

Leverless Bead Lifter Kit 85606689

For use with COATS Tire Changers



This is a supplement to your operating manual and covers the installation and use of the COATS® Leverless Bead Lifter. If you do not have your original operating manual, please call **COATS at 1-800-688-6359** to request an additional copy.

User Instructions with Parts Identification

READ these instructions before placing unit in service. KEEP these and other materials delivered with the unit in a binder near the machine for ease of reference by supervisors and operators.

Qualifying Test For Machine Compatibility

1. Push down on mount/demount head while pulling up on table top. Record distance — top of clamp to bottom of mount/demount head.



2. Now, pull up on mount/demount head while pushing down on table top. Record distance — top of clamp to bottom of mount/demount head.



3. Subtract step 1 distance from step 2 distance. If distance is greater than 3/8-inch then machine is not compatible.

Note: If the machine is not compatible, please contact COATS® at 1-800-688-9240 for the Certified Service Partner nearest you.

Leverless Bead Lifter Installation



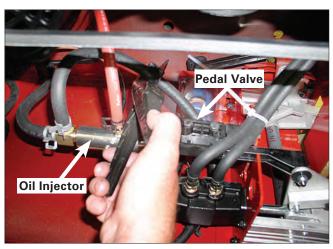
Always DISCONNECT THE ELECTRICAL POWER before servicing equipment. This prevents electrical shock or accidental movement of the systems operated by the electrical power.



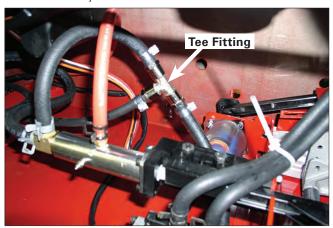
Always DISCONNECT AIR SUPPLY before servicing equipment. This prevents accidental movement of systems operated by compressed air which may result in personal injury. BLEED THE AIR SYSTEM by actuating all the valves.

50/70x Series Installation

- **1.** Disconnect the electrical power and air supply from the machine; empty all residual air.
 - 2. Remove side panel from chassis.
- **3.** Locate and cut rubber hose that is between the pedal valve and oil injector.



4. Route kit hose assembly through 1-inch hole in rear of chassis. Place hose clamps on cut hoses, then connect rubber hoses (from step 3) to tee fitting on kit hose assembly.



5. Route kit hose up the back of the tower. Install cushion hose clamp around air hose near the fitting. Then, fasten clamp/hose assembly to top of swing arm using supplied bolt (or use a self-supplied 1/4-inch self-tapping screw).



6. Lock the vertical slide shaft and then remove the mount/demount head, Duckhead® roller mount and rubber cushion.



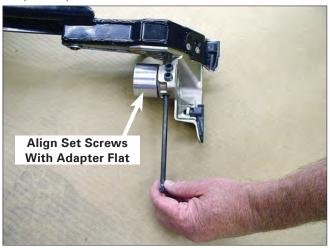
7. Hold vertical slide shaft down, release lock handle and remove shaft assembly out the top. Note orientation of flat on the end of shaft.

Note: On units equipped with shoulder screw, use shim for plastic mount/demount head vertical bar lock.

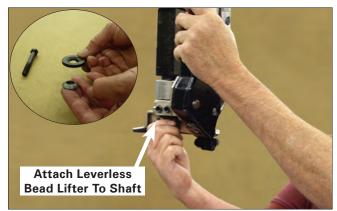


- **8.** Remove spring, install short spring from kit and place shaft assembly back into swing arm. Reassemble with shaft flat in same orientation.
- 9. Lock shaft.

10. Attach adapter to leverless bead lifter mount/demount head so that the (2) set screws line up with the adapter flat. Snug (1) set screw on side to hold adapter in place.



11. Assemble washer set on screw, small washer first with mating bevels together. Attach leverless bead lifter assembly to vertical shaft; hand-tight only.



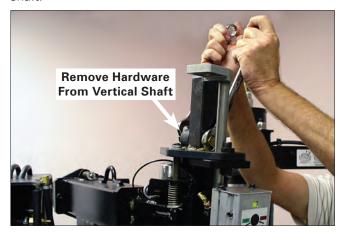
12. Connect coil air hose from leverless bead lifter to the fitting installed on top of swing arm bracket (from step 5).



- **13.** Re-connect air supply to machine. Inspect and correct leaks if found.
- **14.** Be sure to perform the steps for the Leverless Bead Lifter Adjustment Procedure on page 7.

APX Series Installation

- **1.** Tilt tower forward and rotate slide shaft control to the DOWN position. Do not lock.
- 2. Disconnect power and air; empty all residual air.
- **3.** Remove the mount/demount head and rubber bumper.
- **4.** Remove the screw from top of vertical slide cap.
- **5.** Remove rubber stop and hardware from vertical shaft.

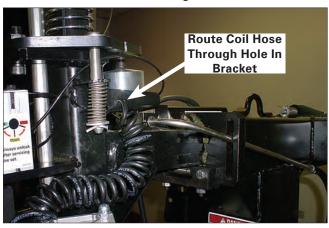


- **6.** Slide vertical shaft out the top and rotate it 180 degrees; then re-insert the vertical shaft.
- 7. Place spring over top of vertical shaft.
- 8. Replace screw (from step 5) in top cap.



9. Attach adapter to the leverless bead lifter and install the assembly to the shaft following the 50/70 series installation steps 10 & 11.

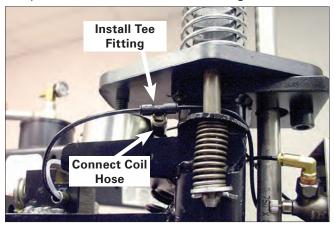
10. Place air coil hose through hole in tower bracket.



11. Cut 1/8-inch tube as shown.



12. Assemble (2) cut ends to tee supplied with kit and push-connect coil hose to tee fitting.



- **13.** Re-connect air supply to machine. Inspect and correct leaks if found.
- **14.** Be sure to perform the steps for the Leverless Bead Lifter Adjustment Procedure on page 7.

9024 Series Installation

1. Lower vertical slide shaft about 9-inches. and lock bar. Tighten hex screw to lock bar.





2. Disconnect the electrical power, close the air lever cock and bleed the air circuit completely.

3. Release hex screw of pipe locking knob. Insert kit spring and hex washer and tighten hex screw back on.



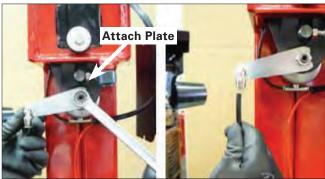


4. Cut the black hose, as in picture, and insert the union delivered with the kit.





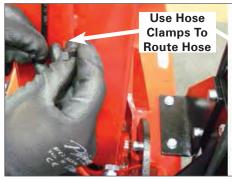
5. Place the plate, complete with unions, on the locking plate screw. Attach nut and tighten. Then insert hose into the L-shaped union.



6. Insert the other end of the hose into the T-union previously installed (step 4).



7. Using two hose clamps from kit, attach the hose at the end of the guide placed behind the post. Cut the over length and secure with ties.





- **8.** Remove the mount/demount head. Then release the tool locking screw using hex wrench. Keep screw and washers.
- **9.** Next install the leverless bead lifter to the shaft following the 50/70 series installation step 11.
- **10.** Insert the quick union into the free end of the coil hose and then insert this quick union into the female union on the plate (from step 5).

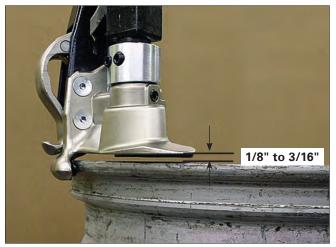




- **11.** Re-connect air supply to machine. Inspect and correct leaks if found. Open the air lever cock to send pressure to circuit.
- **12.** Move the bar lock selector to middle position. You will hear an air bleed.
- **13.** Release the hex bush screw to release the operating arm.
- **14.** Be sure to perform the steps for the Leverless Bead Lifter Adjustment Procedure on page 7.

Leverless Bead Lifter Adjustment Procedure

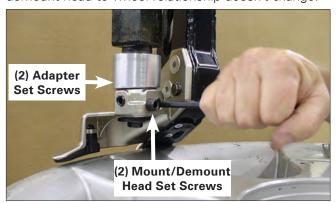
- **1.** Use a 17-inch diameter wheel for adjustments. This covers the normal range of 14 to 21-inch wheels.
- **2.** Set mount/demount head to 1/8 to 3/16-inch above wheel.



3. Align mount/demount head to match curvature of wheel.



4. Snug (2) set screws in adapter. Then snug (2) set screws in mount/demount head making sure mount/demount head to wheel relationship doesn't change.



- **5.** Loosen (2) set screws on adapter 1/4 turn.
- **6.** Tighten screw holding leverless bead lifter assembly to vertical shaft; torque to 20-26 ft-lbs.



- **7.** Tighten set screws (4) (2) on adapter and (2) on mount/demount head.
- **8.** Tighten (1) set screw on side of mount/demount head
- **9.** Tighten (1) set screw through access hole on leverless bead lifter.



Leverless Bead Lifter Operation

This accessory is normally used in the servicing of single piece automotive and most light truck tire/wheel assemblies.

Demounting

Follow tire changer operating instructions provided for demounting a standard wheel assembly, except:

- **1.** After deflating and bead loosening, clamp the wheel to the table top. Position leverless arm until mount/demount head plastic contacts wheel.
- **3.** Tighten swing arm adjustment screw until it contacts arm.
- 4. Lube leverless tool.



Note: To aid bead lubing, lower leverless tool slightly to move bead away from wheel.

5. Position valve stem approximately as shown to prevent damage to TPMS (Tire Pressure Monitoring System) sensor.



6. Push control handle down to lower leverless tool under tire bead while pulling leverless handle to hold leverless bead lifter against the wheel.

Note: If leverless tool does not hook under tire bead, reverse rotation. Re-position valve stem while pushing bead opposite leverless bead lifter into drop center.



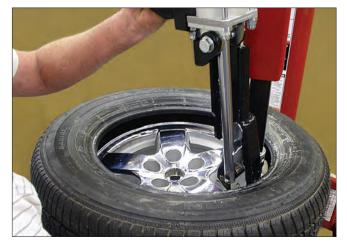
7. Push control handle up, retracting leverless tool.

Note: Use helper arms if equipped.

- 8. Rotate tire to remove top bead.
- 9. Position valve stem as shown in step 5.
- **10.** Repeat #6



11. While holding tire up into drop center, lift tire to hook the bead on leverless tool, push control handle up to lift bead over rim.



12. Rotate to remove tire.

Mounting

- 13. Lube beads.
- 14. Place tire on wheel.
- **15.** Position leverless bead lifter arm so tire bead is above tail of mount/demount head and position valve stem just in front of where bead crosses rim.

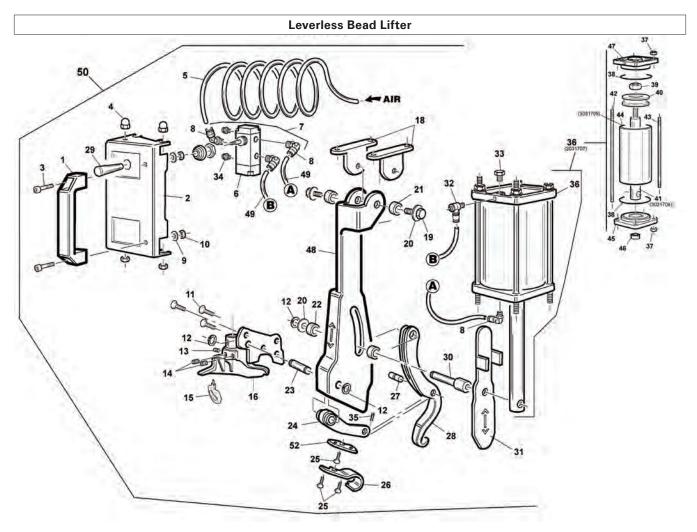


- **16.** Rotate wheel to mount lower bead.
- **17.** To mount top bead, position valve stem just in front of where bead crosses rim and be sure the tire is on top or the mount/demount head tail.
- **18.** Slightly lower leverless tool to push bead down; hold opposite side of tire down into drop-center.



- **19.** Rotate wheel to mount upper bead.
- **20.** Inflate, unclamp per standard instructions.

Parts Identification



Item No Part No.		Description	Item I	No Part No.	Description
1	84297851	Handle	22	83017302	Ferrule 12/18/6,5
2	87019215	Valve Box	23	83019212	Tool Pin
3	84399954	Screw 8x20	24	83019214	Connection Rod
4	84395374	Nut M8	25	84393753	Screw 5x8
5	83030571	Spiral Hose 6x4, L=1500	26	83019306	Tool Front Slide
6	84198285	5-way Valve	27	83019210	Pin
7	82006996	Valve	28	83019213	Touchless Tool
8	84198618	Union 1/8"	29	83010284	Knob D.14x45 M5
9	84399829	Washer 8 (8, 4x16x1,5)	30	83019211	Cylinder Pin
10	84399900	Self-locking Nut M8	31	83019561	Support Plate
11	84393957	Screw 10x12	32	84194004	Union MR 41 6 M6
12	84399864	Seeger Ring D.12	33	84199161	Plug 1/8"
13	84395530	Screw 12x2	34	84199610	Silencer 1/8"
14	84395529	Screw 12x16	35	84399957	Screw 6x8
15	83019305	Back Slide	36	82031707	Cylinder Unit
16	83019198	Touchless Mounting Tool	37	84399976	Nut M8
17	84299720	Clamp 188x4,5	38	84298822	O-ring D.68, 26x3, 53
18	83019202	Connection Plate	39	84399865	Self-locking Nut M12
19	84399434	Screw 12x20	40	84198856	Piston D.75
20	84398637	Washer ID 12x21x2,5	41	83031708	Cylinder Shaft
21	83017334	Bush 12/18/8,2			

Item No Part No.		Description	Item No Part No.		Description
42	83019208	Special Screw 8x1, 25x180	64	84193592	Coupling 10-1/4
43	83019204	Special Screw M8X1, 25x164	65	84198630	Union 1/4"
44	83031709	Cylinder Liner L=125	66	83030807	Adapter
45	83015024	Flange	67	84395804	Washer G Type 14,2x35x5
46	83199601	Scraper	68	84395805	Washer C Type 10, 2x21x4
47	83019467	Back Flange D.75 SO Side Hole	69	84393850	Screw 3/8"-16 L=2,5" UNC
		M6	70	83030792	Balance Spring
48	87019199	Tool Holder	71	83019471	Washer
49	83019959	Hose 6x6 L=240	72	84399967	Nut M10
51	84396878	Steel Shim 12x25x0,5	73	84194089	Quick Union Mod.5053-1/8 F
52	83031595	Threaded Tab	74	83019607	Quick Fastening Plate
53	83032778	Hose D.6x12 L=7,5 Ft (2300mm)	75	84198618	Union 1/8"
54	83031235	Spring	76	84194088	Quick Union
55	84397560	Screw 5x16	77	84198993	Quick Union 1/8"
56	84399292	Washer 5 (5,3x10x1)	78	83019962	Hose 6x4 Black L=1500
57	84398987	Self-locking Nut M5	79	84198172	Connection
58	84193590	Hose Clamp 15x15	80	84198778	Quick Union 1/8"
59	84197390	Clamp D.8x13 H9	81	84193574	Straight Union S 6510 6-18
60	84199026	Union	82	84193577	T-Union TT200 1/8
61	84198894	Coupling 1/4"	83	84193575	Reduction 1/8 M5
62	84198298	Quick Union 1/4"	84	84193576	Straight Union M5
63	84193591	Clamp D.16 with Nut			

