

READ BEFORE USING AND RETAIN FOR FUTURE  
REFERENCE When Ordering Or Corresponding With Us  
About Parts Or Unit Always Give The Following Information:

1. Model No. of Unit
2. The Part Number
3. The Part Name

# THAYER & CHANDLER

## MODEL AIR STAR V 5-27-03 rev

### AIR COMPRESSOR

## OPERATING INSTRUCTIONS

### UNPACKING INSTRUCTIONS

When you unpack your unit, check carefully to be sure that no damage occurred in transit.

### CURRENT REQUIREMENTS

The AIR STAR V is wired for 115 volts. Low voltage will cause the motor to overheat. Low voltage is recognized when the following conditions exist:

1. Motor does not develop full power or speed.
2. A fuse blow out occurs at starting or when load is applied.
3. Lights dim when motor starts and remains dim. Avoid excessive voltage drop by keeping extension cords as short as possible. If it is necessary to use an extension cord, do not use less than 16 gauge for 25 feet, 14 gauge for 50 feet or 12 gauge for 100 feet or more.

### CAUTION

When a flammable paint or liquid is sprayed there is a danger of fire or explosion, especially in a closed room. Never spray in the presence of an open flame. Locate the compressor a maximum distance from the spraying area. If humidity is very high an air filter should be installed in the airline some distance from the compressor to remove excessive moisture. **DO NOT CARRY COMPRESSOR WHILE SPRAYING!!**

### GENERAL INFORMATION

The maximum working pressure of this compressor is 56 PSI. This is the highest pressure that can be expected from the unit and does not mean that this pressure will be maintained when spraying. Spraying pressures will vary with different types of material, setting of material control knob on gun, etc. However, extremely satisfactory results can be obtained with this unit. It is important that materials be thinned to proper viscosity for best results. The paint sprayer can also be used for operating dusting equipment, inflating plastic toys, spraying insecticides, fumigants, weed killers, moth proofing, etc.

### MAINTENANCE

Under normal operating conditions, the compressor should not require lubrication or maintenance. If it becomes necessary to remove the head assembly to service the valves or piston seal, the following procedures must be followed to avoid damage to the unit:

1. Disconnect unit from electrical source.
2. Remove the Cylinder Head by removing the four slotted screws.
3. Remove the Valve Seat Plate (6), Cylinder (8), and Cylinder Base(9).
4. Loosen screw on Crank Shaft and remove Piston Rod Assembly.
5. Loosen four slotted screws for Crank Case Cover and remove.
6. Loosen and remove screw and In/Outlet Valve Plate on Piston Rod Assembly.
7. Using a thin blade screwdriver, carefully wedge Ring Press Plate up Off Piston Rod. entirely by small increments around entire circumference of Ring Press Plate until it is off Piston Rod.
8. Remove old Piston Ring Plate and replace with a new one.
9. Press on Piston Ring Plate with pliers by again small increments around the entire plate until plate is pressed to to Pstion Ring Plate. (Be careful not to cut or damage Piston Ring Plate.)
10. Reposition In?Outlet Valve(5) then secure with Round Head Bolt(4) and tighten.
11. Reattach Piston Rod Assembly on Crankshaft noting to tighten screw on flat of Crankshaft.. Move Piston Rod and crank Crankshaft to top of Stroke.
12. reposition Cylinder base, then push Piston Rod into Cylinder(8) and Outlet Valve Seat Plate(6). (Careful not to score or cut Piston Rod Seal(11) when pushing seat into Cylinder. Start on one seat then work around until seal is inside cylinder.)
13. Position Cylinder Head (11) onto top of Valve Seal Plate (6) then tighten Four Bolts(2) to Crankcase(15).
14. Reattach Crankcase Cover(16) using Four Screws(17).
15. Remove the Valve Seat Plate (#6), Cylinder (#8), and Cylinder Base (#9).
16. Loosen screw on Crankshaft (#14) which secures it to Shaft of Motor (#22).

Directions continued on Page 2

17. Unscrew four slotted screws (#17) for Crank Case Cover (#16) and remove.
18. Loosen and remove screw (#4) and In/Outlet Valve Plate (#5) on Piston Rod Assembly.
19. Using a thin blade screwdriver, carefully wedge Ring Press Plate (#10) up off Piston Rod. by small increments around entire circumference of Ring Press Plate (#11) until it is off Piston Rod.
20. Remove old Piston Ring Plate (#11) and replace with a new one.
21. Press on Piston Ring Plate (#10) with pliers by again small increments around the entire plate until plate is pressed to Piston Ring Plate. (Be careful not to cut or damage Piston Ring Plate.)
22. Reposition In/Outlet Valve (#5) then secure with Round Head Bolt (#4) and tighten.
23. Reattach Crankshaft (#14) and Piston Rod Assembly (#12) on shaft of Motor (#22) Note: tighten screw on flat on shaft of motor. Move Piston Rod and crank Crankshaft to top of stroke.
24. Reposition Cylinder base (#9), then push Piston Rod into Cylinder (#8) and Outlet Valve Seat Plate (#6). Be careful not to score or cut Piston Rod Seal (#1) when pushing seat into Cylinder. Start on one side of seat then work around until seal is inside cylinder.
25. Position Cylinder Head (#11) on top of Valve Seal Plate (#6) then tighten Four Bolts (#2) to Crankcase (#15).
26. Reattach Crankcase Cover (#16) using Four Screws (#17)

## VALVES

This unit is equipped with a Reed Type Valve (Item 5) which is non-clogging and self-cleaning requiring very little attention. If replacement of the valve is necessary simply remove screws and install a new valve making sure the valve seat is clean and smooth. A drop in operating pressure is usually caused by worn valves (Item 5) or worn seats in piston ring plate (Item 11).

## THERMAL PROTECTOR

The motor of this compressor has a thermal overload protector. If the motor should overheat, the overload protector will shut off the motor. If this should occur unplug compressor and allow the motor to cool (approx. 5 minutes),

Remove excess load and restart compressor. If the compressor fails to start, check for blown fuses. The compressor may need to cool further before attempting to restart. If the overload protector shuts off the motor frequently you may have a low voltage situation. Low voltage can also be suspected when:

1. The motor does not get up to full power or speed.
2. Fuses or circuit breakers activate when starting compressor.

3. Lights dim or remain dim when compressor is started.
4. Other motor operated appliances fail to operate properly. Too many motor operated appliances on same circuit.

## SEALING OF AIR HOSE

When attaching the 1/4-inch female pipe thread fitting from your air hose to the compressor, it may be necessary to use a quality pipe thread sealant or teflon pipe thread tape on the threaded air outlet of compressor. Failure to do so may cause an air leak and your compressor will not shut off as it should. NOTE: This unit does not require any lubricants or oil. Applying oil to any part could result in damage to the compressor. All bearings including those in the motor are greased packed. In case of motor failure, return to authorized motor service station in your area.

## AUTOMATIC SHUT-OFF FEATURE

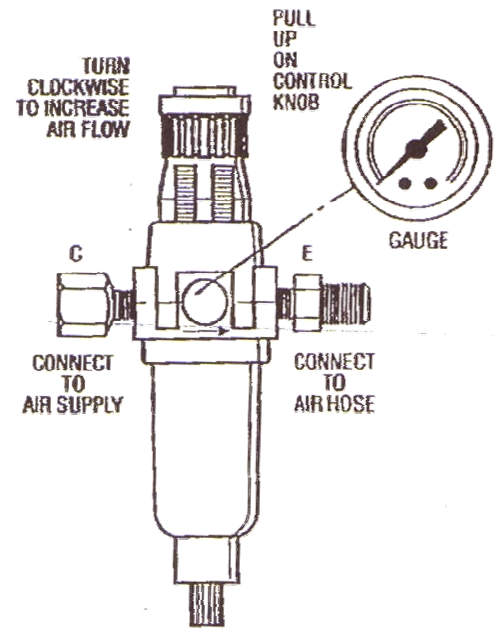
This compressor has a built-in pressure switch that automatically shuts-off the compressor when the airbrush is not in use. It has been preset at the factory to give maximum pressure when the airbrush is attached to the compressor. The compressor will automatically stop when the airbrush is not in use. It will immediately start again as soon as the air is allowed to flow through the airbrush. .

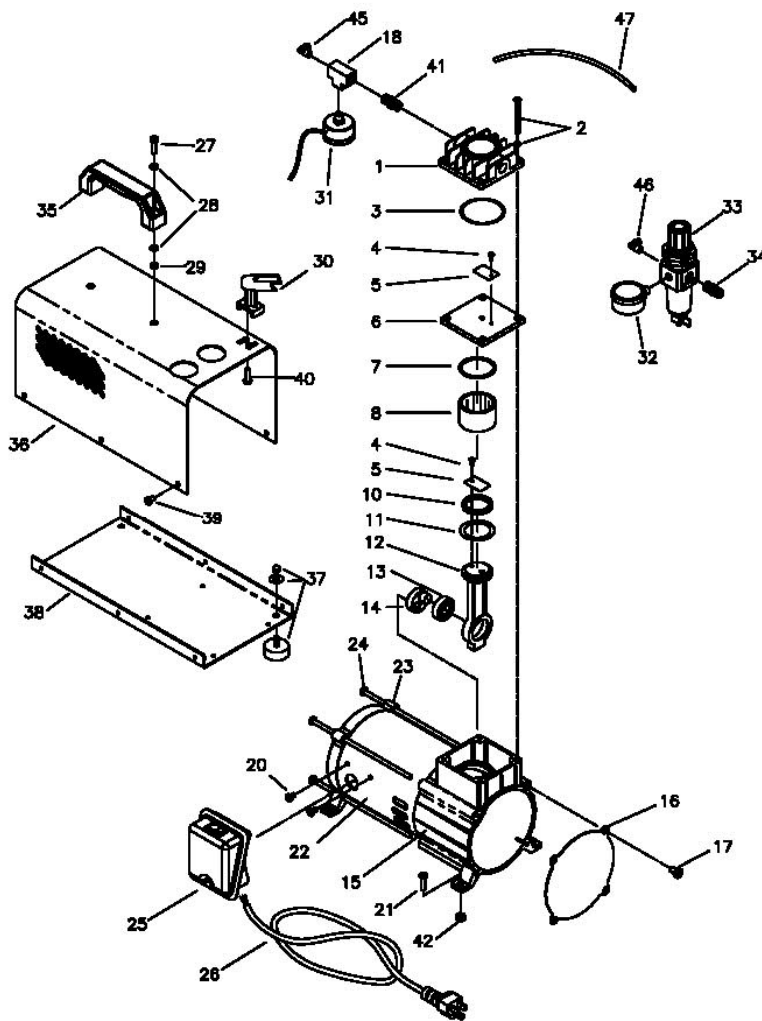
## TROUBLE SHOOTING

If while spraying, the compressor starts and stops during a continuous spraying stroke it is necessary to regulate the pressure switch (Item 31) adjusting knob. Simply remove the front cover (Item 16) with the Air Brush attached and air flowing through it, move the sprocket shaped adjustment knob counterclockwise until the start and stop of the compressor has been eliminated. Now stop the flow of the Air Brush and check that the compressor shuts off properly, If not. the adjusting knob has been turned too far. Start-stop of the compressor when the Air Brush is not in use. This is caused by an air leak in the hose connection. Usually at the point where the air hose meets the compressor (see Sealing of Air Hose). A short running of the compressor for one or two seconds every five minutes is normal.

## Manufacturer's Note For Filter Regulator

For a tight seal and proper compressor operation, apply teflon tape to all threads of fittings, gauge and pressure switch. The airflow goes left to right on this regulator. 'C' goes to the compressor fitting and "E" goes to the right, which attaches to airbrush hose. The gauge is threaded on side port on regulator. To regulate air volume pull up on control knob (on top) and turn clockwise simultaneously to increase air flow. To decrease airflow, pull up on control knob and turn counter-clockwise simultaneously. To lock desired pressure output, snap knob downward. To drain water and debris turn black knob on the bottom 90 degree so water will drain. When all water is removed, turn to original location to prevent air leaking from bowl. Both filter element and bowl are washable. Remove bottom bowl by unscrewing counter-clockwise.





NO.	DESCRIPTION	PART NO.	QTY
1	Cylinder head	101017	1
2	Bolt/Washer cylinder head	353015S	4
3	O-Ring	333004	1
4	Round-head bolt	353003	2
5	In & Outlet valve plate	115004	2
6	Outlet valve seat	114006	1
7	O-Ring	333005	1
8	Cylinder	201031	1
10	Ring press plate	218001	1
11	Piston ring plate	208003	1
12	Piston rod	316009	1
13	Bearing	315017	1
14	Crankshaft	302023	1
15	Crankcase	301020	1
16	Crankcase front cover	304019S	1
17	Round-head bolt	353021	4
18	Three way	443010	1
20	Tapping screw	353016	2
21	Round-head bolt	353024S	4
22	Motor	257004S	1
23	Motor cover	305019	2
24	Round-head bolt	353032S	4
25	Capacitor & On/Off switch	455012S	1
26	Power wire	452029	1
27	Round-head bolt	353025	2
28	Flat washer	381022	4
29	Nut	371003	2
30	Brush holder	478002	1
31	Pressure switch	412016	1
32	Pressure gauge	411024	1
33	Regulator & filter	448001	1
34	Connector	441025	1
35	Plastic handle	435013	1
36	Steel cover	455010	1
37	Foot assembly	434004S	4
38	Steel plate	455014	1
39	Round-head bolt	353081	6
40	Tapping screw	353141	1
41	Check valve	409009	1
42	Nut	371003	4
45	Elbow	151001	1
46	Elbow	151211	1
47	Tube	240050	1