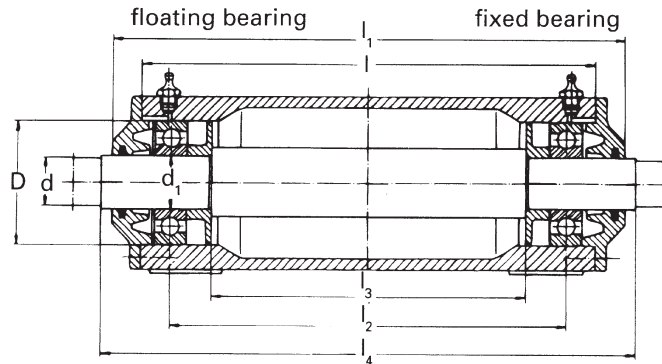


# Instruction Manual for DODGE PDNF Mono-Blocks When Provided Without the Shaft

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



## INSTALLATION:

PDNF mono-blocks, when ordered without the shaft, should come with one (1) housing, two (2) end covers and associated bolts, two (2) grease slingers with associated set screws, and two (2) felt seals. Components ordered separately are: two (2) bearing inserts, usually 300 series single row deep groove ball bearings, and one (1) wave spring washer.

### Instructions

1. Install grease slingers onto the shaft with the flange (slinger portion) mounted against the shaft shoulder (see figure above). The slinger ring is designed for a clearance fit on the shaft. If required, use a press or heat the slinger to approximately 200° F. and slide onto the shaft.
2. Install bearings onto shaft against the slingers. The shaft bearing seat tolerance is an ISO k6 interference fit. Press the bearings onto the shaft through the inner ring of the bearing, or heat the bearings up to approximately 200° F. and slide them onto the shaft.
3. After the slingers and bearings have been mounted on the shaft, orient the shaft in the vertical position on a solid surface. Place a tube over the shaft against the inner ring of the bearing and give the tube several sharp blows with a mallet in order to seat the bearing against the slinger and shaft shoulder. Tighten the setscrews of the slinger, if present, until the allen wrench deflects. Repeat this procedure for the second bearing.

**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 holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

4. Pack the bearings with grease from the side opposite the slinger with Shell Alvania #3 or equivalent for standard applications, or with a special grease per specific application parameters. Also pack the cavity between the bearing and end cover.
5. Slide the bearing slinger shaft assembly into the housing. The housing bearing seat tolerance is an ISO G6, clearance fit. This may require tapping the end of the shaft with a rawhide mallet to slide the shaft and bearing assembly in to the housing.
6. Soak felt seals in oil. Insert oil-soaked felt seals into groove in end covers and cut to size. Fill inside cavity of end covers with grease used in step 4.
7. If a wave spring washer is used it must be installed on the appropriate side of the housing against the appropriate bearing so that thrust loads imposed on the assembly are in the direction away from the spring.
8. Slide end covers onto shaft with flat spot on cover outer diameter placed at the bottom of the housing. Bolt covers onto housing with bolts provided.

Table 1 - End Cover Bolt Torque

Assembly Description	Part number	End Cover Bolts	Recommended 60% of yield Nm	Ft-lbs
PDNF-306-BB w/o shaft	726921	4 x M6	7	5.2
PDNF-307-BB w/o shaft	726926	4 x M6	7	5.2
PDNF-308-BB w/o shaft	726929	4 x M6	7	5.2
PDNF-309-BB w/o shaft	726933	4 x M6	7	5.2
PDNF-310-BB w/o shaft	726936	6 x M6	7	5.2
PDNF-311-BB w/o shaft	726941	4 x M8	17.5	12.9
PDNF-312-BB w/o shaft	726943	6 x M8	17.5	12.9
PDNF-313-BB w/o shaft	726947	6 x M8	17.5	12.9
PDNF-314-BB w/o shaft	726953	6 x M8	17.5	12.9
PDNF-315-BB w/o shaft	726957	6 x M8	17.5	12.9
PDNF-316-BB w/o shaft	726959	6 x M10	35	25.8
PDNF-317-BB w/o shaft	726962	6 x M10	35	25.8
PDNF-318-BB w/o shaft	726964	6 x M10	35	25.8
PDNF-319-BB w/o shaft	726966	6 x M10	35	25.8

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**Table 2 - PDNF Shaft Tolerances**  
(Values in Millimeters)

Housing	Bearing Bore Tolerance	Shaft Dimension	*k6 Shaft Tolerance (balls)	Interference	*m6 Shaft Tolerance (cylindricals)	Interference
PDNF 306	+0 / -0.012	30	+0.015 / +0.002	-0.025 / -0.002	+0.021 / +0.008	-0.031 / -0.008
PDNF 307	+0 / -0.012	35	+0.018 / +0.002	-0.030 / -0.002	+0.025 / +0.009	-0.037 / -0.009
PDNF 308	+0 / -0.012	40	+0.018 / +0.002	-0.030 / -0.002	+0.025 / +0.009	-0.037 / -0.009
PDNF 309	+0 / -0.012	45	+0.018 / +0.002	-0.030 / -0.002	+0.025 / +0.009	-0.037 / -0.009
PDNF 310	+0 / -0.012	50	+0.018 / +0.002	-0.030 / -0.002	+0.025 / +0.009	-0.037 / -0.009
PDNF 311	+0 / -0.015	55	+0.021 / +0.002	-0.036 / -0.002	+0.030 / +0.011	-0.045 / -0.011
PDNF 312	+0 / -0.015	60	+0.021 / +0.002	-0.036 / -0.002	+0.030 / +0.011	-0.045 / -0.011
PDNF 313	+0 / -0.015	65	+0.021 / +0.002	-0.036 / -0.002	+0.030 / +0.011	-0.045 / -0.011
PDNF 314	+0 / -0.015	70	+0.021 / +0.002	-0.036 / -0.002	+0.030 / +0.011	-0.045 / -0.011
PDNF 315	+0 / -0.015	75	+0.021 / +0.002	-0.036 / -0.002	+0.030 / +0.011	-0.045 / -0.011
PDNF 316	+0 / -0.015	80	+0.021 / +0.002	-0.036 / -0.002	+0.030 / +0.011	-0.045 / -0.011
PDNF 317	+0 / -0.020	85	+0.025 / +0.003	-0.045 / -0.003	+0.035 / +0.013	-0.055 / -0.013
PDNF 318	+0 / -0.020	90	+0.025 / +0.003	-0.045 / -0.003	+0.035 / +0.013	-0.055 / -0.013
PDNF 319	+0 / -0.020	95	+0.025 / +0.003	-0.045 / -0.003	+0.035 / +0.013	-0.055 / -0.013

\* Shaft bearing-seat tolerances are k6 (interference fit) for ball bearings and m6 (interference) for cylindrical roller bearings.

**Table 3 - Lubrication Guide for PDNF with Ball Bearings**

Housing Size	Suggested Lubrication Period in Weeks								
	1 to 250 rpm	251-500 rpm	501-750 rpm	751 to 1000 rpm	1001 to 1500 rpm	1501 to 2000 rpm	2001 to 2500 rpm	2501 to 3000 rpm	3000+ rpm
306	12	10	8	6	6	4	2	1	1
307	12	9	8	6	5	4	2	1	1
308	12	9	7	5	5	4	2	1	1
309	12	8	6	5	4	3	2	1	1
310	10	8	5	5	4	3	2	1	1
311	10	7	5	4	3	2	2	1	1
312	9	6	5	4	3	2	2	1	1
313	9	6	5	4	3	2	2	1	1
314	9	6	5	4	2	2	1	1	1
315	8	5	5	4	2	1	1	1	1
316	8	5	4	3	2	1	1	1	1
317	8	5	4	3	2	1	1	1	1
318	7	5	3	3	2	1	1	1	-
319	7	5	3	3	2	1	1	-	-

Based on 12 Hours/Day and 7 Days/Week Operation

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