

OPERATING INSTRUCTIONS AND GENERAL MAINTENANCE FOR CC-2B-60B SERIES PUMPS

GENERAL

All Vanton CC-B series pumps, having been carefully assembled and fully tested, are ready for immediate use. Connect the product lines to the pump, provide the proper electrical connection, and bolt down, if desired, and the pump is ready. The use of flexible tubing between the piping and the pump terminals is highly recommended.

Each pump has been engineered for a specific application. The Vanton Engineering Department should be consulted in order to determine the suitability of the materials of construction for other applications.

MAINTENANCE

The pump is equipped with an oiler to permit lubrication of the flexible liner interior, using Vanton pump oil or pure silicone oil of 1000 centistokes viscosity. This servicing is accomplished by maintaining an adequate level of oil in the provided reservoir of the oiler.

CAUTION: Ordinary organic oil must not be used. Use VANTON PUMP OIL or PURE SILICONE OIL. Special lubricants are available when silicone must be avoided. This Vanton pump employs high temperature ball bearings which have been packed with grease at the factory and require no further lubrication.

REPAIRS

Usually, the repair of the Vanton CC-B pump is a simple procedure. After long use or severe service, the flex-i-liner (Item 4) may wear or break. Replacement of this part restores the pump to its original performance. The steps for doing this are outlined as follows:

Refer to Drawing #D-100301-30-0

1. Obtain the following items:
1/2" open end wrench, or box wrench, or socket with ratchet lever
Replacement flex-i-liner and Vanton oil
2. Remove four bolts (Item 14) using the 1/2" wrench or socket.
3. Remove cover plate (Item 1).
4. Remove expansion ring from the now exposed flex-i-liner (Item 17).
5. Grasp the body block (Item 2) and pull it away from the bracket (Item 30).
6. Remove the worn flex-i-liner from within the body block.
7. Install new flex-i-liner; clean all chemicals from exposed parts of pump.

8. Apply a liberal amount of Vanton pump oil to the inside of the flex-i-liner. Spread this oil over the interior surfaces to the very edge.
9. Push the body block back on to the bracket. The shaft should be rotated at the same time that pressure is being applied to the block until it is "home." This will allow the flex-i-liner to seat over the pilot of the bracket.

It is suggested that the shaft be left in top dead center position once the block has been pushed "home." If the flex-i-liner is properly seated, the block will remain close to the bracket when hands are removed from the block. If improperly seated, the block will spring back from the bracket. Failure to have flex-i-liner properly seated prior to taking the next step will result in flex-i-liner crimpage and improper pump performance.

10. "Snap" expansion ring into flex-i-liner.
11. Replace cover plate.
12. Replace the four bolts and tighten each a little at a time, like one tightens a tire rim. Rotate shaft a number of times before bolts are drawn tight.

The pump is ready for use. Usually, the foregoing will be the only maintenance required because of the built-in protection features of the CC-B series pump

Should the bracket assembly require repair, the following procedure should be adhered to:

1. Remove body block, casing cover plate, four bolts and support bracket as described in the foregoing paragraphs.
2. The entire assembly remaining on the motor should then be detached from the motor by removing four socket head cap screws (Item 12) along with their shake-proof washers (Item 11) and then loosening the coupling set screw (Item 10). Tap subassembly gently to remove.
3. Remove flexible coupling by tapping out the groove pin (Item 8) and then withdrawing coupling from pump shaft. The shaft (Item 26) can then be pressed out of the bracket (Item 7) by tapping or pushing on the coupling end. An arbor press will facilitate this operation.
4. When the shaft is pressed out it will still be assembled to the rotor (Item 19), the rotor bearing (Item 20), the bearing guard (Item 23), bearing guard spacer (Item 22), and retaining ring (Item 3).
5. Remove plastic plug (Item 16) from rotor. The rotor retaining ring (Item 18) can be extracted using a special pliers obtainable from Vanton plant or local industrial distributor. The shaft can now be pressed out of the rotor.
6. Remove from the plastic rotor the bearing guard (Item 23), bearing guard spacer (Item 22), the bearing retaining ring (Item 3), the bearing retaining ring (Item 3) which requires special internal pliers obtainable from the Vanton plant or local industrial supply distributor.
7. Using a 11/16" diameter rod, press out outboard bearings (Item 5) and bearing spacer (Item 6). The pump is now completely disassembled.

In reassembling the pump, attach the flexible coupling to the shaft using the groove pin (Item 8). Then install onto this shaft the bearings (Item 5) and the bearing spacer (Item 6) as shown on the drawing. Make sure the outermost outboard bearing rests firmly against the coupling shoulder. This entire sub-assembly can then be inserted into the bracket.

The rotor (Item 19) should be completely outfitted with the rotor bearing (Item 20), bearing guard (Item 23), bearing guard spacer (Item 22), and retaining ring (Item 3) prior to installation onto the shaft, which was previously installed into the bracket.

The rotor should be installed onto the eccentric portion of the shaft protruding through the bracket. Do this by setting the rotor on end, then lowering the shaft into the rotor. Using a 1/2" x 5" long rod, which has been inserted through the coupling, gently tap the inserted 1/2" rod or use an arbor press until rotor is "home".

Install rotor retaining ring (Item 18) and replace plastic block with flex-I-liner (Item 16) as previously described. The sub-assembly can then be bolted to the motor and while this operation is not particularly critical due to the unique coupling employed, nonetheless, good practice dictates that the faces of the bracket and the motor, which are to be bolted together, be clean and free from burrs.

INSTRUCTIONS FOR REPLACING THE LINER IN THE FLEX-I-LINER PUMP

The recommended maintenance interval for replacing the liner is 4 months.

1. Liberally wipe Vanton silicone oil on the inside diameter of the liner, as well as on the rotor.
2. Grasp and squeeze the lubricated liner and insert it into the pump body block keeping part of the liner exposed. The object is to push the liner over the rotor and metal boss.
3. Once the liner is in place, apply pressure to the block, until the block seats over the dowel pins. Then install the expansion ring into the liner and add the cover plate.

NOTE: When tightening bolts, apply even pressure. Follow this sequence: tighten upper left, then lower right, then lower left and then the upper right.