

SCHLEICHER
Fahrzeugteile

CLASSIC CAMSHAFTS

02.05.2024

Sophisticated valve drives – our catalogue for CLASSIC CAMSHAFTS

For everyone who shares our passion for engines, technology and tradition we present our entire range of CLASSIC CAMSHAFTS!

In this catalogue you will find our in-stock camshafts for the renowned automobile and motorbike engines from BMW, VW, NSU and Porsche together with their technical specifications. Thanks to our many years of experience and the careful attention paid to the respective valve train conditions, our CLASSIC CAMSHAFTS combine high power output with long service life. Our camshafts are manufactured from new, unmachined parts. We employ particular care in ensuring faultless tempering and first-rate surface treatment.

Just order the camshaft of your choice via e-mail at vertrieb@schleicher-fahrzeugteile.de.



Source: Ahnendorp B.A.S.

Warranty:

Our camshafts come with a wear resistance warranty for 6 months after delivery. In the event of damages we provide a replacement for the part supplied by us. Further claims for subsequent damages are expressly excluded. Please follow our assembly information on the following pages.

Our prices:

are ex works prices, not including packaging and VAT.

For orders from countries outside the EU we add a standard charge of € 150.00 to cover customs duty.

Price lists are valid for delivery as of **2nd of May 2024**



Schleicher Fahrzeugteile GmbH & Co. KG
Seeshaupter Str. 68b | D-82377 Penzberg
Phone: +49 8856 9368-0

info@schleicher-fahrzeugteile.de

www.schleicher-fahrzeugteile.de

Assembly information:

It must be ensured during every camshaft installation that at maximum valve lift, there is still approx. 1-2 mm free lift available and that between the piston and the valve in the OT there is also still **sufficient** safety clearance. Tappets and rockers should, where possible, be replaced when installing our camshafts, and under no circumstances may they display visible wear.

It is recommended to label the parts when disassembling the motor so that they can be re-installed in the same place. With the exception of racing setups, the valve springs can generally be left in series because a low revolution increase is already made possible by the altered cam profile. The valve clearance specified by the manufacturer of the engine should be used for normal driving. The specified opening times are given as effective opening times without ramp-up time. In determining opening times, it must be ensured that for an OHC engine around the same valve intake diameter can be achieved with approx. 15° less opening time compared to a piston engine.

When installing a performance camshaft in a series engine, the appropriate tuning measures must be made at the same time. If possible, this should be carried out by a tuning company with experience of the respective engine. The desired engine performance is dependent on the quality of this work, and therefore we cannot provide any performance data for our camshafts.

Notes on measuring the opening times of camshafts in engines, especially for engines with piston, rocker arm or cam-follower valve trains:

Many influencing factors can severely affect the measurement result,

- above all the elasticity of the valve train,
- the accuracy of the measuring device,
- the bearing clearance of the camshafts and rocker arm shafts,
- possibly the sinking in of hydraulic elements and
- the precision during the measurement.

The opening times we specify are theoretical opening times at the end of the ramp-up time and at the beginning of the ramp-down time (beginning and end of the actual cam lobe). The valve movement, based on 1° revolution of the crankshaft, is partially extremely small (e.g. 0.007 mm), whereby the aforementioned influences on measurement can lead to rather considerable, apparent deviations from the opening times we specify. Furthermore, the assembly of the drivetrain (chain wheel etc.) and the camshaft drivetrain itself (elasticity etc.) can lead to further angular deviations.

Our suggestion for a reasonably reliable measurement is as follows:
pretension of all valves equally approx. 0.5 - 1 mm (on valve clearance setting, on each base circle).
Then measure the opening times on a particular additional valve lift, e.g. 0.5 or 1 mm.

Due to the fact that the opening times, as shown, also depend on the assembly and settings of the camshaft, the opening times specified by us can only be partially related to the position of the cams, but not to the overall position in the motor.
Careful assembly of the camshaft must therefore always include test and adjustment work.

Whether a camshaft/cam profile is more or less of a strain on the valve train can only be determined with an exact analysis and comparison of the cam profiles.

However, in general (exceptions possible) it can be said that racing camshafts do not create greater strain on the valve train, so long as the engine revolution speeds are not considerably increased at the same time. During assembly, the clearance to the piston and the valve spring must be checked for blocks. A check to see if the valve spring is sufficient must be carried out in the event of an engine revolution speed increase.

Due to the fact that tuned engines are more stressed than series engines, a shorter service life, greater wear and earlier malfunction of engine parts must be expected. Engine damage can also occur in non-tuned engines, especially if they are constantly put under a lot of strain.

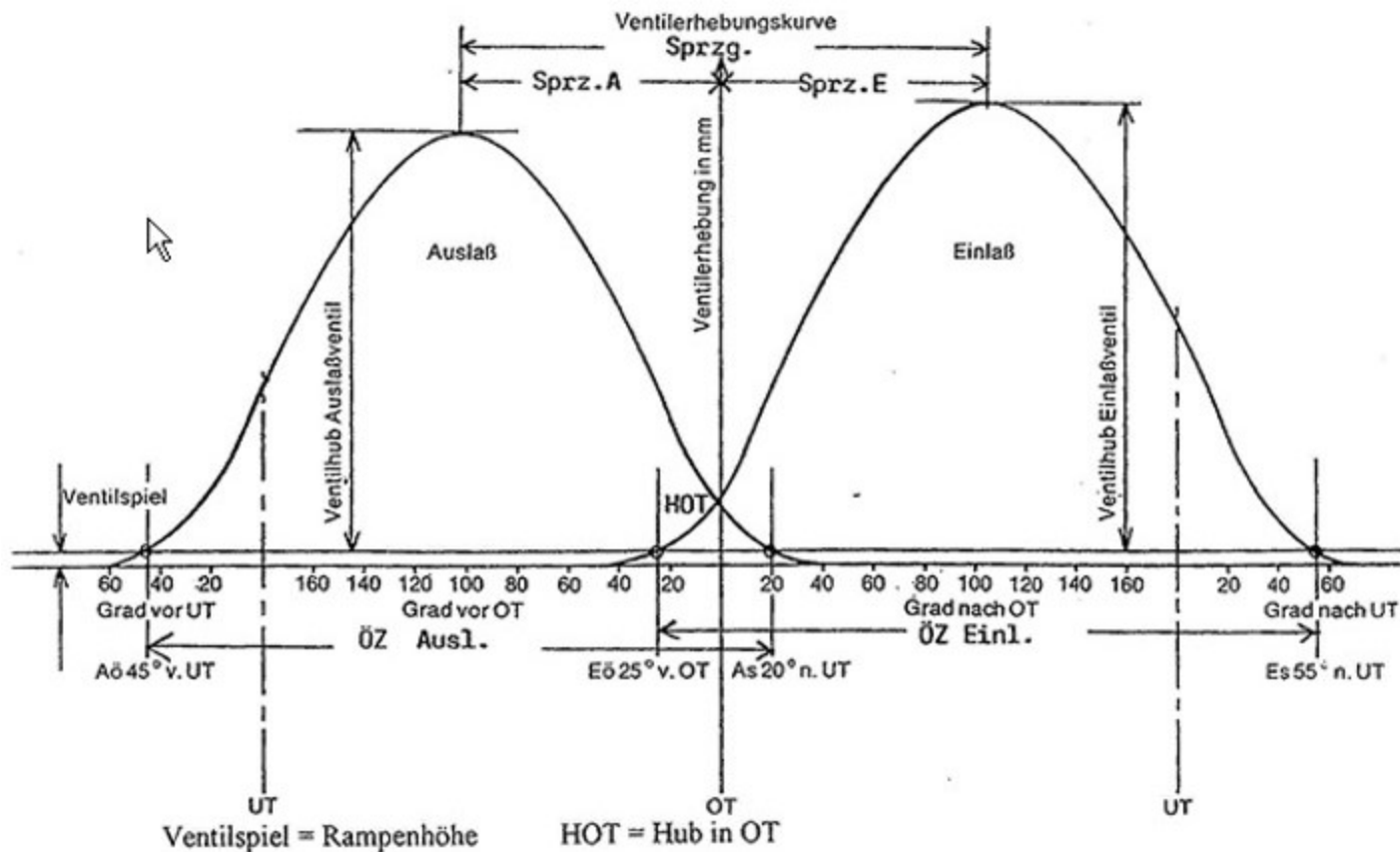
According to the statistics for component failure frequency (Wöhler curve etc.), after a certain age the likelihood of malfunction increases constantly. This is generally true for everything, from a bicycle to nuclear power plant.

Whether a camshaft is responsible for engine damage can therefore generally only be determined by statistical inspections and not on an individual case basis. It must be checked whether the customer condoned this shortened service life in order to benefit from the increased performance.

In the event that a customer does nevertheless claim for damages, it remains to be checked whether they did everything within their power to minimize this damage.

For the aforementioned reasons, and because we are rarely exactly aware of the assembly conditions and use, we only grant a 6 month warranty on the replacement of camshafts in the event of a production or material failure. Liability for further damages is, however, insofar as legally permissible, not accepted.

Information on catalogue:



Auslaßöffnungszeit:

$$\text{ÖZ Ausl.} = A\text{o v. UT} + 180^\circ + A\text{s n. OT}$$

$$\text{Beispiel: } 45^\circ + 180^\circ + 20^\circ = 245^\circ \text{ (Kurbelwinkel)}$$

Einlaßöffnungszeit:

$$\text{ÖZ Einl.} = E\text{o v. OT} + 180^\circ + E\text{s n. UT}$$

$$\text{Beispiel: } 25^\circ + 180^\circ + 55^\circ = 260^\circ \text{ (Kurbelwinkel)}$$

Spreizung Auslaß:

$$\text{Sprzg. Ausl.} = \text{ÖZ Ausl.} / 2 \text{ minus } A\text{s n. OT}$$

$$\text{Beispiel: } \text{Sprzg. A} = 245^\circ / 2 - 20^\circ = 102,5^\circ \text{ (Kurbelwinkel)}$$

Spreizung Einlaß:

$$\text{Sprzg. Einl.} = \text{ÖZ Einl.} / 2 \text{ minus } E\text{o v. OT}$$

$$\text{Beispiel: } \text{Sprzg. E} = 260^\circ / 2 - 25^\circ = 105^\circ \text{ (Kurbelwinkel)}$$

Spreizung:

$$\text{Sprz} = (\text{Sprz. Ausl.} + \text{Sprz. Einl.}) / 2$$

$$\text{Beispiel: } (102,5^\circ + 105^\circ) / 2 = 103,75^\circ \text{ (Nockenwinkel)}$$

Deutsche Version:

OEZ: Dauer der Ventilhebung, Grad Kurbelwelle

Spr: Distanz der Nockenmittelachsen, Grad Nockenwelle

Ventiltakt:

AO: Auslaß öffnet, Grad Kurbelwelle vor UT

AS: Auslaß schließt, Grad Kurbelwelle nach OT

EO: Einlass öffnet, Grad Kurbelwelle vor OT

ES: Einlass schließt, Grad Kurbelwelle nach UT

NV: N bedeutet: folgende Information bezieht sich auf den Nockenhub

V bedeutet: folgende Information bezieht sich auf den Ventilhub

Hub: Nockenhub oder Ventilhub, mm

MH: M bedeutet: mechanischer Ventilspielausgleich

H bedeutet: hydraulischer Ventilspielausgleich

HoT: Nockenhub oder Ventilhub in OT, mm

Gkd: Durchmesser des Grundkreises, mm

UT: unterer Kolbentotpunkt

OT: oberer Kolbentotpunkt

A = Auslaß

E = Einlaß

English version:

Oez: duration of valvelift, degree crankshaft

Spr: distance lobe centerline, degree camshaft

Valve time:

AO: exhaust opens, degree crankshaft before BDC

AS: exhaust closes, degree crankshaft after TDC

EO: inlet opens, degree crankshaft before TDC

ES: inlet closes, degree crankshaft after BDC

NV: N means: following information is for cam lift
V means: following information is for valve lift

Hub: camlift or valvelift, mm

MH: M means: for mechanical valve clearance
H means: for hydraulic valve clearance

HoT: camlift or valvelift at TDC, mm

Gkd: diameter of base circle, mm

A = Exhaust

E = Intake

Italiano:

Oez: tempo apertura albero motore

Spr: gradi distensione albero a gamme

AO: scarico apre prime del punto morto inferiore

AS: scarico chiude dopo del punto morto superiore

EO: aspirazione apre prima del punto morto superiore

ES: aspirazione chiude dopo del punto morto inferiore

NV: significa: seguenti dati sono rilevanti per la corsa della gamma

Appure della valvola

Hub: altezza gamma

MH: registrazione valvole meccanico
I
Registrazione valvole idraulico

HoT: corsa in punto morto superiore (albero a gamme)

Gkd: circonferenza diametro

A = scarico

E = aspirazione



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PKW

As at: 02.05.2024															
															sheet 1
item-no.	EA	OEZ	Spr	AO	AS	EO	ES	NV	Hub	MH	HoT	price €	comment		based on Type
BMW 328															
1316		296	110	78	38	38	78	N	5,50	M	1,2	749,95			KA 850
NSU TT/TTS															
1366		304	100	72	52	52	72	V	9,85	M	3,4		sale and distribution by		Ro 811.0
1355		336	102	90	66	66	90	V	10,70	M	4,5		www.saelzer-motorsport.de		Ro 218.2
Porsche 356/912															
18		316	105	83	53	53	83	N	8,5	M	2,6	499,95	without camshaft gear		Ro 200.5
1199		324	106	88	56	56	88	N	9,4	M	3,1	499,95	without camshaft gear, small diameter		Ro 209.6

item-no.	EA	OEZ	Spr	AO	AS	EO	ES	NV	Hub	MH	HoT	price €	comment	sheet 2 based on Type
VW 1302 S (Type 1, Formel V)														
1065		296	107	75	41	41	75 N		9,00 M		2	499,95		Ro 248.7
1062		308	107	81	47	47	81 N		8,45 M		2,1	499,95		Ro 158.7
1063		316	105	83	53	53	83 N		8,50 M		2,6	499,95		Ro 200.5
1064		324	106	88	56	56	88 N		9,40 M		3,1	499,95		Ro 209.6
6555		280	108	68	32	32	68 N		8,81 M		1,5	499,95		Ro 946.8
Hard cast rams (sold with shaft only)														
1070												762,91	set of 8 rams with shaft included	
VW 411 (Typ 4, Super V, etc.)														
1082		276	108	66	30	30	66 N		7,85 M		1,3	499,95	do not use VW rams	Ro 652/3.8
1076		296	107	75	41	41	75 N		8,35 M		1,9	499,95	do not use VW rams	Ro 276.7
1074		316	105	83	53	53	83 N		8,50 M		2,6	499,95	do not use VW rams	Ro 200.5
1075		324	106	88	56	56	88 N		9,40 M		3,1	499,95	do not use VW rams	Ro 209.6
Hard cast rams (sold with shaft only)														
1083												925,15	set of 8 rams with shaft included	
VW Wasserboxer														
1069		292	107	73	39	39	73 N		8,50 H		1,7	499,95	for hydr.serial chilled iron tapp.	Ro 667.7



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MOTORRAD

item-no.	EA	OEZ	Spr	AO	AS	EO	ES	NV	Hub	MH	HoT	price €	comment	sheet 3 based on Type
BMW R100 for ignitor with groove														
1290		296	107	75	41	41	75 N		7,30 M		2,1	369,95	Enduro-camshaft	Ro 267.7
1292		312	110	86	46	46	86 N		6,41 M		2,0	369,95	f. Krauser 4-Ventil-head	Ro 320.10
1287		320	106	86	54	54	86 N		7,18 M		2,7	369,95		Ro 240.6
1291		324	106	88	56	56	88 N		7,70 M		3,1	369,95		Ro 270.6
1288		332	100	86	66	66	86 N		7,68 M		3,7	369,95		KA 508
1295		340	104	94	66	66	94 N		8,87 M		4,1	369,95		Ro 227.4
1289		344	105	97	67	67	97 N		7,86 M		3,6	369,95		Ro 214.5
17327D		336	110	104	52	64	92 N		8,60 M		3,6	369,95		Ro 1145.10
BMW R1100 RS/GS														
1299		304	108	80	44	44	80 N		8,75 M		2,5	249,95		Ro 591.8
6852		308	106	80	48	48	80 N		9,35 M		3,4	249,95	Ausl. OEZ 300°, Hub 9,15 mm	Ro910/909.6
1300		316	108	86	50	50	86 N		9,10 M		3,0	249,95		Ro 592.8

item-no.	EA	OEZ	Spr	AO	AS	EO	ES	NV	Hub	MH	HoT	price €	comment	sheet 4 based on Type
BMW R75/5 and R100 with interruption pivot														
1276		320	106	86	54	54	86 N		7,18 M		2,7	399,95	with great oil seal ring seat	Ro 240.6
1281		324	106	88	56	56	88 N		7,70 M		3,1	399,95	with great oil seal ring seat	Ro 270.6
1278		332	100	86	66	66	86 N		7,68 M		3,7	399,95	with great oil seal ring seat	KA 508
1280		344	105	97	67	67	97 N		7,86 M		3,6	399,95	with great oil seal ring seat	Ro 214.5
BMW R45/65														
1270		320	106	86	54	54	86 N		7,18 M		2,7	349,95		Ro 240.6
1275		324	106	88	56	56	88 N		7,70 M		3,1	349,95		Ro 270.6
1273		340	104	94	66	66	94 N		8,87 M		4,1	349,95		Ro 227.4
1272		344	100	92	72	72	92 N		7,86 M		4,0	349,95		Ro 214.0
1274		344	105	97	67	67	97 N		7,86 M		3,6	349,95		Ro 214.5
BMW R24/R25/R26														
13285A		300	110	80	40	40	80 N		6,00 M		1,2	299,95	serial spare part	KA 514
13277A		316	105	83	53	53	83 N		5,80 M		2,0	349,95		RS 1.5
8188		328	105	89	59	59	89 N		6,70 M		2,2	349,95		Ro 113.5

item-no.	EA	OEZ	Spr	AO	AS	EO	ES	NV	Hub	MH	HoT	price €	comment	sheet 5 based on Type
BMW R 27														
1259		300	110	80	40	40	80	N	6,00	M	1,2	299,95	serial spare part	KA 514
13286A		328	105	89	59	59	89	N	6,70	M	2,2	359,95		Ro 113
BMW R5 / R51 / R51/2 (helical gear 4-gear, chain valve drive)														
1251		300	110	80	40	40	80	N	6,00	M	1,2	349,95	with gear, serial	KA 514.10
1252		300	110	80	40	40	80	N	6,00	M	1,2	299,95	without gear, serial	KA 514.10
1388		344	105	97	67	67	97	N	7,00	M	2,7	349,95	with gear, race camshaft	Ro 160
1387		344	105	97	67	67	97	N	7,00	M	2,7	299,95	without gear, race camshaft	Ro 160
15942A		328	105	89	59	59	89	N	6,70	M	2,2	349,95	with gear	Ro 113.5
15943A		328	105	89	59	59	89	N	6,70	M	2,2	299,95	without gear	Ro 113.5
Hard cast rams (sold with shaft only)														
1264												501,57	set of 4 rams with shaft without gear included	
BMW R50S / R69S / R50/2 and R60/2 and R51/3														
1246		300	110	80	40	40	80	N	6,00	M	1,2	299,95	serial R50/2 and R60/2	KA 514.10
1244		320	110	90	50	50	90	N	5,80	M	1,7	299,95	serial for R50S u. R69S	RS
1242		328	105	89	59	59	89	N	6,70	M	2,2	299,95		Ro 113
1245		332	105	91	61	61	91	N	7,68	M	3,3	299,95	sports	KA 508.5
5840		344	105	97	67	67	97	N	7,00	M	2,7	299,95		Ro 160.5

item-no.	EA	OEZ	Spr	AO	AS	EO	ES	NV	Hub	MH	HoT	price €	comment	sheet 6 based on Type
BMW R12/R17														
1257		328	110	94	54	54	94	N	5,67	M	1,4	386,55		KA854
BMW R66														
1253		300	110	80	40	40	80	N	6,00	M	1,2	597,11	with oil pump sprocket	KA 514
BMW R68/R69 (long camshaft)														
1255		320	110	90	50	50	90	N	5,80	M	1,7	302,33	serial	RS
13101A		328	100	84	64	64	84	N	6,70	M	2,55	302,33		Ro 113.0
BMW R75 Army motorcycle														
1284		300	110	80	40	40	80	N	6,00	M	1,2	299,95	sports construction	KA 514



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Schleicher Fahrzeugteile GmbH & Co. KG

Seeshaupter Str. 68b, D-82377 Penzberg

Phone: +49 8856 9368-0

info@schleicher-fahrzeugteile.de

www.schleicher-fahrzeugteile.de

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