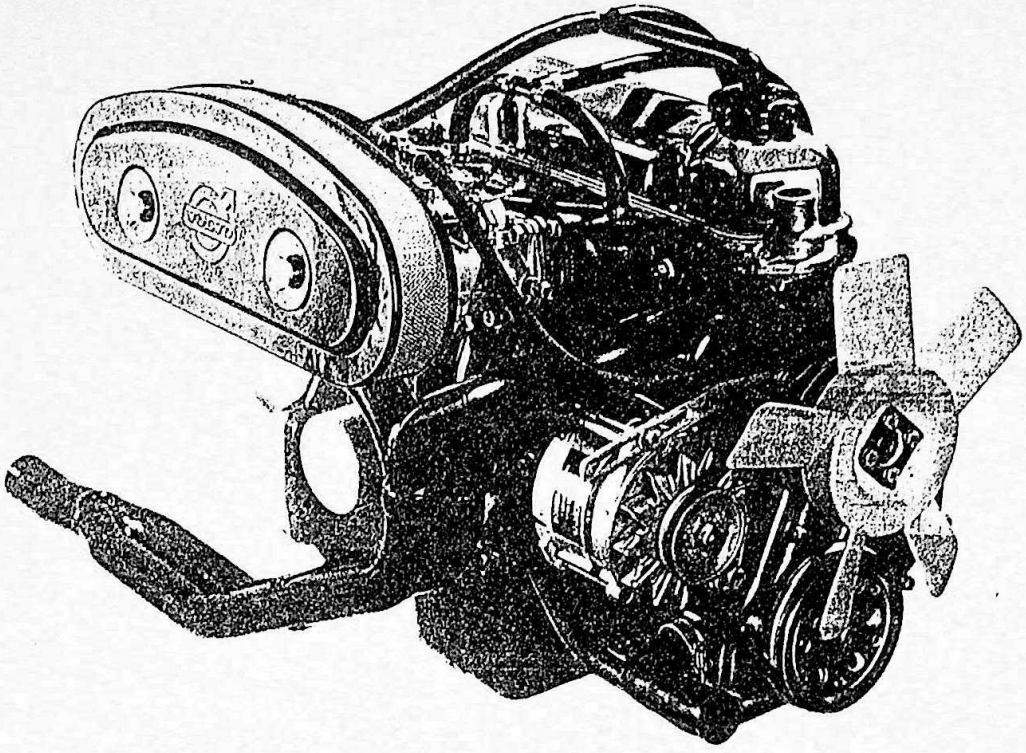
TUNING KITS B20

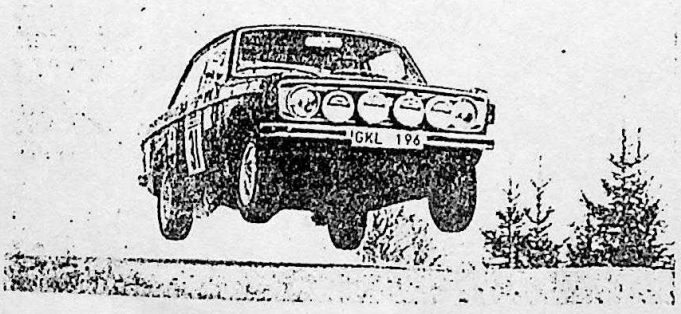


Volvo tuning kits, which are developed and tested by Volvo Competition Service, are available in two versions:

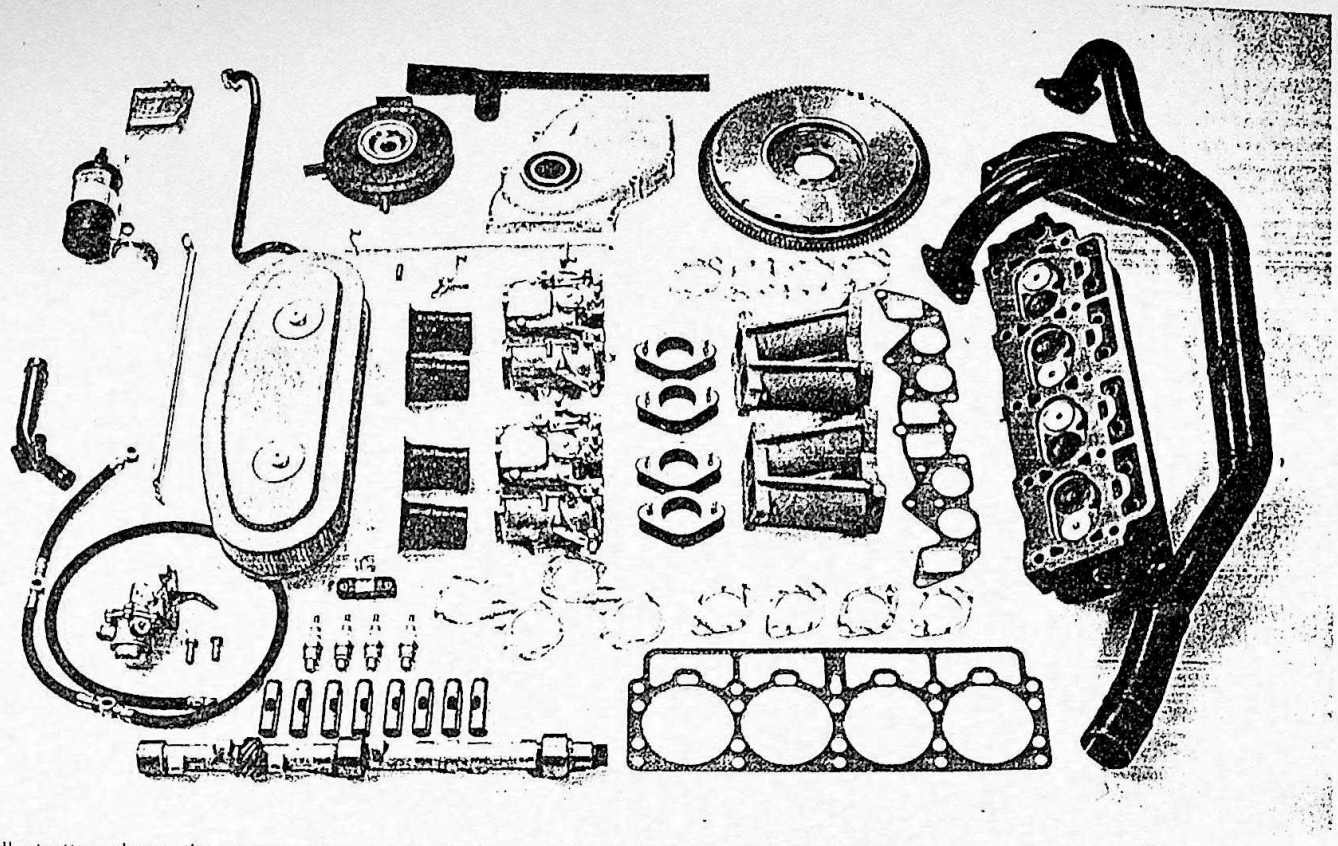
Stage I — 103 kw DIN (140 hk) for sporty family driving and competition events.
Stage II — 125 kw DIN (170 hk) is a more extreme tuning kit suitable for competition driving.

Above tuning kits fulfil the European exhaust regulations (applying from 1971 year model).

Volvo Competion Service is also marketing complete engines in Stages I, II, III 129 kw DIN (175 hk) and IV 132 kw DIN (180 hk).



VOLVO
Competition Service.



The illustration shows the various components which make up the tuning kit. The required number of nuts, washers etc., are also supplied for fitting. The complete kit or parts can be obtained from your local Volvo dealer. Fitting instructions are supplied with the complete kit.

TUNING KIT STAGE I	Parts number
1 Tuning kit compl.	552861-7
1 Cylinder head	419882-6
4 Inlet valves	419766
8 Exhaust valves	419735
8 Valve springs	418737
8 Washers, upper, for valve springs	460181
8 Valve seals	419702
16 Valve collets	419643
8 Valve tappet	552466
2 Cylinder studs	950586
1 Cylinder head gasket	824855
1 Camshaft (F)	552460-8
1 Induction manifold, front	419883
1 Induction manifold, rear	419884
1 Branched exhaust manifold, compl.	419381
Gasket for Induction and exhaust manifolds	419764
2 Carburettors	552600-7
1 Shaft, upper compl. throttle control	684899
1 Bracket for throttle control	1206551
4 Intermediary flanges for carburettors	824643
8 Gaskets for carburettors	819769
1 Intermediary shaft	686057
1 Control rod	943936
4 Air intakes	824708
1 Air cleaner	684036
1 Lever front	668558
1 Lever rear	668559
1 Stay for aircleaner	460047
1 Fuel pump	831092
1 Nipple for fuel pump	946600
1 Fuel hose	825856
2 Banjo screws	825857
4 Gaskets for fuel hoses	957173
2 Strainer for fuel hose	825858
1 Ignition coil	241086
4 Spark plugs	238624-1
1 Transmission casing	418693
1 Hub för belt pulley	418264
1 Flywheel compl.	419392
1 Oil cooler compl.	418433
1 Water pipe	418651
1 Nipple	418601
1 Expansion tank	676558
1 Pressure cap	673336
1 Lower radiator hose	671840
1 Hose clamp	951789
TUNING KIT STAGE II	552863
does also include:	
1 Modified cylinder head	552842
Hardened washer for cylinder bolt	942058
Lightened valve tappets	552841
Spark plugs Bosch W290 R 16	240571

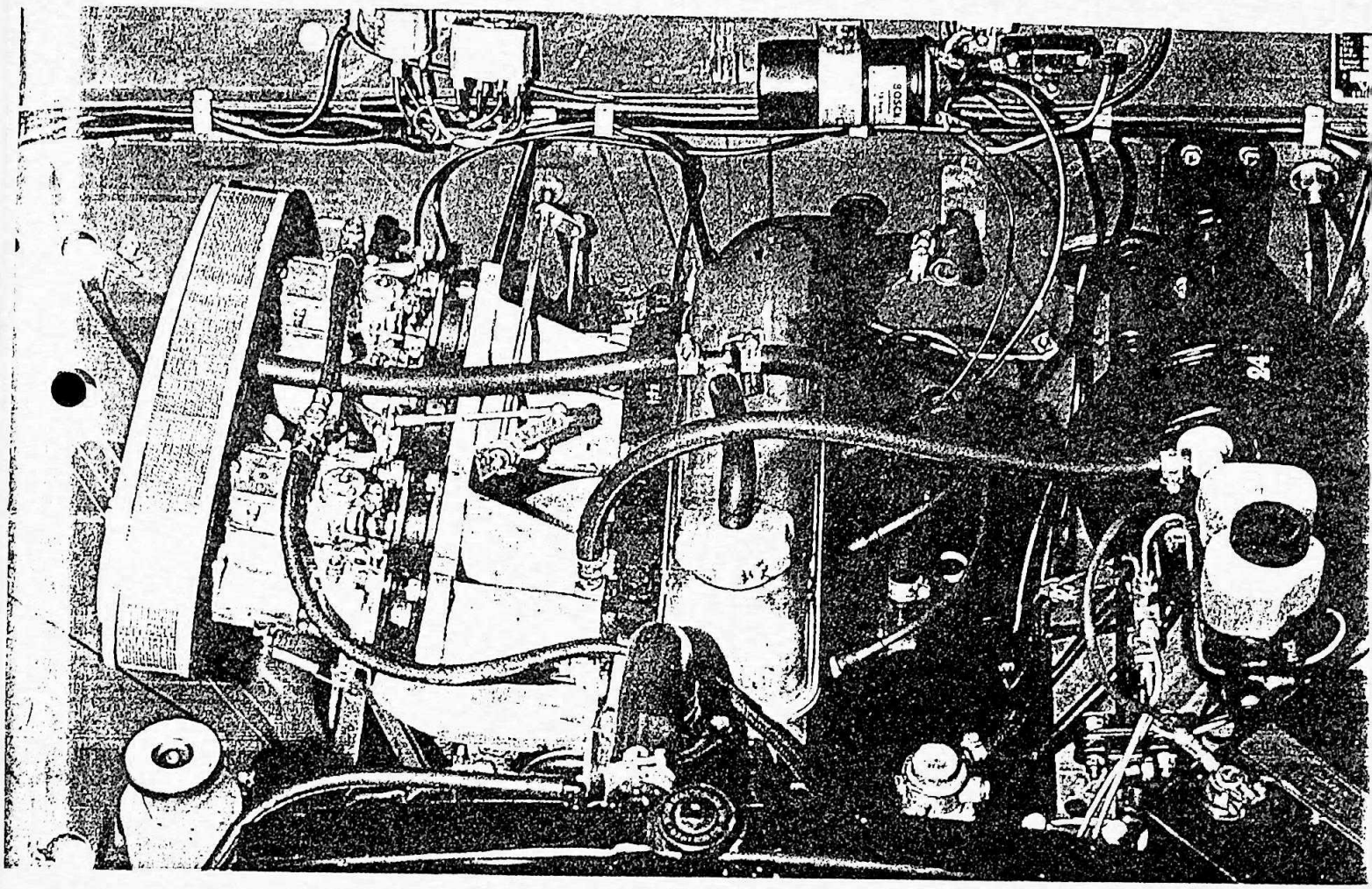
TECHNICAL DATA

The technical data listed below concerns only the items which deviate from standard engine specification.

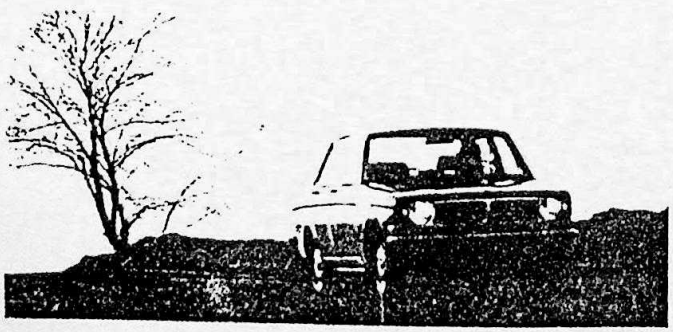
Stage I	
Output kw. at r.p.s. (DIN)	103/100 (h.p. at r.p.m. (DIN) 140/6000)
Torque Nm. at r.p.s. (DIN)	192,2/75 (kpm at r.p.m. 19,6/4500)
Compression ratio	11,0:1
Carburettors (2)	Solex 45 DDH
Idling speed	1000 r.p.m.
Spark plugs	Bosch w240 T1
Stage II	
Output kw. at r.p.s. (DIN)	125/100 (h.p. at r.p.m. (DIN) 170/6000)
Torque Nm. at r.p.s. (DIN)	220,2/75 (kpm at r.p.m. 20,6/4700)
Compression ratio	11,7:1
Carburettors (2)	Solex 45 DDH
Idling speed	1000 r.p.m.
Spark plugs	Bosch w290 R 16

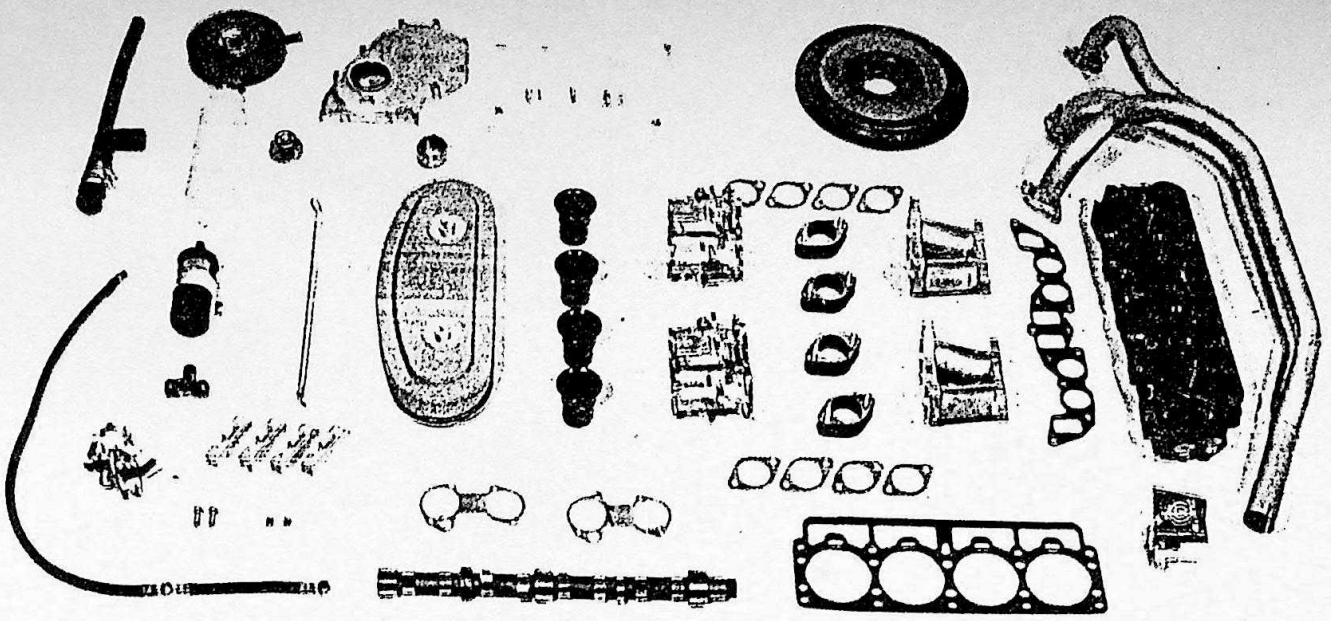
VOLVO
Competition
Service

TUNING KIT



A tuning kit is now available for 140 series cars with the Volvo B 20 engine. This kit increases engine output to no less than 140 b.h.p. DIN. This kit is ideal for both sporty family driving and competition events.





The illustration shows the various components which make up the tuning kit. The required number of nuts, washers etc. are also supplied for fitting. The complete kit or parts can be obtained from Volvo Competition Service via your local dealer. Fitting instructions are supplied with the complete kit.

		Part number
1	Tuning kit compl.	419881-8
1	Cylinder head	419849-5
4	Inlet valves (Ø 44 mm)	419766-1
4	Exhaust valves (Ø 35 mm)	419735-6
8	Valve springs	418737-3
8	Washers, upper, for valve springs	419644-0
8	Valve seals	419702-6
16	Valve collets (split)	419643-2
3	Cylindrical studs	950586-8
1	Cylinder head gasket	419763-8
1	Camshaft (D)	419258-9
1	Induction manifold, front	419883-1
1	Induction manifold, rear	419884-2
1	Branched exhaust manifold, complete	419381-9
1	Gasket for induction and exhaust manifolds	419764-6
2	Carburettors	237435-3
1	Shaft, upper compl. throttle control	684899-8
1	Bracket for throttle control	460039-1
4	Intermediary flanges for carburettors	824643-1
8	Gaskets for carburettors	819769-1
1	Intermediary shaft	686057-1
1	Control rod	943936-5
4	Air intakes	824708-2
1	Air cleaner	684036-9
1	Lever, front	668558
1	Lever, rear	668559
1	Stay for air cleaner	460047
1	Fuel pump	831092-2
1	Nipple for fuel pump	943818
1	Fuel hose	825856
2	Banjo screws	825857
4	Gaskets for fuel hoses	957173
2	Strainer for fuel hose	825858
1	Ignition coil	239499-9
4	Spark plugs	238624-1
1	Transmission casing	418693-8
1	Hub for belt pulley	418264-8
1	Flywheel compl.	418433-9
1	Oil cooler compl.	418490-9
1	Water pipe	418651
1	Nipple	418601
1	Expansion tank	676558-6
1	Pressure cap	673338-4
1	Lower radiator hose	671840-9
1	Hose clamp	951789

Technical data

The technical data listed below concerns only those items which deviate from the standard engine specification.

Output, b.h.p. at r.p.m. (DIN)	140/6000
Torque kpm at r.p.m. (DIN)	19.6/4500
Compression ratio	11:1
Compression (warm engine)	12–14 kp/cm²
Effective valve clearance (cold engine)	
for control of camshaft timing	1.4 mm
Induction valve shall then open at	5.5° b.t.d.c.
Valve clearance, induction and exhaust valves	
(warm engine)	0.40–0.45 mm
Fuel pump, pressure (at 1000 r.p.m.)	0.5–0.25 kp/cm²
Carburettors (2)	solex 45 DDH-1
specification:	
outer venturi	36
inner venturi	C 23352 NO. 1
main jet	185
air jet	175
idling jet	57,5
idling air jet	120
emulsion pipe	C 24186
start jet	125
Idling speed	900 r.p.m.
Spark plugs	Bosch W 240 T 1
Distributor	
basic setting (at low idling)	10° b.t.d.c.
maximum advance (at 5,800 r.p.m.)	38° b.t.d.c.

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KAMAXLAR VOLVO B20
CAMSHAFTS FOR VOLVO B20, (2 LITRE ENGINES)



VOLVO KAMAXLAR för Sport- och Tävlingsändamål
— UTVECKLADE och TESTADE av Volvo Competition Service.

VOLVO CAMSHAFTS for Sport and Competion use
— DEVELOPED and TESTED by Volvo Competition Service.

Typ K

För sportig körning där god dragförmåga på låga varv är önskvärd.

Type K

Half Race

For sporty driving where good tractability at low speeds is desirable.

Typ R

Lämpligast för Rally och Rallycross på långsamma banor.

Type R

Three quarter Race

Most suitable for Rallies and Rallycross on slower circuits.

Typ F

Rally och 'Volvo Cupen'. Något sämre dragkraft på låga varv än R-kamaxeln.

Type F

Three quarter Race

Tractability at low revs not quite so good as with type R.

Typ T 'Full race'

Avsedd för Rally och Rallycross på snabba banor — framför allt med 2.2 l motor.

Type T 'Full race'

Intended for Rallying and Rallycross on fast circuits. Essential with 2.2 litre engines.



VOLVO
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KAMAXLAR B 20
CAMSHAFTS B 20

Typ Type	Det nr Part No	Lyfthöjd ventil Valve lift	Ventiltider / Valve timing				Ventilspel Tappet settings Ins/Avg Inl/Exh	Duration
			Ins öpp F Ö D Inlet opens before T D C	Ins stäng E N D Inlet closes after B D C	Avg öpp F N D Exhaust opens before B D C	Avg stäng E Ö D Exhaust closes after T D C		
K	552459	10.8 mm 0.42 in	27°	70°	70°	27°	0.40/0.45 mm .016/.018 in	277°
R	552461	11.6 mm 0.46 in	42°	65°	64°	44°	0.40/0.45 mm .016/.018 in	287°
F	552460	11.3 mm 0.44 in	30°	81°	81°	39°	0.40/0.45 mm .016/.018 in	300°
T "Full race"	552465	12.9 mm 0.51 in	68°	88°	99°	57°	0.50/0.50 mm .020/.020 in	336°

ANM. Kamaxel K, R och F är hårdförkromade.
Ventillyftare special 552466 eller lättade 552841 skall användas för att erhålla maximal livslängd.

NOTE Camshafts K, R, and F are chrome-plated for max. durability.
Cam followers, part No. 552466, or lightened, part No. 552841, must be used for maximum durability.

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