

PDF technical sheet 4TJM205149A/JM205110

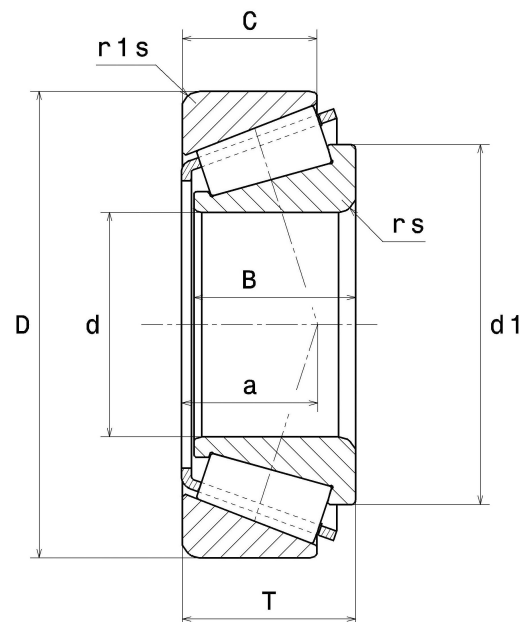


Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

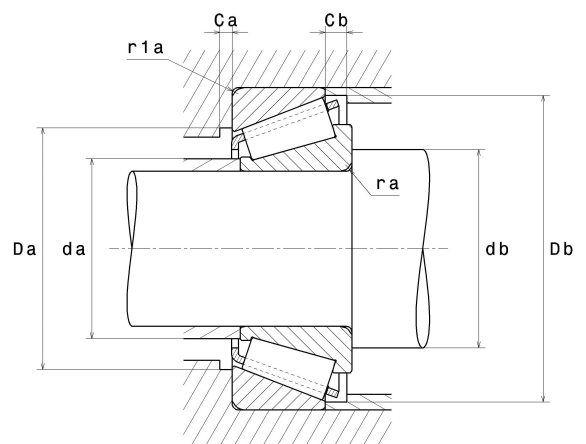
Product definition

d	1.9685 "
D	3.5433 "
B	1.1024 "
C	0.9055 "
T	1.1024 "
d1	2.7165 "
a	0.8110 "
e	0.33
Y2	1.82
Y0	1
Mass	2.63 oz
Brand	NTN



Product performance

Dynamic load, C	106 kN
Rating life coefficient, A2	1.4
Static load, C0	141 kN
Fatigue limit load, Cu	17.20 kN
Nlim (oil)	5,400 RPM
Nlim (grease)	4,100 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.43 Hz
Characteristic rolling element frequency, BSF	6.72 Hz
Characteristic outer ring frequency, BPF0	8.15 Hz
Characteristic inner ring frequency, BPFI	10.85 Hz



Abutment dimensions

ra max	0.1969 "
r1a max	0.0984 "

Calculation 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 $P_0 < F_r$, then use $P_0 = F_r$

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