

**BULLETIN 2221**

**P-222-13**

## **Installation Instructions**

**General Purpose  
Overrunning Clutches**

**Model FS 05**



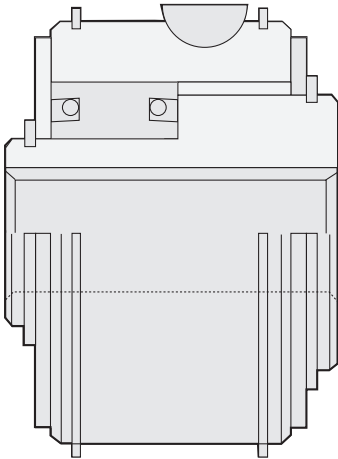
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## Introduction

Formsprag Clutch, model FS-05, designed and built for general purpose use in overrunning, indexing and backstopping 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. Rotation

Turn races by hand to check overrunning direction. Clutches with left-hand rotation (LH) and right-hand (RH) are available.

### 2. Shaft bore Fit

A fit of .0005 inches loose to .002 inches loose is recommended. Recommended shaft diameter is .6245/.6240.

**Do not use a forced or press fit. Press unit on shaft from inner race only.**

### 3. Shaft Key and Keyway

A hardened key, 30 to 40 Rockwell "C" scale, is recommended. The key should be installed with a push fit and must seat squarely.

**Do not use a driving or forced fit.**

For Indexing applications, in order to prevent loosening in service, use a tight fit on width dimension. **Do not exceed .001 inches tight.** Keyway is 1/8 x 1.16 inches, 1-13/32 inches long.

## Installation

1. Mount clutch and key on shaft. Do not press thru outer race. Press against inner race only.
2. Mount components as required to the outer diameter of the clutch. Use the Woodruff key and snap rings supplied with clutch. Maximum allowable width for mating part is .750 inches.

Width of Woodruff key is .126/.125 inches. For **Indexing** application, to prevent loosening in service, use a tight fit on width dimension. **Do not exceed .001 inches tight.** When pressing FS-05 into gear, crank etc., press on outer race only.

For backstopping applications, assemble the clutch into housing or stationary bracket, using the Woodruff key supplied. Use free fit of .0005/.0025 clearance of clutch O.D. to housing.

Recommended ambient temperatures for operation: +20°F to +125°F (-7°C to +53°C). For other temperatures consult factory.

## **Lubrication**

This clutch is lubricated for life with **Lubriplate Low-temp Grease**, a product of Fiske Brothers Refining Company. (Further Lubrication is not required.)

**Disassembly and repair of Formsprag clutches in field is not recommended.**

## **Packaging**

Your Formsprag clutch, 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, may be stored for up to two (2) years and reshipped without added packaging.

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.

For additional technical and dimensional information on FS clutches refer to Formsprag Overrunning Clutch Catalog P-956 or call 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 local 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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