

Conveyor Pulley Bushing Instruction Manual

These instructions must be read thoroughly before installation or operation. This instruction manual was accurate at the time of printing. Please see dodgeindustrial.com for updated instruction manuals.

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.

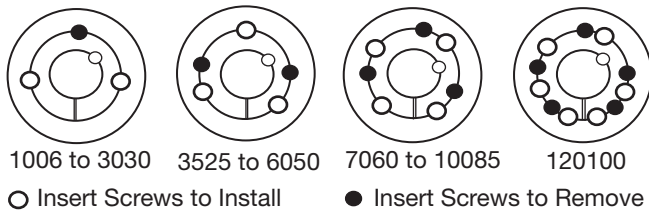
WARNING: All products over 25 kg (55 lbs) are noted on the shipping package. Proper lifting practices are required for these products.

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 Dodge nor are the responsibility of Dodge. 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.

Purpose

This procedure provides general direction and guidelines for the installation, operation, and storage of conveyor pulley bushings.

TAPER-LOCK



Installation

1. Determine bushing size from identification on face of bushing.
2. Clean shaft, bore and outside of bushings, and bore of hubs (taking bushings from hubs if already assembled). Remove any oil, grease and dirt.
3. Slip shaft into pulley hubs and slip bushings onto shaft and into hubs. Place screws loosely in holes that are threaded on hub side (shown as ■ on diagram above).
4. Locate shaft in desired position and tighten screws in each bushing slightly to seat bushings in hubs.
5. Tighten screws alternately and evenly in one bushing only until all screws are pulled up to the proper wrench torque listed in Table 1. Do NOT over torque. Hammer against large end of bushing. Hammer first beside the screw farthest from the bushing split and then hammer on the bushing on the opposite side of the screw. Avoid hammering close to the O.D. of the bushing to prevent damage. Working toward the split, hammer on the bushing on each side of each screw. Then hammer on each side of the bushing split. Make sure that the surfaces on both sides of the split are even. Screws can now be tightened a little more using the specified torque. Repeat this alternating hammering and retightening until the specified wrench torque no longer turns the screws after hammering. Check to make sure the surfaces on both sides of the split are even. Fill all other holes with grease to exclude dirt. If a key seated bushing is used without a key, a fluid resistant material to prevent moisture can be filled in the key seat.
6. Tighten the second bushing per step 5.

Removal

1. Remove all screws.
2. Insert screws into holes that are threaded on the bushing side (shown as ● on diagram). In sizes where washers are found under the screw heads, be sure to use the washers.

NOTE: One screw in each hub is left over and is not used in the removal process.

3. Tighten screws alternately until bushings are loosened in hubs. If bushing does not loosen, tap on face of hub.

HE, QD®, AND XT®

Installation

1. Determine bushing size from identification on face of bushing.
2. Clean shaft, bore and outside of bearings, and bore of hubs (taking bushings from hubs if already assembled). Remove any oil, grease and dirt.
3. Slip shaft into pulley and slip bushings onto shaft and into hubs. If required, carefully insert a wedge into bushing split and tap lightly to allow bushing to slide on shaft. Align unthreaded holes in bushing with threaded holes in hub. Place bolts loosely in holes that are not threaded.
4. Locate shaft in desired position, remove wedges if used and tighten bolts in each bushing slightly to seat bushings in hubs.

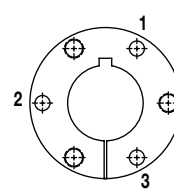


Figure 1: QD-SF thru J

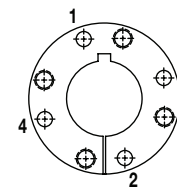


Figure 2: QD-M thru W

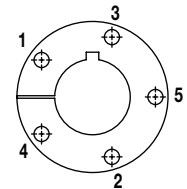


Figure 3: QD-S thru Z

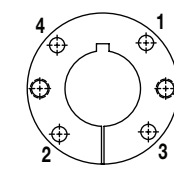


Figure 4: HE-25 thru 40, XT-15 through 80

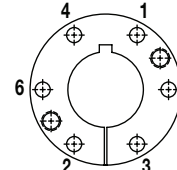


Figure 5: HE-45 through 100, XT-100

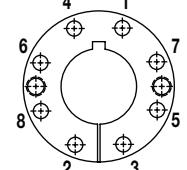


Figure 6: HE-120, XT-120

5. Tighten bolts in a star pattern alternately and evenly as illustrated in Figures 1 - 6 in one bushing only until all bolts are pulled up to the proper wrench torque listed in Table 1. Do NOT over torque. If a key seated bushing is used without a key, a fluid resistant material to prevent moisture can be filled in the key seat.
6. Check to ensure the bushing flange does not contact the hub.
7. Tighten the second bushing per Step 5.

Removal

1. Remove all bolts.
2. Insert bolts into threaded holes on bushing flange.
3. Tighten bolts alternately until bushings are loosened in hubs. If bushing does not loosen, carefully insert a wedge into bushing split and tap lightly to allow bushing to slide on shaft.

Long-Term Pulley Storage Instructions

1. Block the pulley to keep the face from touching the ground.
2. Inside storage is recommended. If stored outside, protect the pulley from harsh elements.
3. Clean the assembly before installation.

Shafting

1. A protective coating has been applied at the factory to all exposed surfaces. For long term storage, additional coatings of rust preventative are recommended.
2. Remove protective coatings before assembly of bearings or other components.

Lagged Pulleys

1. Inside storage is recommended. Store in a cool, dark area where the pulley will not be exposed to direct sunlight or extreme temperature or humidity variations. Areas of high ozone concentration, such as areas with electric motors or other electrical arc producing machinery, should not be used for storage.
2. Do NOT allow oil, grease, kerosene, solvents, or other chemicals to contact the lagging.
3. After long-term storage, some oxidation may occur on lagging surface. Reduce lagging thickness by 1/32" by grinding to remove the oxidation.

Pillow Blocks

1. Refer to manufacturer's recommendations.

General Operation Instructions

1. For best practice, bushing bolts should be re-torqued weekly for the first month of operation.
2. No modifications, repair, or other work should be performed on the conveyor pulley assembly without prior written consent of Dodge.
3. Do NOT allow material to be trapped between the belt and pulley face.
4. Do NOT allow material to build up on the pulley face.
5. Do NOT allow the edge of the conveyor belt to wander past the edge of the rim.
6. Do NOT skew the pulley in an attempt to track the conveyor belt.

Table 1 - Recommended Tightening Torque

Bushings Type	Screws		Torque lb-ft	Hammer Size (TL Only)	
	Qty	Size			
TL	1210,1215,1310, 1610 & 1615	2	3/8-16 NC	15	6 LB.
	2012	2	7/16-14 NC	23	6 LB.
	2517 & 2525	2	1/2-13 NC	36	6 LB.
	3020 & 3030	2	5/8-11 NC	67	6 LB.
	3535	3	1/2-13 NC	83	12 LB.
	4040	3	5/8-11 NC	142	12 LB.
	4545	3	3/4-10 NC	204	12 LB.
	5050	3	7/8-9 NC	258	12 LB.
	6060	3	1-1/4-7 NC	650	20 LB.
	7060 & 8065	4	1-1/4-7 NC	650	20 LB.
	10085	4	1-1/2-6 NC	1140	20 LB.
	120100	6	1-1/2-6 NC	1140	20 LB.
HE	HE25	4	3/8-16 NC	30	N/A
	HE30	4	1/2-13 NC	60	
	HE35	4	9/16-12 NC	90	
	HE40	4	5/8-11 NC	140	
	HE45	6	5/8-11 NC	140	
	HE50	6	3/4-10 NC	200	
	HE60	6	7/8-9 NC	350	
	HE70	6	1-8 NC	500	
	HE80	6	1-1/8-7 NC	500	
	HE100	6	1-1/4-7 NC	600	
QD	SF	3	3/8-16 NC	30	N/A
	E	3	1/2-13 NC	60	
	F	3	9/16-12 NC	75	
	JS or J	3	5/8-11 NC	135	
	MS or M	4	3/4-10 NC	225	
	NS or N	4	7/8-9 NC	300	
	PS or P	4	1-8 NC	450	
	WS or W	4	1-1/8-7 NC	600	
	SS or S	5	1-1/4-7 NC	750	
	ZS or Z	5	1-1/8-7 NC	600	
XT	XTB15	4	1/4-20 NC	7.9	N/A
	XTB20	4	5/16-18 NC	16.7	
	XTB25	4	3/8-16 NC	29.2	
	XTB30	4	7/16-14 NC	45.8	
	XTB35	4	1/2-13 NC	70	
	XTB40	4	9/16-12 NC	100	
	XTB45	4	5/8-11 NC	140	
	XTB50	4	3/4-10 NC	250	
	XTB60	4	7/8-9 NC	400	
	XTB70	4	1-8 NC	600	
	XTB80	4	1-1/8-7 NC	750	
	XTB100	6	1-1/8-7 NC	750	
XTB120	8	1-1/8-7 NC	750		

* Torque values listed are based on dry torque.

*QD is a registered trademark of Emerson Electric Co.

*XT is a registered trademark of Van Gorp Corporation

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