STANDARD SP CLUTCH

SP318S

QUALITY IS STANDARD
- STRADDLE BEARING DESIGN
- NO PILOT
- BALL BEARING THROW OUT
- OPTIONAL SINTERED IRON PLATES
- BUILT IN HEX NUT
- MORE SUITABLE FOR SIDE LOAD APPLICATIONS
- EASE OF INSTALLATION
- ALLOWS FOR MORE FREQUENT ENGAGEMENTS
- CREATES 25% HIGHER TORQUE CAPACITY
- EASES ADJUSTMENT VERIFICATION

SPECIFICATIONS – SP318S

<table>
<thead>
<tr>
<th>Model Number</th>
<th>SAE HSG.</th>
<th>Max. Input Torque Nm (lb-ft)</th>
<th>Maximum Safe Speed</th>
<th>Weight kg (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP318S0</td>
<td>0</td>
<td>8141 (6000) 10176 (7500)</td>
<td>2200</td>
<td>477 (1050)</td>
</tr>
</tbody>
</table>

LOAD CLASSIFICATIONS BASED UPON AGMA LOAD CHARACTERISTICS

| PRIME MOVER                                  | DURATION OF SERVICE | DRIVEN MACHINE LOAD CLASSIFICATIONS | TO CALCULATE APPLICATION TORQUE: Torque = 5252 x HP Engine RPM x Load Factor Application Torque
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric motor</td>
<td>Up to 3 hours per day</td>
<td>1.00 1.25 1.50 1.75</td>
<td>Use load factor from chart at left</td>
</tr>
<tr>
<td>Multi-cylinder internal combustion engine</td>
<td>5-10 hours per day</td>
<td>1.00 1.25 1.50 2.00</td>
<td></td>
</tr>
<tr>
<td>Over 10 hours per day</td>
<td>1.25 1.50 2.00</td>
<td>1.75 2.00 2.25</td>
<td></td>
</tr>
<tr>
<td>Multi-cylinder internal combustion engine</td>
<td>Up to 3 hours per day</td>
<td>1.50 1.75 2.25</td>
<td></td>
</tr>
<tr>
<td>with high torque rise</td>
<td>5-10 hours per day</td>
<td>1.75 2.00 2.50</td>
<td></td>
</tr>
<tr>
<td>Over 10 hours per day</td>
<td>2.00 2.25 2.75</td>
<td>2.25 2.50 2.75</td>
<td></td>
</tr>
<tr>
<td>Single cylinder internal combustion engine</td>
<td>Up to 3 hours per day</td>
<td>1.25 1.50 2.00</td>
<td></td>
</tr>
<tr>
<td>3-10 hours per day</td>
<td>1.50 1.75 2.25</td>
<td>1.75 2.00 2.50</td>
<td></td>
</tr>
<tr>
<td>Over 10 hours per day</td>
<td>1.75 2.00 2.50</td>
<td>2.00 2.25 2.50</td>
<td></td>
</tr>
</tbody>
</table>

All clutch engagements to be with prime mover below 1000 RPM. High inertia loads may require use of larger clutch.
Contact Twin Disc application engineering department for assistance.
The following general formula should be used for determining the actual applied load: 

$$L = \frac{126,000 \times HP}{N \times D} \times F \times LF$$

**WHERE**
- **L** = Actual Applied Load (lbs)
- **N** = Shaft Speed (RPM)
- **D** = Pitch Diameter (in) of Sheave, etc.
- **F** = Load Factor
  - 1.0 for Chain or Gear Drive, 1.5 for Timing Belts, 2.5 for All V Belts, 3.5 for Flat Belts
  - LF = 2.1 for Reciprocating Compressors and other Severe Shock Drives and 1.8 for Large Inertia
- **LF** = Compound Drives and Power Engaged Power Take-Off applications must have written factory review.

**TD-Bulletin-SP318S Series**

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