READ ALL INSTRUCTIONS BEFORE PROCEEDING WITH INSTALLATION.

1. Procedure
   1. Select Tether Position
      The HSS encoder can be mounted on either side of the encoder. Select a location for fixing that allows the tether to rest in its natural position — so that it is not bent, stretched or twisted.

   2. Select Shaft Clamp Location
      The HSS can be installed with the solid collar shaft clamp (2 ways). For shaft extensions less than 32" (800 mm), the clamp is "outside" — between the machine motor and the encoder. For shaft extensions greater than 32" (800 mm), the encoder is between the machine motor and the clamp is on the "outside." Select an orientation that allows the customer shaft to couple the hollow shaft a maximum of halfway into the HSS encoder.

   3. Install Tether
      Use 2 Phillips screws to mount the tether on the front or rear of the encoder using the (2) #6-32 screws provided. Tether each screw to 6-8 in-lbs. For installations requiring an accessory cover, the tether must be in one of the two positions shown in the diagram. Position A is preferred as it will allow cover mounting with 3 bolts. Position B allows cover to be secured with only 2 bolts.

   4. Select Termination Location
      The HSS encoder can be rotated in 45-degree increments so that the connector or cable exit can be conveniently located. Select a rotation that positions the connector or cable for easy access in a downward direction for entry of water and oil and protects the wires from hazards such as heat, moving parts and sources of electrical noise.

2. Shaft Extensions
   Solid shaft intermediate keyway allowed. Flatting shaft should not be used. The recommended shaft extension length is 122" (3050 mm). Maximum installations that employ a cross-socket or screwed-on stub shaft adapter should allow the stub shaft to 200" (5030 mm) or less with a dial indicator.

3. Tether Point
   For general industrial machinery and C-face motor installations, locate the tether hole at the nominal bolt circle location. The tether holes are slightly oversized to allow for hole location tolerances and ensure the tether location is not flush with the tether surface.

<table>
<thead>
<tr>
<th>Hole Location</th>
<th>Bolt Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1 (20mm)</td>
<td>5/16-18</td>
</tr>
<tr>
<td>D2 (16mm)</td>
<td>5/32-24</td>
</tr>
<tr>
<td>D3 (12.7mm)</td>
<td>4-40</td>
</tr>
<tr>
<td>D4 (11.9mm)</td>
<td>4-40</td>
</tr>
</tbody>
</table>

4. (Optional) Align the Index Pulse Output
   The HSS encoder includes features to allow the Index area to the machine motor shaft. A rolled line on the shaft clamp side of the hollow shaft indicates the Index pulse location on certain models. A cross section of the clamp side of the encoder housing indicates the Index detector location in the electronics. When the two features are lined up, the Index Channel will be activated if the machine motor is already in the desired Index position. If the two features are not lined up, rotate the hollow shaft to compensate for rotation that will take place before the Index should occur.
Secure the Tether (Motor Mount)

1. Secure the tether fixing bolt through the metal washer and rubber impregnated shoulder/washer. Head thread it into the machine/motor hole. Tension the bolt so that the shoulder washer compresses and the slotted end of the tether cannot move. Check the tether for backlash, stretching or twisting and re-install if necessary.

2. Secure the Tether (Fan Cover Mounting)

Assemble the t-bolt, nylon washer, metal washer, nylon bushing and nut as shown. Slide H200 encoder into shaft. Hold and turn t-bolt to slot in cover slot. Rotate t-bolt (as shown in figure) to keep shown in chart.

E Notes:
1. Garter Spring Tether
   If a standard H200 encoder is not used, it must allow the encoder to move axially and radially. H200 while preventing rotation. Axial and radial movement is restricted, excessive loading of the encoder bearings will shorten life and cause failure.

2. Cable Clamp (Encoder)
   For low resolution, unidirectional applications, it is possible to mount the H200 encoder onto a machine/motor shaft and secure it from rotating by securing (tying) the cable exit on connector cable assembly to a fixed point nearby. The cable should have enough slack to allow the encoder to move axially and radially with the shaft. The encoder will rotate slightly with the shaft, so it is important the amount of rotation is less than the resolution. For example, this method can be used for resolutions of 360 pulses per revolution when the amount of encoder rotation is limited to less than 1 degree (or 1/360th of a revolution).

3. Cable Clamp to Machine
   - Cable Clamp

For installation of accessory cover tether must be installed in one of the positions shown in view E.3. Position A is preferred as it allows the cover to be secured with 3 bolts instead of 2. After encoder installation place the accessory cover over the encoder with the large opening over the connector or cable and the smaller opening positioned over the tether. Secure the cover is fully seated on the motor face and secured with bolts and washers provided when mounting to a fan cover. Instead of 2-3/4 face, center the cover and drill 3 mounting holes (27/32) in center. Then use the 3 #8-32 self-tapping screws and washers provided. Install the warning label in the most conspicuous position.

C. Accessory Cover

(continued)