



# KOYO PRECISION AXLE CORP.



## 85 mm x 120 mm x 18 mm SKF 71917 CD/HCP4AH1 angular contact ball bearings

Bearing No. 71917 CD/HCP4AH1

71917 CD/HCP4AH1 Bearing 2D drawings and 3D  
CAD models

Size	120x85x18 mm
Bore Diameter	120 mm
Outer Diameter	85 mm
Width	18 mm
d	85 mm
D	120 mm
B	18 mm
d <sub>1</sub>	95.8 mm
d <sub>2</sub>	95.8 mm
D <sub>1</sub>	109.2 mm
K	0.5 mm
C <sub>1</sub>	5.2 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	22.8 mm
d <sub>a</sub> - min.	91 mm
d <sub>b</sub> - min.	91 mm
D <sub>a</sub> - max.	114 mm
D <sub>b</sub> - max.	116 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	98.6 mm
Basic dynamic load rating - C	46.2 kN
Basic static load rating - C <sub>0</sub>	48 kN



## KOYO PRECISION AXLE CORP.

Fatigue load limit - $P_u$	2 kN
Limiting speed for grease lubrication	14000 r/min
Limiting speed for oil lubrication	20000 mm/min
Ball - $D_w$	11.112 mm
Ball - $z$	25
$G_{ref}$	7.2 cm <sup>3</sup>
Calculation factor - $f_0$	16.2
Preload class A - $G_A$	170 N
Preload class B - $G_B$	340 N
Preload class C - $G_C$	680 N
Preload class D - $G_D$	1360 N
Calculation factor - $f$	1.2
Calculation factor - $f$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.07
Calculation factor - $f_{2C}$	1.12
Calculation factor - $f_{2D}$	1.18
Calculation factor - $f_{HC}$	1.04
Preload class A	99 N/micron
Preload class B	135 N/micron
Preload class C	191 N/micron
Preload class D	279 N/micron
$d_1$	95.8 mm
$d_2$	95.8 mm
$D_1$	109.2 mm
$C_1$	5.2 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
$d_a$ min.	91 mm



## KOYO PRECISION AXLE CORP.

$d_b$ min.	91 mm
$D_a$ max.	114 mm
$D_b$ max.	116 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	98.6 mm
Basic dynamic load rating C	46.2 kN
Basic static load rating $C_0$	48 kN
Fatigue load limit $P_u$	2.04 kN
Attainable speed for grease lubrication	14000 r/min
Attainable speed for oil-air lubrication	20000 r/min
Ball diameter $D_w$	11.112 mm
Number of balls z	25
Reference grease quantity $G_{ref}$	7.2 cm <sup>3</sup>
Preload class A $G_A$	170 N
Static axial stiffness, preload class A	99 N/ $\mu$ m
Preload class B $G_B$	340 N
Static axial stiffness, preload class B	135 N/ $\mu$ m
Preload class C $G_C$	680 N
Static axial stiffness, preload class C	191 N/ $\mu$ m
Preload class D $G_D$	1360 N
Static axial stiffness, preload class D	279 N/ $\mu$ m
Calculation factor f	1.2
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.07
Calculation factor $f_{2C}$	1.12



## KOYO PRECISION AXLE CORP.

Calculation factor $f_{2D}$	1.18
Calculation factor $f_{HC}$	1.04
Calculation factor $f_0$	16.2
Mass bearing	0.45 kg