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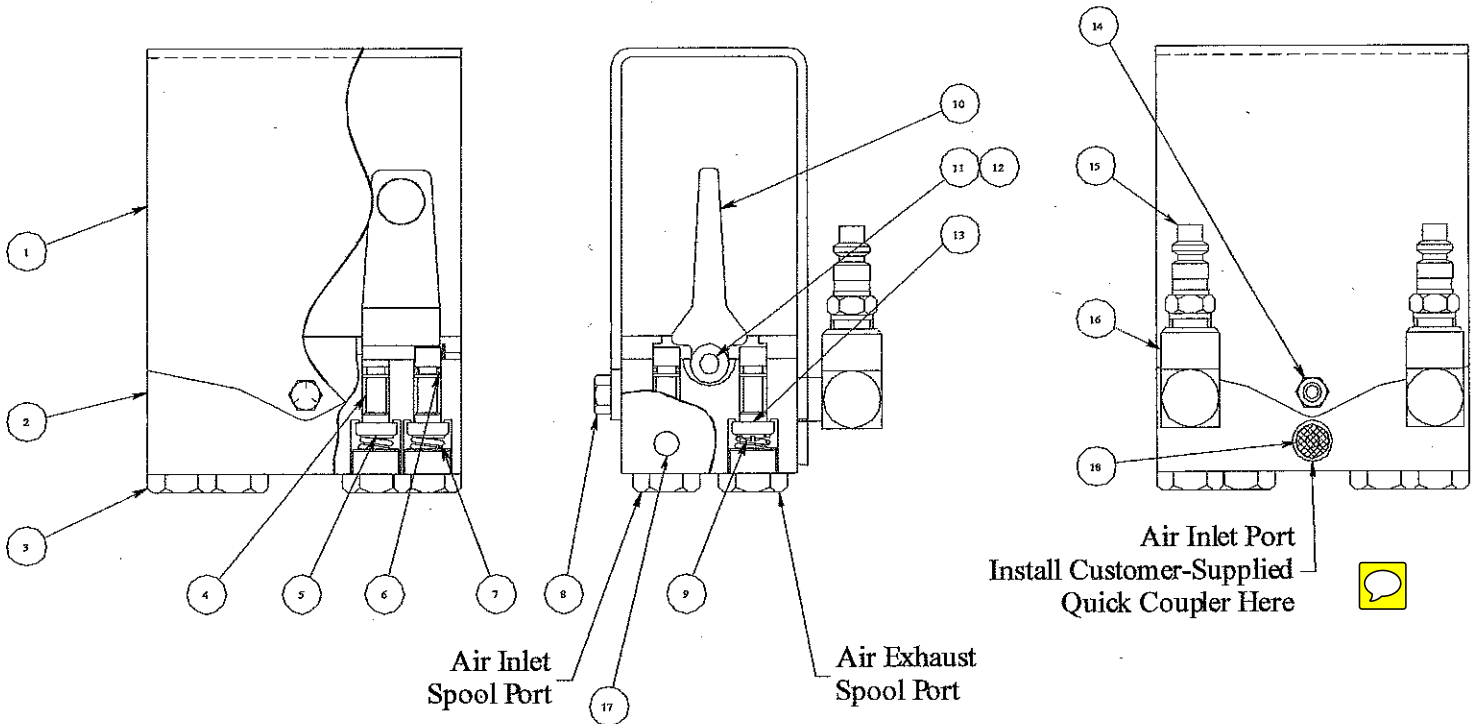
Parts & Placard List

WL-30

Wheel Lift System

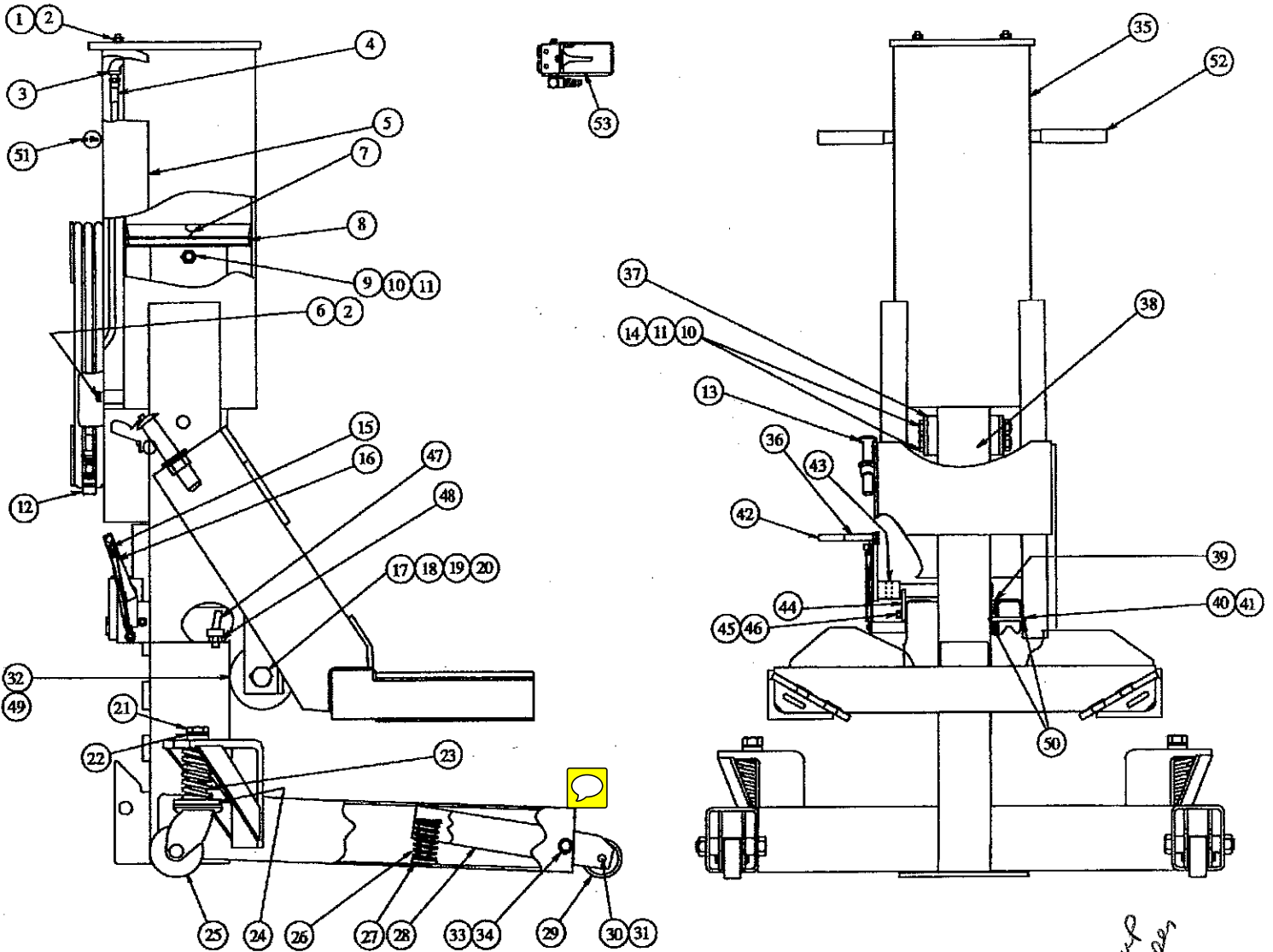
Serial Number # 92-001001 & Up

Air Control Unit List



Item	Qty	Part Number	Description
1	1	1-312-91011	Valve Bracket
2	1	4-312-91013	Valve Body
3	4	1-275-21004	Plug
4	4	1-312-91002	Spool
5	4	1-312-91003	Cup
6	2	0-390-00005	O-Ring 11/32 OD 7/32 ID, ARP-009, 70 Duro, Buna-N
7	4	1-233-12001	Spring, Compression, .420 OD
8	1	0-200-31113	Capacrew, Hex Head, 5/16-18 UNC, Steel, Grade 5, 2 3/4" Long
9	4	0-202-10601	Screw, Binder Head, #6-32 UNC, Brass, 1/4" Long
10	2	1-232-20126	Lever Handle Drilled
11	2	0-203-51003	Nut, 1/4 Palnut, Washer Cap Type, PW25009, Plated
12	1	8-009-60038	Bar, Round, 1/4 Dia, EMS 1-2, 3 15/16" Long
13	4	1-390-10006	Seal, 15/32 OD, 3/16 ID, 1/8 Deep
14	1	1-203-01102	Nut, Hex, 5/16-18 UNC, Steel, Plated, Self Locking
15	2	1-272-12003	Coupler Plug, Male, 1/4-18 NPT
16	2	1-274-02004	Adapter, 90, Ext. Pipe / Int. Pipe
17	5	1-353-49158	Expansion Plug
18	1	1-312-91004	Screen

Final Assembly Parts List



Item	Qty	Part Number	Description
1	2	0-203-01200	Hex nut, 3/8-16 UNC, plated
2	3	0-204-11201	Lockwasher, split, 3/8", unplated
3	1	0-275-11001	Elbow, 90° street, 1/4"
4	1	1-271-02002	Hose assembly, single-wire reinforced
5	1	2-892-02004	Back cover
6	1	0-200-31204	Capscrew, hex head, 3/8-16 UNC, plated, Gr. 5, 3/4" lg.
7	1	3-892-01004	Piston & Cup Subassembly (Serial Number 92-002201 & Above)
	1	3-892-01003	Piston & cup subassembly (Serial Number 92-001933 & Above)
	1	2-892-01001	Piston & Cup subass'y (SN 92-001932 & below)-no longer available
8	4	1-390-16001	Wiper Ring Half, 12" Bore - (Serial Number 92-002201 & Above)
	1	1-892-04029	Wiper ring - (Serial Number 92-001933 & Above)
	1	1-892-04025	Wiper ring (SN 92-001932 & below)-no longer available
9	1	0-200-41620	Capscrew, hex head, 5/8-11 UNC, plated, Gr. 5, 5" lg.
10	3	0-204-11600	Lockwasher, split, 5/8" dia., unplated
11	3	0-203-01600	Hex nut, 5/8-11 UNC, plated
12	1	1-272-12002	Quick disconnect
13	1	1-870-01002	Pin & chain subassembly
14	2	1-202-01600	Capscrew, special, 5/8-11 UNC, unplated, 6-5/8" lg.

*Piston + Cup
+ DBL Wiper*
8892-01006

15	2	0-203-51003	Palnut, 1/4", washer cap, PW 25009, plated
16	2	1-233-02008	Spring, extension, .437 dia., 5"lg.
17	1	2-202-01900	Hex hd bolt, 1-8 UNC, unplated, 5-1/2" lg.
18	1	0-203-11900	Hex jam nut, 1-8 UNC, plated
19	1	1-441-03002	Cylindrical bearing, 1.500 OD x 1.030 ID
20	2	1-441-24001	Flanged plain bearing, 1-1/2" ID x 1.625 OD x 1-1/2" long
21	2	0-200-31708	Capscrew, hex head, 3/4-10 UNC, plated, Gr. 5, 1-1/2" lg.
22	2	1-204-01711	Washer, special, 1-1/2" OD x 49/64" ID, 1/16" thick
23	2	1-233-15005	Compression spring, 2-1/4" OD, 5" lg
24	2	2-870-02009	Caster extension
25	2	1-480-11028	Caster, 4" dia.
26	2	1-233-15003	Compression spring, 1-3/4" OD
27	2	1-870-04007	Spring guide pin
28	2	2-870-02002	Caster pivot arm
29	2	1-480-00003	Wheel, metallic, 3" dia.
30	2	1-870-04046	Axle
31	4	1-230-12000	Retaining ring, external, 5/8" dia.
32	1	1-480-00024	Wheel, 5" dia.
33	2	1-202-01708	Capscrew, special, 3/4-10 UNC, plated, Gr. 5, 4-3/4" lg.
34	2	1-203-01705	Hex nut, self-locking, 3/4-10 UNC, plated
35	1	4-892-02002	Top weldment
36	2	2-870-02017	Downstop release handle.
37	2	1-801-02018	Stop block
38	1	4-892-02001	Base weldment
39	2	1-892-04024	Phenolic wear pad
40	4	0-200-31018	Capscrew, hex hd, 1/4-20 UNC, Gr. 5, 4" lg.
41	4	1-203-01005	Nut, 1/4" UNC, plated, self-locking
42	2	1-232-20127	Grip, .437 ID x 1-1/2" lg.
43	2	0-235-21023	Roll pin, 1/4" dia. x 1-3/8" long
44	2	1-870-04085	Pin support bracket
45	2	0-200-31102	Capscrew, hex hd, 5/16-18 UNC, plated, Gr. 5, 1/2" lg.
46	2	0-204-11103	Lockwasher, split, 5/16" dia., unplated
47	1	1-202-01413	Capscrew, hex hd, 1/2-13 UNC, plated, 2-1/4" lg.
48	1	0-203-01400	Hex nut, 1/2-13 UNC, plated
49	1	0-400-50000	Grease fitting, 3/16", straight
50	8	0-204-0100	Washer, flat, 1/4", plated
51	4	0-200-31008	Capscrew, 1/4-20 UNC, 1-1/2" lg.
52	2	1-870-01003	Handle subassembly
53	1	3-312-01012	Valve, dual 3-way

Placard List

(Not Shown)

Item	Qty	Part Number	Description
A	1	2-670-00226	Identification Placard, WL-30
B	1	1-670-10176	Info placard, Multilanguage
C	1	1-670-10230	Info placard, Tire placement
D	1	3-670-10329	Info placard, Warning, Operating Instructions, Wheel Lift System
E	1	1-670-10192	Info placard, Downstop pawl
F	1	1-670-10203	Info placard, Air hose replacement
G	1	1-670-10198	Info placard, Warning hose pinch
H	1	1-670-10196	Info placard, Valve operating instructions

WL-20 / WL-30 TROUBLE SHOOTING

PROBLEM: WILL NOT LIFT LOAD or RAISE TOO SLOWLY

Possible Solutions:

- Not enough air pressure going into the air cylinders. Check air pressure **AT THE AIR VALVE** while attempting to raise the load. 145 PSI is needed for the WL-20 and 150 PSI for the WL-30 at the air valve to lift full rated capacity.
- Trying to lift too heavy of a load. Use a lifting device with a higher rated capacity.
- Main air supply is not connected to the air control valve or the airlines from each lift are not connected to the air valve.
- Damaged airlines. Inspect and replace if damaged.
- Dirty or damaged air control valve. Clean or replace valve if needed.

PROBLEM: ONLY ONE SIDE RAISES

Possible Solutions:

- Airline from jack is not properly connected or is pinched or crushed. Connect airlines and replace any damaged airlines immediately.
- Air control valve module needs cleaning. Clean or replace if needed.
- Grease roller wheel on post of lift.

PROBLEM: WILL NOT CRADLE TIRE

Possible Solutions:

- Tire is under inflated. Inflate tire to required PSI.
- Tire diameter is too large. Use different lifting device.
- Lift not fully lowered. Allow lift to fully lower before inserting lift cradle under tire.

PROBLEM: UNIT(S) WILL NOT LOWER

Possible Solutions:

- Vehicle parking brake is set or the transmission is still in gear. Remove parking brake and place transmission in neutral.
- Airlines to lifts are pinched. Inspect for any damage to airlines.
- Mail roller wheel on the lift post and/or lift post is in need of lubrication. Lubrication should be performed once a month.

PROBLEM: UNIT(S) ARE DIFFICULT TO MANEUVER AROUND THE SHOP

Possible Solutions:

- Wheels and casters need to be lubricated. Lubrication should be performed once a month.
- Shop floor is too rough.
- Unit cradle is too. Raise cradle to the lowest down stop for easy maneuvering.

Professional Service Equipment



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Wheel Lift System Seal Service Kit

Time Required: Approximately one hour per unit.

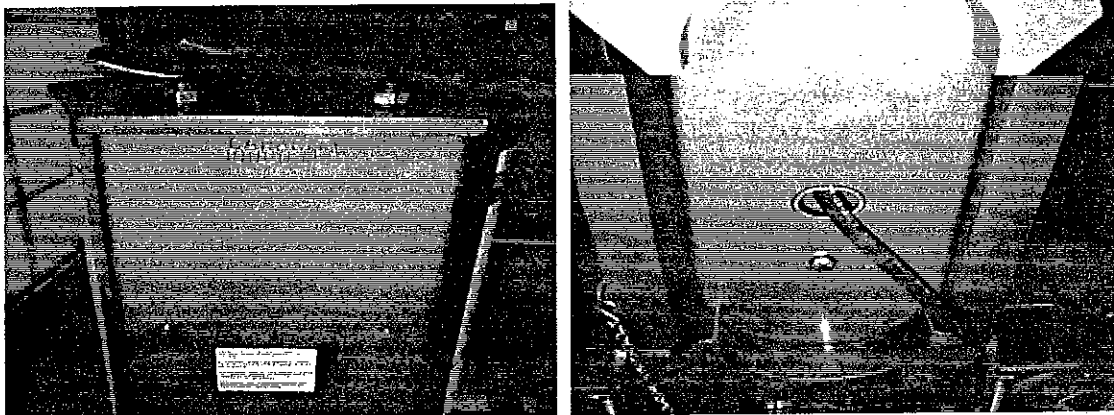
Tools you will need for this procedure:

- Three jack stands - one jack stand capable of a 29" height and two jack stands capable of a 20" height.
- A multitude of open end wrenches and socket wrenches.
- **THIS SERVICE PROCEEDURE REQUIRES THE USE OF ANSI APPROVED OVERHEAD HOIST WITH A MINIMUM OF 1600 LBS. CAPACITY.**

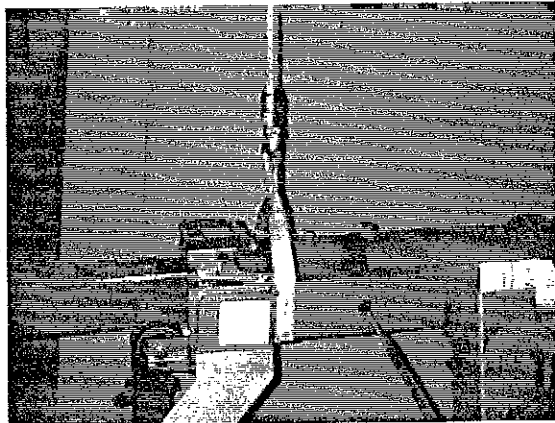
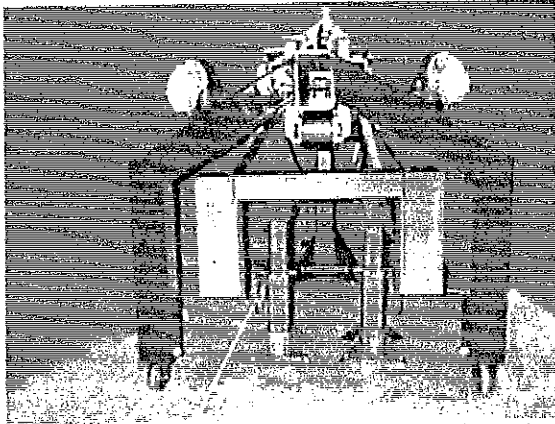
Materials: Waste Rags, Mineral Spirits, and Lightweight Automotive Chassis Grease (similar to Standard Oil Company Stano-lith 42 or graphite grease No. 1, or equivalent).

Procedure:

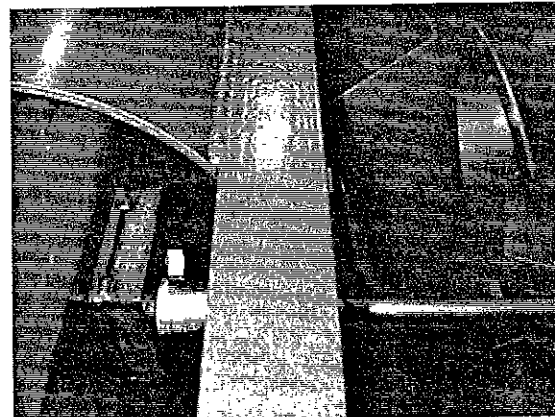
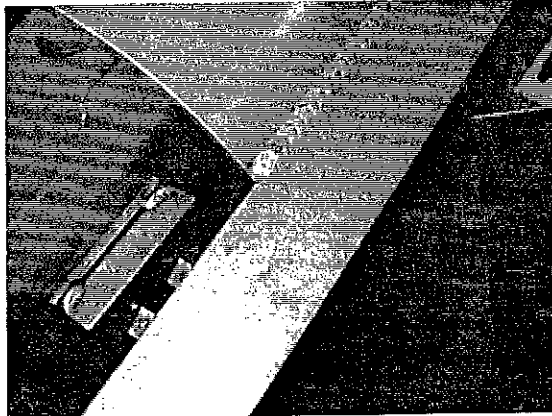
- 1) Select a clean, open, flat, and hoist accessible area in which to perform the service procedure:



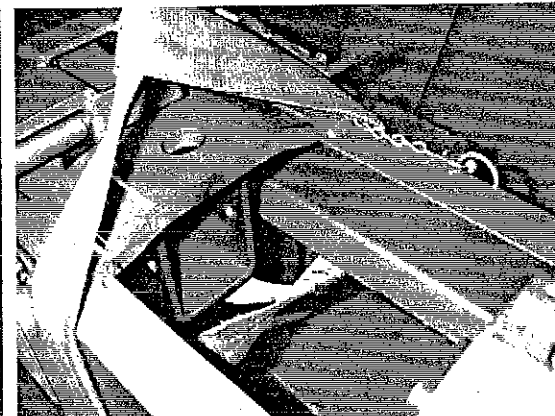
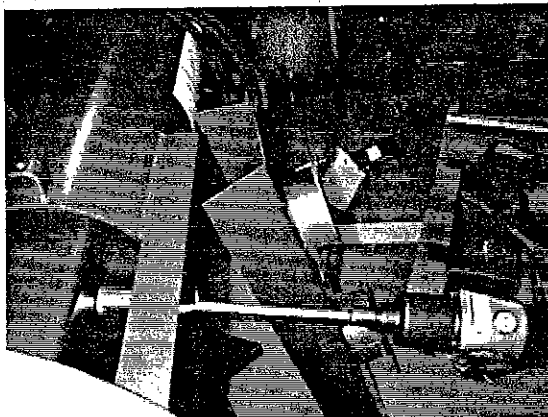
- 2) With the cylinder in the maximum "down" position, remove the bolts securing the handle to the cover and remove the handle, then remove the nuts and bolt securing the cover to the cylinder and remove the cover from the unit. At this point it is recommended that you remove the air hose from the unit at the cylinder (it will be easier to compress the unit later on in the service procedure if you do so).



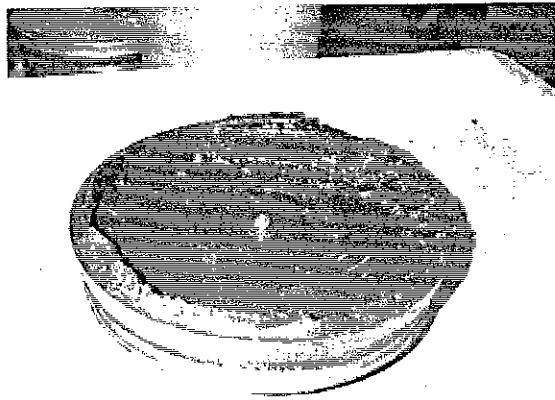
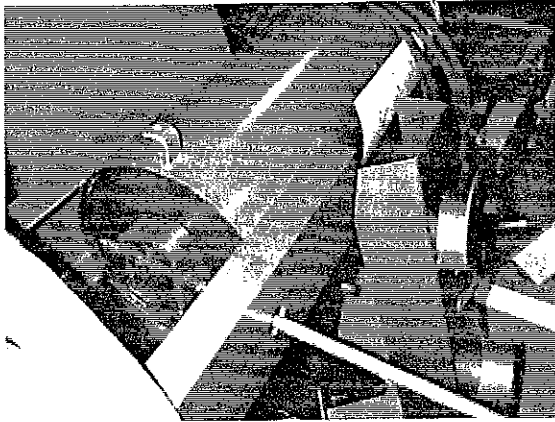
- 3) Using an ANSI approved overhead hoist and "choker" strap, lift the unit off the floor and into the configuration shown above (Note: be sure to have the safety pin installed or the hoist will simply raise the cylinder off the base). The two rear jack stands should be 20" high and supporting the unit on the cross tube as shown. The front jack stand should be 29" high and supporting the cylinder approximately 3-4 inches from the head plate.



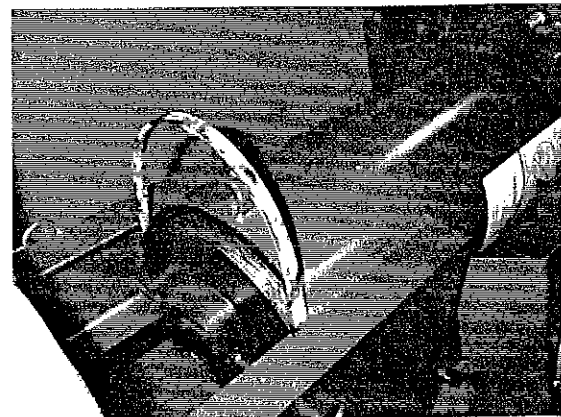
- 4) With the unit supported by all three stands and the hoist, slide the base of the unit back until the up-stop block bolts can be accessed through the access hole. Insert a socket and extension bar through the access hole and remove the bolts securing the up-stop blocks to the base post.



- 5) After removing the up-stop blocks, continue to slide the base of the unit back until the piston bolt can be accessed through the access hole (Note: be sure not to pull the base out too far as the piston will slide out of the cylinder). Insert a socket and extension bar through the access hole and remove the bolts securing the piston to the base post. After removing the piston bolt, continue to slide the base of the unit back until the top of the base post is past the safety pin hole (Note: do not pull the base out too far, the base will rest on the roller wheel securely enough to complete the procedure).



- 6) After sliding the base post back, remove the piston assembly and wiper ring (it may be necessary to insert a pry bar through the access hole to accomplish this). After removing the piston, remove the retaining ring holding the rubber piston cup on to the piston, wipe a thin film of grease on to the top of the piston, and install the new piston cup. Discard the old plastic wiper ring. Note: If replacing the entire piston assembly simply discard the entire old piston assembly and replace it with the new one.
- 7) Wipe the inside of the cylinder with waste rags to remove excess grease and oil. Degrease the inside of the cylinder with mineral spirits (observe usual precautions for handling flammable solvents). Clean and degrease the piston in the same manner. Wipe the inside of the cylinder with cheesecloth or other soft clean cloth to remove any remaining foreign material. Carefully inspect the upper surface of the piston cup in the area of the mounting pin. Foreign particles on these surfaces may result in air leakage. Liberally recoat the entire inside of cylinder with grease and then puff coat the grease with graphite until completely black (use both tubes of graphite provided).



- 8) Coat the piston cup with grease; be sure that the mating surfaces between the piston and the rubber piston cup are coated with a light film of grease. Smear grease liberally around the piston cup-retaining pin. To install the piston into the cylinder, place the piston into the cylinder at an angle. This angle should be such that the bottom is flush with the bottom of the cylinder on one side, and on the other side of the piston the top of the piston is flush with the bottom of the cylinder. While holding the piston in this position, install the wiper ring into the wiper ring groove (Note: it is important that the gap in the wiper ring be located at a 45° angle from being in the back of the unit). Push the piston into the cylinder so that the bottom of the piston is flush with the bottom of the cylinder (Note: the open side of the "U shaped" piston bracket must face towards the front of the unit).
- 9) Carefully push the base back into position to reinstall the piston bolt. Using the disassembly procedure described in steps number 4 and 5, reinstall the piston bolt and the up-stop blocks.
- 10) After installing the piston bolt, up-stop blocks, and replacing the safety pin, the unit may be lifted off of the jack stands using the hoist and lowered to the ground. Once the unit is set upright, replace the air hose, back cover, and handle. Check for proper operation and make sure there is no air leakage.