Instruction Manual for DODGE Polymer Sleeve with Polymer Housing

These instructions must be read thoroughly before installing or operating this product.

WARNING To insure that 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.

INSTALLATION:

Shaft Preparation: The bearing journal should not be exposed to grease, oils or dirt to ensure good life of the bearing. NO OIL OR GREASE SHOULD BE USED ON THE INSERT OR SHAFT WHEN ASSEMBLING THIS BEARING. The shaft should be clean and free of burrs and nicks. The shaft should be held to a minimum amount of taper and as little eccentricity as possible so a uniformly distributed rubbing surface can be maintained. Commercial shafting tolerance is acceptable, +0.000/-0.002; however, for best results, the shaft finish should be held to a10 to 20 micro-inches, and hardness should be 35 Rockwell “C” or higher (.25 or .50 micro-meters in metric units.)

DODGE collars are available for shaft location, and should be purchased separately.

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 nor are the responsibility of Baldor Electric. 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 holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

Assembly: Slide the assembled pillow block on the shaft. The bearing outer ring OD is spherical and swivels in the housing to accommodate misalignment. Snug hold-down bolts and use shaft to swivel each bearing until its final position is in the center of free movement top to bottom as well as side to side. This will prevent preloading of the bearing. Flat washers should be used with hold-down bolts.

Shim mounting surfaces for full housing contact and vertical shaft adjustment-tighten hold-down bolts to proper torque.

NOTE: Housing slippage depends on the mounting hold-down bolt tightening torque, number of bolts and friction characteristics between mounting surfaces. Auxiliary load carrying devices such as shear bars are advisable for side or end loading of pillow blocks and radial loads for flange units where normal to heavy loading or shock loading is encountered.

Running In: To imporve life expentancy from this type of bearing a brief run-in or break-in should be performed. The break-in should be run with a bearing mounted on its mating shaft, as in service with all possible loading removed. The break-in period will build up the film of solid lubricant on the shaft to reduce potential start-up damage to the insert.

OPERATION

The polymer insert contains an impregnated lubricant that will transfer a film or coating to the shaft as the shaft rotates. The lubricant will not squeeze out when the shaft is not rotating. The lubricant that is impregnagted into the bushing material is transferred or “worn” onto the rotating shaft at a rate determined by the rubbing speed of one material to the other and the imposed load. Since this is a “wear type bushing”, wear will result under normal operating conditions.

Operating Temperature Range: -40º to 180ºF (-40º to 82ºC)

Due to unknown loads on take-ups, polymer sleeve bearings are not recommended for use as a take-up bearing.

DODGE®

Table 1 - REPLACEMENT PARTS FOR DODGE MOUNTED POLYMER HOUSED SLEEVE BEARINGS										
Series	**204**		**205**		**206**			**207**		
Shaft Dia.	**20mm**	**3/4 in**	**25mm**	**1 in**	**30mm**	**1-3/16 in**	**1-1/4 in**	**35mm**	**1-1/4 in**	**1-7/16 in**
Insert	032868	032867	032871	032872	032874	032875	032876	032878	032877	032879
Pillow Block	034748	034700	034749	034701	034750	034702	034703	034751	034704	034705
2-Bolt Flange	034766	034726	034767	034727	034768	034728	034729	034769	034730	034731
4-Bolt Flange	034759	034716	034760	034717	034761	034718	034719	034762	034720	034721
Tapped Base Pillow Block	034755	034710	034756	034711	034757	034712	034713	034758	034714	034715
3-Bolt Flange Bracket	034773	034736	034774	034737	034775	034738	034739	034776	034740	034741
Plug	034636									

Series	**206**		**210**	
Shaft Dia	**40mm**	**1-1/2 in**	**50mm**	**1-15/16 in**
Insert	032882	032881	032887	032886
Pillow Block	034752	034706	034754	034709
2-Bolt Flange	034770	034732	034772	034735
4-Bolt Flange	034763	034722	034765	034725
Plug	034636			

Table 2 - MOUNTING BOLT TORQUE VALUES FOR POLYMER HOUSED BEARINGS										
	2-Bolt Pillow Block		**Tapped-Base PR**		**2-Bolt Flange**		**4-Bolt Flange**		**Flange Bracket**	
Bearing Series	**Bolt Size**	**Grade 2**	**Bolt Size**	**Grade 2 Torque**	**Bolt Size**	**Grade 2 Torque**	**Bolt Size**	**Grade 2 Torque**	**Bolt Size**	**Grade 2 Torque**
	inch, mm	**in-lbs, N-m**	**inch, mm**	**in-lbs, N-m**	**inch, mm**	**in-lbs, N-m**	**inch, mm**	**in-lbs, N-m**	**inch, mm**	**in-lbs, N-m**
204	3/8, 10	225, 25	3/8-16, M10 x 1.5	225, 25	3/8, 10	200, 22	3/8, 10	200, 22	3/8, 10	200, 22
205	3/8, 10	225, 25	3/8-16, M10 x 1.5	250, 30	3/8, 10	225, 25	3/8, 10	225, 25	3/8, 10	225, 25
206	1/2, 12	300, 30	7/16-14, M10 x 1.5	300, 35	3/8, 10	250, 30	3/8, 10	250, 30	3/8, 10	250, 30
207	1/2, 12	325, 35	1/2-13, M2 x 1.75	400, 45	1/2, 12	300, 35	1/2, 12	300, 35	1/2, 12	300, 35
208	1/2, 12	400, 45			1/2, 12	400,45	1/2, 12	400, 45		
209	1/2, 12	450, 50			9/16, 14	450, 50	9/16, 14	450, 50		
210	5/8, 16	500, 56			5/8, 16	500, 55	5/8, 16	500, 55		

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