

31317/DF

Matched tapered roller bearings arranged face-to-face (X-arrangement, load lines diverge towards the bearing axis) accommodate high radial loads and axial loads in both directions. The precision manufactured intermediate ring between the outer rings enables a defined internal clearance or preload to be achieved when mounted. Matched tapered roller bearings are typically used in gearboxes, hoisting equipment, rolling mills, and machines in the mining industry.



- High radial load carrying capacity
- Designed for axial loads in both directions
- Relatively high stiffness
- Surface finish on the contact surfaces of the rollers and raceways that enhances operational reliability



Dimensions		
d	85 mm	Bore diameter
D	180 mm	Outside diameter
T	89 mm	Total width
2B	82 mm	Width of inner rings
b	15 mm	Width of lubrication groove
K	10 mm	Diameter of lubrication hole
r _{3,4}	min. 3 mm	Chamfer dimension
r ₅	min. 1 mm	Chamfer dimension



Abutment dimensions		
da	max. 104 mm	Diameter of shaft abutment
Da	min. 143 mm	Diameter of housing abutment
Da	max. 167.5 mm	Diameter of housing abutment
Ca	min. 5 mm	Minimum width of space required in housing on large side face

r_a	max. 4 mm	Radius of fillet
r_c	max. 1 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	510 kN
Basic static load rating	C_0	570 kN
Fatigue load limit	P_u	64 kN
Reference speed		2 200 r/min
Limiting speed		3 800 r/min
Limiting value	e	0.83
Calculation factor	Y_1	0.81
Calculation factor	Y_2	1.2
Calculation factor	Y_0	0.8

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal + CL7C, P5, total width
- Internal clearance: values

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit