

 **SNL 509 - Bearing housings**

Image may differ from product. See technical specification for details.

## SNL 509

### Split plummer (pillow) block housing, SNL 2, 3, 5 and 6 series

SNL plummer (pillow) block housings are the most popular SKF bearing housings on the market, developed to be the first choice for design, quality and economy. They enable the incorporated bearings to achieve maximum service life with less need for maintenance. Different housing variants and seal designs are available, making the use of tailored

housings virtually unnecessary and enabling cost-effective bearing arrangements to be made.

- Easy to install
- Cost-effective bearing arrangement
- Reduce maintenance
- Minimize lubricant leakage

Overview

Dimensions

|                                    |        |
|------------------------------------|--------|
| Diameter of bearing seat           | 85 mm  |
| Width of bearing seat              | 30 mm  |
| Centre height (pillow block)       | 60 mm  |
| Centre distance between bolt holes | 170 mm |
| Attachment bolt diameter           | 12 mm  |

Properties

|                                         |                         |
|-----------------------------------------|-------------------------|
| Housing type                            | Plummer/pillow block    |
| Housing configuration                   | Two-piece               |
| Mounting arrangement                    | Through shaft/Shaft end |
| Number of bolt holes for fasteners      | 2                       |
| Material, housing                       | Cast iron               |
| Bearing housing seal type               | Without                 |
| Housing lubrication feature/possibility | Grease                  |

Logistics

|                    |             |
|--------------------|-------------|
| Product net weight | 3.04 kg     |
| eClass code        | 23-05-17-01 |
| UNSPSC code        | 31171519    |

## Technical specification

 Dimensions - SNL 509

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Dimensions

BEARING SEAT

|                |       |                                          |
|----------------|-------|------------------------------------------|
| D <sub>a</sub> | 85 mm | Diameter of bearing seat                 |
|                | G7    | Tolerance class of bearing seat diameter |
| C <sub>a</sub> | 30 mm | Width of bearing seat                    |
| H <sub>1</sub> | 60 mm | Centre height of bearing seat            |

OUTSIDE DIMENSIONS

|                |             |                                   |
|----------------|-------------|-----------------------------------|
| D <sub>b</sub> | 56.5 mm     | Bore diameter                     |
| A              | 85 mm       | Overall width                     |
| A <sub>1</sub> | 60 mm       | Foot width                        |
| G <sub>1</sub> | 1/8-27 NPSF | Thread of relubrication holes     |
| H              | 109 mm      | Overall height                    |
| H <sub>2</sub> | 25 mm       | Foot height                       |
| L              | 205 mm      | Overall length                    |
| J              | 170 mm      | Distance between attachment bolts |

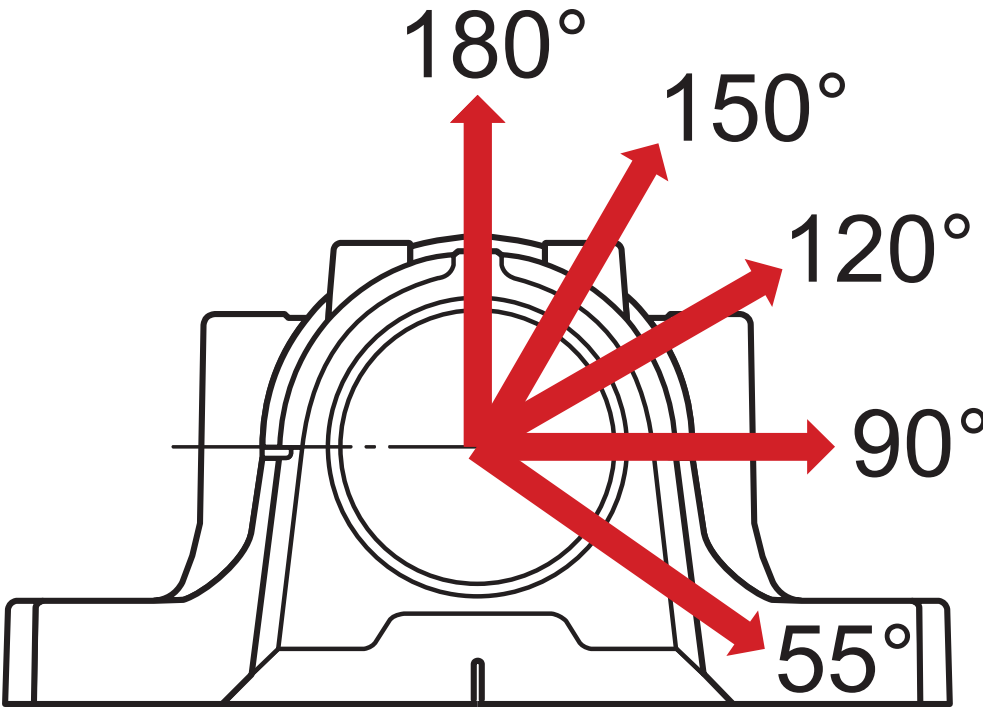
|                |       |                                |
|----------------|-------|--------------------------------|
| N              | 20 mm | Length of attachment bolt hole |
| N <sub>1</sub> | 15 mm | Width of attachment bolt hole  |

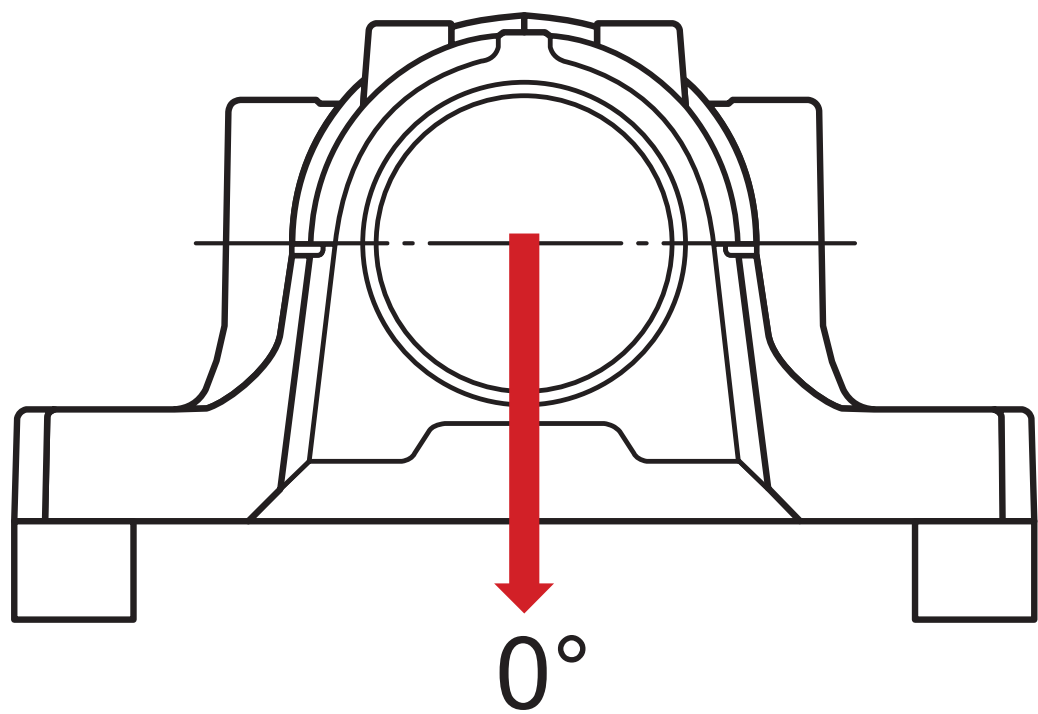
SEAL GROOVES

|                |         |                                   |
|----------------|---------|-----------------------------------|
| A <sub>3</sub> | 60 mm   | Inside width between seal grooves |
| A <sub>4</sub> | 5 mm    | Width of seal groove              |
| A <sub>5</sub> | 9 mm    | Distance to seal groove back face |
| A <sub>6</sub> | 12 mm   | Width at bore diameter            |
| D <sub>c</sub> | 64.5 mm | Diameter of seal groove           |

DOWEL PINS

|                |           |                             |
|----------------|-----------|-----------------------------|
| J <sub>6</sub> | 188 mm    | Distance between dowel pins |
| J <sub>7</sub> | 22 mm     | Axial offset of dowel pins  |
| N <sub>4</sub> | max. 6 mm | Diameter of dowel pins      |





Calculation data

BREAKING LOADS

|                   |        |                                                                                       |
|-------------------|--------|---------------------------------------------------------------------------------------|
| $P_{0^{\circ}}$   | 160 kN | Breaking load at 0° load angle (if the housing is not supported over its entire base) |
| $P_{55^{\circ}}$  | 230 kN | Breaking load at 55° load angle                                                       |
| $P_{90^{\circ}}$  | 140 kN | Breaking load at 90° load angle                                                       |
| $P_{120^{\circ}}$ | 100 kN | Breaking load at 120° load angle                                                      |
| $P_{150^{\circ}}$ | 90 kN  | Breaking load at 150° load angle                                                      |
| $P_{180^{\circ}}$ | 115 kN | Breaking load at 180° load angle                                                      |
| $P_a$             | 75 kN  | Breaking load, axial                                                                  |

YIELD POINTS OF CAP BOLTS

|                   |        |                                              |
|-------------------|--------|----------------------------------------------|
| $Q_{120^{\circ}}$ | 150 kN | Load to reach yield point at 120° load angle |
| $Q_{150^{\circ}}$ | 85 kN  | Load to reach yield point at 150° load angle |
| $Q_{180^{\circ}}$ | 75 kN  | Load to reach yield point at 180° load angle |

Materials

|                      |                                                                 |
|----------------------|-----------------------------------------------------------------|
| Housing material     | Cast iron                                                       |
| Corrosion protection | Paint - in accordance with ISO 12944-2, corrosivity category C2 |

Mounting information

|                                                    |   |        |
|----------------------------------------------------|---|--------|
| Recommended diameter of attachment bolts           | G | 12 mm  |
| Recommended tightening torque for attachment bolts |   | 80 N·m |
| Size of cap bolts                                  |   | M10x50 |
| Tightening torque for cap bolts                    |   | 50 N·m |
| Initial grease fill, 20%                           |   | 40 g   |
| Initial grease fill, 40%                           |   | 60 g   |

Included products

|                |               |
|----------------|---------------|
| Grease fitting | AH 1/8-27 PTF |
|----------------|---------------|



More Information

|  Designs and variants |  Product details |  Tools |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <a href="#">Standard housing design</a>                                                                | <a href="#">Permissible misalignment</a>                                                          | <a href="#">SKF Product select</a>                                                        |
| <a href="#">Housing variants</a>                                                                       | <a href="#">Typical shaft-bearing combinations</a>                                                | <a href="#">SimPro Quick</a>                                                              |
| <a href="#">Sealing solutions</a>                                                                      | <a href="#">Locating/non-locating support</a>                                                     | <a href="#">Tool and Accessory Selector for sleeves and shafts</a>                        |
|                                                                                                        | <a href="#">Loads</a>                                                                             | <a href="#">LubeSelect for SKF greases</a>                                                |
|                                                                                                        | <a href="#">Temperature limits</a>                                                                | <a href="#">Drive-up Method Program</a>                                                   |
|                                                                                                        | <a href="#">Permissible speed</a>                                                                 | <a href="#">Heater selection tool</a>                                                     |
|                                                                                                        | <a href="#">Lubrication</a>                                                                       | <a href="#">Oil Injection Method Program</a>                                              |
|                                                                                                        | <a href="#">Mounting</a>                                                                          |                                                                                           |
|                                                                                                        | <a href="#">Condition monitoring</a>                                                              |                                                                                           |
|                                                                                                        | <a href="#">Associated products</a>                                                               |                                                                                           |
|                                                                                                        | <a href="#">Ordering information</a>                                                              |                                                                                           |
|                                                                                                        | <a href="#">Designation system</a>                                                                |                                                                                           |



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