



# SECTION 3

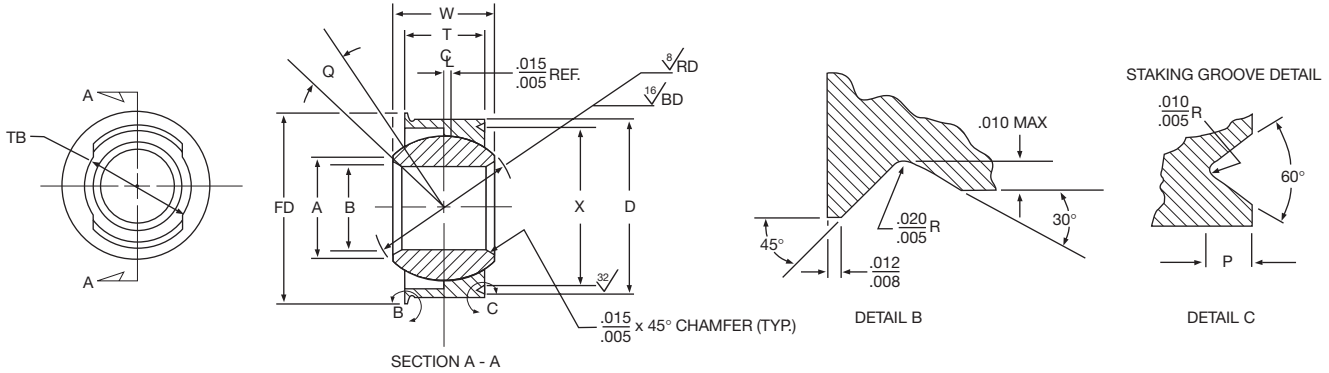
## LOADER SLOT BEARINGS

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| Rod End – 2-Piece Male Thread ..... | .26 |



# LOADER SLOT BEARINGS

## Plain



| Part Number | (B)<br>Bore Diameter | (D)<br>Outside Diameter | (W)<br>Ball Width | (T)<br>Race Width | (BD)<br>Ball Spherical Diameter | (RD)<br>Race Spherical Diameter | (A)<br>Ball Flat Diameter | (TB)<br>Thru Bore | (Q)<br>Mis-alignment | (FD)<br>Flange Diameter | (P)<br>V-Groove Depth | (X)<br>V-Groove Centerline | Radial Static Limit Load <sup>◇</sup> | Axial Static Limit Load <sup>◇</sup> | Weight |
|-------------|----------------------|-------------------------|-------------------|-------------------|---------------------------------|---------------------------------|---------------------------|-------------------|----------------------|-------------------------|-----------------------|----------------------------|---------------------------------------|--------------------------------------|--------|
|             | Inch                 | Inch                    | Inch              | Inch              | Inch                            | Inch                            | Inch                      | Inch              | Ref.                 | Inch                    | Inch                  | Inch                       | lbs.                                  | lbs.                                 | lbs.   |
|             | +0.000<br>-0.005     | +0.000<br>-0.005        | +0.000<br>-0.002  | +0.003<br>-0.003  | +0.0000<br>-0.0005              | +0.0005<br>-0.0000              | Ref.                      | +0.003<br>-0.003  |                      | +0.002<br>-0.002        | +0.004<br>-0.004      | +0.003<br>-0.003           |                                       | Ref.                                 | Ref.   |
| AMB3        | .1900                | .5625                   | .281              | .218              | .4060                           | .4070                           | .293                      | .360              | 10°                  | .582                    | .026                  | .494                       | 2820                                  | 995                                  | .02    |
| AMB4        | .2500                | .6562                   | .343              | .250              | .5000                           | .5010                           | .364                      | .449              | 12°                  | .676                    | .026                  | .588                       | 4880                                  | 1160                                 | .02    |
| AMB5        | .3125                | .7500                   | .375              | .281              | .5625                           | .5635                           | .419                      | .503              | 11°                  | .770                    | .026                  | .682                       | 8920                                  | 1320                                 | .03    |
| AMB6        | .3750                | .8125                   | .406              | .312              | .6250                           | .6260                           | .475                      | .563              | 10°                  | .852                    | .036                  | .714                       | 14260                                 | 1630                                 | .04    |
| AMB7        | .4375                | .9062                   | .437              | .343              | .7180                           | .7190                           | .572                      | .651              | 9°                   | .946                    | .036                  | .808                       | 20800                                 | 1810                                 | .05    |
| AMB8        | .5000                | 1.0000                  | .500              | .390              | .8125                           | .8135                           | .640                      | .733              | 9°                   | 1.040                   | .036                  | .902                       | 23800                                 | 2000                                 | .07    |
| AMB9        | .5625                | 1.0937                  | .562              | .437              | .8750                           | .8760                           | .671                      | .785              | 9°                   | 1.174                   | .056                  | .970                       | 26890                                 | 2550                                 | .09    |
| AMB10       | .6250                | 1.1875                  | .625              | .500              | .9680                           | .9690                           | .739                      | .875              | 9°                   | 1.267                   | .056                  | 1.064                      | 29070                                 | 2770                                 | .11    |
| AMB12       | .7500                | 1.4375                  | .750              | .593              | 1.1870                          | 1.1880                          | .920                      | 1.056             | 9°                   | 1.517                   | .056                  | 1.314                      | 35210                                 | 3350                                 | .21    |
| AMB14       | .8750                | 1.5625                  | .875              | .703              | 1.3120                          | 1.3130                          | .978                      | 1.138             | 9°                   | 1.642                   | .056                  | 1.439                      | 40500                                 | 3640                                 | .27    |
| AMB16       | 1.0000               | 1.7500                  | 1.000             | .797              | 1.5000                          | 1.5010                          | 1.118                     | 1.300             | 9°                   | 1.830                   | .056                  | 1.627                      | 46580                                 | 4080                                 | .39    |

◇ Static limit loads calculated are approximate values, based on the following:  
 Radial - .0018 inch pin deflection.  
 Axial - bearing push-out (of housing).

### Notes:

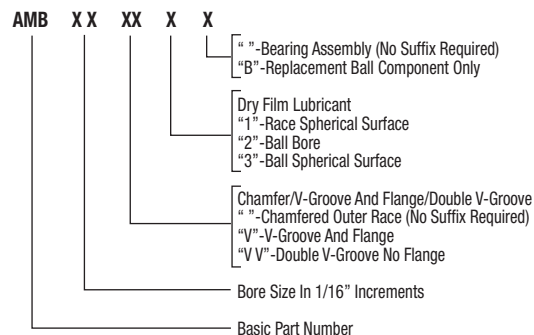
- Nitride or Malcomize spherical race ID.
- Balls rotate freely under finger pressure @ 72°F.
- Balls are fully interchangeable. No selective assembly allowed.
- Operating temperature range -65°F to 350°F.

### Materials (AMB)

| Part No.    | Ball                                  | Race                          |
|-------------|---------------------------------------|-------------------------------|
| Catalog No. | Stellite® #6<br>AMS 5387<br>Rc37 min. | 17-4PH<br>AMS 5643<br>Rc34-40 |

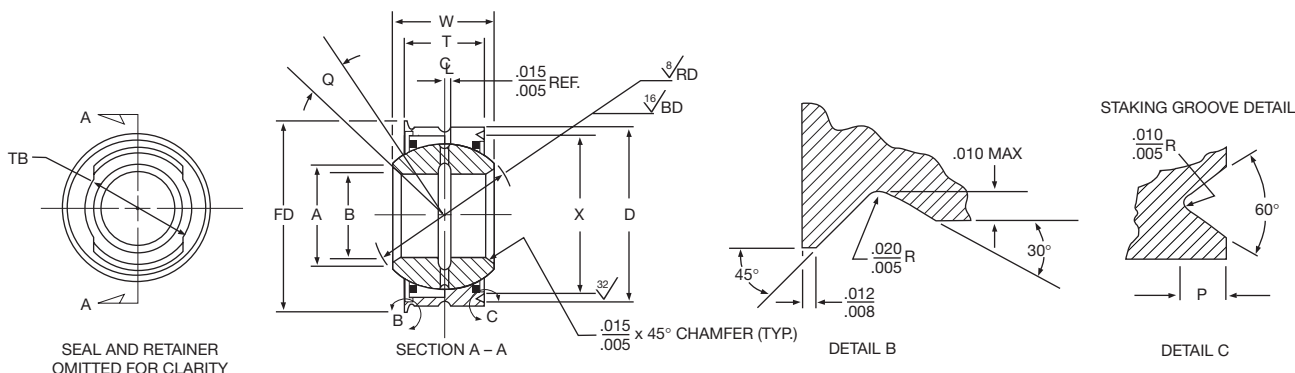
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### NHBB Part Numbering





# Sealed



| Part Number | (B)<br>Bore Diameter | (D)<br>Outside Diameter | (W)<br>Ball Width | (T)<br>Race Width | (BD)<br>Ball Spherical Diameter | (RD)<br>Race Spherical Diameter | (A)<br>Ball Flat Diameter | (TB)<br>Thru Bore | (Q)<br>Mis-alignment | (FD)<br>Flange Diameter | (P)<br>V-Groove Depth | (X)<br>V-Groove Centerline | Radial Static Limit Load <sup>◇</sup> | Axial Static Limit Load <sup>◇</sup> | Weight |
|-------------|----------------------|-------------------------|-------------------|-------------------|---------------------------------|---------------------------------|---------------------------|-------------------|----------------------|-------------------------|-----------------------|----------------------------|---------------------------------------|--------------------------------------|--------|
|             | Inch                 | Inch                    | Inch              | Inch              | Inch                            | Inch                            | Inch                      | Inch              | Ref.                 | Inch                    | Inch                  | Inch                       | lbs.                                  | lbs.                                 | lbs.   |
|             | +0.000<br>-0.005     | +0.000<br>-0.005        | +0.000<br>-0.002  | +0.002<br>-0.002  | +0.0000<br>-0.0003              | +0.0005<br>-0.0000              | +0.003<br>-0.003          |                   |                      | +0.002<br>-0.002        | +0.004<br>-0.004      | +0.003<br>-0.003           |                                       |                                      | Ref.   |
| AMBG4       | .2500                | .7500                   | .375              | .280              | .5625                           | .5635                           | .419                      | .515              | 11°                  | .770                    | .026                  | .682                       | 3650                                  | 1320                                 | .04    |
| AMBG5       | .3125                | .8125                   | .375              | .300              | .6250                           | .6260                           | .500                      | .574              | 7° 30'               | .852                    | .036                  | .714                       | 8370                                  | 1630                                 | .04    |
| AMBG6       | .3750                | .8750                   | .406              | .312              | .6865                           | .6875                           | .554                      | .635              | 8°                   | .915                    | .036                  | .777                       | 14200                                 | 1750                                 | .05    |
| AMBG7       | .4375                | .9375                   | .437              | .360              | .7500                           | .7510                           | .610                      | .698              | 6° 30'               | .977                    | .036                  | .839                       | 19900                                 | 1880                                 | .06    |
| AMBG8       | .5000                | 1.0000                  | .500              | .410              | .8125                           | .8135                           | .640                      | .740              | 7°                   | 1.040                   | .036                  | .902                       | 22750                                 | 2000                                 | .08    |
| AMBG9       | .5625                | 1.1250                  | .562              | .460              | .9060                           | .9070                           | .710                      | .814              | 7° 30'               | 1.205                   | .056                  | 1.002                      | 25690                                 | 2620                                 | .11    |
| AMBG10      | .6250                | 1.2500                  | .625              | .510              | 1.0000                          | 1.0010                          | .780                      | .900              | 7° 30'               | 1.330                   | .056                  | 1.127                      | 26530                                 | 2910                                 | .15    |
| AMBG12      | .7500                | 1.5000                  | .750              | .624              | 1.1875                          | 1.1885                          | .920                      | 1.075             | 7°                   | 1.580                   | .056                  | 1.377                      | 33640                                 | 3500                                 | .25    |
| AMBG14      | .8750                | 1.7500                  | .875              | .730              | 1.3750                          | 1.3760                          | 1.060                     | 1.238             | 7°                   | 1.830                   | .056                  | 1.627                      | 39140                                 | 4080                                 | .40    |
| AMBG16      | 1.0000               | 1.8750                  | 1.000             | .812              | 1.5625                          | 1.5635                          | 1.200                     | 1.410             | 8°                   | 1.955                   | .056                  | 1.752                      | 45790                                 | 4370                                 | .49    |
| AMBG18      | 1.1250               | 2.1250                  | 1.125             | .936              | 1.7500*                         | 1.7510                          | 1.340                     | 1.556             | 7° 30'               | 2.205                   | .056                  | 2.002                      | 50420                                 | 7960                                 | .73    |
| AMBG20      | 1.2500               | 2.3125                  | 1.250             | 1.030             | 1.9375*                         | 1.9385                          | 1.480                     | 1.720             | 8°                   | 2.392                   | .056                  | 2.189                      | 56870                                 | 8670                                 | .94    |
| AMBG22      | 1.3750               | 2.5625                  | 1.375             | 1.124             | 2.1250*                         | 2.1260                          | 1.620                     | 1.885             | 7° 30'               | 2.642                   | .056                  | 2.439                      | 62560                                 | 9610                                 | 1.27   |
|             | +0.010<br>-0.000     | +0.000<br>-0.008        | +0.000<br>-0.003  |                   | +0.0000<br>-0.0005              | +0.0006<br>-0.0000              |                           |                   |                      |                         |                       |                            |                                       |                                      |        |
| AMBG24      | 1.5000               | 2.8125                  | 1.500             | 1.250             | 2.3125*                         | 2.3135                          | 1.760                     | 2.030             | 7° 30'               | 2.892                   | .056                  | 2.689                      | 67280                                 | 10540                                | 1.70   |
| AMBG26      | 1.6250               | 3.0000                  | 1.625             | 1.350             | 2.5000*                         | 2.5010                          | 1.900                     | 2.190             | 7° 30'               | 3.080                   | .056                  | 2.877                      | 73060                                 | 11250                                | 2.07   |
| AMBG28      | 1.7500               | 3.1875                  | 1.750             | 1.450             | 2.6875                          | 2.6885                          | 2.040                     | 2.350             | 8°                   | 3.267                   | .056                  | 3.064                      | 78840                                 | 11950                                | 2.49   |
| AMBG30      | 1.8750               | 3.3750                  | 1.875             | 1.560             | 2.8750                          | 2.8760                          | 2.180                     | 2.505             | 7° 30'               | 3.455                   | .056                  | 3.252                      | 84150                                 | 12650                                | 2.96   |
| AMBG32      | 2.0000               | 3.6250                  | 2.000             | 1.680             | 3.1250                          | 3.1260                          | 2.401                     | 2.725             | 7°                   | 3.705                   | .056                  | 3.502                      | 88980                                 | 13590                                | 3.72   |

\* Ball spherical diameter tolerance +.0000/-0.0004.

◇ Static limit loads are calculated approximate values, based on the following: Radial - .0018 inch pin deflection. Axial - bearing push-out (of housing).

## Notes:

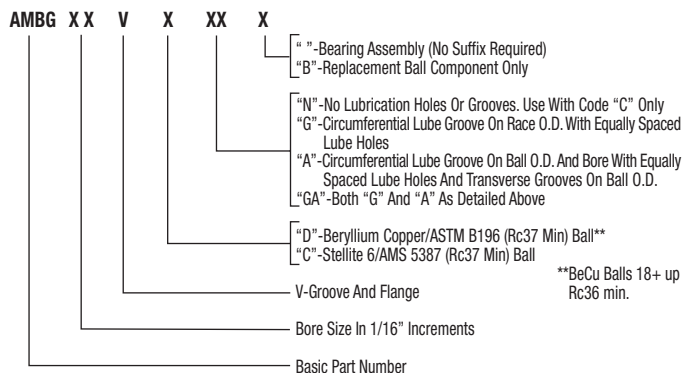
- Nitride or Malcomize spherical race ID.
- Balls rotate freely under finger pressure @ 72°F.
- Balls are fully interchangeable. No selective assembly allowed.
- Operating temperature range -65°F to 350°F.

## Materials (AMBG)

| Part Number     | Ball                                  | Race                          | Seal    | Retainer                      | Pellet/Patch |
|-----------------|---------------------------------------|-------------------------------|---------|-------------------------------|--------------|
| Catalog No. + D | BeCu<br>ASTM B196<br>Rc36 min.        | 17-4PH<br>AMS 5643<br>Rc34-40 | TEFLON® | 17-4PH<br>AMS 5643<br>Rc40-44 | Nylon        |
| Catalog No. + C | Stellite® #6<br>AMS 5387<br>Rc37 min. | "                             | "       | "                             | "            |

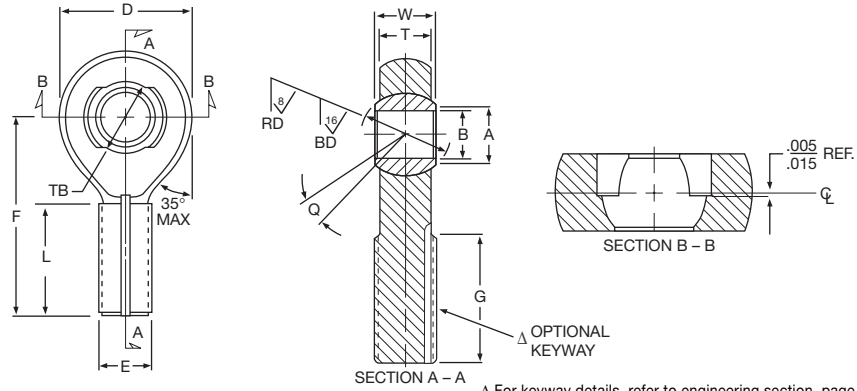
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## NHBB Part Numbering



# LOADER SLOT BEARINGS

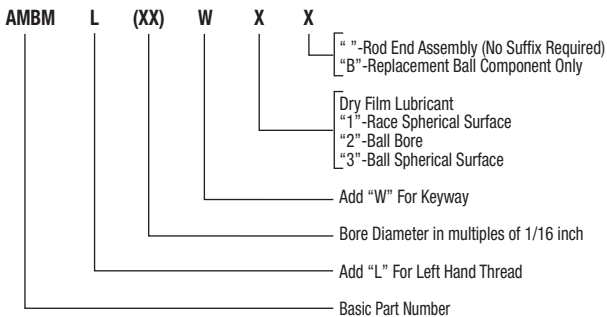
## Rod End – 2-Piece Male Thread



| Part Number | (B)<br>Bore Diameter     | (D)<br>Head Diameter   | (W)<br>Ball Width      | (T)<br>Body Width      | (BD)<br>Ball Spherical Diameter | (RD)<br>Rod End Spherical Diameter | (A)<br>Ball Flat Diameter | (Q)<br>Mis-alignment | (TB)<br>Thru Bore      | (F)<br>Ball C/L To End | (E)<br>Thread Size | (L)<br>Thread Length   | (G)<br>Keyway Flat     | Limit Static Radial Load | Ultimate Static Radial Load | Weight       |
|-------------|--------------------------|------------------------|------------------------|------------------------|---------------------------------|------------------------------------|---------------------------|----------------------|------------------------|------------------------|--------------------|------------------------|------------------------|--------------------------|-----------------------------|--------------|
|             | Inch<br>+.0000<br>-.0005 | Inch<br>+.010<br>-.010 | Inch<br>+.000<br>-.002 | Inch<br>+.010<br>-.010 | Inch<br>+.0000<br>-.0005        | Inch<br>+.0005<br>-.0000           | Inch<br>Ref.              | Ref.                 | Inch<br>+.003<br>-.003 | Inch<br>+.010<br>-.010 | UNJF-3A            | Inch<br>+.031<br>-.031 | Inch<br>+.020<br>-.020 | lbs.                     | lbs.                        | lbs.<br>Ref. |
| AMBM3       | .1900                    | .680                   | .281                   | .228                   | .4060                           | .4070                              | .293                      | 10°                  | .360                   | 1.315                  | 1/4-28             | .775                   | .896                   | 2820                     | 4950                        | .04          |
| AMBM4       | .2500                    | .827                   | .343                   | .260                   | .5000                           | .5010                              | .364                      | 10°                  | .449                   | 1.443                  | 1/4-28             | .775                   | .896                   | 3380                     | 7200                        | .05          |
| AMBM5       | .3125                    | .984                   | .375                   | .291                   | .5625                           | .5635                              | .419                      | 10°                  | .503                   | 1.948                  | 5/16-24            | 1.187                  | 1.308                  | 5440*                    | 11250                       | .08          |
| AMBM6       | .3750                    | 1.131                  | .406                   | .322                   | .6250                           | .6260                              | .475                      | 9°                   | .563                   | 2.030                  | 3/8-24             | 1.187                  | 1.308                  | 8380*                    | 15750                       | .12          |
| AMBM7       | .4375                    | 1.294                  | .437                   | .353                   | .7180                           | .7190                              | .530                      | 8°                   | .651                   | 2.250                  | 7/16-20            | 1.281                  | 1.402                  | 11320*                   | 19350                       | .17          |
| AMBM8       | .5000                    | 1.459                  | .500                   | .400                   | .8125                           | .8135                              | .600                      | 8°                   | .733                   | 2.544                  | 1/2-20             | 1.468                  | 1.589                  | 15420*                   | 25200                       | .25          |
| AMBM10      | .6250                    | 1.763                  | .625                   | .510                   | .9680                           | .9690                              | .739                      | 8°                   | .857                   | 2.832                  | 5/8-18             | 1.562                  | 1.683                  | 24910*                   | 40500                       | .46          |
| AMBM12      | .7500                    | 2.140                  | .750                   | .603                   | 1.1870                          | 1.1880                             | .920                      | 8°                   | 1.056                  | 3.193                  | 3/4-16             | 1.687                  | 1.808                  | 35210                    | 58500                       | .77          |
| AMBM14      | .8750                    | 2.372                  | .875                   | .713                   | 1.3120                          | 1.3130                             | .980                      | 8°                   | 1.138                  | 3.677                  | 7/8-14             | 2.000                  | 2.121                  | 40500                    | 78300                       | 1.14         |
| AMBM16      | 1.0000                   | 2.681                  | 1.000                  | .807                   | 1.5000                          | 1.5010                             | 1.118                     | 9°                   | 1.300                  | 3.968                  | 1-12               | 2.100                  | 2.221                  | 46580                    | 101250                      | 1.65         |

\*Shank limited.

### NHBB Part Numbering



### Notes:

- Nitride or Malcomize spherical body ID.
- Balls rotate freely under finger pressure @ 72°F.
- Balls are fully interchangeable. No selective assembly allowed.
- After limit load, slight crazing of the Nitride/Malcomized surface treatment may occur.

### Materials

| Part No.    | Ball                                    | Body  |
|-------------|---|---|
| Catalog No. | Stellite® #6,<br>AMS 5387,<br>Rc37 min. | 17-4PH<br>AMS 5643 or<br>AMS 5355,<br>Rc34-40 |

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