

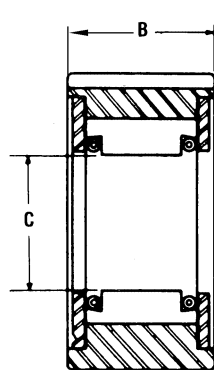
# Shaft Mount Backstop Clutches and Standard Races for Sprag Elements



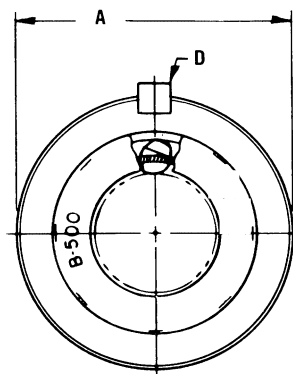
## Shaft Mounted Sprag Clutch Assemblies for Backstop Applications



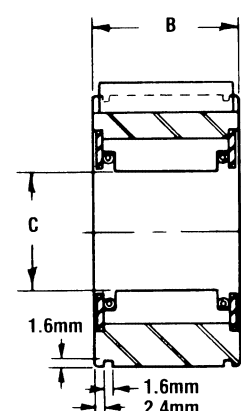
Types B200 & 500



B200 Series Plain Outer Race



B500 Series with Circlip Grooves



### Dimensions

| Clutch Size | Nominal Torque <sup>(1)</sup> Nm | Max Shaft Overrun rpm | Dimensions    |      |                     |           | Approx Weight kg | Standard Bearing with same O.D. |
|-------------|----------------------------------|-----------------------|---------------|------|---------------------|-----------|------------------|---------------------------------|
|             |                                  |                       | A mm          | B mm | C <sup>(2)</sup> mm | D ins     |                  |                                 |
| B 203A      | 53                               | 2500                  | 39.99/39.95   | 25.4 | 16.51/16.49         | 1/8x1/16  | .23              | 6203                            |
| B 204A      | 68                               | 2500                  | 46.99/46.95   | 25.4 | 18.80/18.77         | 3/16x3/32 | .34              | 6204                            |
| B 205A      | 108                              | 2500                  | 51.98/51.94   | 25.4 | 23.62/23.60         | 3/16x3/32 | .34              | 6205                            |
| B 206A      | 237                              | 2000                  | 61.98/61.95   | 28.6 | 32.77/32.74         | 1/4x1/8   | .45              | 6206                            |
| B 207A      | 373                              | 2000                  | 71.99/71.95   | 28.6 | 42.09/42.06         | 1/4x1/8   | .57              | 6207                            |
| B 208A      | 550                              | 1800                  | 79.99/79.95   | 31.8 | 46.76/46.74         | 3/8x3/16  | .79              | 6208                            |
| B210A       | 780                              | 1800                  | 89.99/89.95   | 31.8 | 56.11/56.08         | 3/8x3/16  | .91              | 6210                            |
| B 501A      | 82                               | 2500                  | 39.99/39.97   | 25.4 | 16.51/16.50         | 1/8x1/16  | .23              | 6203                            |
| B 502       | 82                               | 2500                  | 46.96/46.94   | 22.2 | 18.75/18.74         | 1/4x1/8   | .34              | 6204                            |
| B 506       | 217                              | 2000                  | 61.96/61.94   | 25.4 | 28.79/28.77         | 1/4x1/8   | .34              | 6206                            |
| B 507A      | 217                              | 2000                  | 61.96/61.94   | 28.6 | 24.65/24.63         | 1/4x1/8   | .45              | 6206                            |
| B 509A      | 339                              | 2000                  | 71.96/71.94   | 31.8 | 28.79/28.77         | 1/4x1/8   | .68              | 6207                            |
| B 510A      | 339                              | 2000                  | 79.97/79.94   | 34.9 | 32.93/32.91         | 3/8x3/16  | .79              | 6208                            |
| B 511A      | 712                              | 2000                  | 79.97/79.94   | 41.3 | 34.99/34.97         | 3/8x3/16  | .91              | 6208                            |
| B 512A      | 882                              | 2000                  | 89.97/89.94   | 41.3 | 39.14/39.12         | 3/8x3/16  | .91              | 6210                            |
| B 513       | 1695                             | 1800                  | 120.65/120.62 | 44.4 | 51.96/51.94         | 1/2x1/4   | 1.13             | -                               |

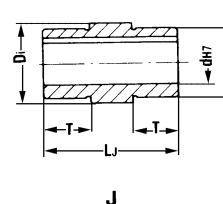
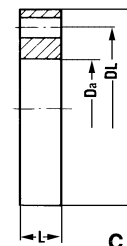
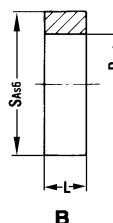
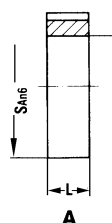
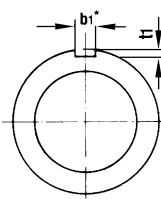
(1) Max torque capacity for short periods 1.7x torque.

(2) Required shaft diameter for correct operation. Shaft should be made from high tensile carburising steels hardened to 58-62 Rc with minimum case 1.2mm after grinding. Grind to 0.4 um surface finish, with parallelism within 0.2%.

### Inner and Outer Races for Standard Sprag Element

A range of standard inner and outer race for the most popular sizes of sprags, manufactured from carburised hardened steel with all faces finish ground. Maximum torque capacity of these races is controlled by the keys, and not sprag clutch rating. Housings for races should be manufactured to H7 tolerance

and shafts to j6. Race type B transmits torque through heavy press fit in housing. These races eliminate the need to harden shafts and housings, and enable servicing of machines by replacement after normal service wear.



| Type                        | Std Bore Sizes | Dimensions mm |           |     |    |    |     |        |                  |         |                 |      |    |    | For + Clutch Nos.          |
|-----------------------------|----------------|---------------|-----------|-----|----|----|-----|--------|------------------|---------|-----------------|------|----|----|----------------------------|
|                             |                | dH7*          | Da ±0.013 | SA  | Sc | L  | b1  | t1     | No. Holes x dia. | DL ±0.1 | Di +.008/-0.005 | D j6 | LG | LJ |                            |
| 230A/230B/230C<br>230G/230J | 10, 15, 20     | 54.750        | 72        | 95  | 16 | 6  | 3.5 | 8x7.0  | 78               | 39.092  | 35              | 16   | 50 | 17 | 133392                     |
| 167A/167B/167C<br>167G/167J | 20, 30, 35     | 71.427        | 90        | 110 | 16 | 10 | 5.0 | 8x9.0  | 95               | 54.765  | 50              | 16   | 54 | 19 | 1310172<br>1310226         |
| 168A/168B/168C<br>168G/168J | 40, 45, 50     | 88.882        | 110       | 140 | 21 | 14 | 5.5 | 8x11.0 | 120              | 72.217  | 65              | 21   | 63 | 62 | 1310080<br>13168<br>134012 |

\* Keyways to DIN 6885 sht. 1. + Races for other Sprag Clutches can be supplied to order.