Dismounting

Selection	chart – SKF external pullers					
		Designation	No. of arms	Width of grip		
				mm	in.	
	a	SKF Standard Jaw Pullers				
	- A 63 -	TMMP 2x65	2	15–65	0.6–2.6	
	¥ \W \ W ¥	TMMP 2x170	2	25–170	1.0-6.7	
		TMMP 3x185	3	40–185	1.6-7.3	
j 24	עאַר יוון יוון יוון אווי זעו	TMMP 3x230	3	40–230	1.6-9.0	
3		TMMP 3x300	3	45–300	1.8–11.8	
		SKF Reversible Jaw Pullers				
		TMMR 40F	2	23-48	0.9–1.9	
	0 0	TMMR 60F	2	23–68	0.9-2.7	
		TMMR 80F	2	41-83	1.6-3.3	
		TMMR 120F	2	41–124	1.6-4.9	
		TMMR 160F	2	68–164	2.7-6.5	
		TMMR 200F	2	65–204	2.6-8.0	
		TMMR 250F	2	74–254	2.9–10.0	
j 26		TMMR 350F	2	74–354	2.9–13.9	
		TMMR 160XL	2	42–140	1.7-5.5	
		TMMR 200XL	2	42–180	1.7-7.1	
		TMMR 250XL	2	44–236	1.7-9.3	
	1	TMMR 350XL	2	44–336	1.7–13.2	
	6250 I	SKF Heavy Duty Jaw Pullers				
		TMMP 6	3	50–127	2.0–5.0	
	⊘	TMMP 10	3	100–223	3.9–8.7	
i 24	firle 1 to 1	TMMP 15	3	140–326	5.5–12.8	
		M				
		Mechanical pullers SKF EasyPull	2	2/ 450	4 / 50	
	<u> </u>	TMMA 60	3	36–150	1.4-5.9	
		TMMA 80	3	52–200	2.0–7.8	
	\\\	TMMA 120	3	75–250	3.0–9.8	
j 22	l'il l'il	Hydraulic pullers SKF EasyPull				
		TMMA 75H +/SET	3	52–200	2.0–7.8	
		TMMA 100H +/SET	3	75–250	3.0-9.8	
		SKF Hydraulic Jaw Puller Kit				
		TMHP 10E	3 × 3	75–280	3.0–11.0	
			3 ^ 3	73 200	5.0 11.0	
27, 2	8	SKF Hydraulic Puller Kit				
9		TMHC 110E	2×3	50–170	1.9–6.7	
		SKF Hydraulically Assisted				
		Heavy Duty Jaw Pullers				
		TMHP 15/260	3	195–386	7.7–15.2	
		TMHP 30/170	3	290–500	11.4–19.7	
		TMHP 30/350	3	290–500	11.4–19.7	
		TMHP 30/600	3	290–500	11.4–19.7	
	١ ' ' ' '	TMHP 50/140	3	310–506	12.2–19.9	
j 25	f ,1 f. 1	TMHP 50/320	3	310–506	12.2–19.9	
		TMHP 50/570	3	310–506	12.2–19.9	
		1) 0				

¹⁾ Other arm length options are available

Effort:	m lonath	N4	n withdrawal force	
Effective ar				
mm	in.	kN	US ton	
60	2.4	6	0.7	
135	5.3	18	2.0	
135	5.3	24	2.7	
210	8.3	34	3.8	
240	9.4	50	5.6	
67	2.6	17	1.91	
82	3.2	17	1.91	
98	3.2	40		
			4.5	
124	4.9	40	4.5	
143	5.6	50	5.6	
169	6.7	50	5.6	
183	7.2	60	6.7	
238	9.4	60	6.7	
221	8.7	50	5.6	
221	8.7	50	5.6	
221	8.7	60	6.7	
221	8.7	60	6.7	
120 ¹⁾	4.7 ¹⁾	60	6.7	
207 ¹⁾	8.2 ¹⁾	100	11.2	
340 ¹⁾	13.4 ¹⁾	150	17	
150	5.9	60	6.7	
200	7.8	80	9.0	
250	9.8	120	13.5	
200	7.8	75	8.4	
250	7.6 9.8	100	0.4 11.2	
230	7.0	100	11.2	
115–200	4.4-7.9	100	11.2	
70–120	2.8–4.7	100	11.2	
70-120	2.0-4./	100	11.2	
264 ¹⁾	10.4 ¹⁾	150	17	
170 ¹⁾	6.7 ¹⁾	300	34	
350 ¹⁾	13.7 ¹⁾	300	34	
600 1)	23.6 ¹⁾	300	34	
140 ¹⁾	5.5 ¹⁾	500	56	
320 1)	12.6 ¹⁾	500	56	
570 ¹⁾	22.4 ¹⁾	500	56	



Choosing the right puller for the job is critical. The puller type, and its maximum withdrawal capacity are crucial for completing any dismounting job safely and easily.



SKF offers a complete range of easy-to-use mechanical, hydraulic and hydraulically-assisted bearing pullers for use in many bearing applications.

SKF EasyPull

Equipped with spring-operated arms and a solid design, the patented SKF EasyPull is one of the most user-friendly and safe tools on the market. Ergonomically designed, the spring-operated arms enable the user to position the puller behind the component with just one movement. The SKF EasyPull is available in mechanical and hydraulically assisted versions, as well as complete kits with a tri-section pulling plate and a puller protection blanket.





Mechanical pullers TMMA series

- Sturdy design allows dismounting of components even in the tightest application in a safe manner
- The unique red rings spring-operated opening mechanism allows the SKF EasyPull to be placed behind the component with one movement of the hands
- $\bullet \;\; \mathsf{Self}\text{-locking}$ arms help prevent the risk of puller slipping under load
- Double hexagonal heads allow easier application of withdrawal force
- Self-centring capability and nosepiece help avoid damage to shaft
- Efficient use of time due to quick dismounting
- Available in three sizes with a withdrawal force of 60, 80 or 120 kN (6.7, 9.0 or 13.5 US ton), enabling easy selection
- TMHS series hydraulic force generators are available as an accessory for the 80 and 120 kN versions



Quick and virtually effortless bearing dismounting

Hydraulic pullers TMMA .. H series

- Ready-to-use, integrated hydraulic cylinder, pump and puller thus it is assembly-free and it is not necessary to purchase separate parts
- Safety valve prevents spindles and pullers from being overloaded if excessive force is applied
- The spring-loaded centre point on the hydraulic spindle allows easy centring of the puller on the shaft without damaging the shaft
- The TMMA 100H has a maximum withdrawal force of 100 kN (11.2 US ton) and a long stroke of 80 mm (3.1 in.), which facilitates most dismounting jobs in just one operation
- For dismounting jobs requiring less force, SKF offers a 75 kN (8.4 US ton) version, the hydraulic EasyPull TMMA 75H with a maximum stroke of 75 mm (3 in.)
- Supplied with extension pieces and one nosepiece

Designation	TMMA 60	TMMA 80	TMMA 120	TMMA 75H	TMMA 100H
Width of grip external, minimum	36 mm (1.4 in.)	52 mm (2.0 in.)	75 mm (3.0 in.)	52 mm (2 in.)	75 mm (3 <i>in</i> .)
Width of grip external, maximum	150 mm (5.9 in.)	200 mm (7.8 in.)	250 mm (9.8 in.)	200 mm (7.8 in.)	250 mm (9.8 in.)
Effective arm length	150 mm (5.9 in.)	200 mm (7.8 in.)	250 mm (9.8 in.)	200 mm (7.8 in.)	250 mm (9.8 in.)
Maximum withdrawal force	60 kN (6.7 US ton)	80 kN (9.0 US ton)	120 kN (13.5 US ton)	75 kN (8.4 US ton)	100 kN (11.2 US ton)
Claw height	7,5 mm (0.30 in.)	9,8 mm (0.39 in.)	13,8 mm (0.54 in.)	9,8 mm (0.39 in.)	13,8 mm (0.54 in.)
Hydraulic spindle	-	_	-	TMHS 75	TMHS 100
Adapter: possible to upgrade to hydraulic version	-	TMHS 75	TMHS 100	-	-
Total weight	4,0 kg (8.8 lb)	5,7 kg (12.6 lb)	10,6 kg (23.4 lb)	7,0 kg (15.4 lb)	13,2 kg (29 lb)

22 **5KF**.



A complete bearing dismounting solution

Hydraulic puller sets TMMA .. H /SET series

- A set consisting of a hydraulically assisted SKF EasyPull together with a tri-section pulling plate, TMMS series, and a puller protection blanket facilitate an easy, safe and virtually damage-free dismounting
- Especially suitable for dismounting spherical roller and CARB toroidal roller bearings, and other components such as pulleys and flywheels
- A puller protection blanket, TMMX series, made of a strong transparent material allows the user to visually follow the dismounting procedure. While dismounting, the blanket helps to protect from flying fragments of bearings or other components, thereby enhancing user safety
- A sturdy custom-made storage case with room for all parts minimises the risk of loosing or damaging the set's components

Technical data		
Designation	TMMA 75H/SET	TMMA 100H/SET
Puller	TMMA 75H	TMMA 100H
Tri-section pulling plate	TMMS 100	TMMS 160
Puller protection blanket	TMMX 280	TMMX 350
Dimensions of case	600 × 235 × 225 mm (23.6 × 9.3 × 8.6 in.)	680 × 320 × 270 mm (27 × 13 × 11 in.)
Total weight	15,0 kg (33.1 lb)	31,6 kg (70 lb)





SKF Jaw pullers

One of the most common ways to dismount small to medium size bearings is to use a basic mechanical puller. Using an SKF puller helps to safeguard against damage to the bearing or to the bearing seating during dismounting. SKF Jaw pullers allow for easy and safe puller operation.



Versatile two and three arm mechanical pullers

SKF Standard Jaw Pullers TMMP series

- Range of five different jaw pullers with two or three arms
- Maximum nominal span from 65 to 300 mm (2.6 to 11.8 in.)
- Cone system for automatic centring and secure positioning of arms
- Strong springs keep arms apart for easy operation
- Hardened, high quality carbon steel



Powerful self-centring mechanical pullers

SKF Heavy Duty Jaw Pullers TMMP series

- Fast, efficient and smooth handling
- Unique pantograph system gives exceptional grip and helps counteract misalignment during operation
- Three arm jaw pullers with a maximum withdrawal force of 60 to 150 kN (6.7 to 17.0 US ton) suitable for medium to large size bearings
- Blackened, high quality steel for corrosion resistance
- Other arm length options are available

Technical data – SKF Standard Jaw Pullers										
Designation	TMMP 2x65	TMMP 2x170	TMMP 3x185	TMMP 3x230	TMMP 3x300					
No. of arms	2	2	3	3	3					
Width of grip	15–65 mm (0.6–2.6 in.)	25–170 mm (1.0–6.7 in.)	40–185 mm (1.6–7.3 in.)	40–230 mm (1.6–9.1 in.)	45–300 mm (1.8–11.8 in.)					
Effective length of arms	60 mm (2.4 in.)	135 mm (5.3 in.)	135 mm (5.3 in.)	210 mm (8.3 in.)	240 mm (9.4 in.)					
Claw height	8 mm (0.31 in.)	9 mm (0.35 in.)	9 mm (0.35 in.)	9 mm (0.35 in.)	11 mm (0.43 in.)					
Maximum withdrawal force	6,0 kN (0.7 US ton)	18,0 kN (2 US ton)	24,0 kN (2.7 US ton)	34,0 kN (3.8 US ton)	50,0 kN (5.6 US ton)					
Weight	0,5 kg (1.2 lb)	2,1 kg (4.7 lb)	2,9 kg (6.4 lb)	5,8 kg (13 lb)	8,6 kg (19 lb)					

Technical data – SKF Heavy Duty Jaw Pullers									
Designation	TMMP 6	TMMP 10	TMMP 15						
Width of grip	50–127 mm (2.0–5.0 in.)	100–223 mm (3.9–8.7 in.)	140–326 mm (5.5–12.8 in.)						
Effective length of arms	120 mm (4.7 in.)	207 mm (8.2 in.)	340 mm (13.4 in.)						
Claw height	15 mm (0.59 in.)	20 mm (0.78 in.)	30 mm (1.18 in.)						
Maximum withdrawal force	60 kN (6.7 US ton)	100 kN (11.2 US ton)	150 kN (17 US ton)						
Weight	4,0 kg (8.8 lb)	8,5 kg (19 lb)	21,5 kg (46 lb)						
Effective length optional arms TMMP1 TMMP2	included 220 mm (8.6 <i>in.</i>)	included 350 mm <i>(13.8 in.)</i>	260 mm (<i>10.2 in.</i>)						
TMMP3 TMMP4	370 mm (14.5 in.) 470 mm (18.5 in.)	460 mm (18.1 in.) 710 mm (27.9 in.)	435 mm (17.1 in.) 685 mm (27.0 in.)						





Powerful self-centring hydraulic pullers

SKF Hydraulically Assisted Heavy Duty Jaw Pullers TMHP series

- High forces can be easily applied as the puller is self-centring
- The combination of a spindle and hydraulic cylinder allows the working length to be easily adjusted
- Unique pantograph system gives exceptional grip and helps counteract misalignment during operation
- Equipped with a lifting handle and eye bolt, facilitates easy handling
- Maximum withdrawal force of 150, 300 or 500 kN (17, 34 or 56 US ton)
- Supplied with SKF Hydraulic Pump TMJL 100





Technical data							
Designation 1)	TMHP 15/260	TMHP 30/170	TMHP 30/350	TMHP 30/600	TMHP 50/140	TMHP 50/320	TMHP 50/570
Width of grip	195–386 mm (7.7–15.2 in.)	290–500 mm (11.4–19.7 in.)	290–500 mm (11.4–19.7 in.)	290–500 mm (11.4–19.7 in.)	310–506 mm (12.2–19.9 in.)	310–506 mm (12.2–19.9 in.)	310–506 mm (12.2–19.9 in.)
Effective length of arms	264 mm (10.4 in.)	170 mm (6.7 in.)	350 mm (13.7 in.)	600 mm (23.6 in.)	140 mm (5.5 in.)	320 mm (12.6 in.)	570 mm (22.4 in.)
Claw height	30 mm (1.2 in.)	35 mm (1.4 in.)	35 mm (1.4 in.)	35 mm (1.4 in.)	40 mm (1.6 in.)	40 mm (1.6 in.)	40 mm (1.6 in.)
Stroke	100 mm (3.9 in.)	50 mm (2 in.)	50 mm (2 in.)	50 mm (2 in.)	40 mm (1.6 in.)	40 mm (1.6 in.)	40 mm (1.6 in.)
Maximum working pressure hydraulic cylinder	80 MPa (11 600 psi)	80 MPa (11 600 psi)	80 MPa (11 600 psi)	80 MPa (11 600 psi)	80 MPa (11 600 psi)	80 MPa (11 600 psi)	80 MPa (11 600 psi)
Maximum withdrawal force	150 kN (17 US ton)	300 kN (34 US ton)	300 kN (34 US ton)	300 kN (34 <i>US ton</i>)	500 kN (56 US ton)	500 kN (56 US ton)	500 kN (56 US ton)
Weight	34 kg (75 lb)	45 kg (99 <i>lb</i>)	47 kg (104 lb)	56 kg (123 lb)	47 kg (104 lb)	54 kg (119 lb)	56 kg (132 lb)
Effective length optiona	l arms						
TMHP1 TMHP2 TMHP3 TMHP4	included 344 mm (14.2 in.) 439 mm (17.3 in.) 689 mm (27.1 in.)	included 350 mm (13.7 in.) 600 mm (23.6 in.)	170 mm (6.7 in.) included 600 mm (23.6 in.)	170 mm (6.7 in.) 350 mm (13.7 in.) included	included 320 mm (12.6 in.) 570 mm (22.4 in.)	140 mm (5.5 in.) included 570 mm (22.4 in.)	140 mm (<i>5.5 in.</i>) 320 mm (<i>12.6 in.</i>) included

¹⁾ Also available without hydraulic pump TMJL 100. Please add suffix 'X' to designation when ordering without pump (e.g. TMHP 30/170X)



26

Versatile and robust pullers for internal and external pulling jobs

SKF Reversible Jaw Puller TMMR F series

The multi-purpose SKF Reversible Jaw Pullers are suitable for internal and external pulling of bearings and other components, such as gears and pulleys. The standard range of eight pullers can accommodate a wide range of bearing and component sizes. Adding extra versatility to the TMMR..F puller programme, the four largest sizes are also available with extra long arms as a standard option (TMMRXL). The extra long arms help to dismount bearings and components placed far from the shaft end. For more versatility, the extra long arms can be further extended by adding extension pieces.

- An essential and versatile tool for every workshop allows for external and internal pulling applications
- Self-locking arms for easy adjustment of width of grip
- Hexagonal head on beam enables rotation of puller and bearing during dismounting, improving ease of use
- Wide gripping range from 23 mm (0.9 in.) internal to 350 mm (13.8 in.) external, enables many bearings and components to be dismounted
- Unlike many similar pullers, the pullers can be used up to their full rated load capacity without permanently deforming the puller arms

- Arms and beam are zinc passivated for enhanced corrosion resistance and easy cleaning
- The extra long arm extension pieces, designed to be easy to fit and remove, can be used to further increase the effective arm length. Using extension pieces does not compromise the overall puller strength
- The SKF Reversible Jaw Pullers can also be supplied as three different sets, complete with a workshop stand

Technical data										
		Designation	with	Maximum Width of withdrawal grip external force pull (D)		Width of grip inter pull (d)	grip internal		ve ngth	
			kN	US ton	mm	in.	mm	in.	mm	in.
External pull	Internal pull	TMMR 40F	17	1.9	23-48	0.9–1.9	59–67	2.3-2.6	67	2.6
T T	T T	TMMR 60F	17	1.9	23-68	0.9–2.7	62–87	2.4-3.4	82	3.2
		TMMR 80F	40	4.5	41-83	1.6-3.3	95–97	3.7-3.8	98	3.9
 	<u> </u>	TMMR 120F	40	4.5	41–124	1.6-4.9	95–139	3.7-5.5	124	4.9
; H	; H	TMMR 160F	50	5.6	68–164	2.7–6.5	114–163	4.5-6.4	143	5.6
	<u>- J</u>	TMMR 200F	50	5.6	65–204	2.6-8.0	114-204	4.5-8.0	169	6.7
m	m	TMMR 250F	60	6.7	74-254	2.9–10.0	132-254	5.2-9.9	183	7.2
Ī	Ī	TMMR 350F	60	6.7	74–354	2.9–13.9	135–354	5.3-13.8	238	9.4
T N N	T N N	TMMR 160XL	50	5.6	42–140	1.7-5.5	121–188	4.8-7.4	221	8.7
		TMMR 200XL	50	5.6	42–180	1.7-7.1	121–228	4.8-9.0	221	8.7
		TMMR 250XL	60	6.7	44-236	1.7-9.3	123–284	4.8-11.2	221	8.7
		TMMR 350XL	60	6.7	44-336	1.7–13.2	123–384	4.8–15.1	221	8.7

Technical data		Designation	TMMR 4F/SET		TMMR 8F/SET		TMMR 8XL/SET	
TMMR F		TMMR 40F		_		•		•
Д		TMMR 60F		•		•		•
$ lap{I}$		TMMR 80F		_		•		•
		TMMR 120F		•		•		•
M II M		TMMR 160F		•		•		•
	U U	TMMR 200F		_		•		•
		TMMR 250F		•		•		•
		TMMR 350F		_		•		•
П		TMMR 16/20XL-1		_		_		•
4	TMMR 16/20XL-1	TMMR 25/35XL-1		-		_		•
TMMR 16/35XL-5	TMMR 25/35XL-1	TMMR 16/35XL-5		_		•		_

Accessories			
		TMMR 16/20XL-1	Extra long arm set to convert TMMR 160F and TMMR 200F to XL version
		TMMR 25/35XL-1	Extra long arm set to convert TMMR 250F and TMMR 350F to XL version
		TMMR 16/35XL-4	Extension arms set for the TMMR XL
	TMMR 16/35XL-4	TMMR 16/35XL-5	Spring-loaded nose piece



Effortless bearing dismounting up to 100 kN

SKF Hydraulic Jaw Puller Kit TMHP 10E

- A versatile kit with three different arm lengths is suitable for a wide range of applications
- Hydraulic spindle facilitates effortless dismounting
- Self-locking arms minimise the risk of the puller slipping from the application when under load
- The spring-loaded centre point of the hydraulic spindle allows easy puller centring
- The hydraulic spindle is equipped with a safety valve, which minimises the risk of puller overload
- High load rating of 100 kN (11.2 US ton) makes the puller suitable for a variety of dismounting jobs
- A hydraulic spindle stroke of 80 mm (3.1 in.) helps facilitate dismounting in one operation
- Supplied with hydraulic spindle extension pieces to allow quick adaptation to pulling length

TMHP 10E 1 × arm–assembly stand 3 × arms, 115 mm (4.5 in.) 3 × arms, 160 mm (6.3 in.)	Maximum stroke Threading hydraulic cylinder	80 mm (3.1 in.) 1 ¹ /2"-16 UN	
3 × arms, 115 mm (4.5 in.)		, ,	
· · · · · · · · · · · · · · · · · · ·	Threading hydraulic cylinder	1 ¹ /2"-16 UN	
3 × d1115, 100 11111 (0,3 111.)			
3 × arms, 160 mm (6.3 <i>in.)</i> 3 × arms, 200 mm (7.9 <i>in.</i>)	Nominal working force	100 kN (11.2 US ton)	
1 × hydraulic spindle TMHS 100	Carrying case dimensions	$578 \times 410 \times 70 \text{ mm} (23 \times 16 \times 2.8 \text{ in.})$	
50, 100, 150 mm (2, 4, 6 in.)	Weight	14,5 kg (3 <i>2 lb</i>)	
	1 × hydraulic spindle TMHS 100 3 × extension pieces for hydraulic spindle;	$1 \times \text{hydraulic spindle TMHS } 100$ $3 \times \text{extension pieces for hydraulic spindle;}$ $50, 100, 150 \text{ mm } (2, 4, 6 \text{ in.})$ $1 \times \text{nosepiece with centre point}$ Carrying case dimensions Weight	

SKF Strong Back Pullers



Easy bearing dismounting even in the tightest spaces

SKF Strong Back Pullers TMBS E series

The SKF TMBS E strong back pullers facilitate dismounting of bearings in applications where the use of traditional jaw pullers is restricted due to lack of space or where the application demands a long reach.

- Special separator design allows the puller to be easily inserted between the bearing and the shoulder on the shaft
- The spring-loaded centre point of the hydraulic spindle allows easy puller centring
- The firm grip behind the bearing's inner ring reduces the force required to dismount the bearing
- The hydraulic spindle is equipped with a safety valve, which minimises the risk of puller overload
- A hydraulic spindle stroke of 80 mm (3.1 in.) helps facilitate dismounting in one operation

- SKFTMBS 50E is equipped with a mechanical spindle for force generation
- SKFTMBS 100E and the SKFTMBS 150E are equipped with a hydraulic spindle, which allows for easy application of force up to 100 kN (11.2 US ton)
- Supplied with hydraulic spindle extension pieces to allow quick adaptation to pulling length
- SKFTMBS 100E and SKFTMBS 150E are supplied with extension rods to allow quick adaptation to pulling lengths upto 816 mm (32.1 in.)

Selection chart							
Designation	Shaft diame	Shaft diameter		Maximum bearing outer diameter		Maximum reach	
	mm	in.	mm	in.	mm	in.	
TMBS 50E	7–50	0.3-1.9	85	3.3	110	4.3	
TMBS 100E	20–100	0.8-3.9	160	6.3	120-816	4.7-32.1	
TMBS 150E	35–150	1.4-5.9	215	8.5	120-816	4.7-32.1	
TMHC 110E	20–100	0.8-3.9	160	6.3	120-245	4.7-9.6	



Powerful combination of a jaw and strong back puller

SKF Hydraulic Puller Kit TMHC 110E

- SKFTMHC 110E hydraulic puller kit combines a jaw puller and a strong back puller
- A versatile puller kit facilitates safe and easy dismounting in a variety of applications
- Hydraulic spindle facilitates easy and quick dismounting
- High load rating of 100 kN (11.2 US ton)
- The strong back puller includes two different arm lengths for maximum reach of 120 mm (4.7 in.)
- The jaw puller can be assembled as a three-arm or two-arm puller depending on the space and demands of the application
- The firm grip of the strong back puller behind the bearing's inner ring reduces the force required to dismount the bearing
- Supplied with extension rods to allow quick adaptation to pulling lengths upto 245 mm (9.6 in.)

28 **SKF**.

Technical data - TMBS E series







Designation	TMBS 50E	TMBS 100E	TMBS 150E
Contents	1 × separator set 1 × mechanical spindle 1 × beam 2 × main rods	1 × separator set 2 × main rods 2 × extension rods, 125 mm (4.9 in.) 4 × extension rods, 285 mm (11.2 in.) 1 × beam 1 × hydraulic spindle TMHS 100 2 × extension pieces for hydraulic spindle; 50, 100 mm (2.0, 3.9 in.) 1 × nosepiece with centre point for hydraulic spindle	1 × separator set 2 × main rods 2 × extension rods, 125 mm (4.9 in.) 4 × extension rods, 285 mm (11.2 in.) 1 × beam 1 × hydraulic spindle TMHS 100 2 × extension pieces for hydraulic spindle; 50, 100 mm (2.0, 3.9 in.) 1 × nosepiece with centre point for hydraulic spindle
Maximum stroke	-	80 mm (3.1 in.)	80 mm (3.1 in.)
Nominal working force	30 kN (3.4 US ton)	100 kN (11.2 US ton)	100 kN (11.2 US ton)
Maximum reach	110 mm (4.3 in.)	120–816 mm (4.7–32.1 in.)	120–816 mm (4.7–32.1 in.)
Shaft diameter range	7–50 mm (0.3–2 in.)	20–100 mm (0.8–3.9 in.)	35–150 mm (1.4–5.9 in.)
Threading hydraulic cylinder	-	1 ¹ /2"-16 UN	1 ¹ /2"-16 UN
Carrying case dimensions	295 × 190 × 55 mm (11.6 × 7.5 × 2 in.)	580 × 410 × 70 mm (23 × 16 × 2.8 in.)	580 × 410 × 70 mm (23 × 16 × 2.8 in.)
Weight	1,8 kg (4 lb)	13,5 kg (29.8 lb)	17 kg (37.5 lb)

Technical data - TMHC 110E



Designation	TMHC 110E				
Contents	1 × arm–assembly stand 3 × arms, 65 mm (2.6 in.) 3 × arms, 115 mm (4.5 in.) 1 × separator set	Arms set 1 (3 ×) Effective arms length Width of grip Claw height	65 mm 50–110 mm 6 mm	(2.5 in.) (2–4.3 in.) (0.2 in.) (4.5 in.) (2.9–6.7 in.) (0.2 in.)	
	1 × beam 2 × main rods 2 × extension rods, 125 mm (4.9 in.) 1 × hydraulic spindle TMHS 100 2 × extension pieces for hydraulic	Arms set 2 (3 ×) Effective arms length Width of grip Claw height	115 mm 75–170 mm 6 mm		
	spindle; 50, 100 mm (2.0, 3.9 in.) 1 × nosepiece with centre point for hydraulic spindle	Strong back puller Maximum reach Shaft diameter range	250 mm 20–100 mm	(9.8 in.) (0.8–3.9 in.)	
Maximum stroke	80 mm (3.1 in.)				
Nominal working force	100 kN (11.2 US ton)				
Threading hydraulic cylinder	1 ¹ /2"-16 UN				
Carrying case dimensions	580 × 410 × 70 mm (23 × 16 × 2.8 in.)				
Weight	13,5 kg (29.8 <i>lb</i>)				

5KF. 29

SKF Blind housing pullers

Selection chart - SKF Blind pullers Designation Bearing bore Effective arm diameter (d) length **TMMD 100** 10-100 mm 135-170 mm (0.4-3.9 in.)(5.3–6.7 in.) TMBP 20E 30-160 mm 547 mm (1.2-6.3 in.) (21.5 in.)

The SKF Deep Groove Ball Bearing Puller Kit TMMD 100 allows quick and easy dismounting of SKF Deep Groove Ball Bearings with an interference fit on both rings.

The SKF Blind Housing Puller Kit TMBP 20E is an adapter type puller for dismounting deep groove ball bearings in blind housings with shaft dimensions between 30 mm and 160 mm (1.18-6.3 in.). The use of extension rods allows a long reach of up to 547 mm (21.5 in.).



Removes bearing without dismantling machinery

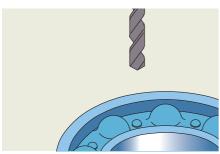
SKF Blind Housing Puller Kit TMBP 20E

- Allows a wide of range of deep groove ball bearings to be dismounted
- Ball adapters designed for a long service life
- Spanner stop function on spindle for easy and safe handling
- Self-locking nose piece helps minimise damage to shaft, and improves puller stability

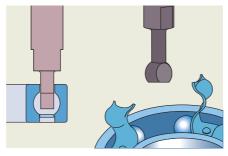
Suitability chart

 ${\sf SKFTMBP\ 20E\ is\ suitable\ for\ dismounting\ the\ following\ deep\ groove\ ball\ bearings}$

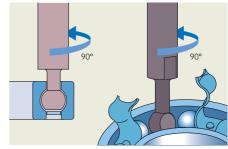
60 series	62 series	63 series	64 series	16 series
6021–6032	6213–6230	6309–6320	6406–6418	16026–16032



Remove seal and open selected section of ball cage. Clean the swarf out.



Insert appropriate bearing adapter and rotate it 90° ensuring positive grip within the bearing race.



Insert the second adapter into prepared area diametrically opposed.

30 **SKF**.



Easy dismounting of bearings in blind housings

SKF Deep Groove Ball Bearing Puller Kit TMMD 100

The puller is suitable for use in both blind housings and shaft applications. The SKF TMMD 100 is suitable for dismounting up to 71 different SKF deep groove ball bearings, with shaft diameters ranging between 10 and 100 mm $(0.4-3.9 \ in.)$.

- The claws are designed to precisely fit in the bearing's raceway, providing a good grip, thereby allowing high dismounting forces
- Each puller arm is fitted with a spring for easy installation
- The claw has been designed to allow easy insertion
- The hexagon head of the spindle is designed to prevent the spanner sliding down the spindle during dismounting
- The puller can also be used to remove sealed bearings from blind housings, after the seal has been removed

Suitability chart

The SKF TMMD 100 suits the following bearing series and sizes:

Bearing designation	Shaft diameter	
6000–6020	10–100 mm	(0.4–3.9 in.)
6200–6218	10-90 mm	(0.4–3.5 in.)
6300–6313	10-65 mm	(0.4–2.6 in.)
6403–6410	17-50 mm	(0.7–2.0 in.)
62/22, 62/28, 63/22, 63/28	22, 28, 22, 28 mm	(0.9, 1.1, 0.9, 1.1 in.)
16002, 16003, 16011	15, 17, 55 mm	(0.6, 0.7, 2.2 in.)
16100, 16101	10, 12 mm	(0.4, 0.5 in.)



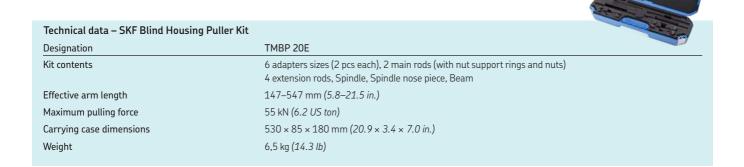
Bearing selection chart included



The rubber cap allows easy and quick attachment of the arms to the spindle. It also prevents the puller arms from detaching from the spindle during operation



Optimised puller claw design firmly grips the outer raceway of SKF bearings, without the need of removing the bearing cage.



Designation	TMMD 100			
Kit contents	3 × puller arm A1			
	3 × puller arm A2			
	3 × puller arm A3			
	3 × puller arm A4			
	3 × puller arm A5			
	3 × puller arm A6			
	$2 \times \text{spindle}$ and nut, $1 \times \text{handle}$			
Effective arm length	135–170 mm (5.3–5.7 in.)			
Carrying case dimensions	530 × 85 × 180 mm (20.9 × 3.4 × 7.0 in.)			
Weight	3,6 kg (7.9 <i>lb</i>)			

Selection char	t – SKF Internal B	earing Puller Kits			
Extractor	Bearing bore diameter	Bearing DGBB	SABB	ACBB	SRB
TMIC C7-8	7-8 mm	607-638, 618/7-638/8	127-108	_	-
TMIC C10-12	10-12 mm	6000-6301, 16000-16101, 61800-61801	1200-2301	3200-5201	_
TMIC C12-15	12-15 mm	6001-6302, 16101-16902, 61801-61902	1201-2301	3201-3202	-
TMIC C17-20	17-20 mm	6003-6404, 16003-16004, 61803-61904	1203-2304	3203-3204	22205/20
TMIC C22-28	22-28 mm	6005-6405, 16005, 61805-62205, 62/22-63/28	1205-2305	3205-3305	22205-21305
TMIP E7-9	7-9 mm	607-629, 618/7-619/9, 627-628/8	127-129	_	-
TMIP E10-12	10-12 mm	6000-6301,16000-16101,61800-61801	1200-2301	3200-5201	_
TMIP E15-17	15-17 mm	6002-6403, 16002-16003, 61802-61903	1202-2303	3202-3303	-
TMIP E20-28	20-28 mm	6004-6405, 16004-16005, 62/22-63/28	1204-2305	3204-3305	22205/20-21305
TMIP E30-40	30-40 mm	6006-6408, 16006-16008, 61806-61908	1206-2308	3206-5408	22206-22308
TMIP E45-60	45-60 mm	6009-6412, 16009-16012, 61809-61912	1209-1412	3209-5412	22209-22312

The above tables only show a selection of popular bearings that can be dismounted using SKF Internal Pullers. There may be other bearings that can also be removed using the SKFTMIP or TMIC pullers.

Internal pullers



Fast and easy bearing dismounting from housings

SKF Internal Bearing Puller Kits TMIP and TMIC series

The SKF Internal Bearing Puller Kits are designed for dismounting bearings from housings, where the fit is on the outer ring. The pullers are constructed for optimum strength and durability and suit a wide range of bearing bore diameters. A sliding hammer allows high impact forces to be applied and is ergonomically designed to enhance user safety.

TMIP series

- Unique patented SKF design can reduce dismounting time
- Unlike most internal bearing pullers, the spring loaded extractors can be quickly and easily fitted to the inner ring in just one quick action
- Claw design provides a strong and secure grip behind the inner ring allowing a high puller force to be applied
- Two different kits to suit bearing bores between 7 – 28 mm and 30 – 60 mm

TMIC series

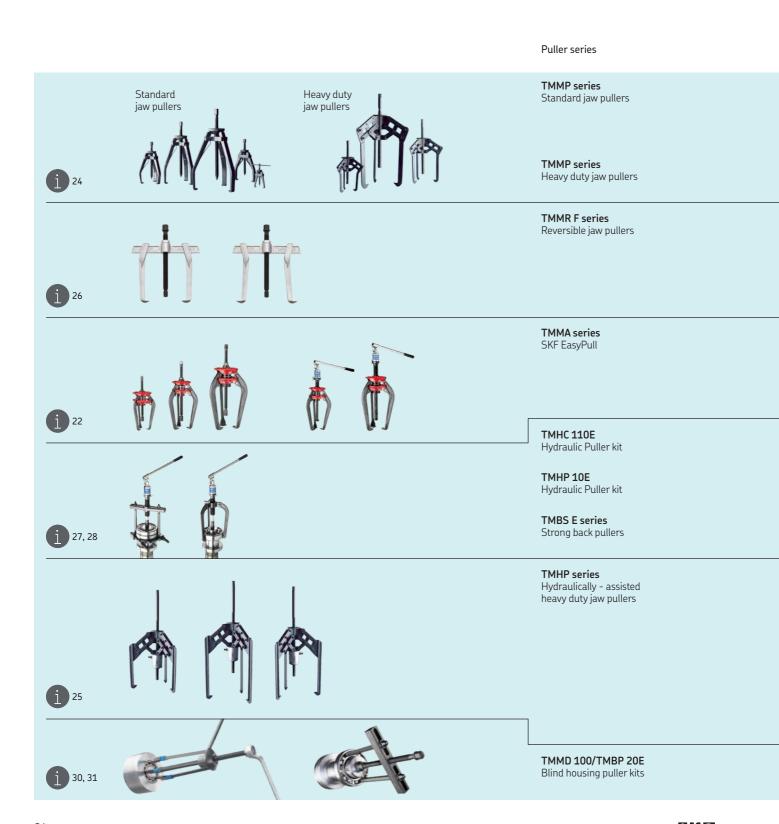
- Expandable collet design made of high strength materials
- Designed for applications with only a limited space to grip behind the bearing
- Suit bearing bores between 7 28 mm

Technical data – extractors							
size	Maxin	Maximum bearing width		Space behind bearing		Housing depth	
	mm	in.	mm	in.	mm	in.	
TMIC 7-28							
TMIC C7-8	13,3	0.5	3	0.12	54	2.1	
TMIC C10-12	46,5	1.8	3	0.12	56	2.2	
TMIC C12-15	54	2.1	4	0.16	62	2.4	
TMIC C17-20	59	2.3	5,3	0.21	70	2.8	
TMIC C22-28	90	3.5	6,7	0.26	90	3.5	
TMIP 7-28							
TMIP E7-9	10	0.4	6	0.24	39	1.5	
TMIP E10-12	11	0.4	6	0.24	45	1.8	
TMIP E15-17	18	0.7	7,5	0.29	55	2.2	
TMIP E20-28	24	0.9	10	0.4	60	2.4	
TMIP 30-60							
TMIP E30-40	>35	>1.4	11,5	0.45	97	3.8	
TMIP E45-60	>64	>2.5	15	0.6	102	4.0	



Puller accessory selection guide

A range of accessories has been developed to further facilitate the ease of use of the SKF puller range.













Puller Protection Blankets TMMX series

Designation

Force Generators Advanced
Hydraulic Spindle TMHS series

Tri-section Pulling	Plates
TMMS series	

	TMMP 2x65 TMMP 2x170 TMMP 3x185 TMMP 3x230 TMMP 3x300 TMMP 6 TMMP 10 TMMP 15	- TMMX 280 TMMX 210 ¹⁾ TMMX 210 TMMX 280 TMMX 280 TMMX 280	TMMX 280 ¹⁾ TMMX 350 ¹⁾	- - - - -	- TMMS 50 ¹⁾ TMMS 100 TMMS 50 ¹⁾ TMMS 100 TMMS 50 ¹⁾ TMMS 100 TMMS 100 TMMS 100 TMMS 100 ¹⁾ TMMS 160
	TMMR 40F TMMR 60F TMMR 80F TMMR 120F TMMR 160F (XL) TMMR 200F (XL) TMMR 250F (XL) TMMR 350F (XL)	- - TMMX 210 TMMX 210 TMMX 280 ¹⁾ TMMX 350 ¹⁾	TMMX 280	- - - - - -	- - - - - -
	TMMA 60 TMMA 80 TMMA 120 TMMA 75H TMMA 100H TMMA 75H/SET TMMA 100H/SET	TMMX 210 ¹⁾ TMMX 210 TMMX 280 TMMX 210 TMMX 280 TMMX 280 ²⁾ TMMX 350 ²⁾	TMMX 280 TMMX 280 ¹⁾ TMMX 350 TMMX 350 ¹⁾ TMMX 380 ¹⁾ TMMX 350 TMMX 350 ¹⁾	- TMHS 75 TMHS 100 TMHS 75 ²⁾ TMHS 100 ²⁾ TMHS 75 ²⁾ TMHS 100 ²⁾	TMMS 50 1) TMMS 50 1) TMMS 100 1) TMMS 50 1 TMMS 100 1) TMMS 50 1) TMMS 100 1) TMMS 50 1 TMMS 100 1) TMMS 50 1 TMMS 100 1) TMMS 50 1) TMMS 100 2) TMMS 100 2)
	TMHC 110E	TMMX 210	TMMX 280 ¹⁾ TMMX 350	TMHS 100 ²⁾	
	TMHP 10E	TMMX 210	TMMX 280 ¹⁾ TMMX 350	TMHS 100 ²⁾	TMMS 50 ¹⁾ TMMS 100 ¹⁾ TMMS 160
•	TMBS 50E TMBS 100E TMBS 150E	TMMX 210 TMMX 210 ¹⁾ TMMX 280 ¹⁾		– TMHS 100 ²⁾ TMHS 100 ²⁾	- - -
	TMHP 15/260 TMHP 30/170 TMHP 30/350 TMHP 30/600 TMHP 50/140 TMHP 50/320 TMHP 50/570 TMHP 15/260X TMHP 30/170X TMHP 30/350X TMHP 30/600X TMHP 50/140X TMHP 50/320X TMHP 50/570X	- - - - - - - - - -		 	TMMS 160 TMMS 260 TMMS 260 1) TMMS 380 TMMS 260 1) TMMS 380 TMMS 260 1) TMMS 380 TMMS 260 1 TMMS 380 TMMS 260 TMMS 380 1) TMMS 260 1 TMMS 380 TMMS 260 1) TMMS 380 TMMS 260 1 TMMS 380 TMMS 260 1 TMMS 380 TMMS 260 TMMS 380 1)
	TMMD 100 TMBP 20E	TMMX 210 ¹⁾ TMMX 210	TMMX 280 ¹⁾	- -	- -

¹⁾ recommended / 2) accessory included with puller



Effortless withdrawal force generation

Advanced Hydraulic Spindles TMHS 75 and TMHS 100

The SKF TMHS 75 and TMHS 100 generate a high pulling force with very little effort compared to the standard mechanical spindles. They significantly reduce the time needed to dismount a bearing or other component.

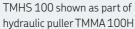
- Integrated hydraulic cylinder, pump and spindle no separate pump is required
- Safety valve helps prevent overloading the spindle and the puller in case excessive force is applied
- Long stroke helps enable dismounting in one operation
- Spring-loaded nosepiece centre point allows easy puller centring minimising shaft centre point damage
- Hand lever with ergonomic grip can be rotated 360°
- Extension pieces included

TMHS 75:

- Maximum withdrawal force of 75 kN (8.4 US ton)
- Stroke length of 75 mm (3.0 in.)
- Suitable for use with pullers with a 1 1/4"-12 UNF thread

TMHS 100:

- Maximum withdrawal force of 100 kN (11.2 US ton)
- Stroke length of 80 mm (3.1 in.)
- Suitable for use with pullers with a $1\frac{1}{2}$ "-16 UN thread





Designation	TMHS 75	TMHS 100
Contents	1 × hydraulic spindle 2 × extension pieces; 50 and 100 mm (2.0 and 3.9 in.) 1 × nosepiece	$1 \times$ hydraulic spindle $3 \times$ extension pieces; $50,100$ and 150 mm (2.0, 3.9 and 5.9 in.) $1 \times$ nosepiece
Maximum withdrawal force	75 kN (8.4 US ton)	100 kN (11.2 US ton)
Piston stroke	75 mm (3.0 in.)	80 mm (3.1 in.)
Body thread	1 ¹ /4"-12 UNF	1 ¹ /2"-16 UN
Nose piece diameter	35 mm (1.4 in.)	30 mm (1.2 in.)
Maximum reach	229 mm (9.0 in.)	390 mm (15.4 in.)
Weight	2,7 kg (6.0 lb)	4,5 kg (10.0 lb)



Efficient and correct dismounting

SKF Tri-section Pulling Plates TMMS series

- The SKFTMMS series consists of five different sizes of tri-section pulling plates suitable for shafts with diameters ranging from 50 to 380 mm (2 to 15 in.)
- Suitable for use in combination with three-armed pullers
- The plates grip behind the bearing inner ring, helping to ensure that
 the pulling forces are only transmitted through the inner ring and not
 through the outer ring or the rolling elements; thereby minimising the
 risk of bearing damage
- The tri-section construction allows an even dismounting force distribution, preventing bearing locking and/or tilting on the shaft, especially in the case of spherical roller and CARB toroidal roller bearings
- Special wedge shape design allows the plates to be easily inserted between the bearing and the shoulder on the shaft

Designation	d_{min}		d_{max}		Α		Н		
	mm	in.	mm	in.	mm	in.	mm	in.	
TMMS 50	12	0.5	50	2.0	20–30	0.8-1.2	15	0.6	A AAA A
TMMS 100	26	1.0	100	3.9	36–55	1.4-2.1	25	1.0	
TMMS 160	50	2.0	160	6.3	45-73	1.8-2.9	30	1.2	
TMMS 260	90	3.6	260	10.2	70–114	2.8-4.5	42	1.7	
TMMS 380	140	5.5	380	15.0	81–142	3.2-5.6	58	2.3	





For additional user safety during dismounting

SKF Puller Protection Blankets TMMX series

- The SKF TMMX series are designed to offer additional user safety, while dismounting bearings or other components
- After the puller has been positioned, the blanket is simply wrapped around the puller and application
- The tough, transparent plastic allows the user to monitor the component and the puller during operation
- Especially designed to fit SKF TMMA series pullers, they are also suitable for use in combination with many other pullers

Dimensions Designation	Recomm maximu	nended m diameter	Length	Length		Width	
	mm	in.	mm	in.	mm	in.	
TMMX 210	210	8.3	750	29.5	420	16.5	
TMMX 280	280	11.0	970	38.2	480	18.9	
TMMX 350	350	13.8	1 200	47.2	580	22.8	



SKF Anti-fretting Agent LGAF 3E

SKF LGAF 3E is a greasy, smooth paste to prevent fretting corrosion caused by very slight oscillations or by vibrations, that can make dismounting much more difficult.

- Suitable for bearings and metal surfaces in loose fit arrangements, such as vibrating screens, truck and car wheel bearings
- Reduces fretting corrosion thereby enabling easier dismounting of bearings
- Assists with easier removal of general industrial components in a wide range of applications such as nuts, bolts, flanges, studs, bearings, guide pins, couplings, jack screws, lathe centres, push rods, and spline shafts



Technical data					
Designation	LGAF 3E				
Specific gravity	1,19				
Colour	White-beige				
Base oil type	Mineral and synthetic				
Thickener	Lithium soap				
Operating temperature range	−25 to +150 °C (−13 to +302 °F)				
Base oil viscosity: 40 °C, mm ² /s	17,5				
Available pack sizes	0,5 kg, 30 kg				



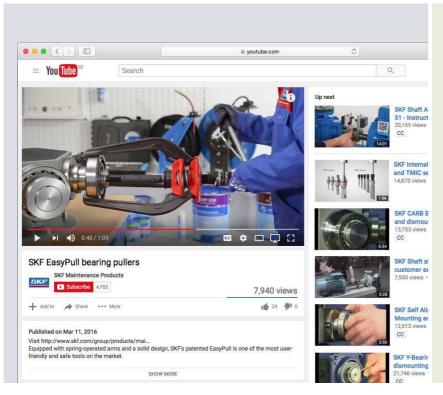
SKF Anti Corrosive Agent LHRP 2

SKF LHRP 2 provides excellent long-term corrosion protection to ferrous and non-ferrous surfaces. When applied, it creates a stable rust protection film on the surface of the metal.

- Effective rust protection, even in high humidity environments
- The thixotropic, non dripping, nature creates a stable protective film
- The residual films can be easily cleaned by slight mechanical agitation or heat
- Does not adhere to most packaging papers
- Most bearings do not need to be cleaned before applying SKF grease 1)

¹⁾ Note: Film needs to be removed before applying SKF LGET 2 grease.

Technical data			
Designation	LHRP 2/5		
Specific gravity	0,835		
Colour	Hazy brown		
Base oil type	Mineral		
Flash point	>62 °C (>144 °F)		
Pour point	<4 °C (<39 °F)		
Available pack sizes	51		



YouTube channel

SKF has a large number of informative videos available on YouTube. There you can find videos that introduce you to new products and give you instruction on how to use the products. In addition, a comprehensive series of videos explains the right techniques for mounting and dismounting bearings of various types. The videos are available with narration or subtitles in various languages. The YouTube channel is an easy way to learn more about SKF maintenance and lubrication products. Just visit and subscribe to be automatically informed when new videos are added.



