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# UNIVERSAL JOINT INSTALLATION AND LUBRICATION

## Universal Joint Installation

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Ease of installation and service is one of the primary features of Mechanics® Universal Joints.

To assemble a joint to a yoke, insert the key and pilot of one bearing into the keyway and pilot of the yoke (Fig. 1). Next, insert the key and pilot of the opposite bearing into the yoke. Since this is a precision product, the fit is intended to be tight and some compression of the seals and/or thrust washers may be required to seat the second bearing. This can be done with a 'C' clamp, a tap with a soft hammer (Fig. 2), or with hand pressure. DO NOT use the bolts to seat the bearings!

Once the bearings are properly seated, insert the bolts and uniformly torque them to the proper level as shown in the **Mounting Capscrews** section. Use SAE Grade 8/Class 10.9 or equivalent, non-coated bolts that are clean and dry.

Yoke faces, bearing mounting faces, circular pilots and keyways must be free of foreign material, burrs and nicks which will prevent the assembly from becoming properly seated.

## Lubrication

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Grease Specifications:

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<b>Universal joints</b>	Relube: Lithium base grease without Molybdenum Disulfide Additive Permanently-lubed: No relubrication required
<b>Driveshaft Slip Spline</b>	Long-life Lithium base grease <i>with a Molybdenum Disulfide Additive</i>

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Lubrication must be maintained in universal joints and slip assemblies for satisfactory operation. Since the driveshaft is subject to many types of environments, it is important to maintain a lubrication interval which is appropriate to the type of environment and vehicle use. A 250 hour interval, or longer, may be satisfactory for most off-highway conditions.

However, severe conditions may warrant more frequent lubrication.

Factory lubrication of relubricable slip assemblies provides an initial coat over both male and female parts. Additional lubrication may be added through the fitting on the slip yoke. With the driveshaft in the fully compressed position, grease should be added until excess appears at the vent hole of the dust cup or at the spline seal (Fig. 3).

If the driveshaft can not be fully compressed, care must be taken not to overfill the spline cavity or the driveshaft will not compress when required. A universal joint is considered adequately lubricated only when all four bearings are purged of air and old grease. Mechanics® patented seals allow all four bearings to bleed at the same pressure (Fig. 4) to insure proper lubrication.



**Fig. 1** Insertion of key and pilot of bearing into yoke



**Fig. 2** Opposite bearing installed



**Fig. 3** Grease appears from vent hole



**Fig. 4** Seals allow grease to bleed so lubricant can flow through all trunnions