

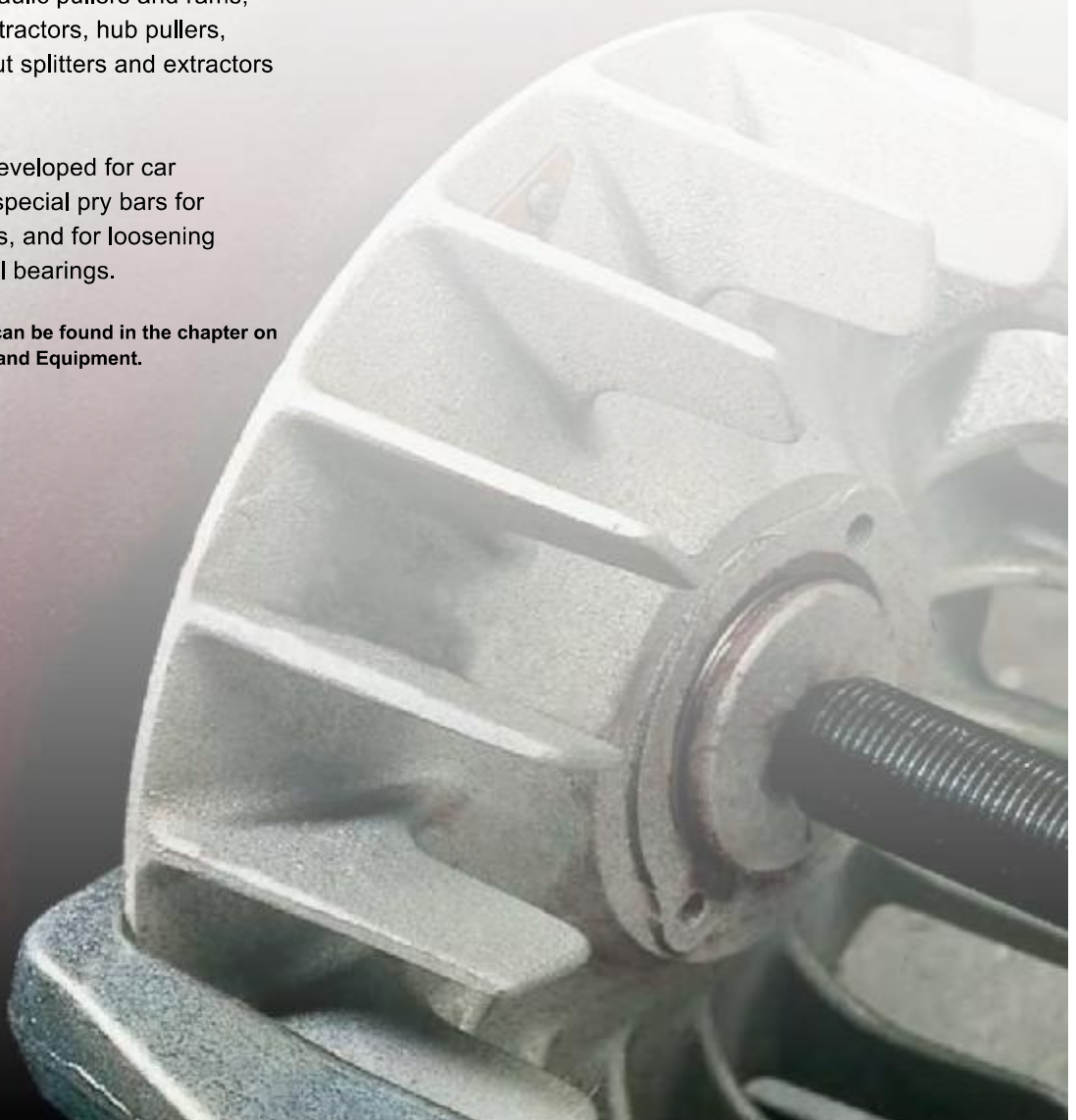
EXTRACTORS & PULLERS

Bahco offers a range of pullers and extractors for a wide variety of applications. Made of special steel with a galvanized finish, they allow the quick, easy, non-damaging removal of pulleys, gears, ball bearings etc. The standard two-, three- and multi-arm pullers are ideal for both internal and external jobs, with features such as flat legs and bodies for work in confined spaces.

The range includes hydraulic pullers and rams, ball-joint pullers, stud extractors, hub pullers, pullers for separators, nut splitters and extractors for specialist operations.

Bahco also offers sets developed for car maintenance, including special pry bars for cylinder heads and gears, and for loosening rust-bound parts and ball bearings.

More pullers and extractors can be found in the chapter on Automotive Speciality Tools and Equipment.



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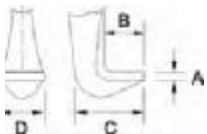
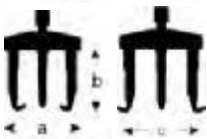




EXTRACTORS

4532

UNIVERSAL 2 ARM PULLERS

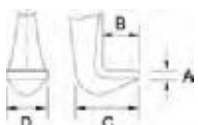
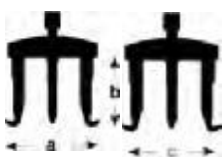


- Extractor: 2 arms
- Finish: Galvanised, with induction hardened spindle from 4532-C, D, E, F, G and H
- Arms and yokes are drop-forged
- Material: Special steel
- By reversing the arms, the extractor can be used as internal or external
- The large claw surfaces offer many advantages for careful and quick removal of pulleys, gears, ball bearings etc.
- Arms always grip parallel to each other
- Arm tip is flat and leg body is narrow

			a	b	c	max	max	max	A	B	C	D			
	731415		mm	mm	mm	Nm	Tn	KN	mm	mm	mm	mm	mm	mm	g
4532-A	1082109	1	25-80	100	70-130	80	4.5	45	3	13	25	20	M14x1.5x135	17	1000
4532-B	1082116	1	25-130	100	80-180	80	4.5	45	3	13	25	20	M14x1.5x135	17	1200
4532-C	1082123	1	50-160	150	105-220	190	6.5	65	4	16	35	25	R1/2"x14Gg.x210	22	3000
4532-D	1082130	1	60-200	150	120-270	190	6.5	65	4	16	35	25	R1/2"x14Gg.x210	22	3200
4532-E	1082147	1	80-250	200	160-330	360	11.0	110	5	25	54	35	R3/4"x14Gg.x265	27	7000
4532-F	1082154	1	80-350	200	160-420	360	11.0	110	5	25	54	35	R3/4"x14Gg.x265	27	8000
4532-G	1082161	1	110-520	200	195-600	360	13.0	130	5	25	54	35	R3/4"x14Gg.x265	27	14000
4532-H	1719999	1	170-640	225	260-715	400	18.0	180	10	33	55	50	R1"x11Gg.x305	36	23000

4532-0

UNIVERSAL 2 ARM PULLERS



- Extractor: 2 arms
- Finish: Galvanised
- Arms and yokes are drop-forged. Leg tips in gunmetal finish
- Material: Special steel
- By reversing the arms, the extractor can be used as internal or external
- The claw is milled to a slender and pointed form for easy access in confined spaces, for use in the automotive industry
- Legs always grip parallel to each other
- Leg tip is flat, leg body is narrow

			a	b	c	max	max	max	A	B	C	D			
	731415		mm	mm	mm	Nm	Tn	KN	mm	mm	mm	mm	mm	mm	g
4532-0	1719722	1	20-90	100	70-130	80	4.5	45	3.6	6	13	27	M14x1.5x135	17	1000



4532K0

UNIVERSAL 2 ARM PULLERS



- Pair of spare arms in standard length 4532 series
- Finish: Galvanised, leg tips in gunmetal finish
- Material: Special steel

					A	B	C	D	
	731415			mm	mm	mm	mm	mm	g
4532K0	1720063	1	4532-0	100	3,6	6	13	27	500

4532K

PAIR OF SPARE ARMS IN STANDARD LENGTHS



- Pair of spare arms in standard length 4532 series
- Finish: Galvanised, leg tips in gunmetal finish
- Material: Special steel

					A	B	C	D	
	731415			mm	mm	mm	mm	mm	g
4532K1	1082185	1	4532-A-B	100	3	13	25	20	500
4532K2	1082192	1	4532-C-D	150	4	16	35	25	1300
4532K3	1082208	1	4532-E-G	200	5	25	54	35	3200
4532K4	1720148	1	4532-H	225	10	33	55	50	4300

4532LK

PAIR OF SPARE ARMS IN SPECIAL LENGTHS



- Pair of spare arms in special lengths 4532 series
- Finish: Galvanised, leg tips in gunmetal finish
- Material: Special steel

					A	B	C	D	
	731415			mm	mm	mm	mm	mm	g
4532LK1	1082215	1	4532-A-B	200	3	13	25	20	1000
4532LK2	1082222	1	4532-C-D	300	4	16	35	25	2400
4532LK3	1082239	1	4532-E-G	300	5	25	54	35	4500
4532LK4	1082246	1	4532-E-G	400	5	25	54	35	5400
4532LK5	1720223	1	4532-E-G	500	5	25	54	35	7000

4532/S

SPARE SPINDLES



- Spare spindle, with round steel ball
- Finish: Gunmetal finish, induction hardened and wear resistant spindle on 4532-CD/S 4532-EFG/S and 4532-H/S

	731415			mm	mm	g
4532-OAB/S	1818050	1	4532-O,-A,-B,4537-1,4528-M1 4541-A,4542-A,4552-1		M14 x 1,5 x 135	175
4532-CD/S	1818067	1	4532-C,-D,4552-2,4552-3		G 1/2"x14Gg.x210	575
4532-EFG/S	1838386	1	4532-E,-F,-G		G 3/4"x14 Gg.x280	1275
4532-H/S	1838393	1	4532-H		G 1"x 11 Gg.x310	2230



EXTRACTORS

4532ST/5

2 ARM PULLER SET SALES DISPLAY



- 5 set display of 2 arm pullers
- Finish: Galvanised
- Material: Special steel
- 4532-A to -E

	 731415		 g
4532ST/5	1720490	1	16700

4533

3 AND MULTI-ARM PULLER



- Extractors: 3 legs and multi-arms
- To be used a 2, 3 or 4 arm puller due to moveable and interchangeable yoke arms
- The arms can be moved radially on the yoke and can be fixed at the desired span
- As the arms can be reversed, the puller can be used both for internal and external jobs

4533HP hydraulic system

- spindle male thread: G1" x 11 x 365

4533M mechanical system with induction hardened and wear resistant spindle

- spindle male thread: G1" x 11 x 365



	 731415		a mm	b mm	 max Nm	 max Tn	 max KN	 g
4533HP	1793043	1	150-700	185	70	15	150	47100
4533M	1793050	1	150-700	200	400	15	150	42500

4529

HYDRAULIC RAMS



- Hydraulic rams
- Finish: Galvanised
- Material: Special steel
- Increases the forward thrust in combination with mechanical pullers, especially suited for tightly jammed parts
- Operation: For hydraulic ram between working piece and puller spindle with spindle drawn back
- Hydraulic system works by tightening spindle
- If piston stroke is insufficient, release spindle and tighten same; Continue to operate spindle as described before

	 731415		Max Tn	Max KN	 mm	 max Nm	 H mm	 g
4529-8	1719562	1	8	80	8	60	51	800
4529-15	1719647	1	15	150	12	70	75	1800



4541

2 ARM PULLERS



- Extractor: 2 arms
- Finish: Galvanised
- Material: Special steel
- Double sided arms, one end broad and the other end narrow

			a mm	b mm	max T Nm	max T Tn	max T KN	
4541-A	731415 1082413	1	20-150	85	50	3,5	35	900
4541-B	1082420	1	40-220	130	60	4	40	2200

4537

2 ARM PULLERS



1 - 2



3 - 4



- Extractor: 2 arms - heavy duty
- Finish: Galvanised
- Material: Special steel
- Especially suited for pulling ball bearings, pulleys, gears, etc.

			a mm	b mm	max T Nm	max T Tn	max T KN	
4537-1	731415 1720650	1	20-170	130	50	3,5	40	1000
4537-2	1720735	1	20-230	200	60	4	40	2300
4537-3	1720810	1	50-300	250	120	6	60	5400
4537-4	1721039	1	50-350	350	120	6	60	6100

4542

3 ARM PULLERS



- Extractor: 3 arm
- Finish: Galvanised
- Material: Special steel
- Especially suited for pulling ball bearings, pulleys, gears, etc
- Double sided arms, one end broad, other end narrow

			a mm	b mm	max T Nm	max T Tn	max T KN	
4542-A	731415 1082451	1	20-150	85	60	4,0	40	1200
4542-B	1082468	1	40-220	130	70	4.5	45	2900



EXTRACTORS

4528M

3 ARM PULLERS



M1 - M2

M3 - M5



- Extractor: 3 arms - heavy duty
- Finished: Galvanised
- Material: Special steel
- Especially suited for pulling ball bearings, pulleys, gears, etc.

			a mm	b mm				
	731415							
4528M1	1718916	1	20-170	130	60	4.0	40	1300
4528M2	1719050	1	20-230	200	70	4,5	45	3100
4528M3	1719135	1	50-300	250	220	10	100	7000
4528M4	1719210	1	50-350	350	220	10	100	8300
4528M5	1719487	1	50-400	400	220	12	120	8800

4528

HYDRAULIC 3 ARM PULLERS



- Extractor: 3 arm hydraulic - heavy duty
- Due to a hydraulic cylinder, this puller reaches a pulling force of 15 t with a stroke of approx 12 mm
- Hydraulic spindle male thread: R1" x 11
- K1-K5 = Spare arms

			a mm	b mm				
	731415							
4528-1	1718671	1	50-350	135	70	15	150	12500
4528K1	1837662	1	50-300	135	-	15	150	3700
4528K2	1837679	1	50-350	235	-	15	150	5000
4528K3	1837686	1	50-400	285	-	15	150	5500
4528K4	1837693	1	50-450	335	-	15	150	6000
4528K5	1837709	1	50-500	385	-	15	150	6500

4543

2 AND 3 ARM PULLERS



4543-1

4543-10



- Extractor: 2 and 3 arms
- Finish: Galvanised
- Material: Special steel
- Handy puller for light duty work, such as on terminals, gears, ball bearings, pulleys etc
- 4543-10 to -30 with 3 arms
- 4543-1 to -3 with 2 arms

			a mm	b mm				
	731415							
4543-1	1082499	1	10-60	40	18	1.0	10	160
4543-2	1082505	1	10-70	74	20	1.2	12	200
4543-3	1721381	1	10-90	84	24	2.0	20	300
4543-10	1721466	1	10-60	40	20	1.2	12	200
4543-20	1721541	1	10-70	74	21	1.3	13	300
4543-30	1721626	1	10-90	84	40	2.5	25	500



4543/S

SPINDLE



- Spare spindle with round steel ball
- Finish: Gunmetal finish

	 731415			 mm	 g
4543-1/S	1818623	1	4543-1 /-10,	10	35
4543-2/S	1818661	1	4543-2-20	10	35
4543-3/S	1818708	1	4543-3 /-30, 4614-1	12	65

4544

2 AND 3 ARM PULLERS



- Extractor: 2 and 3 arm
- Finish: Galvanised
- Material: Special steel
- Solid extractor transmission and self-centring arms
- 4544-1 - 4544-4 with 2 arms
- 4544-10 - 4544-40 with 3 arms

	 731415		a mm	b mm	 max Nm	 max Tn	 max KN	 g
4544-1	1844004	1	10-100	80	25	2.5	25	680
4544-2	1844011	1	10-120	120	35	3.0	30	1140
4544-3	1844028	1	20-160	160	45	3.5	35	2000
4544-4	1844035	1	20-200	200	50	4.0	40	3500
4544-10	1844042	1	10-100	80	25	2.5	25	910
4544-20	1844059	1	10-120	120	35	3.0	30	1450
4544-30	1844066	1	20-160	160	45	3.5	35	2500

4518

UNIVERSAL HUB PULLER



- Universal hub extractor
- Finish: Galvanised
- Material: Special steel
- Sturdy construction for heavy duty work on car and truck hubs
 - 4518-3 3 arms
 - 4518-4 4 arms
 - 4518-5 5 arms

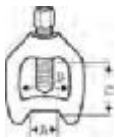
	 731415		a mm	b mm	 max Nm	 max Tn	 max KN	 g
4518-3	1716547	1	225	140	280	14	140	3800
4518-4	1716622	1	225	140	280	14	140	4300
4518-5	1716899	1	225	140	280	14	140	4900



EXTRACTORS

4545

BALL JOINT PULLERS



- Ball joint extractor
- Finish: Galvanised
- For removing ball joints during dismantling of ball joints on tie-rods etc
- Non-damaging and easy operation

	 731415		A mm	B mm	C mm	 max Nm	 g
4545-1	1082543	1	18	40	40	50	300
4545-2	1082550	1	25	50	50	120	700
4545-3	1082567	1	29	60	60	160	1000
4545-4	1722272	1	40	80	80	280	2100
4545-5	1722357	1	45	90	100	400	2800

4545-N

UNIVERSAL BALL JOINT PULLERS



4545-N1



4545-N2

- Universal ball joint extractor
- Material: Special steel
- Finish: Galvanised
- A special tool for removing ball pins during dismantling of ball joints on tie-rods etc
- Gripping capacity
- 4545-N1 adjustable up to 50 mm (2") with an opening of 18-22 mm (23/32-7/8")
- 4545-N2 two steps up to 50 mm (2") with an opening of 24 mm (30/32")

	 731415		 g
4545-N1	1722432	1	800
4545-N2	1804947	1	1300

4551

SEPARATORS



- Separator
- Finish: Galvanised
- Material: Special steel

	 731415		 mm		 g
4551-A	1082628	1	10-60	4552-1	400
4551-B	1722784	1	15-75	4552-1	700
4551-C	1082642	1	35-115	4552-2	1900
4551-D	1082659	1	40-150	4552-3	4200



4552

PULLERS FOR SEPARATORS



4552-1



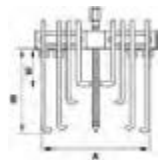
4552-2

- Extractor for separator
- Operation: The sharp tapered cutting edges of separator No. 4551 are pressed behind the part to be removed when tightening the stud nuts
- Use puller No. 4552 to withdraw separator and part from the shaft by tightening the rod nuts
- Opening capacity/span depth in mm:
 - 4552-1: 45-140/150
 - 4552-2: 55-200/210
 - 4552-3: 90-260/315

	 731415		 max Nm	 MAX Tn	 MAX KN		 g
4552-1	1722944	1	40	2.5	25	4551-A-B	1100
4552-2	1723088	1	70	4	40	4551-C	2700
4552-3	1723163	1	90	5	50	4551-D	5200

4540

MULTIPLE EXTRACTORS



- Multiple extractor
- Can be used as internal or external puller
- Hooks can be bolted to get extended reach

	 731415		A mm	B mm	 g
4540-17	0125005	1	30-170	65-140	2630
4540-25	0125012	1	75-250	77-180	5800



EXTRACTORS

4521N



BALL BEARING INTERNAL EXTRACTORS

- Ball bearing internal extractors
- Finish: Gunmetal finish
- Material: Special steel
- The extractor shank has multiple slots (1-4) which allows uniform spreading on the periphery and safe removal of the ball bearing
- For extracting ball bearings from housings, ball bearing outer races, bushings and oil seals

	 731415		 mm		 mm		 g
4521N-00	1837716	1	5-7	1	30	4522-1	50
4521N-0	1837723	1	7-9	1	30	4522-1	50
4521N-A	1837730	1	9-12	1	30	4522-1	60
4521N-B	1837747	1	10-13	4	30	4522-1	60
4521N-C	1837754	1	13-17	4	50	4522-1	80
4521N-D	1837761	1	14-19	4	60	4522-1	90
4521N-E	1837778	1	16-21	4	60	4522-1	90
4521N-F	1837785	1	18-23	4	60	4522-1	110
4521N-G	1837792	1	20-25	4	60	4522-1	110
4521N-H	1837808	1	25-30	4	60	4522-1	120
4521N-I	1837815	1	30-37	4	70	4522-1	280
4521N-K	1837822	1	35-42	4	70	4522-1	280
4521N-L	1837839	1	38-45	4	70	4522-1	290
4521N-M	1837846	1	43-50	4	70	4522-1	310
4521N-S	1839789	1	40-75	3	100	4522-2	760
4521N-T	1839796	1	70-115	3	130	4522-2	1400

4522



COUNTER STAY DEVICES

- Extractor: 2 arms
- To be used with 4521
- Finish: Galvanised
- 4522-1 fits 4521N-00 to -M
- 4522-2 fits 4521N-S and -T

	 731415		 g
4522-1	1081591	1	700
4522-2	1081614	1	1500



4521N/7

COMPLETE WORKSHOP PULLER ASSORTMENT



- Extractor set 9 pcs
- Finish: Galvanised and gunmetal finish
- Material: Special steel
- Metallic box: Size 400 x 310 x 70 mm

	 731415		
4521N/7	1839802	1	6800

4521N-B
4521N-D, 4521N-G, 4521N-H, 4521N-I, 421N-L, 4521N-S



4522-1, 4522-2



4523G

SLIDING HAMMER PULLING BAR



- Sliding hammer
- Finish: Gunmetal finish
- Material: Special steel
- To be used with 4521N-00 to E

	 731415		 L mm	
4523G	1846695	1	Ø10x170	400

4524G

SLIDING HAMMER PULLING BAR



- Sliding hammer 1.3 kg
- Finish: Galvanised
- Material: Special steel
- To be used with 4521N-F up to -M

	 731415		 L mm	
4524G	1718596	1	Ø16 x 250	1300



EXTRACTORS

4581N-4583N

BALL BEARING PULLERS WITHOUT ARMS



- Ball bearing extractor without arms
- Finish: Galvanised
- Material: Special steel
- This puller removes ball bearings that are inside a housing and mounted on a shaft

	 731415			 g
4581N-1	1724139	1	4581NA, 4581NB	300
4582N-1	1724214	1	4581NB2, 4581NC, 4582NA	400
4582N-2	1724481	1	4581NC, 4582NA, 4582NB	500
4583N-1	1724566	1	4582NA, 4583NA, 4583NB	900
4583N-2	1724641	1	4582NA, 4582NB, 4583NB	1200

4581NA-4583NB

SPARE ARMS



- Extractor spare arms - set of 4 pcs
- Finish: Galvanised
- Material: Special steel

	 731415		 mm		 g
4581NA	1301200	1	120	4581N-1	100
4581NB	1301217	1	120	4581N-1	100
4581NB2	1724726	1	130	4582N-1	200
4581NC	1301224	1	130	4582N-1, 4582N-2	200
4582NA	1301248	1	150	4582N-1, 4583N-2	300
4582NB	1301255	1	150	4582N-2, 4583N-2	400
4583NA	1301279	1	190	4583N-1	600
4583NB	1301286	1	190	4583N-1, 4583N-2	800

4580N/7

SET OF BALL BEARING PULLERS



- Ball bearing extractor set
- Finish: Galvanised
- Material: Special steel
- For ball bearings 6000-6012, 6200-6212, 6300-6311, 6403-6406
- Pullers No. 4581NB-1, 4582N-1, 4582N-2, 4583N-1, 4583N-2
- 8 arm set, 4 pcs each No. 4581NA through 4583NB

	 731415		 mm	 g
4580N/7	1301361	1	287x192x66	8000



4614

2 ARMS PULLERS



- Extractor: Scissor type
- Finish: Galvanised, induction hardened and wear-resistant spindle
- Material: Special steel
- Application: Due to the shearing action, the arm's clamping force is increased when pulling; The claws are pointed at one end which makes this puller well suited for work in confined spaces
- 4614-1 particularly suited for armature bearings on 3-phase current generators

	 731415		a mm	b mm	 max Tn	 max Tn	 max KN	 g
4614-1	1725457	1	6-100	70-85	25	1.5	15	400
4614-2	1725532	1	10-140	85-120	60	3.5	35	900

4519

PULLERS WITH CLAMP



- Extractor: 2 arms with clamp
- Finish: Galvanised
- To remove axle bearings, ball bearing races, pinions etc
- Double-side use of arms
- Both claws are slim which makes the tool ideal for work in confined spaces

	 731415		a mm	b mm	 max Tn	 max Tn	 max KN	 g
4519-1	1716974	1	20-110	80-170	120	5	50	2300
4519-2	1717193	1	40-150	90-270	120	6	60	4100
4519-3	1717278	1	40-150	90-330	150	8	80	4500

4519/S

SPARE SPINDLES



- Spare spindle, with round steel ball
- Finish: Gunmetal finish

	 731415			 mm	 g
4519-1/S	1843762	1	4519-1, 4542-B, 4583N-1 4537-2, 4528M2, 4541-B	19	48
4519-2/S	1843977	1	4519-2, 4519-3, 4528M3, 4528M4 4528M5, 4537-3, 4537-4	22	73



EXTRACTORS

4610

NUT SPLITTERS HYDRAULIC



- Hydraulic nut splitter
- Finish: Galvanised and gunmetal finish
- Material: Special steel
- For nuts up to type 10
- For removing jammed nuts without damaging the stud thread
- The double swan-neck tool permits working in confined spaces
- Due to a hydraulic system, a minimum of effort is required for the operation
- The chisel will not retract automatically after use
- Max load 50 KN

	 731415			 mm	 Nm	 g
4610-1	1724993	1	M4-M14	7-22	45	800

4611

NUT SPLITTERS MECHANICAL



- Mechanical nut splitter
- Finish: Galvanised and gunmetal finish
- Material: Special steel
- For nuts up to type 6
- For removing jammed nuts without damaging the stud thread

	 731415			 mm	 g
4611-3	0125043	1	M16-M24	6-36	300

4553

STUD REMOVERS



- Stud remover
- Finish: Galvanised
- Material: Vanadium-extra
- Head thickness 10 mm

	 731415		 mm	 mm	 g
4553	1830649	1	315	5-20	390



4591-4593

STUD REMOVERS



- For tightening and loosening left and right-hand threaded studs
- Finish: Galvanised and gunmetal finish
- Due to the eccentric and knurled clamping disc, short studs can be removed
- Drive SW 19 mm

	 731415		 mm	 max Nm	 g
4591	1804039	1	5-15	120	360
4592	1804046	1	10-19	120	400
4593	1804053	1	18-28	120	450

4574

SET OF PULLER AND SEPARATOR ASSORTMENT



- Extractors and separators set
- Finish: Galvanised
- Material: Special steel

	 731415		 mm	 g
4574	1799014	1	360x300x105	16000

4532
4532-A, -C



4551-C



4532LK
4532LK1, & LK2



4529-15





EXTRACTORS

4577

SET OF PULLERS FOR CAR MAINTENANCE



- Extractor set for car maintenance
- Finish: Galvanised
- Material: Special steel

	731415		440x400x90 mm	g
4577	1838348	1	440x400x90	10500

4565N



4545-N2



4532-B



4614-1



4521N
4521N-B, 4521N-D,
4521N-G 4521N-H,
4521N-I, 4521N-L



4523G



4522-1





1420-1424



STUD EXTRACTORS FOR BROKEN-OFF SCREWS, BOLTS AND STUDS

- Stud extractors for broken-off screws, bolts and studs
- Finish: Blasted
- Material: Chrome-vanadium

	 731415		∅ mm	L mm		 g	
1420-1.4	1696337	1	1.4-3.6	50	1.8	M 3-6	3
1421-2.1	1696412	1	2.1-4.9	57	2.6	M 6-8	7
1422-3.1	1696689	1	3.1-6.5	65	3.7	M 8-11	15
1423-4.8	1696764	1	4.8-8.8	70	5.5	M11-14	25
1424-6.2	1696849	1	6.2-11.0	80	7.0	M14-18	45

1435/5



STUD EXTRACTOR SET

- Stud extractors set 5 pcs
- Finish: Blasted
- Material: Chrome-vanadium
- Covers screws M3 to M18

	 731415		 g
1435/5	1040734	1	145

1420 1421 1422 1423 1424



1435/8



STUD EXTRACTOR SET

- Set with 8 stud extractors
- Finish: Blasted
- Material: Chrome-vanadium
- For screws M3 to M45

	 731415		 g
1435/8	1040741	1	740

1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427





EXTRACTORS

1411-1415

STUD EXTRACTORS



- Finish: Black finish
- Material: Vanadium-extra

	 731415		 mm	 L mm	 mm	 mm	 mm		 g
1411-3.2	1040437	1	10	60	3.2	1/8		M5-M6	12
1412-4.8	1040444	1	11	70	4.8	3/16		M8	20
1413-6.4	1040451	1	13	80	6.4	1/4		M10	32
1414-8	1040468	1	14	85	8.0	5/16		M12	45
1415-8.7	1040475	1	17	95	8.7	11/32		M14-M16	65

1418S

SET OF STUD EXTRACTORS FOR BROKEN-OFF SCREWS, BOLTS AND STUDS



- Set of stud extractors for broken-off screws, bolts and studs
- Finish: Black finish
- Material: Vanadium-extra
- In a plastic case

	 731415		 g
1418S	1040604	1	620

1411 1412 1413 1414 1415



G220 HSS-M
3.2, 4.8, 6.4, 8, 8.7 mm DIN 338 RN



1418
A, B, C, D, E, F, G, H, I, K



1418A-K

SET OF STUD EXTRACTORS FOR BROKEN-OFF SCREWS, BOLTS AND STUDS



- Guide bushes
- Finish: Black finish
- Material: Vanadium-extra

	 731415		 g
1418A	1040505	1	4
1418B	1040512	1	7
1418C	1040529	1	11
1418D	1040536	1	14
1418E	1040543	1	14
1418F	1040550	1	13
1418G	1040567	1	17
1418H	1040574	1	22
1418I	1040581	1	15
1418K	1040598	1	20



1419/4



SET OF STUD EXTRACTORS FOR BROKEN-OFF SCREWS, BOLTS AND STUDS

- Set of stud extractors for broken-off screws, bolts and studs including 4 sizes: M5-M10; M8-M14; M12-M20; extractors M16-M24

	 731151		 g
1419/4	0125036	1	300

1460M/1



SETS OF THREAD-CUTTING TOOLS

- Finish: Polished, taps with ground flanks, in lacquered metal box and with wooden insert
- Material: Taps and dies of HSS
- Taps DIN 352/ISO 6H, dies DIN 223/ISO 6 g, adjustable tap wrench DIN 1814, 4-9, die stocks DIN 225
 - For metric ISO standard threads M 5 6 7 8 9 10 11 12
- Contents: 37 pcs
 - 24 taps = 8 sets of 3 taps (taper, plug, bottoming)
 - 8 round dies, pre-slotted
 - 1 adjustable tap wrench, size 2
 - 4 die stocks, 20 x 7, 25 x 9, 30 x 11, 38 x 14

	 731415		 g
1460M/1	1041090	1	5000

1460M/2



SETS OF THREAD-CUTTING TOOLS

- Finish: Polished, taps with ground flanks, in lacquered metal box and with wooden insert
- Material: Taps and dies of HSS
- Taps DIN 352/ISO 6H, dies DIN 223/ISO 6 g, adjustable tap wrench DIN 1814, 4-9, die stocks DIN 225
 - For metric ISO standard threads, M 5 6 7 8 9 10 11 12 14 16 18 20
- Contents: 55 pcs
 - 36 taps = 12 sets of 3 taps (taper, plug, bottoming)
 - 12 round dies, pre-slotted
 - 2 adjustable tap wrenches, size 1, DIN 1814, 2-6,3 size 3, DIN 1814, 4,9-12
 - 5 die stocks, 20 x 7, 25 x 9, 30 x 11, 38 x 14, 45 x 18

	 731415		 g
1460M/2	1041106	1	8100



EXTRACTORS

1460Z/2



SETS OF THREAD-CUTTING TOOLS

- Finish: Polished, taps with ground flanks
- Material: Taps and dies of HSS
- Taps DIN 352/ISO 6H, dies DIN 223/ISO 6 g, adjustable tap wrench DIN 1814,4-9, die stocks DIN 225
- For American threads:
 - **N.F.** (S.A.E.) 1/4 5/16 3/8 7/16 1/2 9/16 5/8 3/4 in.
 - 28 24 24 20 20 18 18 16 threads per inch
 - **N.C.** (U.S.S.) 1/4 5/16 3/8 7/16 1/2 9/16 5/8 3/4 in.
 - 20 18 16 14 13 12 11 10 threads per inch
- Contents: 54 pcs
 - 32 taps = 8 sets of 2 N.F. taps (taper, bottoming) = 8 sets of 2 N.C. taps (taper, bottoming)
 - 16 round dies, pre-slotted
 - 1 adjustable tap wrench, size 3 DIN 1814, 9-12
 - 5 die stocks, 20 x 7, 25 x 9, 30 x 11, 38 x 14, 45 x 18



1460Z/2



731415

1041120



1



10500

600

TAP WRENCH



- With reversible ratchet: Forward-reverse-locked
- Parallel clamping action
- Hardened jaws
- Sliding handle
- Chrome plated steel



600.003.010



841281

4600000



1



mm

3-10



mm

85



g

195

600.005.012

4600017

1

5-12

110

329



1450D-ISO

DOUBLE THREAD RESTORERS, METRIC



- Double thread restorers for internal and external threads, Metric
- Finish: Galvanised
- Pitch Metric thread

mm	mm
0.80	5
1.00	6 and 7
1.25	8 and 9
1.50	10 and 11
1.75	12
2.00	14 and 16
2.50	18, 20, 22
3.00	24 and 27

	 731415		 L mm	 g
1450D-ISO	1040970	1	230	117

1450D-WW

DOUBLE THREAD RESTORERS, INCH



- Double thread restorers for internal and external threads, Inch
- Finish: Galvanised
- Whitworth

Threads/inch	BSF thread	BSW thread
24	3/16	–
20	1/4	3/8
18	5/16	7/16
16	3/8	1/2 and 9/16
14	7/16	5/8
12	1/2 and 9/16	3/4
11	5/8	7/8
10	3/4	1

	 731415		 L mm	 g
1450D-WW	1040987	1	230	117

1450D/2

SET



- Double thread restorers set
- In wooden box
- With thread table

	 731415		 g
1450D/2	1040963	1	300

1450D-ISO



1450D-WW

