



## Models No. 85250 & 85252 AIR OPERATED EJECTOR

### OWNER/OPERATOR MANUAL

It is the responsibility of the Owner/Operator to properly use and maintain this equipment.

The Instructions and Warnings contained in this manual shall be read and understood by the Owner/Operator prior to operating this equipment.

It is the responsibility of the Owner/Operator to maintain the legibility of all Warning and Instruction labels.

The Owner/Operator shall retain this manual for future reference to important Warnings. Operating and Maintenance Instructions.



#### WARNING

DO NOT exceed the stated maximum working pressure of the ejector 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.

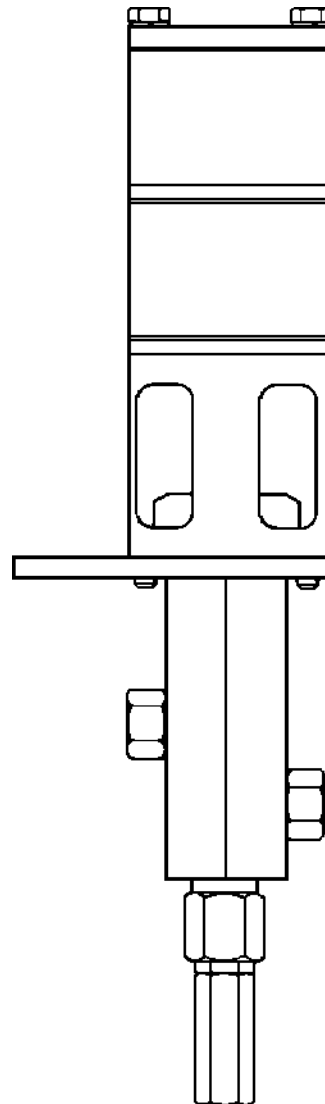
DO NOT attempt to repair or disassemble the equipment while the system is pressurized.

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, over pressurizing, 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.



© **Model 85250:** Used with EPDM Compatible Materials.

**Model 85252:** Used Specifically with Petroleum Based Materials.

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## WARNING

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

## BEFORE CONNECTING EJECTOR TO AIR LINE

Airline lubrication is necessary for the proper performance and life of this ejector. Be sure that the proper airline filter, lubricator and regulator can supply the volume of air necessary to operate the ejector at the speed required.

## OPERATING PRECAUTIONS

Use Lincoln replacement parts to assure compatible pressure rating.

Heed ALL warnings.

**DO NOT OPERATE** Ejector in excess of recommended pressure range.

**NOTE:** A 24" length of 1/2" I.D. hose must be used at the material inlet to prevent hydraulic lock which may occur if rigid piping is used.



## WARNING

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



## 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.

## OPERATION

Model 85250 Ejector incorporates an inline double piston air cylinder which produces a 35:1 ratio during the dispense cycle. This is achieved through special porting through the upper piston rod which allows air to flow and pressurize the top sides of the pistons.

When the Ejector is pressurized to dispense material, air should also be vented from the bottom of the lower piston. The bottom of the upper piston is never pressurized because of a small hole in the upper cylinder wall which exposes it to ambient pressure. As the Ejector continues its dispense stroke, its travel is limited by the adjustment screw.

When the Ejector is retracted, air is vented from the tops of the two cylinders and pressure builds under the lower piston. When the Ejector is fully retracted, pressurized material enters the material inlet and refills the void of the pumping chamber just in front of the plunger.

The Ejector is now ready for another dispense stroke.

## SERVICE AND DISASSEMBLY PROCEDURE



## WARNING

**Always disconnect air supply to Ejector and relieve pressure before checking, servicing, or repairing any part of Ejector.**

## TOOLS REQUIRED

1. 7/16 Open End Wrench
2. 1/2" Open End Wrench
3. 5/8" Open End Wrench
4. 3/4" Open End Wrench
5. 7/8" Open End Wrench
6. 1-1/2" Open End Wrench
7. Pliers

## Disassembly of Air Components

1. Remove the four Bolts and Lock-washers (Items 2 & 3).
2. Lift the Top Plate and Gasket off (Items 4 & 5) Gasket must be replaced.
3. Remove the top Air Cylinder (Item 6).

4. Hold the top of the Plunger (Item 21 with a 1/2" wrench through the slotted holes in the Cylinder (Item 16) while removing the top piston Bolt (Item 1).
5. Remove the Spacer (Item 8).
6. Remove the top Piston and O-ring sub-assembly (Items 7, 9 & 10).
7. Hold the center Cylinder (Item 30) while lifting off the center divider Plate and O-ring subassembly (Items 11 & 12) and upper Piston Rod (Item 13).
8. Remove the upper piston rod from the center divider plate.
9. Remove the center Cylinder (Item 30) which will include the lower Piston and O-ring sub-assembly (Items 7, 9 & 10).
10. Remove the lower Gasket (Item 5) for replacement.
11. Remove the lower divider Plate, Piston Rod and Connector (Items 14, 29 & 15). At this point the entire air unit is disassembled and all seals can be replaced if necessary.

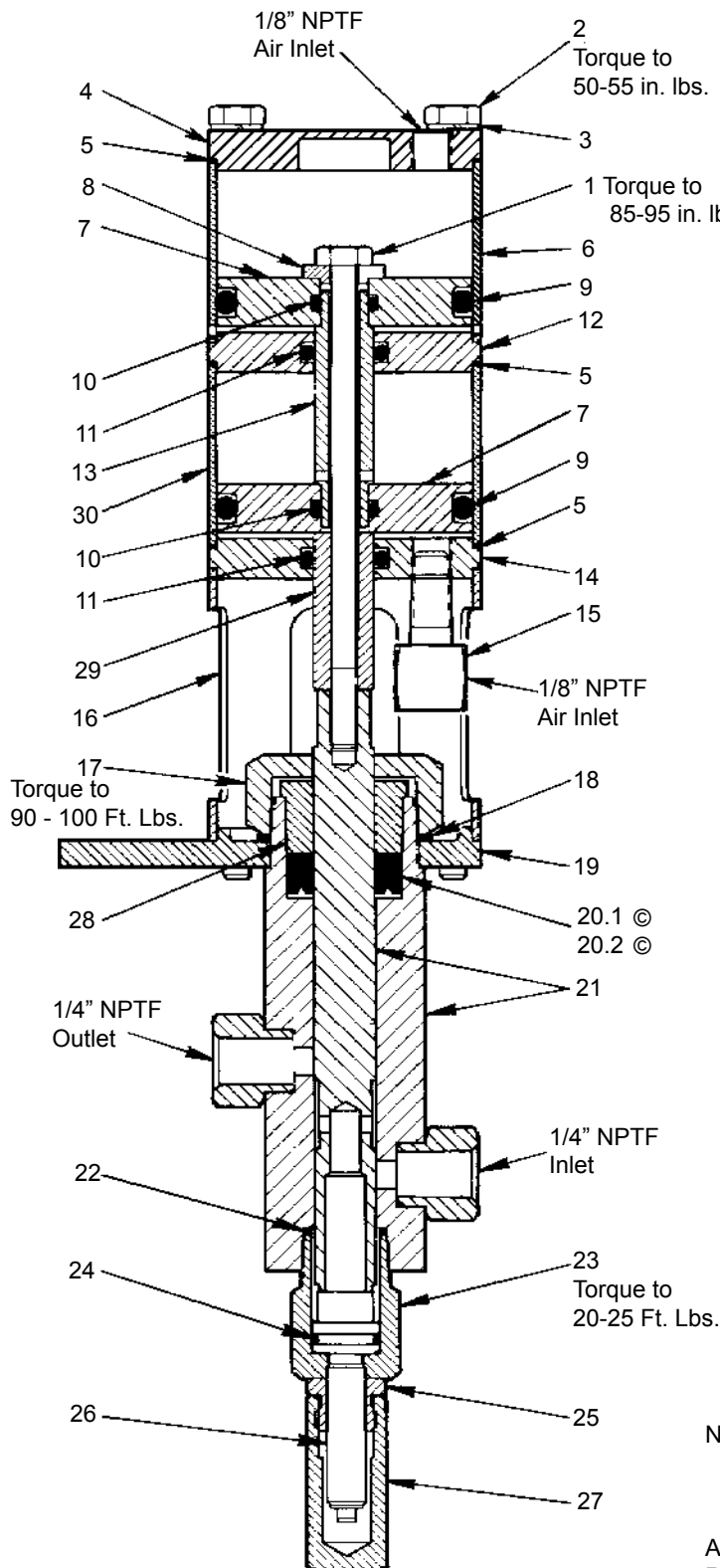
## Disassembly of Wetted Components

1. Remove the Packing Nut and Gasket (Items 17 & 18).
2. Remove the Bottom Plate (Item 19).
3. Remove the Packing Retainer and U-cup (Items 28 & 20).
4. Remove the Cap (Item 27).
5. Remove the Lock Nut (Item 25).
6. Remove the Nose Adapter, Adjusting Screw and O-ring Sub-Assembly (Items 23, 26 & 24).
7. Turn the adjusting screw all the way in (clockwise direction) to access the O-ring for replacement.
8. Finally remove the Gasket (Item 22). At this point the wetted components should be completely disassembled.

## REASSEMBLY

To reassemble the Ejector reverse the **Disassembly Procedure**.

**IMPORTANT:** The small holes in the upper Piston Rod (Item 13) and the upper Cylinder (Item 6) must be positioned towards the Body & Plunger assembly (Item 21) for proper function of the Ejector.



## NOTE:

A 24" length of 1/2" I.D. hose must be used at the material inlet to prevent hydraulic lock which may occur if rigid pipings used.

## SERVICE PARTS

Item No.	Part	Qty.	Description
1	244466	1	Bolt
2	244465	4	Bolt
3	66186	4	Lockwashor
4	244467	1	Top plate
5	(Notes 1 & 2)	3	Gasket
6	243505	1	Air cylinder
7	243437	2	Piston
8	244468	1	Spacer
9	(Note 1)	2	O-ring (Buna-NI
10	(Note 1)	2	O-ring (Buna-N)
11	(Note 1)	2	O-ring (Buna-N)
12	244470	1	Plate
13	244472	1	Piston rod
14	244469	1	Plate
15	13129	1	Connecclor
16	244476	1	Cylinder
17	243441	1	Packing nut, 1.500 Hex
18	(Note 2)	1	Gasket
19	243431	1	Bottom plate
20.1©	(Note 2)	1	U-cup (Polyurethane/EPDM)
20.2©	(Note 3)	1	U-Cup (Polyurethane/Nitrile)
21	244510	1	Body & plunger
22	(Note 2)	1	Gasket
23	244414	1	Nose adapter
24	(Note 2)	1	O-ring (Viton)
25	16200	1	Locknut
26	244475	1	Adjustment screw
27	16199	1	Cap
28	243439	1	Packing Retainer
29	244477	1	Piston rod
30	244471	1	Air cylinder I.D. 2.378/2.372

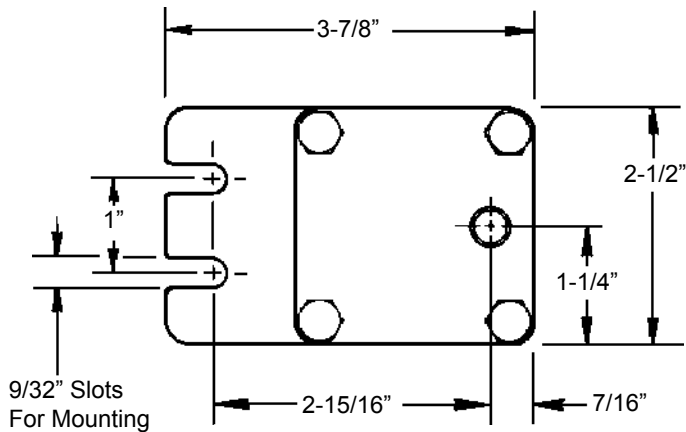
NOTES: 1. Included in 244508 Air Seal Repair Kit.

2. Included in 244509 Material Seal Repair Kit.

© 3. Included in 244519 Material Seal Repari Kit.

## Adjustment Procedure:

Remove 16199 cap and loosen 16200 Lock Nut. Adjust 244475 adjustment screw counter-clockwise to increase output or clockwise to decrease output. Adjustment rate is .010 in<sup>3</sup> per turn. After completing adjustment, tighten 16200 locknut and replace 16199 cap.

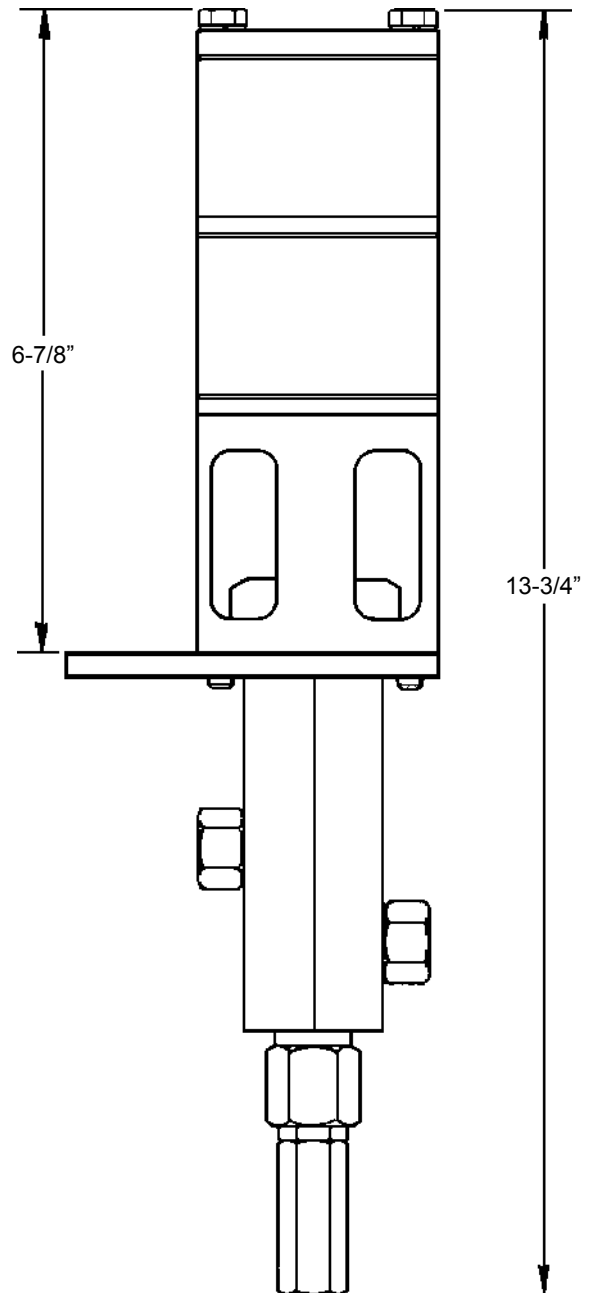


**NOTE:**

A24" length of 1/2" I.D. hose must be used at the material inlet to prevent hydraulic lock which may occur if rigid piping is used.

**SPECIFICATIONS**

Priming Pressure	
Air Pressure	100 PSI Max.
Output Per Cycle	.015 in <sup>3</sup> to .200 in <sup>3</sup>
Ratio	35:1
Adjustment Rate	.010 in <sup>3</sup> per turn
Max. Air Req'd./Cycle	13 in <sup>3</sup>
Wetted Parts	Carbon Steel Body
1,500 PSI Max.	Viton. Polyurethane & EPDM or Nitrile©



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**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.