

# Instruction Manual for Dodge Type E Bearings

These instructions must be read thoroughly before installation or operation.

**WARNING: To ensure the drive is not unexpectedly started, turn off and lock-out or tag power source before proceeding. Failure to observe these precautions could result in bodily injury.**

Generally, a lower quantity of grease at frequent intervals is more effective than a greater quantity at extended lubrication intervals.

## INSTALLATION:

1. Clean shaft and bore of bearing. Lubricate with light oil or anti seize compound.
2. Slip bearing in position.
3. Bolt bearing to support, using shims where necessary to align bearing.
4. Tighten setscrews to the torque values shown on Table 1.
5. The effort required to turn the shaft should be the same before and after bolting bearing to the support.

Shaft Size (inches)	Set Screw Size	Tightening Torque
1- 3/16 – 1-11/16	5/16 – 18	165 in-lbs
1-3/4 – 2-1/2	3/8 – 16	290 in-lbs
2-11/16 – 3-1/2	1/2 – 13	620 in-lbs
3 15/16 – 5	5/8 – 11	1325 in-lbs
5-7/16 – 6	3/4 – 10	2150 in-lbs
6-7/16 – 7	7/8 – 9	5130 in-lbs
Shaft Size (mm)	Set Screw Size	Tightening Torque
35–40mm	M8	17.8 NM
45–65mm	M10	35 NM
70–75mm	M12	57 NM
80–90mm	M12	57 NM
100–125mm	M16	126 NM

## Lubrication Guidelines

This bearing is factory lubricated with a lithium or lithium complex base grease which is suitable for most applications. However, extra protection is necessary if the bearing is subjected to excessive moisture, dust, corrosive vapor or other harsh environments. In these cases, the bearing should contain as much grease as speed will permit (a full bearing with consequent slight leakage through the seal is the best protection against contaminant entry).

For relubrication, select a grease that is compatible with a lithium or lithium complex grease. The following table is a general guide for normal operating conditions. However, some situations may require a change in lubricating periods as dictated by experience.

**WARNING: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed: Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided, and are neither provided by Baldor Electric Company nor are the responsibility of Baldor Electric Company. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risk to persons or property may be involved, a fail safe device must be an integral part of the driven equipment beyond the speed reducer output shaft.**

## Lubrication Guide (in weeks)

Read Preceding Paragraphs Before Establishing Lubrication Schedule

Hours Run per Day	1 to 250 RPM	251 to 500 RPM	501 to 750 RPM	751 to 1000 RPM	1001 to 1500 RPM	1501 to 2000 RPM	2001 to 2500 RPM	2501 to 3000 RPM
8	12	12	10	7	5	4	3	2
16	12	7	5	4	2	2	2	1
24	10	5	3	2	1	1	1	1

Lubrication recommendations are intended for standard products applied in general operating conditions. For modified products, high temperature environments and other anomalous applications, contact product engineering at 864.284.5700.

## Storage or Special Shutdown

If exposed to wet or dusty conditions or to corrosive vapors, extra protection is necessary. Add grease until it shows at the seals; rotate the bearing to distribute grease; cover the bearing. After storage or idle period, add a little fresh grease before running.

## High Speed Operation

In the higher speed ranges too much grease will cause overheating. The amount of grease that the bearing will take for a particular high speed application can be determined only by experience — see “Operating Temperature” below. If excess grease in the bearing caused overheating, it will be necessary to remove grease fitting to permit excess grease to escape. The bearing has been greased at the factory and is ready to run. When establishing a relubrication schedule, note that a small amount of grease at frequent intervals is preferable to a large amount at infrequent intervals.

## Operation in Presence of Dust, Water or Corrosive Vapors

Under these conditions the bearing should contain as much grease as speed will permit, since a full bearing with consequent slight leakage is the best protection against entrance of foreign material. In the higher speed ranges too much grease will cause overheating — see “High Speed Operation.” In the lower speed ranges it is advisable to add extra grease to a new bearing before putting into operation. Bearings should be greased as often as necessary (daily if required) to maintain a slight leakage at the seals. For extreme conditions or dust and/or moisture consider adding a supplemental sealing system with the E-TECT seal kits. See catalog for details.

## Average Operation

This bearing has been greased at the factory and is ready to run. The table above is a general guide for relubrication. However, certain conditions may require a change of lubricating periods as dictated by experience. See “High Speed Operation” and “Operating in Presence of Dust, Water, or Corrosive Vapors.”



## Operating Temperature

Abnormal bearing temperature may indicate faulty lubrication. Normal temperature may range from "cool to warm to the touch" up to a point "too hot to touch for more than a few seconds," depending on bearing size and speed, and surrounding conditions. Unusually high temperature accompanied by excessive leakage of grease indicates too much grease. High temperature with no grease showing at the seals, particularly if the bearing seems noisy, usually indicates too little grease. Normal temperature and a slight showing of grease at the seals indicate proper lubrication.

## Kind of Grease

Many ordinary cup greases will disintegrate at speeds far below those at which DODGE bearings will operate successfully if proper grease is used. DODGE bearings have been factory lubricated with an NLGI #2 lithium complex base grease. Relubricate with Lithium complex-base grease or a grease which is compatible with original lubricant and suitable for roller bearing service. In unusual or doubtful cases the recommendation of a reputable grease manufacturer should be secured.

## E-TECT SEAL KIT: Added Protection for Extremely Wet and Dirty Environments

A V-ring seal is added to the standard "R" seal system. The V-ring is held in place by the locking collar. The V-ring has face rubbing contact with the steel "R" seal carrier. The resulting system puts a flinger collar, V-ring seal, clearance seal, lip seal and two grease dams between the rollers and the outside environment. All components are designed for optimum sealing and purging action.

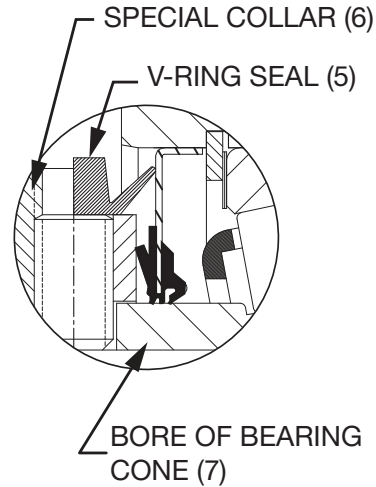
Type K, DOUBLE-INTERLOCK, TAF and E-XTRA E-TECT Seal Kits	
Shaft Size Inches	Kit Part* Number
1-3/16 to 1-1/4	037650
1-3/8 to 1-7/16	037651
1-1/2 to 1-11/16	037652
1-3/4 to 2	037653
2-3/16	037654
2-1/4 to 2-1/2	037655
2-11/16 to 3	037656
3-3/16 to 3-1/2	037657
3-5/16 to 4	037658
4-7/16 to 4-1/2	037659
4-15/16 to 5	037660
5-7/16 to 6	037673**
6-7/16 to 7	037674**

\* Kit includes one collar, special set screws and seal.

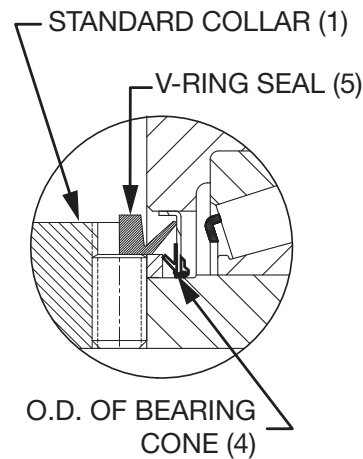
\*\* Kit for 5-7/16 to 7" consists of a modified V-ring seal only.

For Type K bearings, E-TECT Seal may be used on collar side only.

For Double-Interlock, TAF and E-XTRA, two kits are required (one for each collar)



E-TECT SEAL - 1-3/16 through 5"



E-TECT SEAL - 5-7/16 through 7"

## Special Operating Conditions

Refer acid, chemical, extreme or other special operating conditions to Baldor Electric, Dodge Product Support, Greenville, SC (864-284-5700).

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