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43000-0804 Rev: B

JABSCO®

Models 51580-Series

MANUAL CLUTCH DRIVEN FLEXIBLE **IMPELLER PUMP**

FEATURES

- Carbon /Ceramic mechanical seal
- Sealed for life spaced bearings
- 1" NPT or 1" BSP ports
- Multi position mounting foot
- Standard pressure Jabsco neoprene impeller
- Manual clutch

MODEL RANGE

| 1 | Pump Model | Port Size |
|---|------------|-----------|
| ı | 51580-2001 | 1" BSP |
| 1 | 51580-9001 | 1" NPT |

APPLICATION

Marine; engine cooling, bilge pumping, washdown and deck flooding, ballast transfer, general purpose pump, fire fighting.

Industrial; circulation and transfer of water, sump drainage, cellar drainage, emergency pumping.

Farming/Agriculture; waste removal, shallow well pump, ditch drainage.



WARNING: Do not use any Jabsco pump for petrol, petroleum products or any products with a flash point below 37°C (98°F), explosion or death may occur.



Injury hazard. Exposed pulleys and belts can cause injury. Install shield around pulleys and belts. Stay clear while machinery is operating.





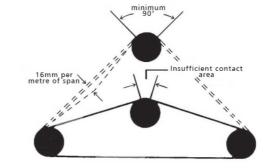
Do NOT run dry.

INSTALLATION

Pumps must be securely mounted on a rigid surface. Pumps can be mounted in any position. If mounted vertically, ensure the bearings are above the pump head to ensure long life.

The rotation of the pump shaft determines the location of the inlet and outlet port. All pipework must be supported to avoid stress on the pump. Suitable fittings must be used to connect the piping to the pump and sealed accordingly. Inlet pipework must be either rigid or reinforced to avoid collapsing under vacuum.

Excessive belt tension will result in premature bearing failure. The belt should be set to allow 16mm (1/2") of movement over 1m (3ft) of span when pushed



Jabsco Pumps 51580-9001
Ideal belt contact area should not be less than 90° of 6. Carefully push shaft from pump end to remove the pulley circumference. Ensure that all moving parts are adequately guarded to prevent accidents.

OPERATION

Pumps are dry self priming. If fluid does not enter pump after 30 seconds, stop pump, and check inlet hose for leaks and/or blockages.

Maximum speed for these pumps is 2200 rpm, do not operate pump outside the published limits without consulting the factory appointed distributor.

Do NOT allow liquid to freeze in the pump, drain pump by loosening end cover screws.

SERVICE INSTRUCTIONS

Inspect all parts for wear or damage and replace as necessary.

DIS-ASSEMBLY CLUTCH

- 1. Remove snap on cover.
- 2. Unscrew spring retaining bolt at end of shaft, remove retainer, spring and clutch cone.
- 3. Remove one retaining bolt from guide tube assembly.
- 4. Unscrew bolts holding engaging mechanism housing to body. Remove complete clutch assembly including pulley and engaging mechanism from pump.
- 5. Remove key and shim from shaft.
- 6. To break down handle, pulley and engaging mechanism, remove small retaining ring at bearing, support pulley, and press engaging mechanism sleeve through bearing in handle and remove handle from engaging mechanism.
- 7. Remove retaining ring from pulley and push out bearing.

DIS-ASSEMBLY PUMP

- 1. Remove end cover screws, end cover, and o-ring.
- 2. Remove spline seal and impeller using impeller removal tool.
- 3. Remove cam screw, cam, and wearplate.
- 4. Remove seal retaining ring.
- 5. Remove bearing dust seal (if fitted) and bearing retaining ring (if fitted)

- 7. Remove seal from body.
- 8. Remove slinger o-ring and press off bearings.

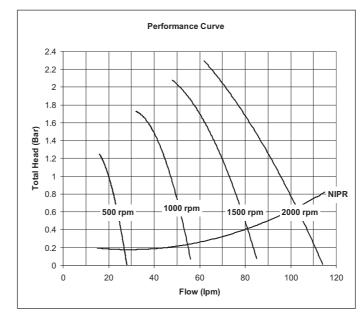
RE-ASSEMBLY PUMP

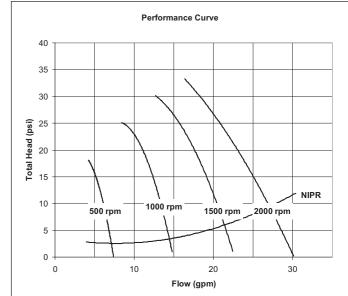
- 1. Press bearing onto shaft and fit into body.
- 2. Replace bearing retaining ring (if fitted) and dust seal (if fitted).
- 3. Fit o-ring slinger.
- 4. Carefully install seal in pump body ensuring seal faces are clean and fit seal retaining ring.
- 5. Fit wearplate, cam, and cam screw ensuring cam screw o-ring seal is in place.
- 6. Fit impeller using a small amount of suitable
- 7. Fit spline seal, o-ring, end cover, and end cover screws.

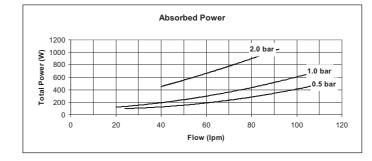
RE-ASSEMBLY CLUTCH

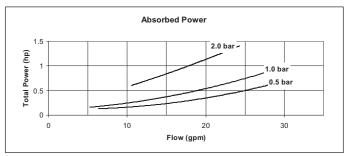
- 1. Screw engaging mech/sleeve into housing 1 turn. Fit handle over sleeve and set 0.25mm (1/10") clearance between housing and handle when in the disengaged position by screwing sleeve out as required. Lock handle on sleeve using grub screws.
- 2. Re-fit bearing and retaining ring into pulley. While supporting clutch mech/sleeve press pulley bearing assembly onto sleeve hard up against handle.
- 3. Fit entire assembly to pump with 3 bolts.
- 4. Fit guide tube mechanism to handle and to engaging mechanism housing.
- 5. Fit shim and key into shaft.
- 6. Fit clutch cone, spring and spring retainer and secure with bolt. Tighten bolt until retainer is clamped against shaft. NB lubricate between shaft and clutch cone with anti-scuffing paste. Assemble screw with loctite.
- 7. Re fit snap on cover.
- 8. Clutch adjustment is possible to extend pump life. Dis-assemble as above and re-assemble without fitting shim onto shaft.

PERFORMANCE (UK & US Versions)









PARTS LIST

| Key | Description | Part Number | Qty |
|-----|---------------------------|-------------|-----|
| 1 | Bearing | SP2600-11 | 1 |
| 2 | Bearing | SP2601-0468 | 2 |
| 3 | Brake Spring | 51093-0000 | 1 |
| 4 | Cam | 53082-0000 | 1 |
| 5 | Casting Body 080 | 51584-2100 | 1 |
| 6 | Clutch Cone | 51085-0000 | 1 |
| 7 | Cover | 51092-0000 | 1 |
| 8 | End Cover | 50355-0000 | 1 |
| 9 | Engaging Mechanism | 51090-0000 | 1 |
| 10 | Guide Tube Inner | 51088-0000 | 1 |
| 11 | Guide Tube Outer | 51089-0000 | 1 |
| 12 | Handle-Clutch 080 | 51083-0000 | 1 |
| 13 | Hex Head Nut | X3070-091F | 1 |
| 14 | Hex Head Screw | X3001-176F | 4 |
| 15 | Hew Head Screw | X3001-178F | 3 |
| 16 | Hex Head Screw | X3001-211F | 1 |
| 17 | Impeller 080 | 920-0101 | 1 |
| 18 | Key 5x5x28 | X4000-209A | 1 |
| 19 | Mech Seal | 96080-0620 | 1 |
| 20 | O-Ring | X4020-106A | 1 |

| Kev | Description | Part Number | Qty |
|-----|------------------|-------------|-----|
| 21 | O-Ring | X4020-215A | 1 |
| 22 | O-Ring | X4020-269A | 1 |
| 23 | Pulley 080 | 51084-0000 | 1 |
| 24 | Retaining Ring | SP1700-62 | 1 |
| 25 | Retaining Ring | SP1700-98 | 1 |
| 26 | Retaining Ring | SP1700-206 | 1 |
| 27 | Roll Pin | SP3100-10 | 1 |
| 28 | Screw | X3003-176F | 1 |
| 29 | Shaft 080 | 51587-0000 | 1 |
| 30 | Shim 080 | 51091-0000 | 1 |
| 31 | Shoulder Bolt | 51094-0000 | 1 |
| 32 | Shoulder Bolt | 51095-0000 | 1 |
| 33 | Socket Set Screw | X3009-145F | 2 |
| 34 | Spline Seal | 4345 | 1 |
| 35 | Spring | X5250-001 | 1 |
| 36 | Spring Retainer | 51086-0000 | 1 |
| 37 | Spring Washer | X3081-101C | 1 |
| 38 | Strap | SP8048-1238 | 1 |
| 39 | Support Washer | 29706-0000 | 1 |
| 40 | Wearplate | 4156 | 1 |