Instruction Manual for Dodge® Idler Bushings

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

Note! The manufacturer of these products, Baldor Electric Company, became ABB Motors and Mechanical Inc. on March 1, 2018. Nameplates, Declaration of Conformity and other collateral material may contain the company name of Baldor Electric Company and the brand names of Baldor-Dodge and Baldor-Reliance until such time as all materials have been updated to reflect our new corporate identity.

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 ABB nor are the responsibility of ABB. 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.

NOTE: Installation technique can have a significant effect on the service life of an idler bearing. It is imperative that this procedure be followed in order to help prevent overloading of idler bushing bearings.

TAPER-LOCK® Bushing

1. Slip sheave onto idler bushing and hand tighten TAPER-LOCK bushing installation screws. DO NOT fully tighten the bushing installation set screws at this time.
2. Install the above assembly onto mounting bracket and secure with mounting nut. (DO NOT loosen or tighten idler retaining nut, as it is pre-adjusted by the manufacturer.)
3. Hold the mounting bolt head stationary to prevent rotation, and tighten mounting nut to 40 lb-ft, as shown in Figure 1. DO NOT over-tighten the mounting nut.
4. Tighten the bushing installation screws to fully lock the idler bushing to the sheave or sprocket per Table 1.

Table 1 - Installation Torque for Taper-Lock Idler Bushing Installation Screws

<table>
<thead>
<tr>
<th>Size</th>
<th>Wrench Torque in. lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1610</td>
<td>175</td>
</tr>
<tr>
<td>2012</td>
<td>280</td>
</tr>
<tr>
<td>2517</td>
<td>430</td>
</tr>
</tbody>
</table>

Figure 1 -- Preferred Assembly TAPER-LOCK Bushings

Alternative Assembly Instructions

Use Alternative Assembly only if Preferred method is not possible due to space constraints. Install lock washer between mounting nut and mounting bracket. Hold mounting nut stationary and tighten mounting bolt to 40 lb-ft. (DO NOT loosen or tighten idler retaining nut, as it is pre-adjusted by the manufacturer.)

NOTE: Shaft torque must be held to 40 lb-ft. DO NOT OVERTIGHTEN.
5. Spin the assembly by hand to ensure that it rotates freely.

Notes:
1. When using a threaded idler mounting bracket, install the idler bushing in the sheave/sprocket FULLY per standard TAPER-LOCK instruction manual available on www.baldor.com. Then, use the mounting bolt head to tighten this assembly into the bracket arm to 40 pound-feet and lock the bolt by tightening the bracket arm set screws.
2. Idler bearing on small taper end of bushing can rotate until the bushing retaining bolts are tightened as specified in step 4 of installation procedure. (Idler bearing on large end and internal sleeve could also rotate due to differences in manufacturers’ tolerances.)

**QD Bushing**

1. Slip the sheave onto the idler bushing and hand tighten the three (3) bushing retaining bolts. DO NOT fully tighten the bushing retaining bolts at this time.
2. Install the above assembly onto mounting bracket and secure with mounting nut. (DO NOT loosen or tighten idler retaining nut, as it is pre-adjusted by the manufacturer.)
3. Hold the mounting bolt head stationary to prevent rotation, and tighten mounting nut to 40 lb-ft, as shown in Figure 1. DO NOT overtighten the mounting nut.

**Alternative Assembly Instructions**

Use Alternative Assembly only if Preferred method is not possible due to space constraints. Install lock washer between mounting nut and mounting bracket, as shown in Figure 3. Hold mounting nut stationary and tighten mounting bolt to 40 lb-ft. (DO NOT loosen or tighten idler retaining nut, as it is pre-adjusted by the manufacturer.)

**Figure 2 - Preferred Assembly QD Bushings**

**Figure 3 - Alternate Assembly QD Bushings (Hold Mounting Nut/Rotate Bolt Head to 40 ft-lb)**

4. Tighten the three (3) bushing retaining bolts to lock the idler bushing to the sheave per Table 2.

<table>
<thead>
<tr>
<th>Size</th>
<th>Wrench Torque in. lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH</td>
<td>108</td>
</tr>
<tr>
<td>SD</td>
<td>108</td>
</tr>
<tr>
<td>SK</td>
<td>180</td>
</tr>
<tr>
<td>SK-Lg</td>
<td>180</td>
</tr>
<tr>
<td>SF</td>
<td>360</td>
</tr>
<tr>
<td>E</td>
<td>720</td>
</tr>
<tr>
<td>E-Lg</td>
<td>720</td>
</tr>
</tbody>
</table>

5. Spin the assembly by hand to ensure that it rotates freely.

Notes:
1. When using a threaded idler mounting bracket, install the idler bushing in the sheave fully per QD instruction manual available at www.baldor.com. Then, use the mounting bolt head to tighten this assembly into the bracket arm to 40 pound-feet and lock the bolt by tightening the bracket arm set screws.
2. Idler bearing on small taper end of bushing can rotate until the bushing retaining bolts are tightened as specified in step 4 of installation procedure. (Idler bearing on large end and internal sleeve could also rotate due to differences in manufacturers’ tolerances.)