

**FAG**  
Rolling Bearings

# A Classic with a Future

FAG Bottom Bracket Bearings · In millions of bicycles



# World Champions choose FAG Bottom Bracket Bearings

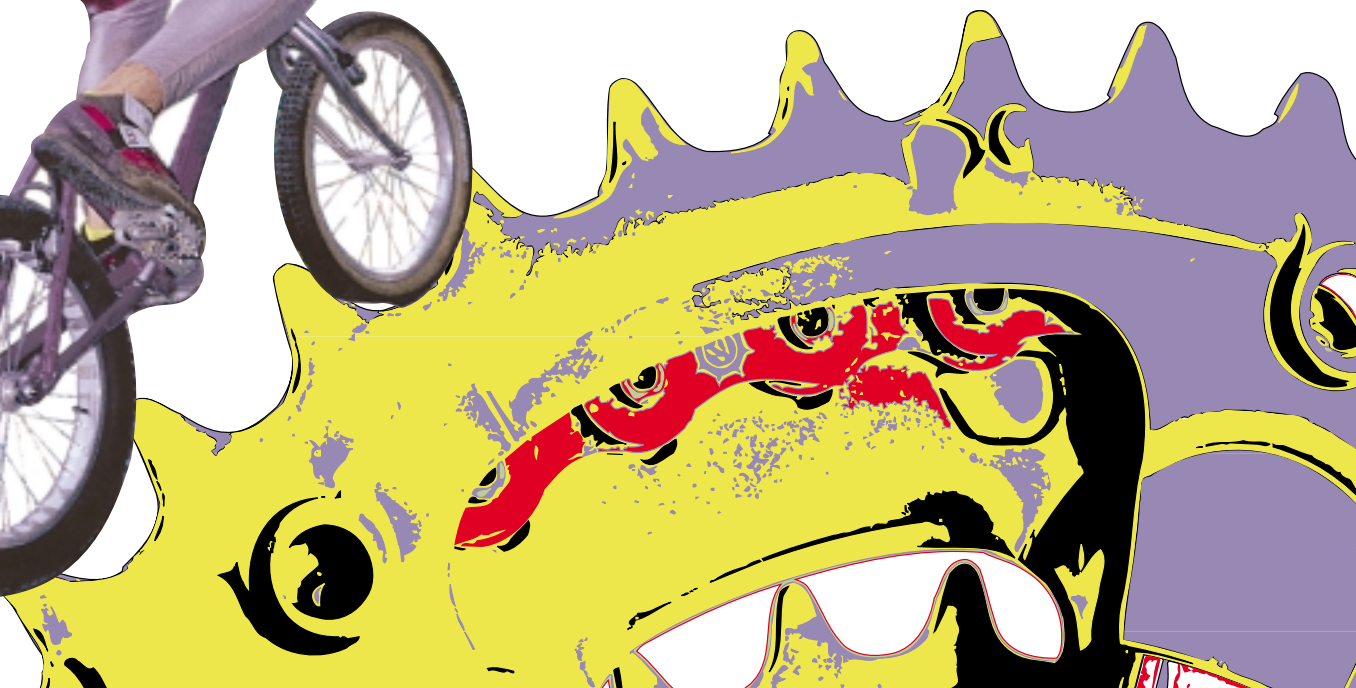


Last year's Bike Trial World Championship provided an excellent opportunity for FAG bottom bracket bearings to once again prove their outstanding quality. The first six places in the Elite Class were taken by trial bikes equipped with FAG bottom bracket bearings. The Master Class of the 26-inch bikes was also dominated by bicycles equipped with FAG bottom bracket bearings. Place one as well as

places three to five were secured with FAG bottom bracket bearings. The tremendous strain on cyclist and material constitutes a unique challenge. FAG bottom bracket bearings are up to such a strain, which was once again proved at this world championship. That kind of quality is not a matter of pure chance for FAG bottom bracket bearings are DIN plus certified.

## Benefits at a glance

- • nicely priced, ready-to-mount unit
- • easy mounting
- • no clearance adjustment
- • sealed and greased for life
- • maintenance-free
- • DIN plus certified





## Easy mounting Compact construction

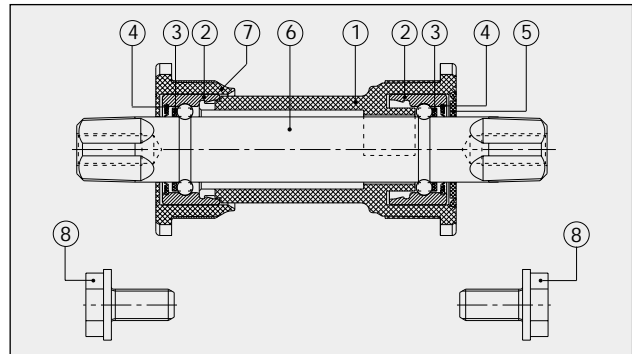
FAG bottom bracket bearings are ready to mount. The fitter has just two parts to either screw or press into the frame – a long flanged sleeve accommodating the spindle and the bearings and a short flanged sleeve. Dumping up to ten parts of a conventional bearing out of a package onto the work bench is a thing of the past.

The flanged sleeves of glass-fibre reinforced polyamide are designed for a safe connection with the bearing outer rings.

The inner ball raceways which are ground into the spindle are hardened. The spindle, which is protected against corrosion, is guided by the precision ball bearings with a specified minimum clearance set during production. The clearance need no longer be adjusted during assembly nor readjusted after a certain running time. This is one advantage which is particularly obvious to those of us whose patience has been taxed when adjusting or readjusting the bearing clearance.

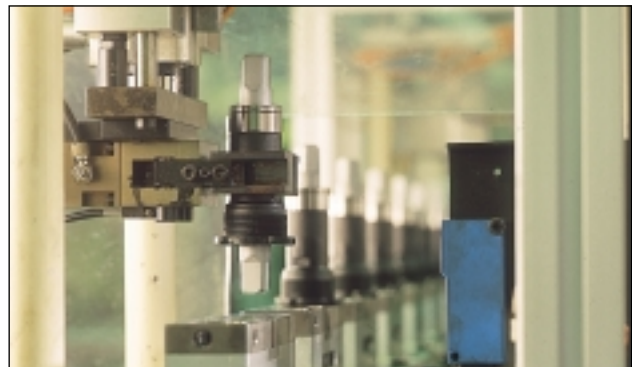
The ball bearings are greased for life. They need never be replenished and are maintenance-free. The special rolling bearing grease ensures positive running properties and a long service life.

Special low-friction rubber-lip seals in the outer rings prevent grease from escaping and, at the same time, dirt and water from penetrating into the bottom bracket bearings. The extended face of the short flanged sleeve and a shield in the long flanged sleeve add to the sealing effect.



- |                               |                          |
|-------------------------------|--------------------------|
| 1 = long flanged sleeve       | 5 = shield               |
| 2 = deep groove ball bearings | 6 = spindle              |
| 3 = snap-type cages           | 7 = short flanged sleeve |
| 4 = rubber-lip seals          | 8 = bolts                |

The two bolts for axially securing the cranks on the square seat are also supplied.



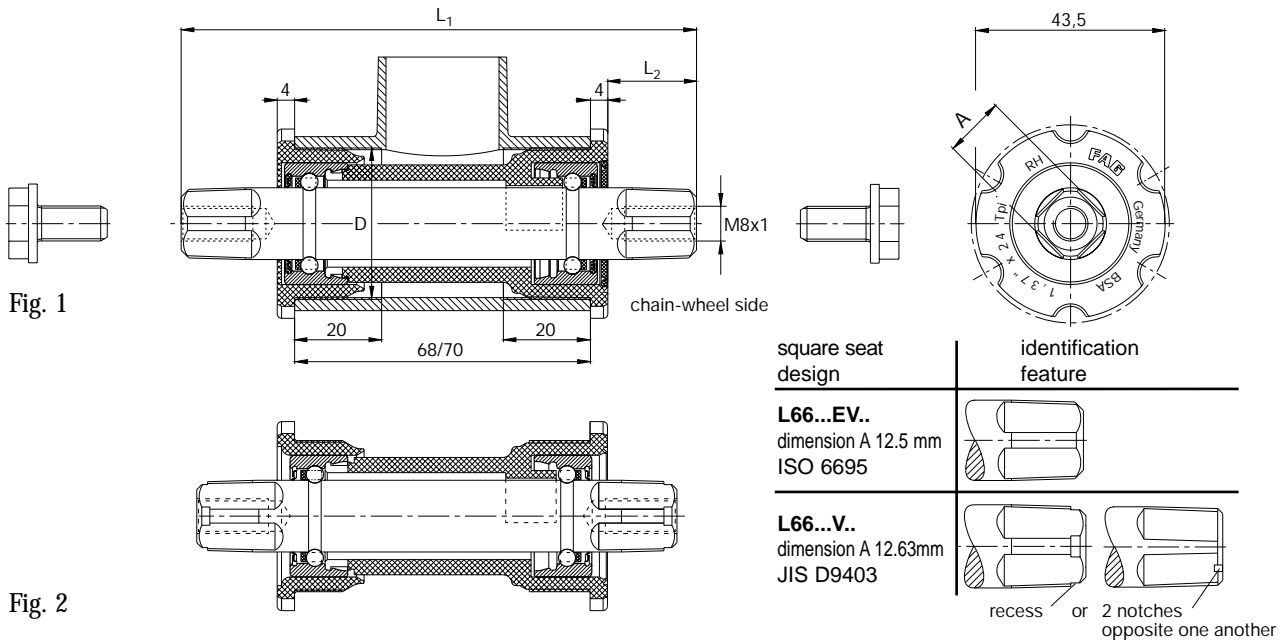
The source of success lies not alone in a well thought out construction but also in modern production facilities, quality assurance and logistics.



FAG bottom bracket bearings are supplied individually wrapped or in boxes with 34 (L66 BSA-...) or 30 (L66 THO-...) pieces.

# FAG bottom bracket bearings for screwing in with BSA thread

## Delivery programme · Codes · Tools · Components



Frame Threaded bore D (mm)	Spindle				FAG code	Fig.
	length		tapered square seat			
	L <sub>1</sub> (mm)	L <sub>2</sub> (mm)	A (mm)			
			L66...V..	L66...EV..		
BSA 1.37"x24Tpi left/right chain-wheel side left-hand thread opposite side right-hand thread	110.5	16	12.63		<b>L66BSO-V110.5/16BE</b>	2
	113	18	12.63		<b>L66BSA-V113/18BE</b>	1
	114.5	20		12.5	<b>L66BSA-EV114.5/20AE</b>	1
	116	21	12.63		<b>L66BSA-V116/21AE</b>	1
	119	23	12.63		<b>L66BSA-V119/23AE</b>	1
	119	23		12.5	<b>L66BSA-EV119/23AE</b>	1
	122.5	24	12.63		<b>L66BSA-V122.5/24AE</b>	1
	122.5	24		12.5	<b>L66BSA-EV122.5/24AE</b>	1
	127	25.5	12.63		<b>L66BSA-V127/25AE</b>	1
	127	25.5		12.5	<b>L66BSA-EV127/25AE</b>	1
	132	28	12.63		<b>L66BSA-V132/28AE</b>	1
132	28		12.5	<b>L66BSA-EV132/28AE</b>	1	

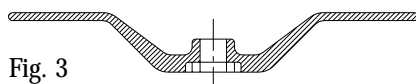


Fig. 3

Handle wrench		<b>WKZG.564414</b>	3
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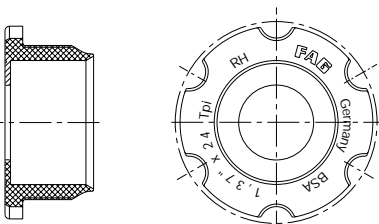


Fig. 4

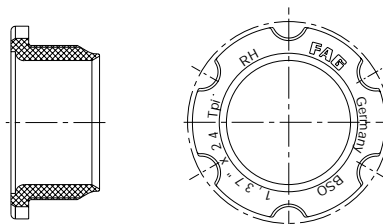


Fig. 5

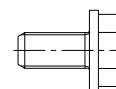
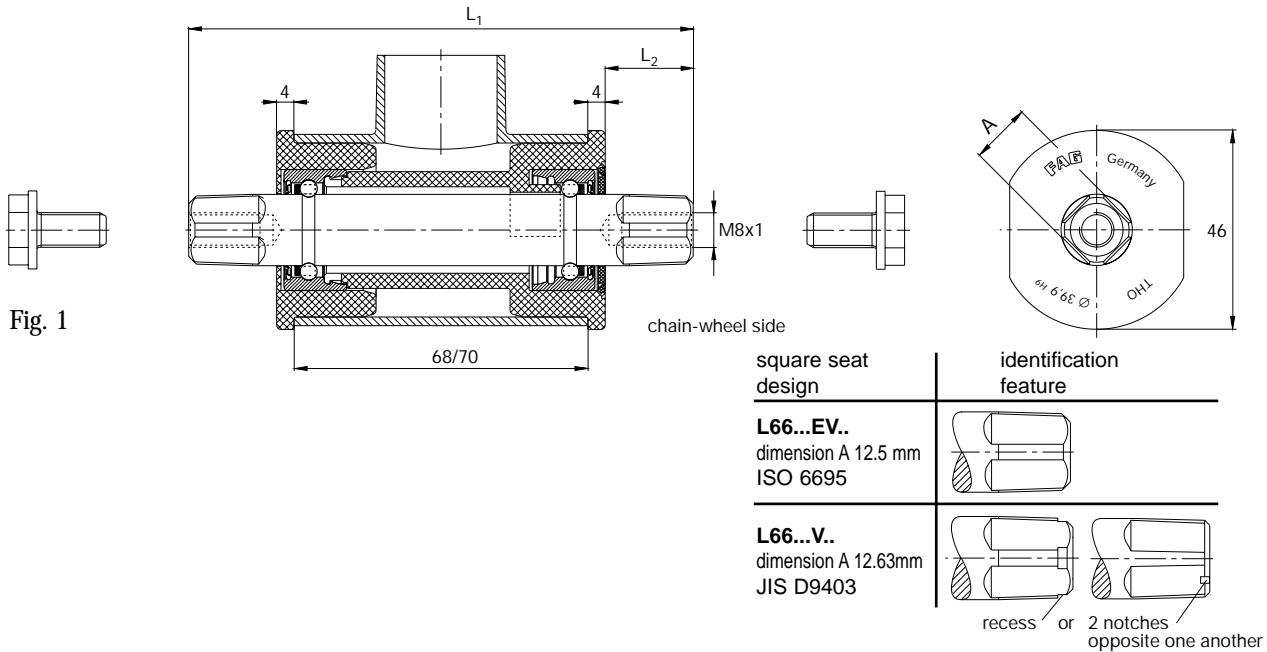


Fig. 6

Short flanged sleeve	(10 pieces per package unit)	<b>RG.L66BSA.AA</b>	4
Short flanged sleeve (open)	(10 pieces per package unit)	<b>RG.L66BSO.BB</b>	5
Bolts (M8x1; class 10.9)	(68 pieces per package unit)	<b>SRB.563956B</b>	6

# FAG bottom bracket bearings for pressing in

## Delivery programme · Codes · Tools · Components



Frame Straight bore D (mm)	Spindle				FAG code	Fig.
	length		tapered square seat			
	L <sub>1</sub> (mm)	L <sub>2</sub> (mm)	A (mm)			
			L66...V..	L66...EV..		
THO Ø 39.9	119	23	12.63		<b>L66THO-V119/23AE</b>	1
	119	23		12.5	<b>L66THO-EV119/23AE</b>	1
	127	25.5	12.63		<b>L66THO-V127/25AE</b>	1
	127	25.5		12.5	<b>L66THO-EV127/25AE</b>	1

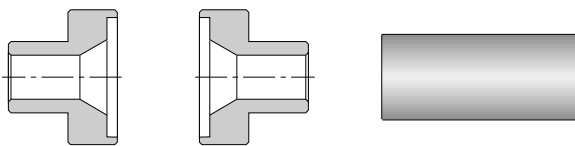


Fig. 2

Tool set: 2 thrust collars, 1 pin	<b>562291</b>	2
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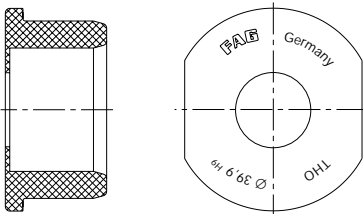


Fig. 3

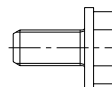


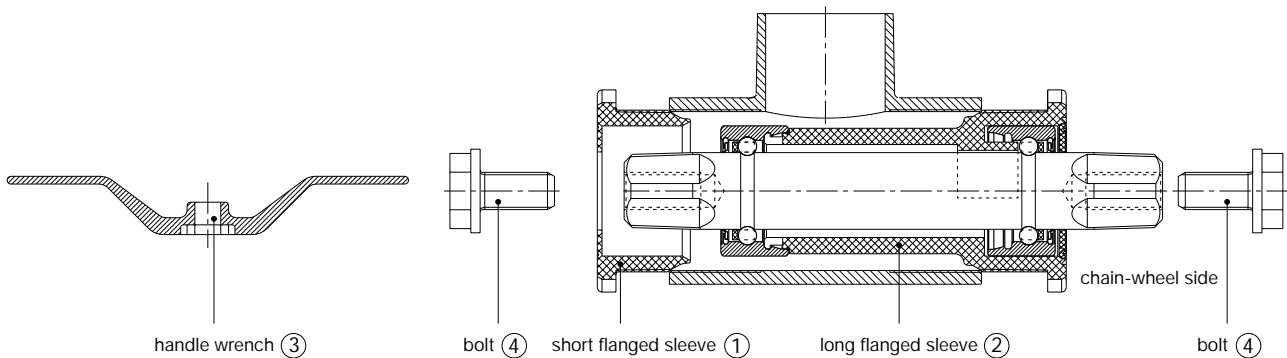
Fig. 4

Short flanged sleeve (open)	(10 pieces per package unit)	<b>RG.L66THO.AA</b>	3
Bolts (M8x1; class 10.9)	(68 pieces per package unit)	<b>SRB.563956B</b>	4



# FAG bottom bracket bearings for screwing in

## Mounting · Dismounting



### Tool

The FAG WKZG.564414 (3) handle wrench is used for mounting and dismounting.

### Mounting preparation

Determine thread type of frame. The exact thread code is indicated on the flange of the sleeve. The left-hand thread is marked by LH, the right-hand thread by RH.

The thread of the frame must be neatly cut and free of paint. The thread length is about 20 mm.

### Mounting with handle wrench

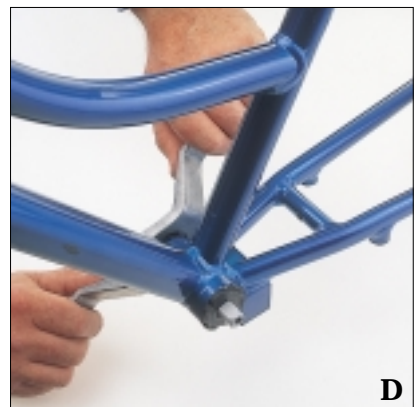
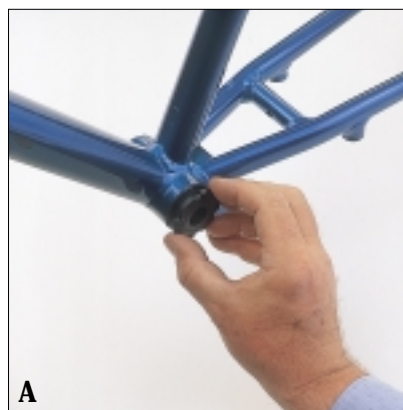
**A** Screw short flanged sleeve (1) about 1/3 by hand at the non-chain-wheel side.

**B** Then tighten with the handle wrench (3) until the flange abuts the frame (tightening torque about 30 Nm).

**C** Press long flanged sleeve (2) (left-hand thread) gently into the frame at the chain-wheel side and screw by hand.

**D** Then tighten with handle wrench (3) until the flange abuts the frame (tightening torque about 30 Nm)

**E** Mount cranks. Tighten bolts (4) with standard torque wrench (tightening torque about 35 Nm).

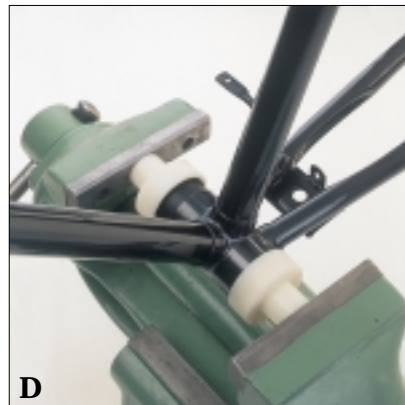
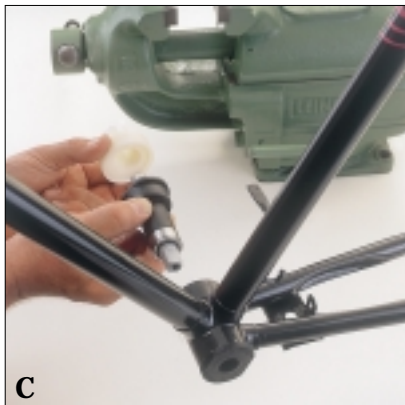
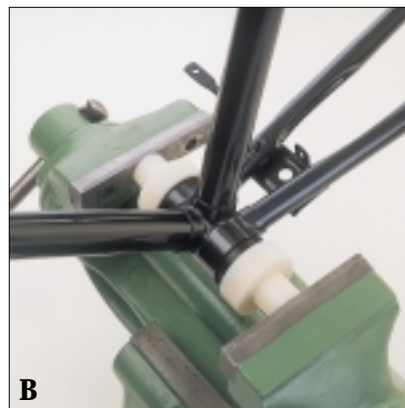
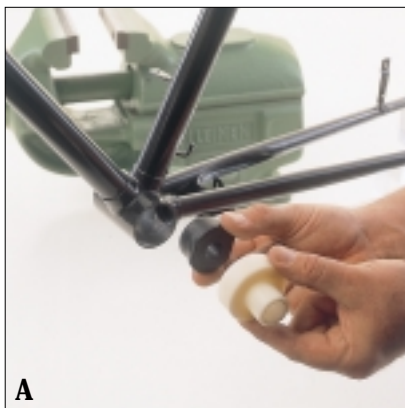
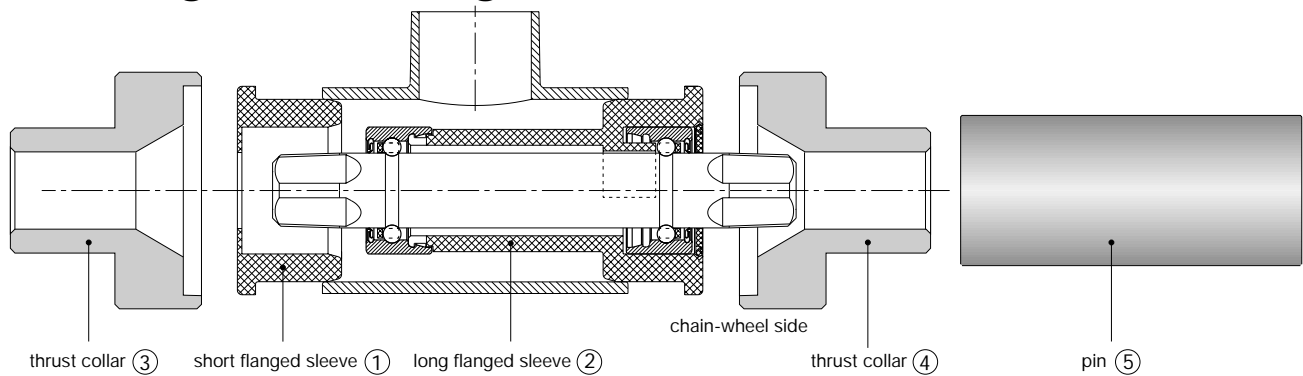


### Dismounting

To dismount bottom bracket bearing units simply proceed in the reverse order to mounting

# FAG bottom bracket bearings for pressing in

## Mounting · Dismounting



### Tools

FAG 562291 tool set (2 thrust collars, 1 pin, suitable for all designs) is used for mounting and dismounting.

It is best to use a vice for pressing in.

### Mounting

Check frame bore for accurate dimensions. A deburred or slightly chamfered bore edge facilitates mounting.

**A** Position short flanged sleeve ① with thrust collar ③ at the non-chain-wheel side and **B** thrust collar ④ at the chain-wheel side to protect frame, tighten in the vice and press in short flanged sleeve until flange abuts the frame. **C** Put long flanged sleeve on the chain-wheel side, push on thrust collar ④ and **D** tighten together with thrust collar ③ on the non-chain-wheel side. Press in long flanged sleeve until flange abuts the frame.

### Dismounting

**E** Support the frame on the chain-wheel side at the two parallel flat areas of the bottom bracket bearing.

By means of the small end of the thrust collar ③ and a suitable mandrel push through the bottom of the shorter flanged sleeve ① and knock the long flanged sleeve ② out of the frame.

**F** Support frame at the non-chain-wheel side. Knock out the short flanged sleeve ① with mandrel and pin ⑤.

# **FAG**

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