

## Technical data

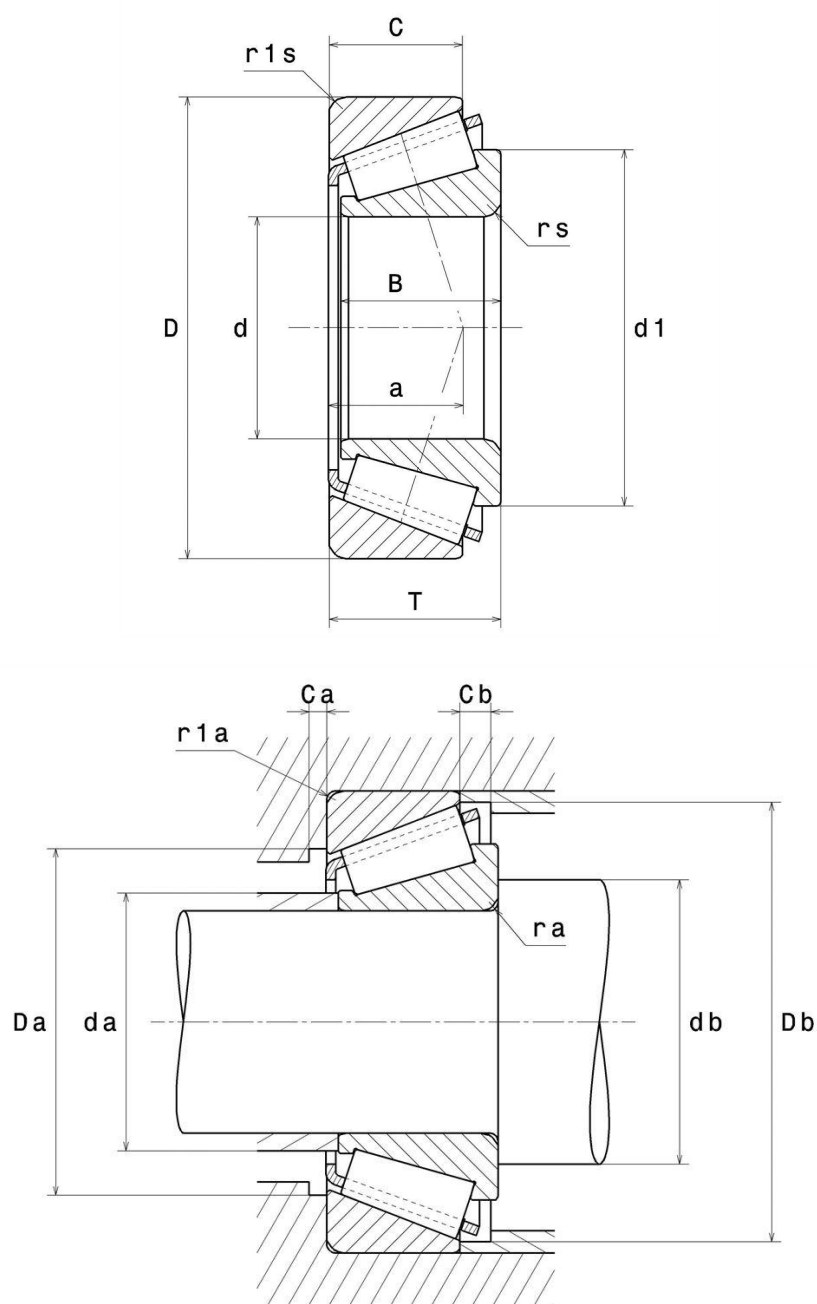
### 30220U

Single row tapered roller bearings

Tapered roller bearing, pressed steel cage



## VISUAL (S)



| PRODUCT DEFINITION                |          |
|-----------------------------------|----------|
| Brand                             | NTN      |
| d - Internal diameter             | 100 mm   |
| D - External diameter             | 180 mm   |
| B - Bearing/Inner ring width      | 34 mm    |
| C - Outer ring width              | 29 mm    |
| T - Total width                   | 37 mm    |
| d1 - External diameter inner ring | 135,5 mm |
| a - Charge load application point | 36 mm    |
| rs - Min fillet radius            | 3 mm     |
| r1s - Min fillet radius           | 2,5 mm   |
| Mass                              | 3,76 kg  |
| ISO 355 reference                 | T3FB100  |

| PRODUCT PERFORMANCE                    |              |
|----------------------------------------|--------------|
| C - Dynamic load                       | 286000000 mN |
| C0 - Static load                       | 335000000 mN |
| Cu - Fatigue limit load                | 37000000 mN  |
| A2 - Rating life coefficient           | 1            |
| e - Coefficient                        | 0.42         |
| Y0 - Static axial load coefficient     | 0.79         |
| Y2 - Upper axial load coefficient      | 1.43         |
| N lim - Oil lubrication limit speed    | 16200 °/s    |
| N lim - Grease lubrication limit speed | 12000 °/s    |
| Tmin - Min operating temperature       | 233,15 °K    |



## PRODUCT PERFORMANCE

|                                         |           |
|-----------------------------------------|-----------|
| <b>Tmax - Max operating temperature</b> | 393,15 °K |
|-----------------------------------------|-----------|

## ABUTMENT

|                                          |        |
|------------------------------------------|--------|
| <b>da max - Max shoulder diameter IR</b> | 116 mm |
| <b>db min - Min IR shoulder diameter</b> | 114 mm |
| <b>Da min - Min shoulder diameter OR</b> | 157 mm |
| <b>Da max - Max shoulder diameter OR</b> | 168 mm |
| <b>Db min - Min OR shoulder diameter</b> | 168 mm |
| <b>Ca - Min clearance</b>                | 5 mm   |
| <b>Cb - Min clearance</b>                | 8 mm   |
| <b>ra max - Max fillet radius</b>        | 2,5 mm |
| <b>r1a - Max fillet radius</b>           | 2 mm   |

## OE EQUIVALENTS

| Manufacturer    | Part number                 |
|-----------------|-----------------------------|
| <b>MAN</b>      | 06.32489-0032               |
| <b>Mercedes</b> | 004 981 2105   004 981 4905 |

## AUTOMOTIVE COMPATIBILITY

| Brand      | Model | Generation | Date       | Location | Position |
|------------|-------|------------|------------|----------|----------|
| <b>MAN</b> | CLA   | CLA        | 01/2006 => |          | Rear     |
| <b>MAN</b> | E2000 | E2000      | 05/2000 => |          | Rear     |
| <b>MAN</b> | EM    | EM         | 08/1987 => |          | Rear     |
| <b>MAN</b> | F2000 | F2000      | 01/1994 => |          |          |
| <b>MAN</b> | F2000 | F2000      | 01/1994 => |          | Rear     |



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| AUTOMOTIVE COMPATIBILITY |                  |               |                    |          |          |
|--------------------------|------------------|---------------|--------------------|----------|----------|
| Brand                    | Model            | Generation    | Date               | Location | Position |
| MAN                      | F2000            | F2000         | 06/1998 =>         |          | Front    |
| MAN                      | F90              | F90           | 07/1986 => 12/1997 |          | Rear     |
| MAN                      | F90<br>Unterflur | F90 Unterflur | 07/1986 => 05/1994 |          | Rear     |
| MAN                      | HOCL             | HOCL          | 01/1979 =>         |          | Rear     |
| MAN                      | M 2000 L         | M 2000 L      | 08/1995 =>         |          | Rear     |
| MAN                      | M 2000 M         | M 2000 M      | 08/1995 => 12/2005 |          | Rear     |
| MAN                      | M 2000 M         | M 2000 M      | 06/1998 => 12/2005 |          |          |
| MAN                      | NM               | NM            | 08/1987 =>         |          | Rear     |
| MAN                      | SL II            | SL II         | 07/2005 => 05/2014 |          | Rear     |
| MAN                      | SM               | SM            | 11/1987 => 02/1995 |          | Rear     |
| MAN                      | SÜ               | SÜ            | 09/2003 =>         |          | Rear     |
| MAN                      | TGA              | TGA           | 04/2000 =>         |          | Rear     |
| Mercedes                 | MK               | MK            | 12/1987 => 09/1996 |          | Rear     |
| Mercedes                 | NG               | NG            | 08/1973 => 09/1996 |          | Rear     |
| Mercedes                 | SK               | SK            | 07/1987 => 09/1996 |          |          |
| Mercedes                 | SK               | SK            | 07/1987 => 09/1996 |          | Rear     |
| Vauxhall                 | ZAFIRA           | ZAFIRA II     | 06/2013 =>         |          | Rear     |



INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$P = X.F_r + Y.F_a$

| $F_a / F_r \leq e$ |   | $F_a / F_r > e$ |    |
|--------------------|---|-----------------|----|
| X                  | Y | X               | Y  |
| 1                  | 0 | 0.4             | Y2 |

Equivalent static radial load

$P_0 = X_0.F_r + Y_0.F_a$

| $X_0$ | $Y_0$ |
|-------|-------|
| 0.5   | Y0    |

If  $P_0 \leq F_r$ , then use  $P_0 = F_r$

The values for e, Y2 and Y0 are shown in the above table

