Service Bulletin [1991-1]

Improved Pneumatic Control System for Bescodyne Vibrators

New Dynapacs, Ultrapacs, V-5S, and Superpacs have an improved pneumatic control system for the Bescodyne Vibrator Drive units. An improved system is now available as an update feature for existing machines. Order set of parts No. 645656. This set of parts includes instructions for converting the existing Ross Air Valves to external pilot pressure which enables shifting the Bescodyne vibrators at lower pressures. As a result, block machines operate smoother, belt wear is reduced, and mold life increases.

Part 1: **Converting the Ross Air Valves to External Pilot Pressure (see Fig. 2)**

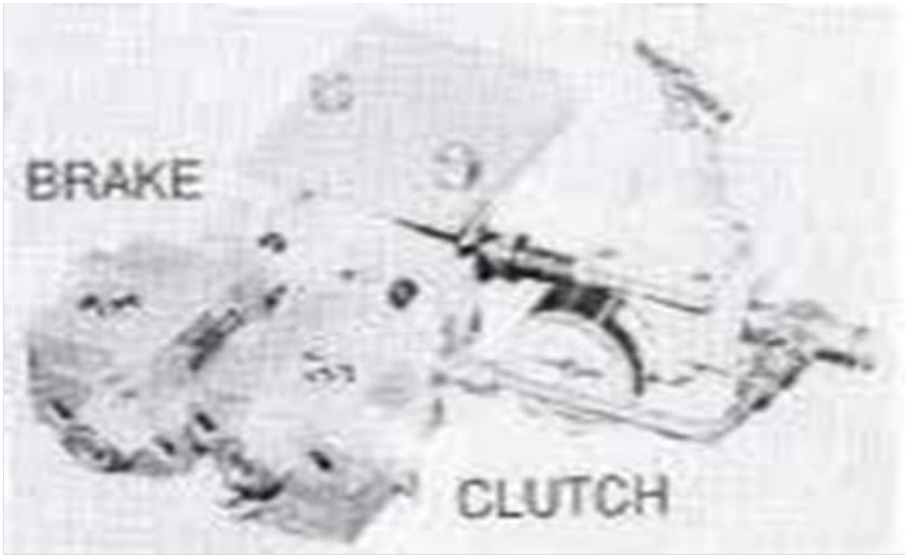
1) Remove the top or pilot sections on both sides of the Ross Air Valve by loosening four (4) Allen head cap screws.

2) Remove the center section of the valve which connects the pilot sections to the valve body by removing four (4) more Allen head cap screws. This exposes the internal pilot supply passage in the top of the valve body.

3) Remove the pipe plug form the external pilot port marked (X-1) on the clutch pilot section. ***Note***: The clutch solenoid is the one mounted on the same side as the air inlet which goes into port (1) on the valve body.

4) Install the pipe plug in the internal pilot supply passage in the top of the valve body. The passage is located directly above port (1).

5) Reassemble the center section to the valve body and the pilot sections to the center sections. Remember the clutch solenoid is on the same side as the infeed air.



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Part II: The Air Plumbing

Please refer to Fig. 3 shown below, or to the view found on Besser print 443847. Notice that the inlet air does not have a regulator on it. Before hooking up the inlet air, a pressure gage should be connected to determine the air pressure. If it ranges between 50 and 150 PSI the gage can be removed.

Part III: Operational Instructions

In preparation for adjusting the pressure regulators correctly, the following items should be checked first.

1) Are the vibrator belts in matched sets and in good condition on both sides between the vibrator motor output and the Bescodyne inputs, and also between the Bescodyne outputs and the mold sheaves? (Replace belts in matched sets only. If belts are replaced on one side, they also should be on the other.)

2) Is the belt tension between the motor output and the Bescodyne input equal left and right? If not, adjust the tensioning screws on the motor bases until they are equal.

3) Are the sheaves in good condition? If not, all the sheaves should be replaced in sets.

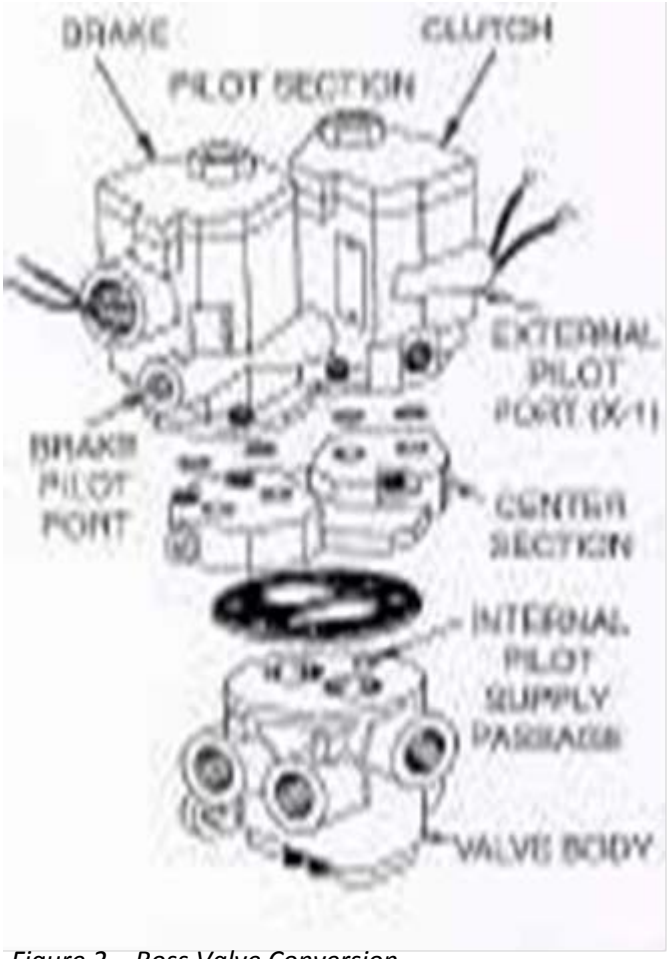

Figure 2 – Ross Valve Conversion

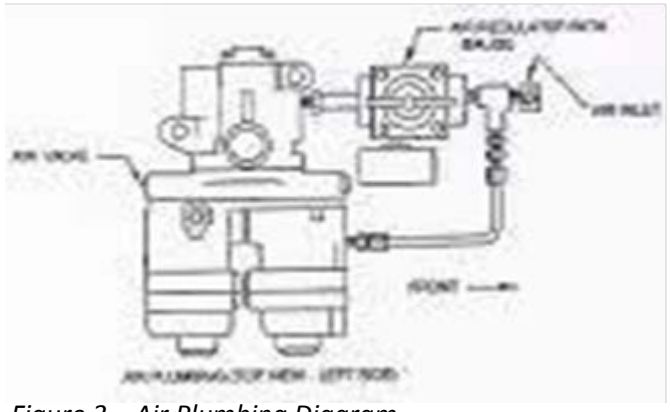

Figure 3 – Air Plumbing Diagram

Adjusting the Air Regulators

Note: Size 5S Bescodyne Drives **Serial numbers 38900 and lower** were supplied with bronze friction discs. If the friction discs have not been updated to a paper fiber material then it will take higher air pressures such as 40 to 50 PSI to operate them.

It is not recommended that a Bescodyne with paper discs be matched up with a Bescodyne with bronze discs.

Use the following methods to adjust the Bescodynes, but remember the bronze discs will take higher air pressures than the typical paper disc settings listed below.

1) Set both regulators at 22 PSI as a starting point.

2) During normal operation, use an amprobe to measure, record and compare the peak starting amps on all 3 legs of both vibrator motors. The average amperage should be within 2 amps when comparing left to right.

3) While maintaining at least 18 PSI on each Bescodyne unit, raise the pressure on the side exhibiting lower amperage until the amps are about equal.

4) If one (1) regulator is set more than 10 PSI above the other side to achieve equal amps, check the pressure gage first. Secondly check belts, sheaves and the belt tensions to make sure they are matched from one side to the other.

The above instructions will provide synchronized vibration. Check item 2 above once a week or every time a mold is changed. Readjust the regulators if necessary.

SAFETY BULLETIN

This notice is issued to advise you that some previously accepted shop practices may not be keeping up with changing Federal and State Safety and Health Standards. Your current shop practices may not emphasize the need for proper precautions to insure safe operation and use of machines, tools, automatic loaders and allied equipment and/or warn against the use of certain solvents or other cleaning substances that are now considered unsafe or prohibited by law. Since many shop practices may not reflect current safety practice and procedures, particularly with regard to the safe operation of equipment, it is important that you review your practices to ensure compliance with Federal and State Safety and Health Standards.

IMPORTANT

The operation of any machine or power-operated device can be extremely hazardous unless proper safety precautions are strictly observed. Observe the following safety precautions:

ALWAYS:

- ✓ Be sure proper guarding is in place for all pinch, catch, shear, crush, and nip points.
- ✓ Be sure that all personnel are clear of the equipment before starting it.
- ✓ Be sure the equipment is properly grounded.
- ✓ Turn the main electrical panel off and lock it out in accordance with published lockout/tagout procedures prior to making adjustments, repairs, and maintenance.
- ✓ Wear appropriate protective equipment such as safety glasses, safety shoes, hearing protection, and hard hats.
- ✓ Keep chemical and flammable material away from electrical or operating equipment.
- ✓ Maintain a safe work area that is free from slipping and tripping hazards.
- ✓ Be sure appropriate safety devices are used when providing maintenance and repairs to all equipment.

NEVER:

- ✓ Exceed the rated capacity of a machine or tool.
- ✓ Modify machinery in any way without prior written approval of the Besser Engineering Department.
- ✓ Operate equipment unless proper maintenance has been regularly performed.
- ✓ Operate any equipment if unusual or excessive noise or vibration occurs.
- ✓ Operate any equipment while any part of the body is in the proximity of potentially hazardous areas.
- ✓ Use any toxic flammable substance as a solvent cleaner.
- ✓ Allow the operation or repair of equipment by untrained personnel.
- ✓ Climb or stand on equipment when it is in operation.

It is important that you review Federal and State Safety and Health Standards on a continual basis. All shop supervisors, maintenance personnel, machine operators, tool operators, and any other person involved in the setup, operation, maintenance, repair or adjustment of Besser-built equipment should read and understand this bulletin and Federal and State Safety and Health Standards on which this bulletin is based.