

33117 Single row tapered roller bearing



Single row tapered roller bearing

Single row tapered roller bearings are designed to accommodate combined radial and axial loads and provide low friction during operation. The inner ring, with rollers and cage, can be mounted separately from the outer ring. These separable and interchangeable components facilitate mounting, dismounting and maintenance. By mounting one single row tapered roller bearing against another and applying a preload, a rigid bearing application can be achieved.

- High radial and axial load carrying capacity
- Accommodate axial loads in one direction
- Low friction and long service life
- Separable and interchangeable components

Overview

Dimensions

| | |
|-------------------|----------|
| Bore diameter | 85 mm |
| Outside diameter | 140 mm |
| Width, total | 41 mm |
| Width, inner ring | 41 mm |
| Width, outer ring | 32 mm |
| Contact angle | 15.167 ° |

Performance

| | |
|---------------------------|--------------|
| Basic dynamic load rating | 268 kN |
| Basic static load rating | 340 kN |
| Reference speed | 3 600 r/min |
| Limiting speed | 4 500 r/min |
| SKF performance class | SKF Explorer |

Properties

| | |
|---|------------------|
| Bearing part | Complete bearing |
| Number of rows | 1 |
| Locating feature, bearing outer ring | None |
| Bore type | Cylindrical |
| Cage | Sheet metal |
| Arrangement of contact angle (double-row bearing) | Not applicable |
| Matched arrangement | No |
| Coating | Without |
| Sealing | Without |

Lubricant

None

Relubrication feature

Without

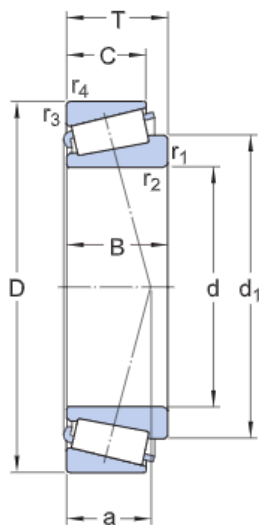
Technical Specification

SKF performance class

SKF Explorer

Dimension series

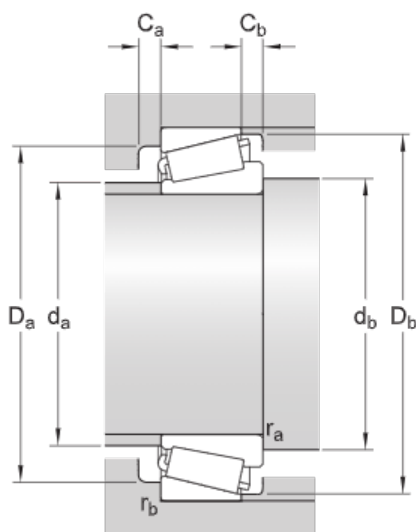
3DE



Dimensions

| | | |
|-----------|---------------------|--------------------------------------|
| d | 85 mm | Bore diameter |
| D | 140 mm | Outside diameter |
| T | 41 mm | Total width |
| d_1 | ≈ 112.93 mm | Shoulder diameter of inner ring |
| B | 41 mm | Width of inner ring |
| C | 32 mm | Width of outer ring |
| $r_{1,2}$ | min. 2.5 mm | Chamfer dimension of inner ring |
| $r_{3,4}$ | min. 2 mm | Chamfer dimension of outer ring |
| a | 32.436 mm | Distance side face to pressure point |

Abutment dimensions



| | | |
|-------|-------------|---|
| d_i | max. 95 mm | Diameter of shaft abutment |
| d_t | min. 97 mm | Diameter of shaft abutment |
| D_i | min. 122 mm | Diameter of housing abutment |
| D_o | max. 130 mm | Diameter of housing abutment |
| D_l | min. 135 mm | Diameter of housing abutment |
| C_i | min. 7 mm | Minimum width of space required in housing on large side face |
| C_l | min. 9 mm | Minimum width of space required in housing on small side face |
| r_a | max. 2.5 mm | Radius of shaft fillet |

| | |
|-----------------|--------------------------|
| r_b max. 2 mm | Radius of housing fillet |
|-----------------|--------------------------|

Calculation data

| | | |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C | 268 kN |
| Basic static load rating | C_0 | 340 kN |
| Fatigue load limit | P_u | 38 kN |
| Reference speed | | 3 600 r/min |
| Limiting speed | | 4 500 r/min |
| Limiting value | e | 0.4 |
| Calculation factor | Y | 1.5 |
| Calculation factor | Y_0 | 0.8 |

Mass

| | |
|------|---------|
| Mass | 2.43 kg |
|------|---------|

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