

These charts are guidelines for specifying shaft and housing fits related to particular operating conditions.

INNER RING – Automotive Equipment Class 4 and 2 (Inch)

Deviation from nominal (minimum)
bearing bore and resultant fit.

T= Tight
L = Loose

TABLE 78. TAPERED ROLLER BEARINGS – INNER RING
Automotive Equipment Classes 4 and 2 (Inch)

| Shaft O.D. | | | | | | | | | | |
|------------------|--------------------|---------------------------------------|---|--|--|--|--|--|--|--|
| Inner Ring Bore | | Tolerance | Stationary Inner Ring | | Rotating Inner Ring | | | | | |
| | | | Front Wheels Rear Wheel (Full-Floating Axles) Trailer Wheels | | Rear Wheels (Semi-Floating Axles) | | Rear Wheels (Unit-Bearing) (Semi-Floating Axles) | | | |
| | | | Non-adjustable | | | | | | | |
| | | | Shaft O.D. Deviation | Resultant Fit | Shaft O.D. Deviation | Resultant Fit | Shaft O.D. Deviation | Resultant Fit | | |
| Over | Incl. | | | | | | | | | |
| mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | | |
| 0.000 0.0000 | 76.200 3.0000 | 0.000 +0.0013 0.0000 +0.0005 | -0.005 -0.018 -0.0002 -0.0070 | 0.005L 0.031L 0.0002L 0.0012L | +0.051 +0.038 +0.0020 +0.0015 | 0.051T 0.025T 0.0020T 0.0010T | +0.056 +0.038 +0.0022 +0.0015 | 0.056T 0.025T 0.0022T 0.0010T | | |
| 76.200 3.0000 | 304.800 12.0000 | 0.000 +0.0025 0.0000 +0.0010 | -0.0013 -0.038 -0.0050 -0.0015 | 0.013L 0.063L 0.0005L 0.0025L | +0.076 +0.051 +0.0030 +0.0020 | 0.076T 0.026T 0.0030T 0.0010T | — | — | | |

TABLE 79. TAPERED ROLLER BEARINGS – OUTER RING
Automotive Equipment Classes 4 and 2 (Inch)

| Housing Bore | | | | |
|-------------------|--------------------|--------------------------------------|--|--|
| Outer Ring O.D. | | Tolerance | Rotating Outer Ring | |
| | | | Front Wheels | Rear Wheels (Full-Floating Trailer Wheels) |
| | | | Non-adjustable | |
| Over | Incl. | | Housing Bore Deviation | Resultant Fit |
| mm in. | mm in. | mm in. | mm in. | mm in. |
| 0.000 0.0000 | 76.200 3.0000 | +0.025 0.000 +0.0010 0.0000 | -0.051 -0.013 -0.0020 -0.0005 | 0.076T 0.013T 0.0030T 0.0005T |
| 76.200 3.0000 | 127.000 5.0000 | +0.025 0.000 +0.0010 0.0000 | -0.077 -0.025 -0.0030 -0.0010 | 0.102T 0.025T 0.0040T 0.0010T |
| 127.000 5.0000 | 304.800 12.0000 | +0.025 0.000 +0.0010 0.0000 | -0.077 -0.025 -0.0030 -0.0010 | 0.102T 0.025T 0.0040T 0.0010T |

TAPERED ROLLER BEARING RECOMMENDED FITTING PRACTICES

These charts are guidelines for specifying shaft and housing fits related to particular operating conditions.

| Shaft O.D. | | | | | | | | | |
|--|--|--|--|--|--|--|--|---|--|
| Rotating Inner Ring | | | | | | | | | |
| Pinion | | | | | | Differential | | Transaxles Transmissions Transfer Cases Cross Shafts | |
| Clamped | | Collapsible Spacer | | Non-adjustable | | Non-adjustable | | Non-adjustable | |
| Shaft O.D. Deviation | Resultant Fit | Shaft O.D. Deviation | Resultant Fit | Shaft O.D. Deviation | Resultant Fit | Shaft O.D. Deviation | Resultant Fit | Shaft O.D. Deviation | Resultant Fit |
| mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. |
| +0.025 +0.013 +0.0010 +0.0005 | 0.025T 0.000 0.0010T 0.0000 | +0.030 +0.018 +0.0012 +0.0007 | 0.030T 0.005T 0.0012T 0.0002T | +0.051 +0.038 +0.0020 +0.0015 | 0.051T 0.025T 0.0020T 0.0010T | +0.102 +0.064 +0.0040 +0.0025 | 0.102T 0.051T 0.0040T 0.0020T | +0.038 +0.025 +0.0015 +0.0010 | 0.038T 0.012T 0.0015T 0.0005T |
| +0.038 +0.013 +0.0015 +0.0005 | 0.038T 0.012T 0.0015T 0.0005T | — | — | +0.076 +0.051 +0.0030 +0.0020 | 0.076T 0.026T 0.0030T 0.0010T | +0.102 +0.076 +0.0040 +0.0025 | 0.102T 0.051T 0.0040T 0.0020T | +0.064 +0.038 +0.0025 +0.0015 | 0.064T 0.013T 0.0025T 0.0005T |

| Housing Bore | | | | | | | |
|--|--|--|--|--|--|--|--|
| Stationary Outer Ring | | | | | | | |
| Rear Wheels | | (Semi-Floating Axles) | | Differential (Split Seat) | | Transmissions Transfer Cases Cross Shafts | |
| Adjustable (TS) Clamped (TSU) | | Adjustable | | Adjustable | | Non-adjustable | |
| Housing Bore Deviation | Resultant Fit | Housing Bore Deviation | Resultant Fit | Housing Bore Deviation | Resultant Fit | Housing Bore Deviation | Resultant Fit |
| mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. | mm in. |
| +0.038 +0.076 +0.0015 +0.0030 | 0.013L 0.076L 0.0005L 0.0030L | +0.025 +0.051 +0.0010 +0.0020 | 0.000 0.051L 0.0000 0.0020L | 0.000 +0.025 0.000 +0.0010 | 0.025T 0.025L 0.0010T 0.0010L | -0.038 -0.013 -0.0015 -0.0005 | 0.063T 0.013T 0.0025T 0.0005T |
| +0.038 +0.076 +0.0015 +0.0030 | 0.013L 0.076L 0.0005L 0.0030L | +0.025 +0.051 +0.0010 +0.0020 | 0.000 0.051L 0.0000 0.0020L | 0.000 +0.025 0.0000 +0.0010 | 0.025T 0.025L 0.0010T 0.0010L | -0.051 -0.025 -0.0020 -0.0010 | 0.076T 0.025T 0.0030T 0.0010T |
| — | — | 0.000 +0.051 0.0000 +0.0020 | 0.025T 0.051L 0.0010T 0.0020L | 0.000 +0.051 0.0000 +0.0020 | 0.025T 0.051L 0.0010T 0.0020L | -0.077 -0.025 -0.0030 -0.0010 | 0.102T 0.025T 0.0040T 0.0010T |