

BULLETIN A-3003

P-222-16

Installation Instructions

**General Purpose
Overrunning Clutches**

FS-02 and FS-04



23601 Hoover Road - Warren, MI 48089-3994 - 586-758-5000

www.formsprag.com

Introduction

Your Formsprag clutch, Model FS-02 or FS-04, designed and built for general purpose use in overrunning, indexing and back-stopping applications, is shipped grease packed for life, ready to install. These units cannot be rebuilt.

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

Pre-installation Check

1. Turn races by hand to check overrunning direction. Clutches with Left Hand rotation (LH) and Right Hand (RH) are available.
2. Check shaft to bore fit. On model FS-02, a line fit to .003 inches loose is recommended. On Model FS-04, a fit from .0005 inches loose to .003 inches loose is recommended. See table on page 3 for recommended shaft diameter. Do not use a forced or press fit.

A press fit can be used to mount components to clutch hub or outer race O.D. **Do not exceed .001 inches tight.**

Mount so that applied side load (belt, gear, chain, etc.) will line up with clutch bearing. Load should be applied over bearing (bushing) for best life and service. The bearing is located within clutch hub.

Installation

1. Mount clutch on shaft.
2. Insert roll pin, furnished with clutch, in hole in inner race. Tap pin lightly with a small hammer until pin is flush. Pin hole in shaft must line up with clutch hole within .005 inches.
3. Mount components as required to clutch. Use a roll pin or set screw in hub hole to prevent component from rotating on hub.

If component such as a pulley or sprocket, which bear load during clutch overrunning cycle, is mounted on the outer race O.D., the maximum outer race overrunning speed is 2400 RPM.

Recommended ambient temperature for operation: +20°F to +150°F (-7°C to +65°C). For higher or lower ambient temperatures, consult Formsprag Clutch.

Lubrication

Clutches are lubricated for life with Fiske Brothers Refining Co. Lubriplate Low-Temp Grease.

These clutches are not rebuildable.

For replacement clutches, contact your local authorized Warner Electric Distributor.

Packaging

Your Formsprag clutch is carefully wrapped in Vapor Inhibitor type activated paper for corrosion protection and packed in a shipping box conforming to the requirements of Rule 41, Uniform Freight Classification. It may be stored for up to two (2) years and reshipped without added packaging. To store in an unprotected area or, if the original packing is opened, wrap the box with a waterproof covering.

These instructions cannot cover all details or variations in equipment and applications, nor provide for every possible contingency which may be met in installation, operation or maintenance. Should further information be needed, contact Formsprag Clutch.

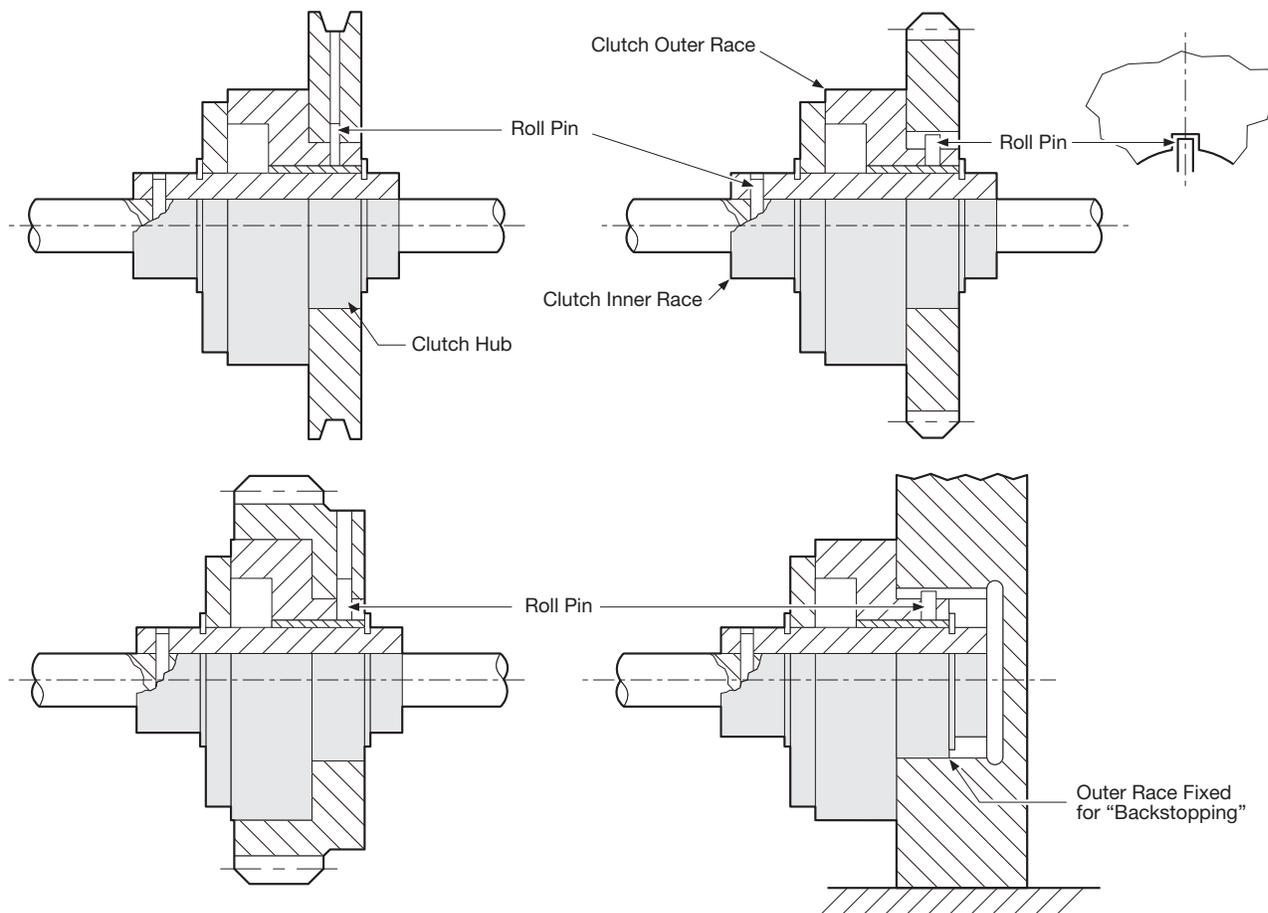
For additional technical and dimensional information on FS Clutches refer to Formsprag Overrunning Clutch Catalog P-956 or call 1-800-927-3262.

Rotating Equipment

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

For Application Assistance call 800-927-3262.

Typical Mounting Arrangements



Model	Bore	Recommended Shaft Diameter	Clutch Hub Diameter	Hub Roll Pin Hole Diameter	Hub Length	Clutch Outer Race O.D.
FS-02	.250	.250/.249	.750/.749	3/32	1/4	1.250/1.2485
FS-04	.375	.3745/.374	1.125/1.124	1/8	1/4	1.6250/1.6235
FS-04	.500	.4995/.499	1.125/1.124	1/8	1/4	1.6250/1.6235

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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