

Technical data

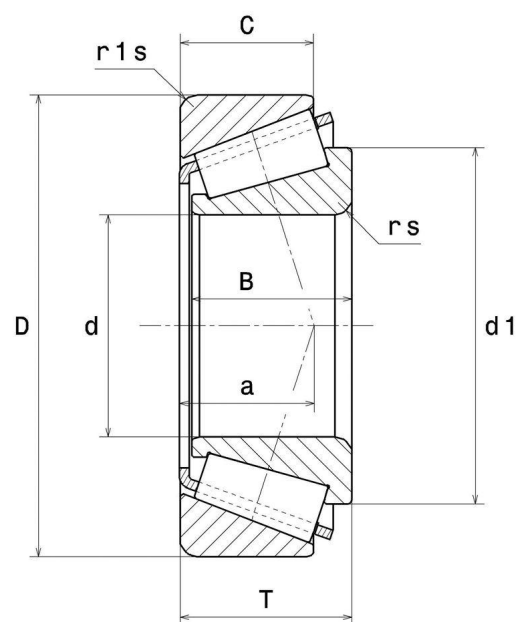
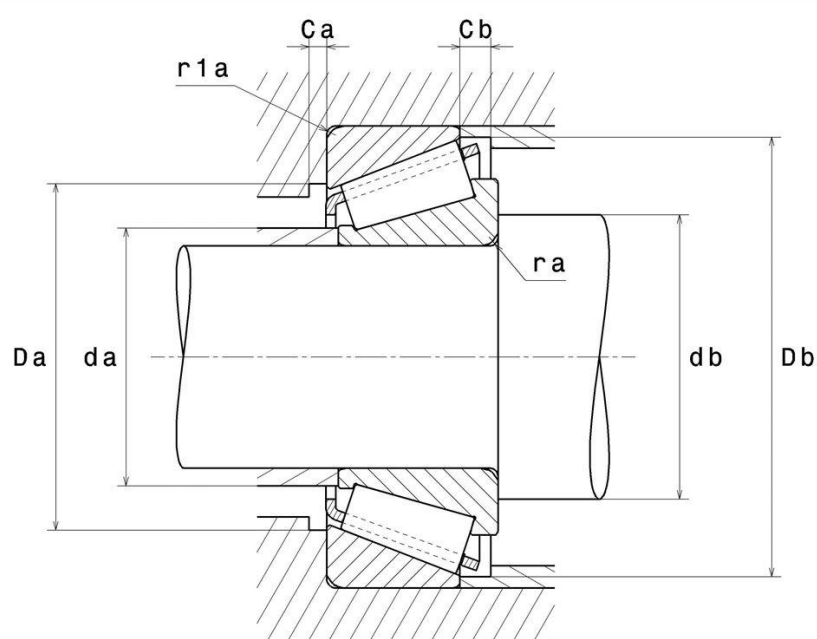
33021U

Single row tapered roller bearings



Tapered roller bearing, pressed steel cage

VISUAL (S)



33021U

Single row tapered roller bearings

PRODUCT DEFINITION

Brand	NTN
d - Internal diameter	105 mm
D - External diameter	160 mm
B - Bearing/Inner ring width	43 mm
C - Outer ring width	34 mm
T - Total width	43 mm
a - Charge load application point	31 mm
rs - Min fillet radius	2 mm
r1s - Min fillet radius	2 mm
Mass	3 kg
ISO 355 reference	T2DE105

PRODUCT PERFORMANCE

C - Dynamic load	272000000 mN
C0 - Static load	420000000 mN
Cu - Fatigue limit load	47000000 mN
A2 - Rating life coefficient	1
e - Coefficient	0.28
Y0 - Static axial load coefficient	1.17
Y2 - Upper axial load coefficient	2.12
N lim - Oil lubrication limit speed	16800 °/s
N lim - Grease lubrication limit speed	12600 °/s
Tmin - Min operating temperature	233,15 °K
Tmax - Max operating temperature	393,15 °K



NTN Europe

1 rue des Usines · BP 2017 · 74010 Annecy Cedex · France · Tel. +33 (0)4 50 65 30 00
 S.A. au capital de 322 639 919 € · RCS ANNECY B 325 821 072 · Id. Fiscale : FR 48 325 821 072
 SIRET 325 821 072 00015 · Code APE 2815 Z · Code NACE 28.15

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ABUTMENT	
da max - Max shoulder diameter IR	117 mm
db min - Min IR shoulder diameter	116 mm
Da max - Max shoulder diameter OR	150 mm
Db min - Min OR shoulder diameter	153 mm
ra max - Max fillet radius	2 mm
r1a - Max fillet radius	2 mm

OE EQUIVALENTS	
Manufacturer	Part number
MAN	81.93420.0287
Mercedes	005 981 4905
Renault Trucks	5010534617
Scania	3152068
Volvo	21631346

AUTOMOTIVE COMPATIBILITY					
Brand	Model	Generation	Date	Location	Position
MAN	E2000	E2000	05/2000 =>		Rear
MAN	EL	EL	01/1993 =>		Rear
MAN	F2000	F2000	01/1994 =>		
MAN	F2000	F2000	01/1994 =>		Rear
MAN	F2000	F2000	08/1995 =>		Front
MAN	F90	F90	07/1986 => 12/1997		Rear
MAN	F90 Unterflur	F90 Unterflur	07/1986 => 05/1994		Rear
MAN	HOCL	HOCL	01/1979 =>		Rear



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AUTOMOTIVE COMPATIBILITY					
Brand	Model	Generation	Date	Location	Position
MAN	LION'S CITY	LION'S CITY	10/2009 =>		Rear
MAN	LION'S COACH	LION'S COACH	09/1995 =>		Rear
MAN	LION'S STAR	LION'S STAR	01/1993 =>		Rear
MAN	M 2000 L	M 2000 L	08/1995 =>		Rear
MAN	M 2000 L	M 2000 L	05/2001 =>		
MAN	M 2000 M	M 2000 M	08/1995 => 12/2005		Rear
MAN	M90	M90	08/1988 => 06/1996		Rear
MAN	NG	NG	08/1992 =>		Rear
MAN	NL	NL	09/1989 =>		Rear
MAN	NM	NM	04/1992 => 03/1997		Rear
MAN	NÜ	NÜ	09/1996 =>		Rear
MAN	SL	SL	05/1980 => 04/1987		Rear
MAN	SR	SR	10/1975 => 11/1986		Rear
MAN	SÜ	SÜ	11/1982 =>		Rear
MAN	TGX I	TGX I	10/2012 =>		Rear
MAN	ÜL	ÜL	09/1989 =>		Rear
Mercedes	ACTROS	ACTROS	04/1996 => 10/2003		Rear
Mercedes	ATEGO	ATEGO	01/1998 => 10/2004		Rear
Mercedes	ATEGO 2	ATEGO 2	10/2004 =>		Rear
Mercedes	AXOR	AXOR	01/2002 => 10/2004		Rear
Mercedes	AXOR 2	AXOR 2	10/2004 =>		Rear



AUTOMOTIVE COMPATIBILITY					
Brand	Model	Generation	Date	Location	Position
Mercedes	CONECTO (O 345)	CONECTO (O 345)	11/2001 =>		Rear
Mercedes	ECONIC	ECONIC	10/2000 =>		Rear
Mercedes	LK/LN2	LK/LN2	01/1984 => 12/1998		Rear
Mercedes	MK	MK	12/1987 => 09/1996		
Mercedes	MK	MK	12/1987 => 09/1996		Rear
Mercedes	NG	NG	08/1973 => 09/1996		Rear
Mercedes	O 305	O 305	04/1973 => 05/1987		Rear
Mercedes	O 307	O 307	04/1973 => 08/1987		Rear
Mercedes	O 405	O 405	12/1984 =>		Rear
Mercedes	O 407	O 407	03/1987 => 11/2001		Rear
Mercedes	O 408	O 408	01/1991 => 12/1998		Rear
Mercedes	SK	SK	07/1987 => 09/1996		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

