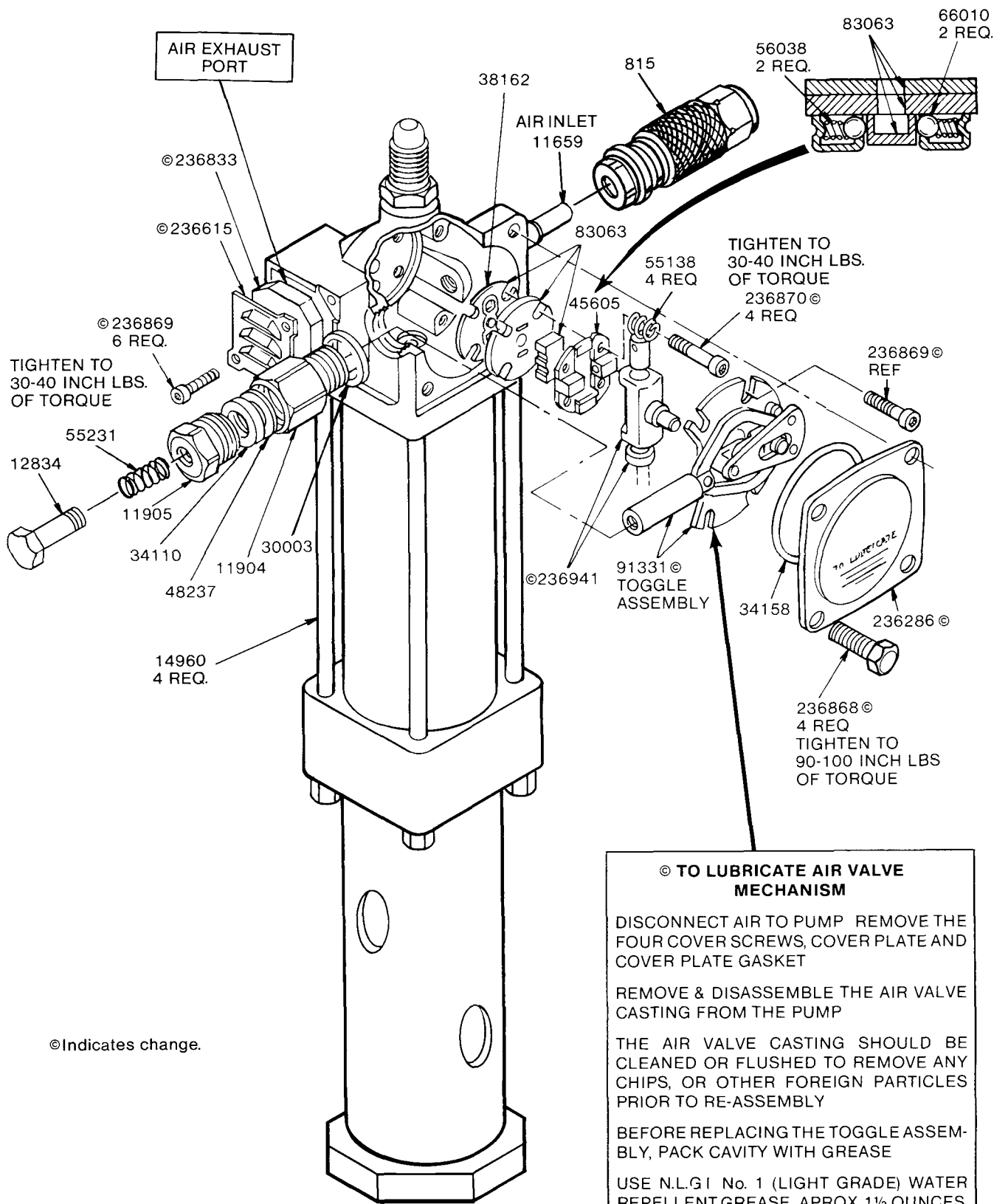
**IMPORTANT:** To prevent damage to Air Piston Packing and Pump Gland Packing, and to help increase packing life, lube Air Cylinder and Air Piston Rod before assembly.

### NOTES:

1. If complete disassembly is required, replace all Gaskets, O-rings and Packings. (Order 236464 Repair Kit.)
2. Before tightening four Valve Seat Screws (236870), align Slide Plate (83063), Valve Seat Gasket (38162) and Air Valve Casting (237562) by placing a rod or ink pen through the center port hole.
3. Start all fasteners by hand to avoid stripping threads when reassembling.



\* Included in 236464 Repair kit.



©Indicates change.

**IMPORTANT:** Start fasteners by hand to avoid stripping threads when reassembling.

**© TO LUBRICATE AIR VALVE MECHANISM**

DISCONNECT AIR TO PUMP REMOVE THE FOUR COVER SCREWS, COVER PLATE AND COVER PLATE GASKET

REMOVE & DISASSEMBLE THE AIR VALVE CASTING FROM THE PUMP

THE AIR VALVE CASTING SHOULD BE CLEANED OR FLUSHED TO REMOVE ANY CHIPS, OR OTHER FOREIGN PARTICLES PRIOR TO RE-ASSEMBLY

BEFORE REPLACING THE TOGGLE ASSEMBLY, PACK CAVITY WITH GREASE

USE N.L.G.I No. 1 (LIGHT GRADE) WATER REPELLENT GREASE APPROX 1½ OUNCES.

REPLACE COVER GASKET, COVER, AND SCREWS. TIGHTEN TO AVOID AIR LEAKS

PERIODIC INSPECTION OF PARTS AT LEAST ONCE EACH YEAR IS ADVISABLE.

## SERVICE PARTS

Part	Qty.	Description	Part	Qty.	Description
815	1	Air coupler	45605	1	Valve guide plate
11470	1	Valve cap	48212	2	Air piston washer
*11472	1	Trip rod pin	48237	1	Washer
11476	1	Trip rod packing nut	48448	1	Washer
11659	1	Air nipple	48511	1	Washer
11904	1	Packing nut	51009	4	Nut
11905	1	Packing cap	55138	4	Spring
12834	1	Spring retainer	55231	1	Spring
13300	1	Piston bolt	*56038	2	Spring
14090	1	Gland packing nut	61041	1	Air cylinder
14959	1	Gland packing spacer	61502	1	Air passage tube
14960	4	Tie rod	61570	1	Tube
14961	1	Piston rod	*66010	2	Ball
14962	1	Coupling adapter	83063	1	Valve slide, seat and gasket
14963	1	Body cap	83321	1	Low pressure kit
*30003	1	Packing nut gasket	91331	1	Toggle plate
*30011	1	Valve gasket	236286	1	Cover
*31050	1	Gland gasket	236615	1	Muffler cover
*33014	2	Gasket	*236616	1	Gasket
34090	1	Air piston packing	236833	1	Muffler packing
*34110	1	Packing	*236835	1	Packing
*34158	1	O-ring	236868	4	Screw
*34310	1	Packing	236869	6	Screw
*34368	2	O-ring	236870	4	Valve seat bolt
*35135	1	Gland packing	236941	1	Trip shoe assembly
*38162	1	Valve seat gasket	237562	1	Air valve casting
40666	1	Adapter casting	237567	1	Trip rod

\* Included in 236464 Repair Kit.

## TROUBLESHOOTING

Problem	Solution
1. Pump does not operate.	Check air supply to air motor. Replace 236941 Trip Shoe Assembly and 91331 Toggle Plate.
2. Air seepage from air exhaust port while pump is not operating.	Replace 83063 Valve Slide, Seat & Gasket, 236835 Trip Rod Packing and 236616 Gasket.
3. Excessive amount of air entrapped in fluid or excessive amount of fluid coming from air exhaust. <b>Note:</b> Some fluid exhausts with air normally.	Replace 34310 Packing, 35135 Gland Packing and 31050 Gland Gasket.

### ACCESSORIES

Filter/Regulator & Gauge/Lubricator

Eyebolt Kit

1709 Hoist

84148 Wall Mount Bracket Kit