

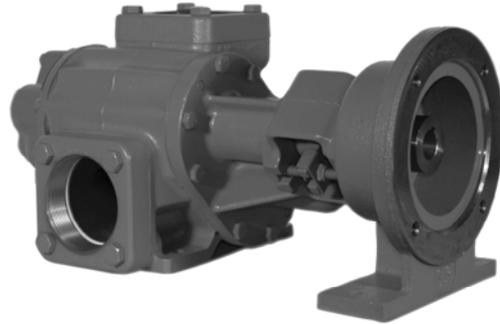


3600 CLOSE COUPLED DRIVE OWNERS MANUAL

Supplement to G12-209/G12-210 Standard 3600 Series Owners Manual

G12-428

03/17/06



SAFETY INSTRUCTIONS

This is an industrial component. Only a qualified systems integrator should be allowed to design it into a system. The integrator must determine proper plumbing, mounting, driveline and guard components.

Improper installation or use could lead to a serious, even fatal, accident. The system integrator must communicate all safe operation procedures to the end user(s).

Before operation, fully understand and follow the instructions shown in this manual and any instructions communicated by the system integrator. No one should be allowed to operate or maintain this pump who has not been fully trained to work safely according to the configuration of the pump system and in accordance with all applicable government and industry regulations.

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ASSEMBLY

1. Make sure the key is installed in the male pump shaft. It should be a tight fit and inserted to the bottom of the key slot.
2. Coat the male pump shaft and key with anti-seize compound. Anti-seize compound is to make assembly easier and to ease disassembly, if required, for maintenance. It is produced by several manufacturers (Permatex[®], Loctite[®], etc.) and can be purchased through most industrial supply companies (WW Grainer, McMaster-Carr, etc.).
3. Place the support bracket on the pump male pilot.
4. Insert the supplied support bracket mounting bolts finger tight.
5. With the bolts finger tight, place the pump feet and the support bracket feet on a flat surface. A flat workbench will suffice. This is to align the pump and bracket feet.
6. Tighten support bracket bolts while sitting on flat surface.
7. Install the key in the male reducer shaft. It should be a tight fit and inserted to the bottom of the key slot.
8. Coat the male reducer shaft with anti-seize compound.
9. Install the retaining ring in the middle of the rigid coupling.
10. Slide the rigid coupling onto the pump shaft.
11. Slide the reducer shaft into the opposite end of the rigid coupling.
12. Push the units together until the flange faces are close enough to use the supplied drive mounting bolts to draw them together. The use of temporary, longer draw bolts (not supplied) may be used if required.

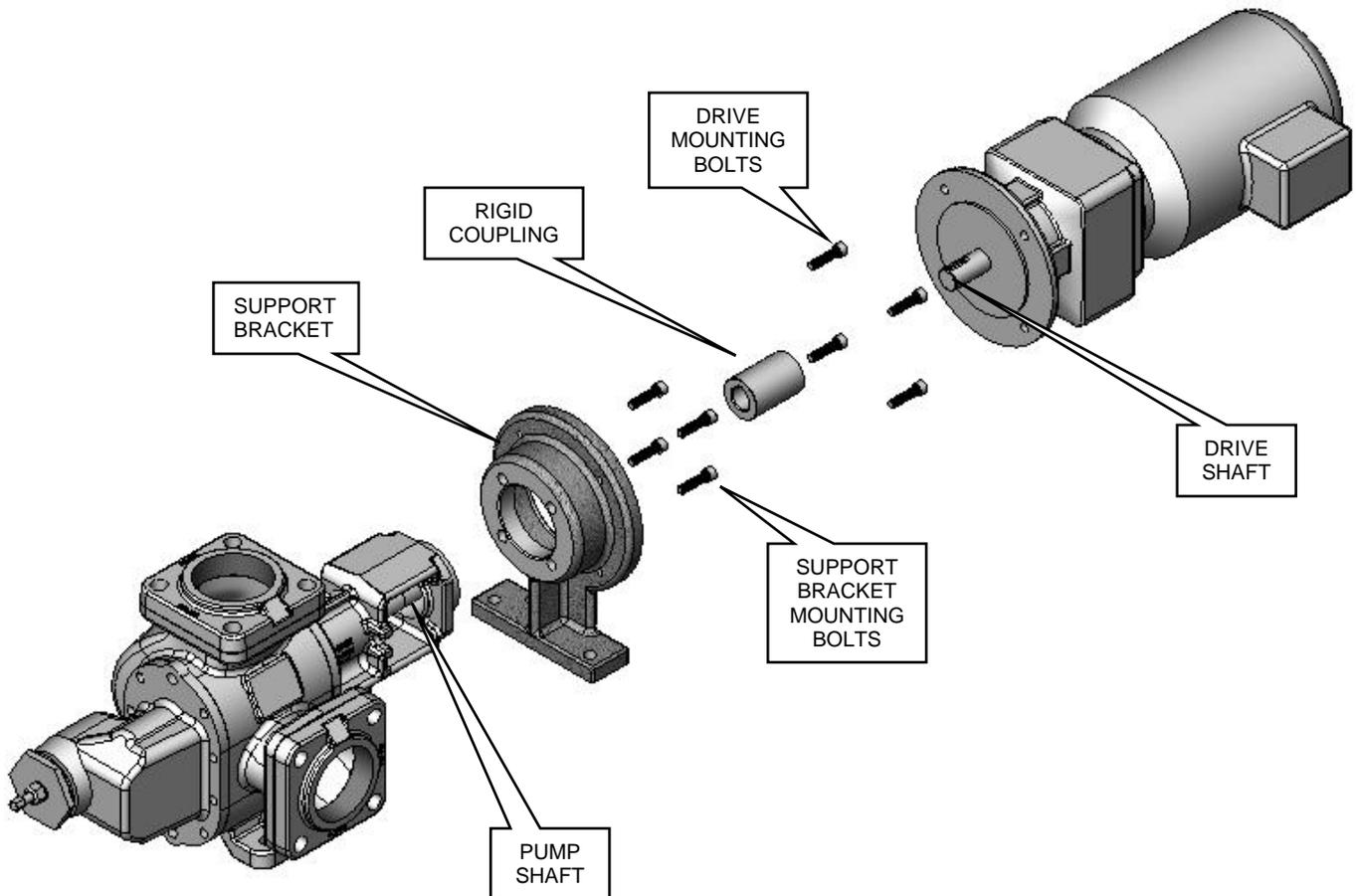


Figure 2: Pump to Drive Connection

INSTALLING ASSEMBLY

HANDLING

To prevent damage or shifting due to an unbalanced load when moving the pump, use a strap (i.e. sling) wrapped around the pump section and a hook or second sling on the reducer section. (See Figure 3 at right.)

MOUNTING BASE

Integral motors and C-face type inputs do not require a base plate for most applications. The reaction forces between the drive components and the pump are contained within the package. The system integrator must determine if plumbing forces require a mounting base.

Male shaft inputs require a base plate to handle the input reaction forces. (See section below on male shaft input.)

Follow these instructions to shim mounting feet to prevent uneven loading:

1. Place the pump and drive on the planned mounting surface. In some configurations, the drive may be heavy enough to lift the pump feet off the mounting surface. It may be necessary to temporarily support the drive to square the assembly.
2. Use a thickness gage set (feeler gage) to probe under the mounting feet to determine if there is a gap at any of them.
3. Shim the feet as required.

DRIVELINE GUARDS

A driveline guard is not required in most applications. There are not exposed snag points. The length of exposed rotating shaft is short and shielded from most accidental contacts by the extensions around the seal chamber. The system integrator must determine if guards are required and that all OSHA, federal, state, and local codes are followed.

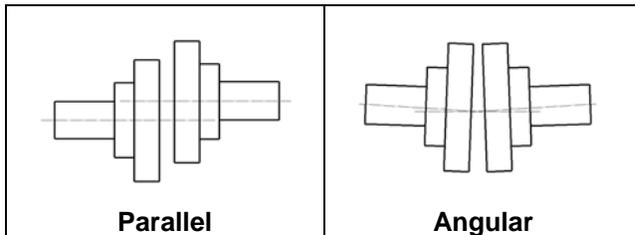
MALE SHAFT INPUT UNITS

DRIVELINE GUARDS

Assure adequate guards have been installed to prevent accidental contact of moving components. Follow all OSHA, federal, state, and local codes.

CHECK ALIGNMENT OF PUMP TO DRIVELINE

Excessive misalignment can overload the pump input shaft and cause premature failure. The figures below show parallel and angular misalignments.



Components installed on the shaft should be fitted to the manufacturer's recommendations.

NOTE: DO NOT hammer on the input shaft. Hammering could damage internal parts.

MOUNTING BASE

Mount the unit on a rigid, heavy base to provide support and absorb shock. Bases should not only be designed for high rigidity, but also for strength.

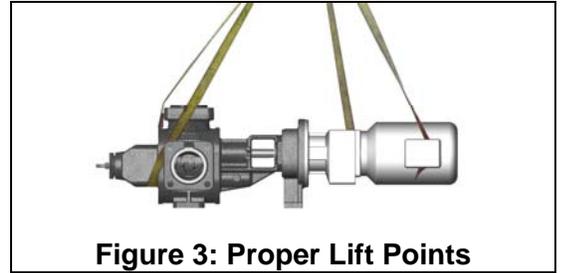


Figure 3: Proper Lift Points

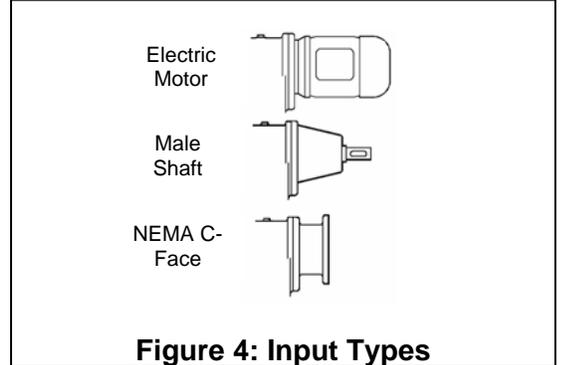
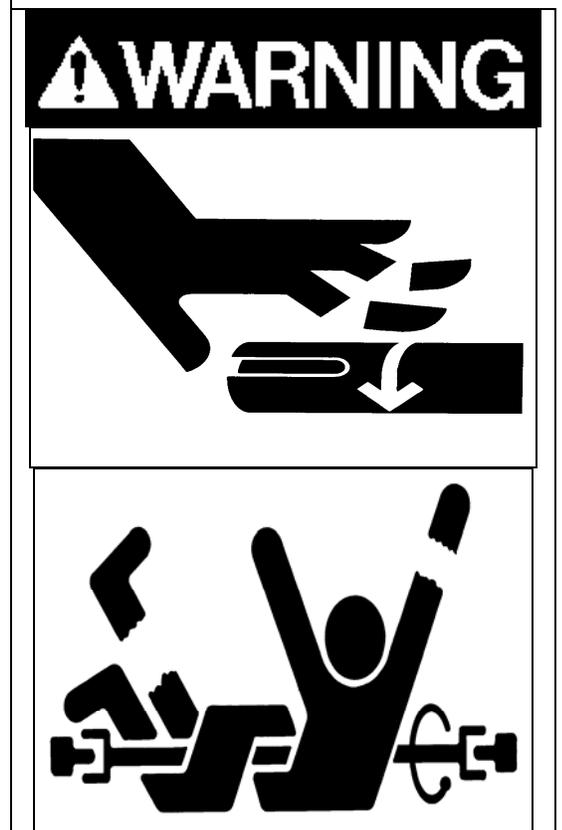


Figure 4: Input Types



Operating without guards could result in serious injury or death. Machinery in operation can grab, crush, cut, mangle and dismember. Do not operate without adequate guards in place.

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