

TECH BULLETIN 055



Removal of direct-drive pumps from gas engine or electric motor

Pump Series: 1DX, 2DX, 2SF, 2SFX, 2X, 3DNX, 3DX, 3SP, 3SPX, 4DNX, 4DX, 4HP, 4SF, 4SP, 4SPX, 5DX, 5SP, 6DX, 66DX, 67DX

The following steps will assist you in removing your pump from your gas engine or electric motor.

1. To start the process, spray a few drops of penetrating oil onto the top groove or two small rectangular slots on the sides of the pump flange.
2. Remove the mounting bolts and washers securing the pump to the drive.
3. Loosen set screw 2 to 3 turns (3SP, 3SPX, 4HP, 4SF, 5DX, 6DX, 66DX, 67DX).
4. Insert a flat head screwdriver into the two opposing slots on the mounting flange and pry pump from gas engine or electric motor. *Apply only reasonable pressure. Do not force separation.*
5. If pump resists the separation, insert two (PN 80228) full threaded screws (M8 x 1.25 x 80) into the two threaded holes of the pump mounting flange. Thread screws in deep enough to make contact with the gas adapter plate or electric motor face. Then continue to thread in the screws in an alternating pattern to separate the pump from the drive. *Apply only reasonable torque. Do not force separation.*
6. A strong bond may develop in any direct-drive installation and may increase with heavy duty operation and time. It may be necessary to repeat one or more of these steps.

Additional step for Series: 1DX, 2DX, 2SF, 2SFX, 3DNX, 3DX, 3SP, 3SPX, 4DNX, 4DX, 4SF, 4SP, 4SPX, and 5SP only.

1. If pump continues to resist, back out bolts so they are no longer making contact with the gas adapter flange or electric motor face.
2. Remove bubble oil gauge so end of crankshaft can be seen.
3. Line up a brass rod with crankshaft end and hit several times with an iron hammer to provide a shock to the shaft.
4. Tighten bolts again in an alternating pattern to back off pump. *Apply only reasonable torque. Do not force separation.*

NOTE: When remounting pump onto electric motor or gas engine, apply anti-seize lubricant (PN 6106) to the mating shaft areas to help minimize seizing.

Cat Pumps

Technical Services Department

99TCH055 Rev B 20280 10/20