

# Spanners and sockets

Easy mounting and dismounting without nut damage

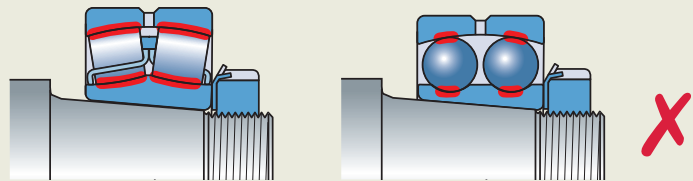


## Interference fits on tapered shafts

Bearings mounted on tapered seatings achieve their interference fit by being driven up the tapered shaft. Care should be taken to ensure the bearing is not driven up too far, as all the internal clearance may be removed and damage to the bearing is possible.

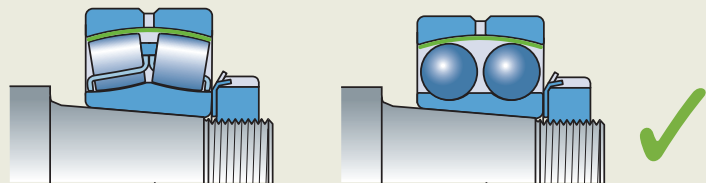
### Incorrect mounting

Bearing driven up too far and all clearance removed; damage possible.



### Correct mounting

Bearing driven up the correct distance and the right clearance is achieved.



The comprehensive range of SKF spanner and sockets are used to tighten and loosen many types and sizes of bearing lock nuts, for bearings mounted directly on a shaft or on sleeves.



Exact spanner radius reduces the risk of nut damage

### SKF Hook Spanners HN series

- Minimises the risk of shaft and nut damage
- Plastic handle is oil, grease and dirt resistant to provide a better grip
- The plastic handle minimises direct metal to skin contact, reducing the risk of corrosion in the handle area
- Spanner designation is laser-engraved allowing for easy identification and selection
- Available as a set: SKF HN 4-16/SET containing 9 spanners for lock nut sizes 4 up to 16

#### Contents SKF HN 4-16/SET

|        |          |       |
|--------|----------|-------|
| HN 4   | HN 8-9   | HN 14 |
| HN 5-6 | HN 10-11 | HN 15 |
| HN 7   | HN 12-13 | HN 16 |

### Selection chart – HN series

| Designation | Suitable for the following series of SKF lock nuts |        |            |            |            |            |                                    |
|-------------|--|--------|------------|------------|------------|------------|------------------------------------|
|             | KM   | N      | AN         | KMK        | KMFE       | KMT        | DIN 1804 (M)                       |
| HN 0        | 0  | 0      |            | 0          |            |            | M6×0,75, M8×1                      |
| HN 1        | 1  | 1      |            | 1          |            |            |                                    |
| HN 2-3      | 2, 3   | 2, 3   |            | 2, 3       |            | 0          | M10×1, M12×1,5                     |
| HN 4        | 4  | 4      |            | 4          | 4          | 1, 2       | M14×1,5, M16×1,5                   |
| HN 5-6      | 5, 6   | 5, 6   |            | 5, 6       | 5, 6       | 3, 4, 5    | M22×1,5, M24×1,5, M26×1,5          |
| HN 7        | 7  | 7      |            | 7          | 7          | 6, 7       | M28×1,5, M30×1,5, M32×1,5, M35×1,5 |
| HN 8-9      | 8, 9   | 8, 9   |            | 8, 9       | 8, 9       | 8          | M38×1,5, M40×1,5, M42×1,5          |
| HN 10-11    | 10, 11   | 10, 11 |            | 10, 11     | 10, 11     | 9, 10      | M45×1,5, M48×1,5, M50×1,5          |
| HN 12-13    | 12, 13   | 12, 13 |            | 12, 13     | 12, 13     | 11, 12     | M52×1,5, M55×1,5, M58×1,5, M60×1,5 |
| HN 14       | 14   | 14     |            | 14         | 14         |            |                                    |
| HN 15       | 15   |        | 15         | 15         | 15         | 13, 14     | M62×1,5, M65×1,5, M68×1,5, M70×1,5 |
| HN 16       | 16   |        | 16         | 16         | 16         | 15         |                                    |
| HN 17       | 17   |        | 17         | 17         | 17         | 16         | M72×1,5, M75×1,5, M80×2            |
| HN 18-20    | 18, 19, 20   |        | 18, 19, 20 | 18, 19, 20 | 18, 19, 20 | 17, 18, 19 | M85×2, M90×2                       |
| HN 21-22    | 21, 22   | 22     | 21, 22     |            | 21, 22     | 20, 22     | M95×2, M100×2                      |

### Technical data – HN series

| Designation | Spanner design<br>DIN 1810 | Outer diameter lock nut |       | Designation | Spanner design<br>DIN 1810 | Outer diameter lock nut |         |         |
|-------------|----------------------------|-------------------------|-------|-------------|----------------------------|-------------------------|---------|---------|
|             |                            | mm                      | in.   |             |                            | mm                      | in.     |         |
| HN 0        |                            |                         | 16–20 | 0.6–0.8     | HN 12-13                   | Ø80–Ø90                 | 80–90   | 3.1–3.5 |
| HN 1        | Ø20–Ø22                    |                         | 20–22 | 0.8–0.9     | HN 14                      |                         | 92      | 3.6     |
| HN 2-3      | Ø25–Ø28                    |                         | 25–28 | 1.0–1.1     | HN 15                      | Ø95–Ø100                | 95–100  | 3.7–3.9 |
| HN 4        | Ø30–Ø32                    |                         | 30–32 | 1.2–1.3     | HN 16                      |                         | 105     | 4.1     |
| HN 5-6      |                            |                         | 38–45 | 1.5–1.8     | HN 17                      | Ø110–Ø115               | 110–115 | 4.3–4.5 |
| HN 7        | Ø52–Ø55                    |                         | 52–55 | 2.0–2.2     | HN 18-20                   | Ø120–Ø130               | 120–130 | 4.7–5.1 |
| HN 8-9      |                            |                         | 58–65 | 2.3–2.6     | HN 21-22                   | Ø135–Ø145               | 135–145 | 5.3–5.7 |
| HN 10-11    | Ø68–Ø75                    |                         | 68–75 | 2.7–3.0     |                            |                         |         |         |



## Four sizes for tightening or loosening up to 24 nut sizes SKF Adjustable Hook Spanners HNA series

- One hook spanner covers several nut sizes, making it suitable for use with many applications
- Economic solution: 4 hook spanners cover a wide range of nut sizes
- Laser engraved designation, which represents the range of nut sizes covered by each spanner, allows easy selection of the correct spanner
- Versatile: suitable for a wide selection of lock nuts
- Minimises the risk of shaft and nut damage

### Selection chart and technical data – HNA series

| Designation | Outer diameter lock nut |         | Suitable for the following series of SKF lock nuts |       |      |       |       |       |       |
|-------------|-------------------------|---------|--|-------|------|-------|-------|-------|-------|
|             | mm                      | in.     | KM   | KML   | N    | AN    | KMK   | KMFE  | KMT   |
| HNA 1-4     | 20–35                   | 0.8–1.4 | 1–4  |       | 1–4  |       | 0–4   | 4     | 0–2   |
| HNA 5-8     | 35–60                   | 1.4–2.4 | 5–8  |       | 4–8  |       | 5–8   | 5–8   | 3–7   |
| HNA 9-13    | 60–90                   | 2.4–3.5 | 9–13   |       | 9–13 |       | 9–13  | 9–13  | 8–12  |
| HNA 14-24   | 90–150                  | 3.5–6.1 | 14–24  | 24–26 |      | 15–24 | 14–20 | 14–24 | 13–24 |



Easy and quick bearing mounting and dismounting in SNL housings

## SKF Hook Spanners HN ../SNL series

- Unique design allows the SKF HN ../SNL series to be used inside SKF SNL, FSNL, SNH and SE bearing housings
- Suitable for tightening and loosening a wide selection of lock nuts, facilitating their use in a wide range of housing and shaft applications
- The large contact area of the spanner around the nut provides excellent grip and force transmission
- Exact fit reduces the risk of shaft, nut and housing damage



### Selection chart and technical data

| Designation | Outer diameter lock nut |      | Suitable for SKF housings<br>SNL / FSNL / SNH / SE | Suitable for the following series of SKF lock nuts |     |                 |                  |                   |      |                   |
|-------------|-------------------------|------|--|--|-----|-----------------|------------------|-------------------|------|-------------------|
|             | mm                      | in.  |  | KM   | KML | N <sup>1)</sup> | AN <sup>1)</sup> | KMK <sup>1)</sup> | KMFE | KMT <sup>1)</sup> |
| HN 5/SNL    | 38                      | 1.50 | 505, 506–605                                       | 5  |     | 5               |                  | 5                 | 5    | 4                 |
| HN 6/SNL    | 45                      | 1.77 | 506–605, 507–606                                   | 6  |     | 6               |                  | 6                 | 6    | 5, 6              |
| HN 7/SNL    | 52                      | 2.05 | 507–606, 508–607                                   | 7  |     | 7               |                  | 7                 | 7    | 7                 |
| HN 8/SNL    | 58                      | 2.28 | 508–607, 510–608                                   | 8  |     | 8               |                  | 8                 | 8    |                   |
| HN 9/SNL    | 65                      | 2.56 | 509, 511–609                                       | 9  |     | 9               |                  | 9                 | 9    | 8                 |
| HN 10/SNL   | 70                      | 2.76 | 510–608, 512–610                                   | 10   |     | 10              |                  | 10                | 10   | 9                 |
| HN 11/SNL   | 75                      | 2.95 | 511–609, 513–611                                   | 11   |     | 11              |                  | 11                | 11   | 10                |
| HN 12/SNL   | 80                      | 3.15 | 512–610, 515–612                                   | 12   |     | 12              |                  | 12                | 12   |                   |
| HN 13/SNL   | 85                      | 3.35 | 513–611, 516–613                                   | 13   |     | 13              |                  | 13                | 13   | 11, 12            |
| HN 15/SNL   | 98                      | 3.86 | 515–612, 518–615                                   | 15   |     |                 | 15               | 15                | 15   | 13, 14            |
| HN 16/SNL   | 105                     | 4.13 | 516–613, 519–616                                   | 16   |     |                 | 16               | 16                | 16   | 15                |
| HN 17/SNL   | 110                     | 4.33 | 517, 520–617                                       | 17   |     |                 | 17               | 17                | 17   | 16                |
| HN 18/SNL   | 120                     | 4.72 | 518–615  | 18   |     |                 | 18               | 18                | 18   | 17                |
| HN 19/SNL   | 125                     | 4.92 | 519–616, 522–619                                   | 19   |     |                 | 19               | 19                | 19   | 18                |
| HN 20/SNL   | 130                     | 5.12 | 520–617, 524–620                                   | 20   |     | 22              | 20, 21           | 20                | 20   | 19, 20            |
| HN 22/SNL   | 145                     | 5.71 | 522–619  | 22   | 24  | 24              | 22               |                   | 22   | 22                |
| HN 24/SNL   | 155                     | 6.10 | 524–620  | 24   | 26  | 26              | 24               |                   | 24   | 24                |
| HN 26/SNL   | 165                     | 6.50 | 526  | 26   | 28  | 28              | 26               |                   | 26   | 26, 28            |
| HN 28/SNL   | 180                     | 7.09 | 528  | 28   | 30  | 30              |                  |                   |      | 30                |
| HN 30/SNL   | 195                     | 7.68 | 530  | 30   | 32  | 34              | 30               |                   |      | 32, 34            |
| HN 32/SNL   | 210                     | 8.27 | 532  | 32   |     | 36              |                  |                   |      | 36                |

<sup>1)</sup> Not recommended for use in combination with SNL/SNH housing



## Easy mounting and dismounting without nut damage SKF Axial Lock Nut Sockets TMFS series

- Requires less space around the bearing arrangement than hook spanners
- Inch connections for power tools or torque wrenches
- SKF TMFS fits nuts of series KM, KMK (metric) and KMF
- Special versions are available on request



### Selection chart and technical data

| Designation | Suitable for the following series of SKF lock nuts |      |              | Dimensions                 |     |                          |     | Connection       |     |     |
|-------------|--|------|--------------|----------------------------|-----|--------------------------|-----|------------------|-----|-----|
|             | KM,<br>KMK   | KMFE | DIN 1804 (M) | Outer diameter<br>lock nut |     | Outer diameter<br>socket |     | Effective height |     |     |
|             |  |      |              | mm                         | in. | mm                       | in. | mm               | in. | in. |
| TMFS 0      | 0 <sup>1)</sup>                                    |      |              | 18                         | 0.7 | 22,0                     | 0.9 | 45               | 1.8 | 3/8 |
| TMFS 1      | 1  |      |              | 22                         | 0.9 | 28,0                     | 1.1 | 45               | 1.8 | 3/8 |
| TMFS 2      | 2  |      | M10×1        | 25                         | 1.0 | 33,0                     | 1.3 | 61               | 2.4 | 1/2 |
| TMFS 3      | 3  |      | M12×1,5      | 28                         | 1.1 | 36,0                     | 1.4 | 61               | 2.4 | 1/2 |
| TMFS 4      | 4  | 4    | M16×1,5      | 32                         | 1.3 | 38,0                     | 1.5 | 58               | 2.3 | 1/2 |
| TMFS 5      | 5  | 5    |              | 38                         | 1.5 | 46,0                     | 1.8 | 58               | 2.3 | 1/2 |
| TMFS 6      | 6  | 6    | M26×1,5      | 45                         | 1.8 | 53,0                     | 2.1 | 58               | 2.3 | 1/2 |
| TMFS 7      | 7  | 7    |              | 52                         | 2.0 | 60,0                     | 2.4 | 58               | 2.3 | 1/2 |
| TMFS 8      | 8  | 8    | M38×1,5      | 58                         | 2.3 | 68,0                     | 2.7 | 58               | 2.3 | 1/2 |
| TMFS 9      | 9  | 9    |              | 65                         | 2.6 | 73,5                     | 2.9 | 63               | 2.5 | 3/4 |
| TMFS 10     | 10   | 10   |              | 70                         | 2.8 | 78,5                     | 3.1 | 63               | 2.5 | 3/4 |
| TMFS 11     | 11   | 11   |              | 75                         | 3.0 | 83,5                     | 3.3 | 63               | 2.5 | 3/4 |
| TMFS 12     | 12   | 12   |              | 80                         | 3.1 | 88,5                     | 3.5 | 63               | 2.5 | 3/4 |
| TMFS 13     | 13   | 13   |              | 85                         | 3.3 | 94,0                     | 3.7 | 63               | 2.5 | 3/4 |
| TMFS 14     | 14   | 14   |              | 92                         | 3.6 | 103,0                    | 4.1 | 80               | 3.2 | 1   |
| TMFS 15     | 15   | 15   |              | 98                         | 3.9 | 109,0                    | 4.3 | 80               | 3.2 | 1   |
| TMFS 16     | 16   | 16   |              | 105                        | 4.1 | 116,0                    | 4.6 | 80               | 3.2 | 1   |
| TMFS 17     | 17   | 17   |              | 110                        | 4.3 | 121,0                    | 4.8 | 80               | 3.2 | 1   |
| TMFS 18     | 18   | 18   |              | 120                        | 4.7 | 131,0                    | 5.2 | 80               | 3.2 | 1   |
| TMFS 19     | 19   | 19   |              | 125                        | 4.9 | 137,0                    | 5.5 | 80               | 3.2 | 1   |
| TMFS 20     | 20   | 20   |              | 130                        | 5.1 | 143,0                    | 5.7 | 80               | 3.2 | 1   |

<sup>1)</sup> KM 0 only



High impact forces without nut damage

## SKF Impact Spanners TMFN series

- Designed for safely tightening and loosening a wide selection of larger lock nuts
- Not intended to be used to drive bearings up a tapered seating
- Helps avoid shaft and nut damage
- Safe and user friendly
- Impact applied effectively to the nut
- Special wide impact face
- To be used in combination with a hammer

### Suitable for the following series of SKF lock nuts

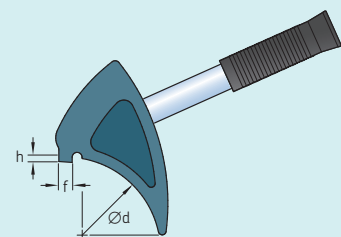
| Designation  | KMT .. | KM .. | KML .. | KMFE .. | HM .. (HM .. E) | HM .. T       | AN ..     | N ..      | DIN 1804 (M)       |
|--------------|--------|-------|--------|---------|-----------------|---------------|-----------|-----------|--------------------|
| TMFN 23-30   | 26-30  | 23-31 | 26-32  | 24-28   |                 |               | AN22-AN28 | N022-N032 | M105x2-M130x3      |
| TMFN 30-40   | 32-40  | 32-40 | 34-40  | 30-38   |                 |               | AN30-AN38 | N034-N040 | M140x3-M180x3      |
| TMFN 40-52   |        |       |        | 40      | 3044-3052       | 42-48         | AN40      | N044-N052 | N44 M190x3, M200x3 |
| TMFN 52-64   |        |       |        |         | 3056-3064       | 3160          |           | N056-N064 |                    |
| TMFN 64-80   |        |       |        |         | 3068-3084       | 3164-3176     |           | N068-N084 |                    |
| TMFN 80-500  |        |       |        |         | 3088-3096       | 3180-3196     | 30/500    | N088-N096 | N500               |
| TMFN 500-600 |        |       |        |         | 30/530-30/630   | 31/500-31/560 |           | N530-N630 |                    |
| TMFN 600-750 |        |       |        |         | 30/670-30/800   | 31/600-31/750 |           | N670-N800 |                    |

### Suitable for the following series of SKF adapter sleeves

| Designation  | H 23..           | H 30..                        | H 31..                 | H32                 | H39                                 |
|--------------|------------------|-------------------------------|------------------------|---------------------|-------------------------------------|
| TMFN 23-30   | H2324-H2332L     | H3024E-H3032                  | H3124-H3130L           |                     | H3926-H3932                         |
| TMFN 30-40   | H2332-H2340      | H3030E, H3034-H3040           | H3132-H3140L           |                     | H3934-H3940                         |
| TMFN 40-52   | OH2344H, OH2348H | OH3044H-OH3052H               | H3144H(HTL)-H3152HTL   |                     | H3944H-H3952H                       |
| TMFN 52-64   | OH2352H, OH2356H | OH3056H-OH3064H               | OH3152H-OH3160H        | OH3260H             | OH3956H-OH3964H                     |
| TMFN 64-80   |                  | OH3068H-OH3084H               | OH3164H-OH3176H(E)     | OH3264H-OH3276H     | OH3968H-OH3984H(E)                  |
| TMFN 80-500  |                  | OH30/500H,<br>OH3080H-OH3096H | OH3180H(E)-OH3196H(E)  | OH3280H-OH3296H     | OH39/500H(E),<br>OH3988H-OH3996H(E) |
| TMFN 500-600 |                  | OH30/530H-OH30/630H           | OH31/530H-OH31/560H(E) | OH32/500H-OH32/560H | OH39/530H(E)-OH39/630H(E)           |
| TMFN 600-750 |                  | OH30/670H-OH30/800H(E)        | OH31/600H-OH31/750H(E) | OH32/600H-OH32/750H | OH39/670H(E)-OH39/800H(E)           |

### Technical data

| Designation  | d   |       | f    |      | h   |      |
|--------------|-----|-------|------|------|-----|------|
|              | mm  | in.   | mm   | in.  | mm  | in.  |
| TMFN 23-30   | 148 | 5.83  | 11,5 | 0.45 | 4,4 | 0.17 |
| TMFN 30-40   | 193 | 7.60  | 13,5 | 0.53 | 5,3 | 0.21 |
| TMFN 40-52   | 248 | 9.76  | 16   | 0.63 | 6,5 | 0.26 |
| TMFN 52-64   | 316 | 12.44 | 19   | 0.75 | 8,5 | 0.33 |
| TMFN 64-80   | 396 | 15.59 | 23   | 0.91 | 11  | 0.43 |
| TMFN 80-500  | 516 | 20.31 | 28   | 1.10 | 13  | 0.51 |
| TMFN 500-600 | 626 | 24.65 | 36   | 1.42 | 16  | 0.63 |
| TMFN 600-750 | 746 | 29.37 | 40   | 1.57 | 19  | 0.75 |





For achieving the correct radial clearance

## SKF Bearing Lock Nut Spanner TMHN 7 series

The SKF TMHN 7 set of lock nut spanners is especially designed for mounting self-aligning ball bearings as well as small spherical roller and CARB toroidal roller bearings on tapered seatings. Using the SKF TMHN 7, minimises the risk of over-tightening of the lock nut, which can remove the bearing's radial clearance resulting in bearing damage.

- 7 different-sized spanners to fit nut sizes 5 to 11
- Each spanner is equipped with a protractor and is clearly marked with the correct tightening angle for mounting SKF Self-aligning ball bearings
- 4 grip points on each spanner provide a better and safer grip on the nut
- Reduced risk of damaging bearing by over-tightening
- Suitable for use with lock nuts of the KM series either on shaft or in SNL housings

### TMHN 7 is suitable for use with:

#### Bearing designation

1205 EK-1211 EK  
 1306 EK-1311 EK  
 2205 EK-2211 EK  
 2306 K  
 2307 EK-2309 EK  
 2310 K-2311 K

### Technical data

#### Designation

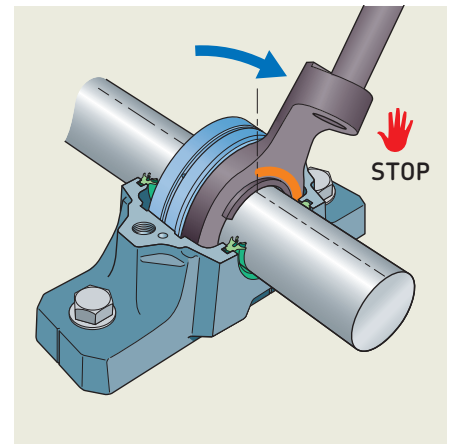
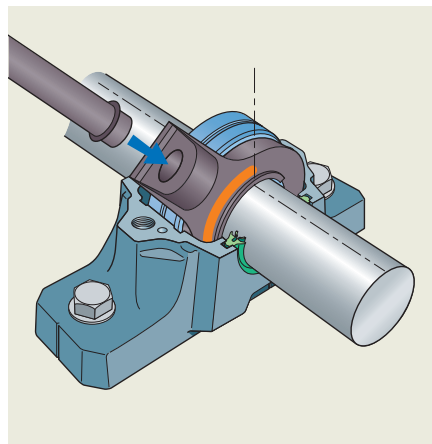
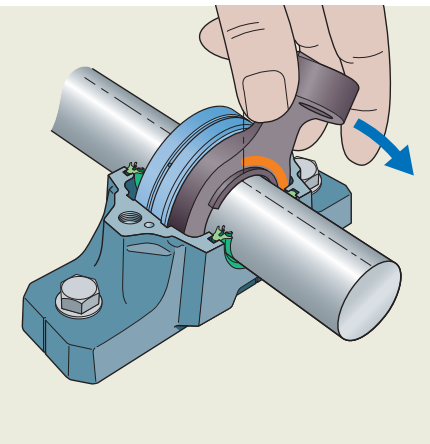
TMHN 7

#### Carrying case dimensions

345 × 255 × 85 mm  
 (13.6 × 10.0 × 3.3 in.)

#### Weight

2,2 kg (4.7 lb)





[skf.com](http://skf.com) | [mapro.skf.com](http://mapro.skf.com) | [skf.com/lubrication](http://skf.com/lubrication)

© SKF is a registered trademark of the SKF Group.

© SKF Group 2017  
The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB MP/P8 13074/2 EN · August 2017