

## NSK-TAPERED ROLLER BEARINGS

### METRIC DESIGN TAPERED ROLLER BEARINGS

Bore Diameter 15 -100mm

Bore Diameter 105 -240mm

Bore Diameter 260 - 440mm

### INCH DESIGN TAPERED ROLLER BEARINGS

Bore Diameter 12.000- 47 625mm

Bore Diameter 48.412 - 69 850mm

Bore Diameter 70.000 - 206.375mm

The index for inch design tapered roller bearings is in Appendix 14 (Page C26).

### DOUBLE-ROW TAPERED ROLLER BEARINGS

Bore Diameter 40 - 260mm:

Four-Row Tapered Roller Bearings are described on pages B334 to B339.

### DESIGN, TYPES, AND FEATURES

Tapered roller bearings are designed so the apices of the cones formed by the raceways of the cone and cup and the conical rollers all coincide at one point on the axis of the bearing. When a radial load is imposed, an axial force component occurs; therefore, it is necessary to use two bearings in contact opposition or some other multiple arrangement.

angle  
For metric-design medium-angle and steep-angle tapered roller bearings, the respective contact angle symbol C or D is added after the bore number. For normal-angle tapered roller bearings, no contact angle symbol is used. Medium-angle tapered roller bearings are primarily used for the pinion shafts of differential gears of automobiles.

Among those with high load capacity (HR series), some bearings have the basic number suffixed by J to conform to the specifications of ISO for the cup back face raceway diameter, cup width, and contact angle. Therefore, the cone assembly and cup of bearings with the same basic number suffixed by J are interationally interchangeable.

Among metric design tapered roller bearings specified by ISO 355, there are those having new dimensions that are different than the dimension series 3XX used in the past. Part of them are listed in the bearing tables. They conform to the specifications of ISO for the smaller end diameter of the cup and contact angle. The cone and cup assemblies are internationally interchangeable. The bearing number formulation, which is different than that for past metric design, is as follows

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