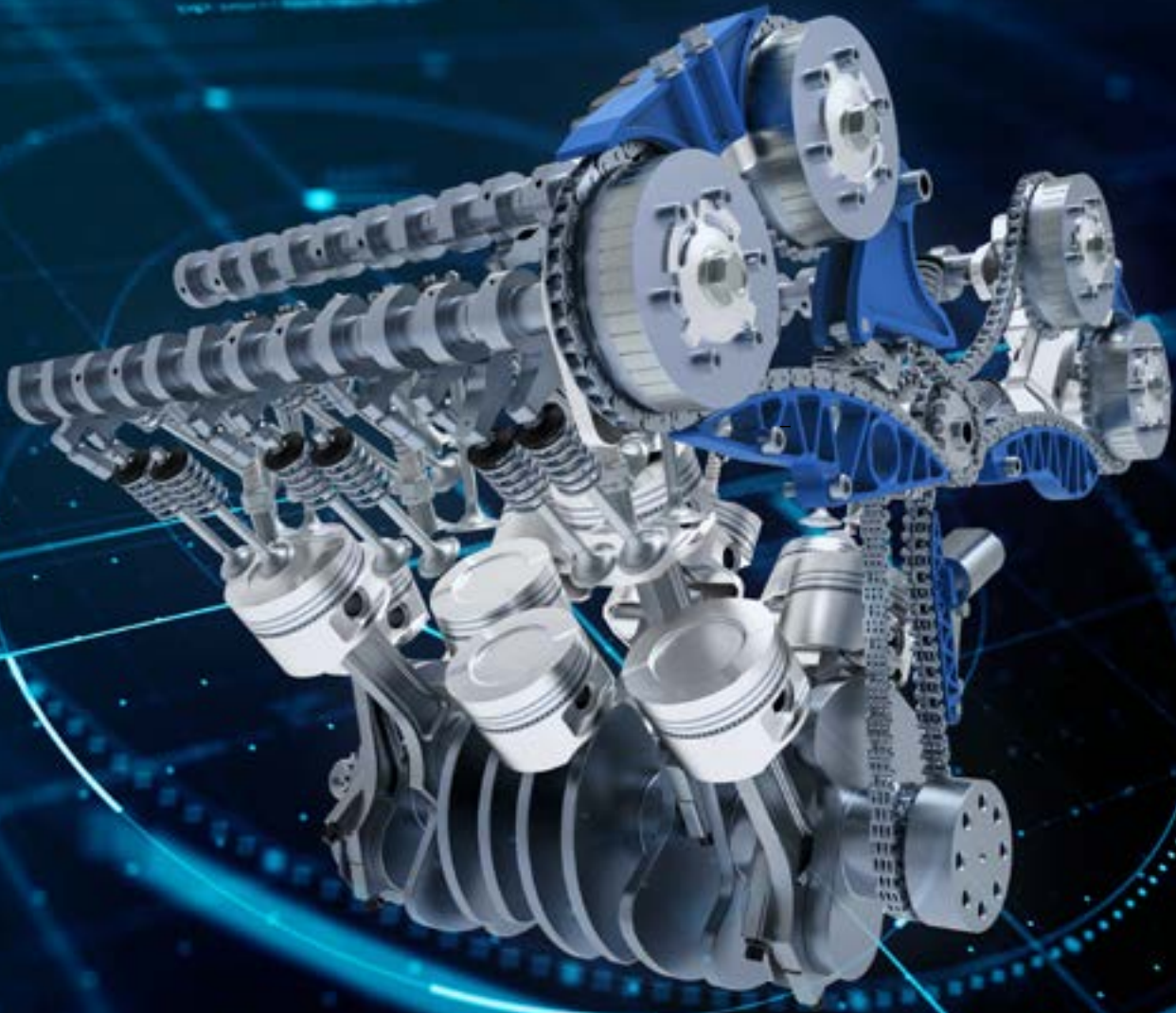




KOLBENSCHMIDT



# PREMIUMQUALITY

**TIMING CHAIN KITS –**  
PRECISION AND STABILITY,  
FOR SAFETY AND PERFORMANCE

PASSION FOR **TECHNOLOGY.**



**RHEINMETALL**

# TIMING CHAIN KITS

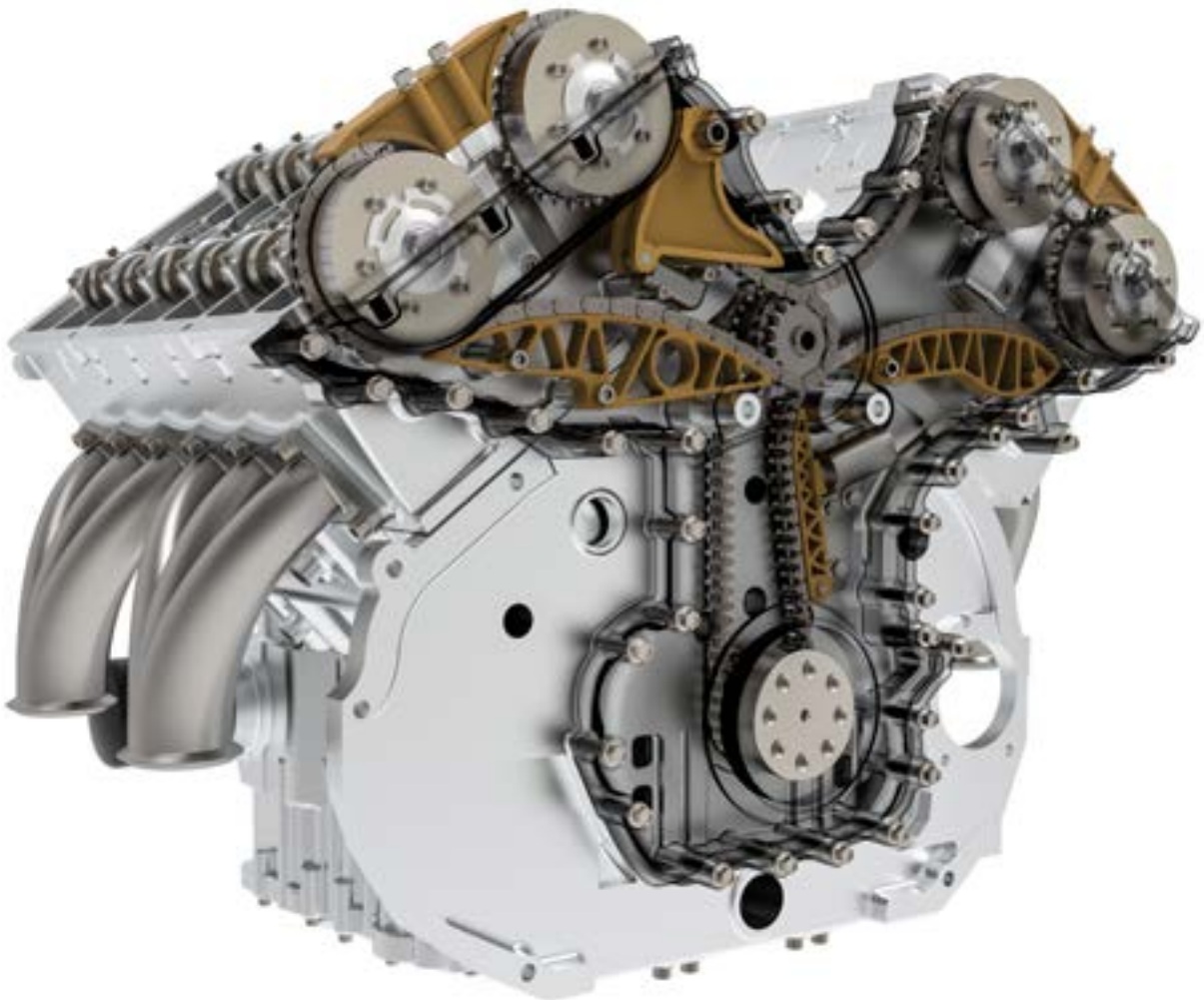
## PRECISION AND STABILITY, FOR RELIABILITY AND POWER

In around a third of all passenger car engines, the camshafts are powered by timing chains. Malfunctions to the engine's primary drive normally result in expensive repairs, which is why it is worth opting for quality products.

### PRODUCT RANGE

Timing chain kits consisting of:

- Timing chains
- Tensioners, slide and guide rails
- Sprockets  
(crankshaft and camshaft sprockets)
- Gaskets
- Crank and camshaft gears
- Camshaft adjusters



### TIMING CHAIN KITS

During reconditioning and scheduled servicing of the chain drive, all components affected by wear and the associated gaskets should always be replaced. The kits are put together for specific engines.



### TENSIONER BLADES, SLIDING AND GUIDE RAILS

Made of aluminium and plastic. They tension and guide the chains. They usually have special sliding surfaces to reduce noise and friction.



### SPROCKETS

Normally made of sintered metal or precision punched metal to save weight. Often have special fittings and grooves for mounting in the correct position.



### CHAIN TENSIONERS

Mechanically and hydraulically dampened designs. Their main tasks are: Maintaining the chain tension at all times, compensating for chain wear and the vibrations in the primary drive.

### TYPES OF CHAIN



### BUSH AND ROLLER CHAINS

Single or multiple rows. Roller chains have an additional roller on each bush to reduce friction.



### SPROCKET CHAINS

Individual shackles with teeth pointing inwards for the gear wheels. The chain has no openings on the outside.



# PRODUCT RANGE

We offer a comprehensive product portfolio of timing chain sets for a wide range of engines in OEM quality.

Item no.	Manufacturer	Engine	OE chain number	Timing chains	Clamping, sliding and guide rails	Sprockets	Chain tensioners	Camshaft adjuster	Gaskets	Screws	Flange	Oil pipe
400210400001	Mercedes-Benz	M271	A 000 993 10 78, A 000 993 20 76	2X	3X	1X	2X	2X				
400540400003	VW	1.4 TSI - 1.6 FSI	03C 109 158 A, 03C 115 230 C	2X	2X	2X	2X	1X	2X			
400130400001	Opel	1.2	55562234	1X	3X	2X	1X		3X	6X		
400700400001	Fiat	1.3 JTD	55221385	1X	2X	2X	1X		2X	7X	1X	1X
407380400000	Nissan	R9M	130C1-0990R	1X	2X	2X	1X					
400450400001	BMW	N47 / N57	11 31 8 570 649, 13 52 8 589 971, 11 41 7 797 896	3X	4X	2X	2X		2X			
400450400002	BMW	N47 / N57	11 31 8 506 869, 13 52 8 506 969	2X	4X	2X	1X					1X
400210400002	Mercedes-Benz	OM 651	A 000 993 35 02	1X	2X	2X	1X		1X			
400210400003	Mercedes-Benz	OM 651	A 000 993 35 02	1X	2X	2X	1X					
400700400002	Fiat, Ford, Opel, Peugeot, ...	1.3 D Multijet / 1.3 HDI	55283520	1X	2X	2X	1X		2X	7X	1X	1X
400120400002	Audi	1.6 FSI	03C109158A, 03C115225	2X	3X	2X	1X	1X	4X			
400040400000	Hyundai 1.2	G4LA	2432103000	1X	4X	1X	1X		2X			
400450400003	BMW/Mini 9HZ	9HZ / 1.6L / N73 B60 A	11318618318	1X	3X	1X	1X	2X	4X	25X		
400110400000	Ford, Fiat	2.2 TDCi	1704087	1X	3X	3X	1X		2X	6X		
400540400004	VW	1.2 TSI	03F109158G	1X	2X	1X	1X					
400110400001	Ford	1.8 TDCi	1198056	2X	1X	2X	1X		3X			
407380400001	Nissan	M9T	8201012338	1X	2X	2X	1X					
400450500002	BMW	N40 / N45	11318618318	1X	2X		1X		1X			
400450500003	BMW	N40 / N42 / N43 / N45 / N46	11277500502	1X	2X	2X	1X					
400450500004	BMW	N43 / N45 / N46	11277500502	1X	1X	2X				2X		
400450500005	BMW	N43 / N45 / N46	11318618317	1X	2X		1X		1X			
400210400004	Mercedes-Benz	M112 / M113	A0039976894	1X	4X		1X					

\* The reference numbers given are for comparison purposes only and must not be used on invoices to the consumer.





### Camshaft adjuster

Can rotate the camshaft and thereby adjust the valve opening times to the operating mode of the engine.

## CAMSHAFT ADJUSTER RANGE

Item no.	OE no.*	Manufacturer	Installation position	Engines
50007975	24350-2B010	Hyundai, Kia	Intake cam	G4FA, G4FC
50007976	13050-28021	Toyota	Intake cam	1AZ-FE, 2AZ-FE
50007977	13520-23021	Toyota	Intake cam	1SZ-FE, 2SZ-FE
50007978	13520-0Q010, 0805.G9	Toyota, PSA	Intake cam	1KR-FE, CFB
50007979	636 304	Opel	Intake side / Exhaust side	A12XEL, A12XER, A14NEL, A14NET, ...
50007980	13050-22011	Toyota	Intake cam	1ZZ-FE, 2ZZ-FG, ...
50007981	A 271 050 14 47	Mercedes-Benz	Intake cam	M271.910 / 911 / 921 ...
50007982	A 271 050 12 47	Mercedes-Benz	Exhaust side	M271.910 / 911 / 921 ...
50007983	13025-AX010	Nissan	Intake cam	CG10DE, CG12DE, CR12DE
50007984	1147A046, A 132 034 03 10	Smart, Mitsubishi	Intake cam	M132.910 / 930
50007985	11 36 7 540 348	BMW	Exhaust side	N43B16 / B20 / B25 / B30
50007986	11 36 7 540 346	BMW	Intake side	N43B16 / B20 / B25 / B30
50007987	06F 109 088J	VAG	Exhaust side	AWA, AXW, AXX, BGB ...
50007988	13050-21041	Toyota	Intake cam	1NZ-FE
50007989	24350-03001	Hyundai, Kia	Intake cam	G4LA, G4LC
50007990	24370-03000	Hyundai, Kia	Exhaust side	G4LA, G4LC
50007991	11 36 7 583 208	BMW	Exhaust side	N51B30, N52B25, N52B30, N55B30
50007992	11 36 7 583 207	BMW	Intake cam	N51B30, N52B25, N52B30, N55B30
50007993	A272 050 68 47	Mercedes-Benz	Exhaust side (left & right)	M272.911 / 920 / 921 / 922 / 923 ...
50007994	A272 050 52 47	Mercedes-Benz	Intake side (left)	M272.911 / 920 / 921 / 922 / 923 ...
50007995	A272 050 53 47	Mercedes-Benz	Intake side (right)	M272.911 / 920 / 921 / 922 / 923 ...
50007996	2017716, LR033733	Ford, Land Rover	Exhaust side	R9CB, R9CD, R9CF, R9DA ...
50007997	2017710, LR095897	Ford, Land Rover	Intake cam	R9CB, R9CD, R9CF, R9DA ...
50007998	04E 109 088AD	VAG	Intake cam	CHPB, CICA, CPTA, CVNY ...
50056014	04E 109 088AE	VW	Exhaust side	CHPB, CICA, CPTA, CVNY ...
50056002	06E 109 083G	VAG	Intake cam	AUK, BDW, BKH, BNS ...
50056003	06E 109 084G	VAG	Exhaust side	AUK, BDW, BKH, BNS ...
50056004	06E 109 083Q	VAG	Intake cam	CGWA, CGWB, CGWC, CGXA ...
50056005	06E 109 084N	VAG	Exhaust side	CEUA, CEUC, CLXB, CRDB ...
50007804	03C 109 088E	VAG	Intake cam	BLF, BLG, BLP, BMY ...
50007805	11 36 7 545 862	BMW, Citroën, Peugeot	Intake cam	N13B16A, 5FS, 5FU, EP6 ...
50007806	11 36 7 536 085	BMW	Exhaust side	N13B16A, 5FS, 5FU, EP6 ...
50007807	03C 109 088G	VAG	Intake cam	CAVA, CAXC, CAVD, CKMA ...
50007808	A 271 050 33 47	Mercedes-Benz	Intake cam	M271.820/860/861
50007870	A 271 050 34 47	Mercedes-Benz	Exhaust side	M271.820/860/861

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## CAMSHAFT ADJUSTER RANGE

Item no.	OE no.*	Manufacturer	Installation position	Engines
50007912	A 276 050 36 00	Mercedes-Benz	Intake side (left)	M276.820 / 821 / 822 / 823 ...
50007913	A 276 050 37 00	Mercedes-Benz	Intake side (right)	M276.820 / 821 / 822 / 823 ...
50007914	A 276 050 38 00	Mercedes-Benz	Exhaust side (left)	M276.820 / 821 / 822 / 823 ...
50007915	A 276 050 39 00	Mercedes-Benz	Exhaust side (right)	M276.820 / 821 / 822 / 823 ...
50007916	A 260 050 06 00	Mercedes-Benz	Exhaust side	M260.920, M264.915, M270.910 ...
50007917	A 260 050 09 00	Mercedes-Benz	Intake cam	M260.920, M264.915, M270.910 ...
50007918	0805.H8	Peugeot	Intake cam	RFH, RFJ, 6FY

**Mechanical control valves**

Needed for the variable camshaft adjustment. They are responsible for directing oil pressure into corresponding channels of the adjuster. This changes the position of the shaft and thus also the timing.

## MECHANICAL CONTROL VALVES RANGE

Item no.	OE no.*	Manufacturer	Engines
50007781	06H 109 257A	VAG	BYT, BZB, CABD, CAWB ...
50007784	06L 109 257F	VAG	CJSA, CJSB, CJXB, CJXC ...
50007787	11 36 7 583 820	BMW	N20B16, N20B20
50007789	A272 050 04 78	Mercedes-Benz	M272.911 / 920 / 921 / 922 ...
50007790	A272 050 05 78	Mercedes-Benz	M272.911 / 920 / 921 / 922 ...
50007791	06H 109 257C	VAG	CABA, CABB, CAEA, CAEB ...
50007793	A271 050 01 71	Mercedes-Benz	M271.910 / 911 / 921 / 940 ...
50007794	A276 050 02 78	Mercedes-Benz	M157.980 / 981 / 982 / 983 ...
50007795	A271 050 05 78	Mercedes-Benz	M271.820 / 860 / 861
50007796	55562224	Opel	A12XEL, A12XER, A14XEL ...
50007797	1763041	Ford	M1CB, M1DC, M1JA, M1JC ...
50007879	06L 109 257D	VAG	CJXD, CJXF, CVKB, CVKC, CYMC ...
50056015	05184150AF	Chrysler	ERB

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