

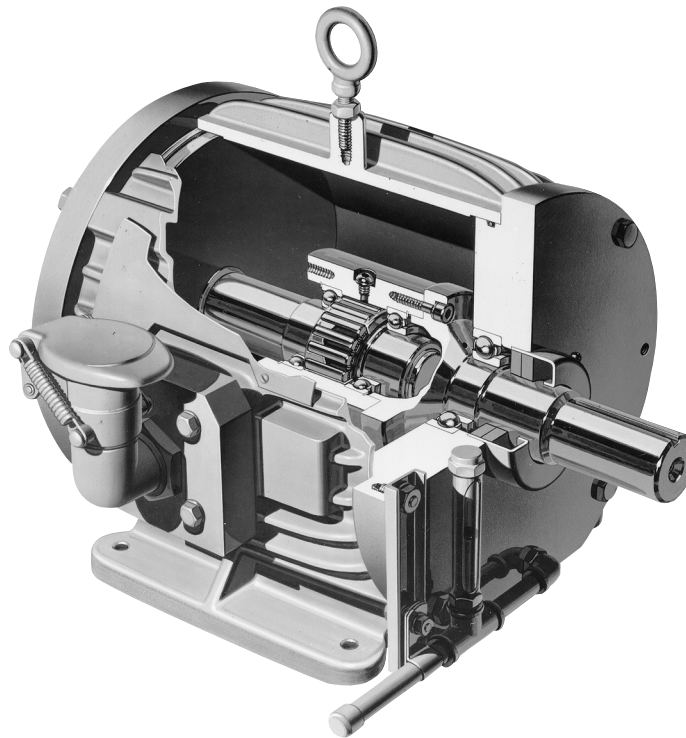
BULLETIN A-3038

P-222-23

Installation Instructions

Continuous Drive Units

**CDU Models
500 thru 1051 with
Motor Housing**



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Introduction

Formsprag Continuous Drive Units, Model CDU-500 through 1051 are specially designed for continuous high performance overrunning and driving. All models should be installed, operated, and maintained according to the instructions in this bulletin for optimum performance and life.

⚠ WARNING Failure to follow these instructions may result in product damage, equipment damage, and serious or fatal injury to personnel.

Installation

Rotation: Before installation, check driving rotation by hand turning from the proper end to be sure direction is correct. See label on end cap for proper direction of rotation.

A foundation adequate to support the CDU and maintain alignment with other components in the system is required.

The foundation must be rigid and level. The mounting surface must be flat so the CDU base will not be distorted when the mounting fasteners are tightened.

The maximum allowable gap between any CDU mounting foot and the mounting surface is .020 inch. (shim as required)

Couplings

The use of flexible type couplings on the input and output shaft is recommended.

Coupling halves should be properly aligned to prevent abnormal loading on the CDU bearings. Couplings should be balanced in accordance with manufacturer's requirements.

Important: Disk style coupling hubs are of the slip-fit type and retained on the shaft with set screws. Other manufacturers couplings, gear-type and grid-type are retained by the interference fit between the hub and shaft. The shaft must be coated all over for length of coupling hub engagement with "Anti-Seize Compound" prior to shrink fit of coupling hub onto shaft. This compound will allow removal of shrink fitted parts for service without unnecessary damage to parts.

The shrink fitting of the coupling hubs is accomplished by cooling the shaft extension and/or heating the coupling half to 250°F/111°C maximum. Heating of part by immersion in clean hot oil is preferred.

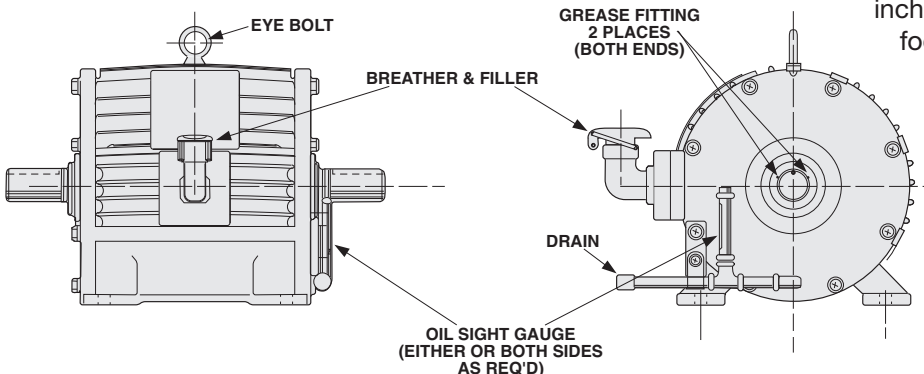
Do not install or remove coupling hubs by pounding or pressing directly against the CDU shaft extensions. This could result in bearing damage within the CDU. Pullers must work against shaft end face.

Alignment

Follow flexible coupling manufacturer's instructions to establish and maintain shaft alignment. During the subsequent operation, this alignment must be maintained. It may be necessary to dowel the motor and reducer as well as the CDU to prevent loss of alignment.

Elongated or oversize mounting bolt holes in the foundation will simplify movement for shaft alignment.

Attaching bolt or stud diameter may be 1/8 inch smaller than hole in CDU mounting foot to assist in alignment.



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Before Operating

1. Fill CDU to proper oil level (1/2 way up in sight gage) and recommended lubricant as shown on labels attached to CDU.

▲CAUTION Do not use lubricants of the EP (extreme pressure) type or those containing slippery additives.

2. Grease shaft seals. See labels on CDU for proper grease. Pump grease into fittings at each end until clean grease comes out around the shaft.

Operating

1. Do not operate at speeds or torque higher than those approved by Formsprag. See Catalog P-956.
2. After initial 15 minutes of running:
 - a. Check oil level.
 - b. Check that all mounting bolts and lubrication drain plugs are tight.
 - c. Check for any leakage.

It is recommended that this inspection be repeated after the first 24 hours of operation.

Maintenance

Change oil every six (6) months under normal conditions (8 hours per day), and every four (4) months under severe conditions (24 hours per day).

Check oil level monthly. Add oil to proper level if required.

Oil Lubrication

Use oils selected from the following table according to the application and ambient temperature existing at the clutch.

For Temp.	Use Lubricant
-20°F to +150°F (-29°C to + 66°C)	Shell DonaxT6,T7
	Mobil ATF210, 220
	Amoco DexronATF
	Texaco Dexron IIATF
-40°F to +150°F (-40° to +66°C)	Exxon Turbo Oil2380, 2389
	Shell Turbine Oil500
	Mobil Jet Oil II

▲CAUTION Do not use “EP” Type Lubricants

Shaft Seal Lubrication

Pump grease fittings at each end of every month, or as conditions warrant. Pump grease into fittings until clean grease comes out around the shafts.

Use:

- Mobil No. 2 (Mobil Oil Co.)
- Aero Shell No. 7 (Shell Oil Co.)
- Rykon No. 2 (Amoco Oil Co.)

▲CAUTION Do not use “EP” grease

▲WARNING The use of lubricants in clutch assemblies, other than those shown, can result in improper sprag engagement. Improper sprag engagement may cause personal injury or property damage.

Formsprag Clutch is not responsible for any changes made by the manufacturers in their lubricants.

The use of any lubricants, other than those listed in this bulletin, will automatically void any warranty.

Clutch Rebuilding Service

Note: Disassembly and repair of Formsprag clutches in the field is not recommended.

Formsprag clutches are precision devices. When reconditioning is required, the CDU can be returned to Formsprag Clutch directly, through the Formsprag Distributor or through the original equipment manufacturer.

These instructions cannot cover all details or variations of equipment and applications nor provide every possible contingency which may be met in installation, operation or maintenance. Should further information be needed, contact Formsprag Application Assistance at 1-800-927-3262.

Rotating Equipment

Rotating equipment is potentially dangerous and should be properly guarded. The user should check for all applicable safety codes in his area and provide a suitable guard.

Warranty

Formsprag LLC warrants that it will repair or replace (whichever in its sole discretion it deems advisable) any product it manufactured and sold which proves to be defective in material or workmanship within a period of one (1) year from date of original purchase for consumer, commercial or industrial use. This warranty extends only to the original purchaser and is not transferable or assignable without Formsprag LLC's prior consent.

This warranty covers normal use and does not cover damage or defect which results from alterations, accident, neglect, disassembly, or improper installation, operation, or maintenance.

Formsprag LLC's obligation under this warranty is limited to the repair or replacement of the defective product. In no event shall Formsprag LLC be liable for consequential, indirect or incidental damages of any kind incurred by reason of manufacture, sale or use of any defective product. Formsprag LLC neither assumes nor authorizes any other person to give any other warranty or to assume any other obligation or liability on its behalf.



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