

PDF technical sheet 64450/64700

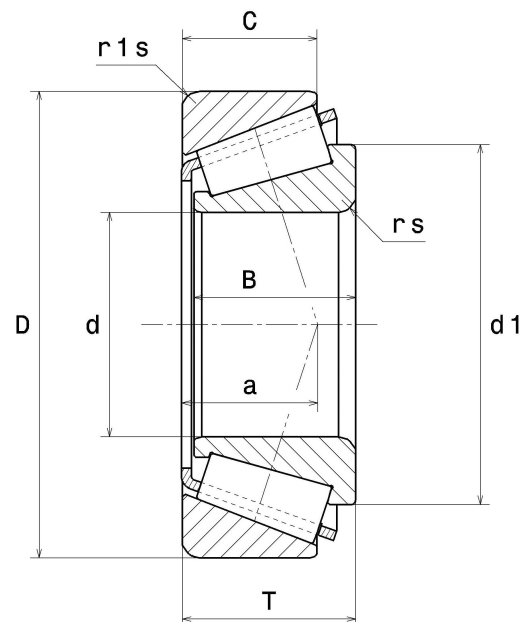


Single row tapered roller bearings

Tapered roller bearing, pressed steel cage

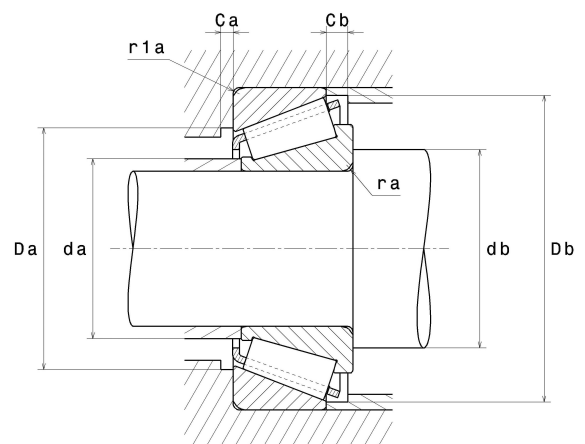
Product definition

d	4.5000 "
D	7.0000 "
B	1.6250 "
C	1.1875 "
T	1.6250 "
d1	5.7874 "
a	1.6683 "
e	0.52
Y2	1.16
Y0	0.64
Mass	12.42 oz
Brand	BOWER



Product performance

Dynamic load, C	232 kN
Rating life coefficient, A2	1.4
Static load, C0	375 kN
Fatigue limit load, Cu	40.90 kN
Nlim (oil)	2,600 RPM
Nlim (grease)	1,900 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	248 °C
Characteristic cage frequency, FTF	0.45 Hz
Characteristic rolling element frequency, BSF	9.63 Hz
Characteristic outer ring frequency, BPF0	11.29 Hz
Characteristic inner ring frequency, BPFI	13.72 Hz



Abutment dimensions

ra max	0.1378 "
r1a max	0.1299 "

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