



SERVICE INFORMATION

Tech.Cust. Service
VKT 10 Du/Zr

BMW 1500 - 3.0 CS
Gr.: Service & General Hints

Munich, June 71
00 07 71 (683)en

Ref.: Deformation of plastic parts by repair painting temperatures

Dear Sirs,

The increase of plastic parts in the automotive field is very impressing at all producers.

So, at the BMW 2500/2800 522 parts with a total weight of approx. 60 kg are made from plastics.

Beside of many advantages, like better corrosion resistance, easier to service, more resistant to wear, less weight at same hardness, etc., plastics are often not so temperature resistant like conventional materials. Therefore the part temperature at paintings must not surpass 80°C, in order not to affect the serial rubber and plastic parts and adhesives and joint materials. All otherwise reading publications are no more valid.

However, as a precaution, dismount the following parts:

Part	Model
Signal horns	BMW 1500 - 3.0 CS
Outside mirror	BMW 1500 - 3.0 CS
Blinker glasses	BMW 1500 - 3.0 CS
Rear lamps glasses	BMW 1500 - 3.0 CS
Wheelhouse covers in luggage compartment	BMW 1800 - 3.0 CS
Air vent molding - front	BMW 2500 - 3.0 CS
Front grille, left and right side	BMW 2500 - 3.0 CS
Molding of air vent, rear	BMW 2500 - 2800
Molding for lateral wall, front	BMW 2800 CS - 3.0 CS

Furthermore we recommend to dismount the wheels, because at high temperatures for a longer period, flat spots at the tires could arise, which would be noticable during driving with the wheel-turning frequency. It is also sufficient to jack-up the vehicle, so that the tires are not loaded.

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00 07 71 (683)en

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Until now deformed plastic parts have been sent to the factory ~~in the~~ warranty way. For the future we are forced to refuse such claims and costs, because all other plastic parts at our cars withstand an essentially higher part - temperature and the indicated temperature of 80°C is not absolutely necessary to be maintained.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

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SERVICE INFORMATION

Tech.Cust. Service
VKT 10 Tr/Zr

BMW 1602 - 3.0 CS
Group: Service and general hints

Munich, June 71
00 09 71(684)en

Ref.: Engine codification acc. to stroke volume

Dear Sirs,

For a better identification of our engines, in addition, we ~~have~~ in four-numbered codes into the cylinder-crank case (next to the engine number at the starter fixation flange), according to the following scheme:

Stroke volume (cc)	Beaten in code No.
1573	2510 - 2549
1766	3230 - 3279
	2530 - 2539
1990	2550 - 2589
	3330 - 3389
2494	4310 - 4349
2788	3420 - 3429
	4410 - 4449

Due to reasons of simplification, we introduced a new system, with which you can see the stroke volume without code No.:

Stroke volume (cc)	Designation in litres deriving from the stroke volume
1573	1,6
1766	1,8
1990	2,0
2494	2,5
2788	2,8
2985	3,0

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Yours very truly

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SERVICE INFORMATION

Tech.Cust. Service
VKT 10 Kl/Zr

BMW 2500 - 2800
Group: Body equipment

Munich, June 71
51 01 71 (685)en.

-7 OCT 1971

~~Refer to~~ External moldings in waist-line height

Dear Sirs,

more and more our clients want to fix later on the ~~External~~ moldings at the BMW 2500 and 2800 until model '71.

Under part No. 51 13 1 817 094 a complete set of moldings and necessary parts is available.

From the chart on the reverse side you can see the acc. dimensions - measured on the body outside - for the fixation bores $\varnothing 6 - 0,1 \text{ mm}$. In order to avoid body damages do the bores very carefully. The edges are to be protected with point-soldering colour or similar against corrosion. For the later installation you need no stripping-off, etc.

Necessary work: 29 FR.

Yours very truly,
BAYERISCHE MOTOREN WERKE
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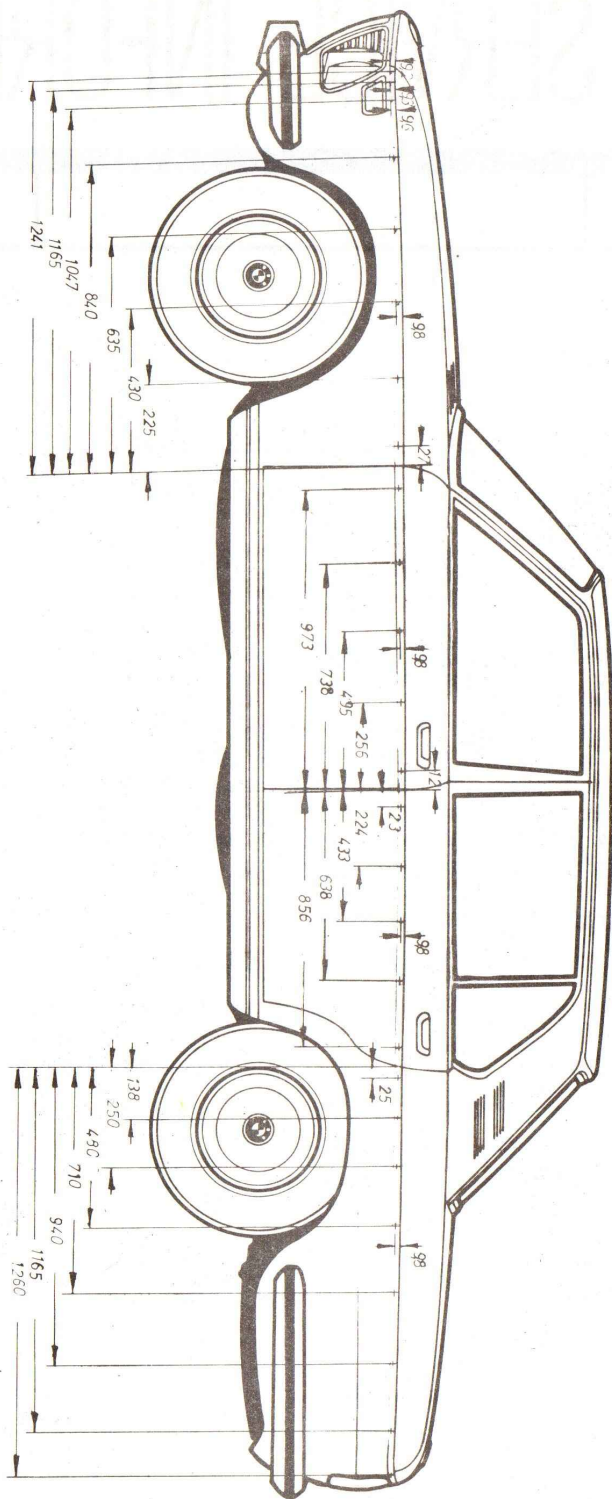
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Chart see overleaf

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С.И.Д. 51 01 74 (685)



SERVICE INFORMATION

Tech. Cust. Service
VKT 10 Bl/Zr

BMW 1500 - 1600-4/1800/2000/ti
Group: Body

Munich, June 71
41 02 71 (687)en

Ref.: Front wheel-housing

Dear Sirs,

If, during body repairs you have to renew the front wheel housing, please, consider the following hint:

due to productional reasons it is not possible to provide the wheel-houses, produced for spare parts, with the necessary weldings for the spring supports - see overleaf plan.

In case of repair connect the spring support concerned (upper spring leg mounting support) at the wheel-house and at the mounting support by one electro - or CO₂ - welding spot each.

As a precaution please correct yours repair manual BMW 1500 - 2000, group: body - point 5.106 - renew front wheel house - until we send you an amendment.

Yours very truly

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft

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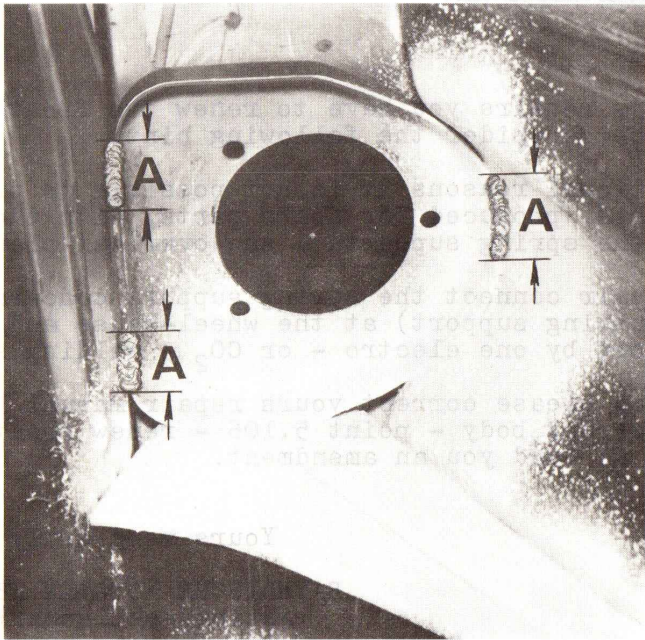
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See plan overleaf

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3.1. Mr. 41 02 71 - 5871



SERVICE INFORMATION

Tech. Cust. Service
VKT 10 Gz/Zr

BMW 3.0 S - 3.0 A Automatic
Group: Service and General Hints

Munich July 71
00 11 71 (690)en

- 7 OCT 1971

Ref.: BMW 3.0 S - 3.0 S Automatic

Dear Sirs,

in the following we give you the deviating technical data and alterations for the new model BMW 3.0 S/SA compared to the BMW 2800/2800 A. (Due to reasons of completeness we also indicate some unaltered data.)

E N G I N E

Capacity

fiscal 180.9 cu.in.
effective 182.0 cu.in.

Max. output 180 bhp (DIN)
at rpm 6000 rpm
200 bhp (SAE)
6000 rpm

Output per litre 0.98 HP per cu.in.

Max. continuous rpm 6000 rpm

Max. permitted rpm 6400 rpm

Max. torque 197.6 (lb.ft)
at rpm 3700 rpm

Stroke/bore 3.15"/3.5"

Torque weight (unladen) 64.9 lb.ft./1000lbs

Power/weight ratio

in road trim, with full tank 15.4 lbs per HP
all seats occupied and luggage 22.6 lbs per HP

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CamshaftTiming

inlet opens	14°	BTDC
inlet closes	54°	ABDC
exhaust opens	54°	BBDC
exhaust closes	14°	ATDC

measured with 0.02" clearance between rocker and cam base circle.
Opening period 248°.

Fuel consumption (DIN 70030) 11 litre/100 km

Carburettor type 2 Zenith two-stage 35/40 INAT

Carburettor setting	1st stage	2nd stage
Air venturi (cast in)	24	30
Main jet	X 120	X 145
Mixture tube	6 S	4 N
Air corrector jet	80	120
Idling jet	50	
Intermediate jet		60
Float needle valve		2,0
Float needle valve sealing ring		1,0
Float weight		8,5 g (0.3 oz.)
Injector tube	0,5	
Injection volume	0,6-0,9 cc/stroke	
	(0.366 - 0.549 cu.in.)	

Intermediate jet throttle
butterfly section

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G E A R B O X

- a) manual: 4 speeds and 1 reverse, Getrag 262/8* with Borg-Warner synchronesh on all forward gears.
- b) automatic: Borg-Warner model 65*) with oil cooler.

Gear ratios

	manual	automatic
1st gear	3,855	2,39
2nd gear	2,202	1,45
3rd gear	1,401	1,0
4th gear	1,0	-
reverse gear	4,3	2,09

Front axle: stabilizer as a standard equipment.

- *) These gearboxes are to start in the series, so that some BMW 3.0 CS and CSA are still equipped with the actual gearboxes ZF S 4/18/3.

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- 7 OCT 1971

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Rear axle

Newly adjusted springs. Stabilizer as a standard equipment.
Optional: BOGE-Nivomats, locking differential with 25%
locking effectivity and lamellas.

B R A K E S

front: 4-piston fixed caliper disc brakes (interior vented
discs) with autom. pad wear compensation

Disc Ø 10.7"
Piston Ø 1.57 "
Disc thickness 0.866" (min. 0.827")

rear: 2-piston fixed caliper disc brakes (interior vented
discs) with autom. pad wear compensation

Disc Ø 10.7"
Piston Ø 1.654"
Disc thickness 0.748" (min. 0.709")

T Y R E S

Radial tyres DR 70 HR 14, e.g. 195/70 HR or VR 14 with tube
and screw-in metal valve 40 G DIN 7711.

Winter tyres: 175 SR 14 M + S, e.g. M + S-E or DR 70 SR 14
M + S, e.g. M + s - E.

D I M E N S I O N S A N D W E I G H T S

<u>Unladen weight</u>	3.042 lbs
<u>in road trim with full tank</u>	
<u>Max. permitted weight</u>	4.078 lbs
<u>Permitted front axle load</u>	2.028 lbs
<u>Permitted rear axle load</u>	2.116 lbs

P E R F O R M A N C E

Top speed 127.4 mph (3.0 S) 123 mph (3.0 SA)

Max. gradients

(BMW 3.0 S)

1st gear	61%
2nd gear	36%
3rd gear	20%
4th gear	12%

Admitted road speed

(BMW 3.0 S)

1st gear	32.3 mph
2nd gear	57.2 mph
3rd gear	89.4 mph
4th gear	125.5 mph

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Admitted top speed

(BMW 3.0 S)

1st gear	34.7 mph
2nd gear	60.9 mph
3rd gear	95.7 mph
4th gear	127.4 mph

Acceleration

(BMW 3.0 S)

Gears	mph	sec.
1st	0 - 31	2.7
2nd	0 - 50	5.9
3rd	0 - 62	8.4
3rd	0 - 75	12.4
3rd	0 - 87	16.6
4th	0 - 100	24.1
standing start km		29.9

Average speed 74.5 mph
Terminal speed 107.5 mph

E L E C T R I C A L S Y S T E M

fuse box (12-pole standard box)
list of fuses

No.	fuse	user
1	5 A	left hand side: parking lamps, tail light, (engine comp. lighting)
2	8 A	right hand side: parking lamps, tail light, number plate light, instrument lighting, rear fog light (fog lamp relay)
3	8 A	low beam left
4	8 A	low beam right
5	5 A	turn indicator left
6	5 A	turn indicator right
7	16 A	cigar lighter (autom. antenna)

7 OCT 1971

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8	8 A	clock, interior light, hazard warning flasher, glove box light, luggage compartment light (trailer turn indicator system)
9	16 A (25A)	heater blower (el. sliding roof)
10	16 A	heated rear window
11	8 A	autom. choke, oil control, fuel gauge, rev. counter, temp. gauge, (el. fuel pump)
12	16 A	stop light, turn indicator, horn relay, wiper/washer, back-up lights

To the standard equipment belongs now a windshieldwiper interval switch. This can be switched in, e.g. - off, by pressing the blinker lever in direction of the steering column at inserted windshield wiper pre-selector switch.

The remaining windshieldwiper preselector stages are:

switch drawn 1st stop = speed stage 1 (normal)
switch entirely drawn = speed stage 2 (fast)

Two screen washer jets are on the bonnet.

To the BMW 3.0 CSA standard equipment belongs an electric fan.

B O D Y A N D B O D Y E Q U I P M E N T

Ventilation of the interior by vent slots in the rear edges of the roof purlins'.

Headrests for front and rear seats, rear to be folded, are standard equipment.

F I L L I N G Q U A N T I T I E S A N D O I L B R A N D S

manuual gear box: 1,1 litre (oil change every 36.000 km), 22500miles.
brand gearbox oil SAE 80 (replace HD engine oil SAE 30).

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Autom. gearbox: 6.25 litre (1.65 US.gal.) (first filling),
no oil change. Oil brands will be indicated in special
Service Information.

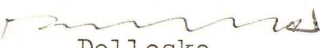
Please, also inform your salesmen about this S.I.

All indications about dimensions, weights and performance
are to be understood with the usual tolerances.

Yours very truly
BAYERISCHE MOTOREN WERKE
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SERVICE INFORMATION

Cust. Service
S-201 gz/zr

BMW 1602 - 3.0 CS
group: wheels and tires

Munich, Nov. 71
36 01 71 (691) e.

Supplement I

- 8 APR 1972

Ref.: Alloy Rims

Dear Sirs,

we want to correct our S.I. No. 36 01 71 (691) as follows:

When changing a wheel only grease, f.ex. with Shell Darina II, the chromed nuts of the alloy wheels 5 J x 13 (BMW 1602 - touring 2000 tii) before installation, at their conus - never use lubricants with molybdenum contents.

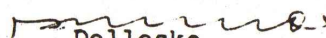
Never grease the zinced nuts of the alloy wheels 6 M x 14, because this would increase the pre-tension on the wheel bolts.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

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1 DEC 1971



SERVICE INFORMATION

Tech. Cust. Service
VS-201 Cz/Zr

BMW 1602 - 3.0 CS
group: wheels and tires

Munich, August 1971
36 01 71 (691) e

Ref.: Alloy Wheels

Gentlemen,

As you know already, our models BMW 1602 - 2002 and touring models are equipped on request with alloy wheels 5 J x 13.

The serial alloy wheels 6 J x 14 of the BMW 2800 CS - 3.0 CS also can be mounted to the BMW 2500 - 3.0 S.

As the life-time of such wheels depends from the correct wheel stud pre-tension, please take care of the following:

During a service, e.g. Programtest for the first time after 1000 km, later on every 6000 km, check exactly torque of 8 + 1 mkg of wheel nuts for alloy rims (for each rim 5 J x 13 four hat nuts, parts No. 36 13 1 108 425; for each rim 6 J x 14 five hex nuts, parts No. 36 11 1 106 017).

Also take care before you change a wheel to grease wheel nuts before mounting with e.g. Shell Parina II at cone - never use grease with molybdenum.

Yours very truly,

DAVIDSON MOTOR WERKE
AG Gesellschaft
Service Division
Munich

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NOT A REPLY TO THIS





SERVICE INFORMATION

Tech.Cust. Service
VKT 20 Kl/Zr

BMW 1500 - 3.0 CS
Group: Engine

Munich, July 1971
11 05 71 (692) en

23 OCT 1971

Ref.: Torques for main flow oil filter
4 and 6 cyl. models

Dear Sirs,

in order to avoid various complaints, untightnesses e.g. remaining deformations of the filter housings, please, absolutely take care of the following torques:

filter housing at the upper part of the filter SW 17
(BMW 1500 - 3.0 CS) 3 + 0.5 mkp

throw-away cartridge - filter 2.4 + 0.2 mkp
(4 cyl. - US and injection models)

The necessary special wrench for the throw-away cartridge filter, parts No. 6065, see S.I. group: installation advice No. 2/71 (280), can be ordered via your importer.

Yours very truly,

BAYERISCHE MOTOREN WERKE
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SERVICE INFORMATION

Tech. Cust. Service
VS-222 gz/zr

BMW 3.0 S-US - 3.0 CS-US
group: engine

Munich, July 71
11 06 71 (694) e.

Ref.: Exhaust Emission Control System BMW 3.0 S-US - 3.0 CS-US

Gentlemen,

Caused by the laws of the US authorities we equip the US models BMW 3.0 S - 3.0 CS with a further developed exhaust emission control system.

I. Description of the Functioning Principles (see chart)

The control of the CO- and CH-parts in the exhaust gas is obtained by the following means:

- calibrated intake manifold for constant air/fuel mixture distribution to each cylinder; and
- carburetors with reduced flow curve tolerance.

These features together permit an unrestricted operating efficiency at the specified lean air/fuel mixture.

Further the favorable combustion chamber design requires control of CH emissions on engine coasting and idle only.

For this during coasting the carburetor throttle is retained in the open position 3 to 4 degrees by means of a throttle closure delay (9) diaphragm assembly. A two way magnetic valve (11) is connected between the "retard" side of the distributor vacuum unit (2) and the tapping of the intake manifold. The valve is controlled by one of the speed sensitive relays (12).

If the engine speed drops below 1800 + 100 rpm the relay interrupts the flow of electric current to the two way magnetic valve. The intake manifold vacuum causes the diaphragm in the dashpot to retract and the throttles of each carburetor are returned to idle position.

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When the engine speed is raised above 1920 ± 100 rpm the relay actuates the valve to connect the dashpot to the atmosphere. A spring in the dashpot then causes the carburetor linkage to affect the inclination of the throttle.

The engine sending rpm cannot be altered. But the throttle opening can be adjusted by $3 - 4^\circ$ at the dashpot.

The reduction of the nitrogen oxides is obtained by means of

- a) controlled exhaust gas recirculation, and
- b) engine speed related ignition advance.

To a):

Depending from the engine load the exhaust gas is fed to the intake manifold. The necessary exhaust gas volume is taken out of the front exhaust manifold and via the exhaust gas return line to the two intake manifolds. In this line there is a valve controlled by the vacuum of the intake manifold. The vacuum is taken out of the front carburetor. The vacuum channel is so positioned that at idle speed it is above the closed throttle.

In idle speed the vacuum at the take-out bore is very low. The tuning valve is kept closed by a pressure spring, so that at idle speed no exhaust gas is supplied.

In the partial load range opens the throttle. The vacuum take-out bore is situated below the throttle, so that the intake manifold vacuum effects the tuning valve.

If the intake manifold vacuum is high - lower partial load range - so the diaphragm of the tuning valve is drawn. The valve is open and the engine is fed with exhaust gas.

In the upper partial load range and at total load the low pressure in the intake manifold goes down so far, that by means of the spring the diaphragm is pressed and so the valve is closed. No exhaust gas is inserted.

To b):

The engine speed related ignition advance alters the ignition tuning at increasing speed up to 2500 rpm to "retard".

In the vacuum line (1) between "advance" of the double unit at the distributor and the take-out point at the throttle of the rear carburetor is fixed a second two-way valve (7), which is directed by a second rpm relay (5).

- 3 -

If the engine speed increases over $2500 + 100$ rpm, the rpm relay opens the current circuit and the magnetic valve gets out of current. The vacuum is directed to the "advance" side of the double-acting device and the ignition point alters to "advance" (switch-off rpm).

If the engine rpm drops below $2200 + 100$ rpm, the rpm relay closes the current circuit and the magnetic valve ventilates via the vacuum line the "advance side" of the double-acting vacuum unit. Combined with the atmosphere pressure the vacuum gets ineffective and the ignition point is retarded.

A reliable start of the engine is achieved by an exactly adjusted start automatic.

The freezing of the carburetor is avoided by an expansion element in the air filter intake tube which controls the pre-heated intake air.

The double-acting vacuum unit causes the ignition tuning to retard to approx. 12° during coast and idle additional to the regular centrifugal vacuum advance mechanism.

II. Adjusting recommendations:

Caused by the exhaust emission control system in addition to the free predelivery check and the program tests e.g. services, the following work is necessary - at first at 600 miles (free), at 4.000 miles and afterwards every 4.000 miles!

Special tools:

ignition tuning:	tuning light (stroboscope)
	e.g. BMW- Programtester
synchronizing of carburetors:	synchrotester
test of ignition tuning reversion:	voltmeter
idle mixture CO:	CO meter; probe for exhaust manifold

Setting of idle speed:

1. Connect extra tachometer
2. Check dwell angle and adjust ($35^\circ - 41^\circ$)
3. Check and reset the ignition tuning with the engine running at operating temperature.

Disconnect vacuum hoses (1) and (2) - see chart - from distributor vacuum unit (6). Loosen distributor retaining bolt (3). Connect tuning light e.g. BMW Programtester. Start the engine.

- 4 -

Turn bolt (4) until idle speed of 1700 rpm is obtained.
Fig. 1

In the bell housing behind the starter, there is a pilot with a marking point, which at an engine speed of 1700 rpm aligns exactly with the steel ball e.g. with the long notched pin (automatic models) at the flywheel, provided the ignition is correctly adjusted. Fig. 2

By adjusting the distributor this can be corrected.

Connect vacuum hoses again to the distributor vacuum unit.

Adjust engine idle rpm to $900 + 50$ rpm. With vacuum hoses connected the ignition point should be between "OT" mark (TDC) and 5° ATDC. The "OT" mark should still be visible in the pilot hole of the clutch bell housing. Fig. 3

This adjustment can be corrected by means of an eccentric shaft in the distributor vacuum diaphragm. The shaft is controlled by a slotted screw, which is secured by a locknut and connected to the eccentric shaft (not visible from outside). Fig. 4

The vacuum retard is well functioning when the engine idle speed increases considerably after the vacuum hose (1) is pulled from the vacuum unit (6).

4. Presetting of idle mixture CO

Before synchronizing the carburetors adjust CO-content to approx. 2 % Vol. If this uncorrected idle speed exceeds 1000 rpm, the CO-content has to be lower; if the idle speed is lower the CO-content has to be higher.

5. Synchronizing of carburetors

Remove air filter and housing, connect synchrotester. Adjust stage No. 1 throttle openings of both carburetors to equal flow.

Assure that the engine has reached normal operating temperature and that the result of the measurement is not affected by cool ambient air (shield synchronisation unit).

6. Adjust CO-content at idle speed

Mount air filter and housing. Adjust idle rpm CO-content to 1,0 to 1,5 % Vol (measured in exhaust tail pipe - rear). The engine should run smoothly at 900 - 950 rpm. Each exhaust manifold is provided with a connection for sampling of exhaust gas, which is closed by a bolt. Via these bores adjust both carburetors separately to the same CO-values. For this remove bolt and insert special sample probes at rear e.g. front intake.

-1 DEC 1971

S.I.No. 11 06 71 (694) e.

- 5 -

Adjust at according mixture screw each carburetor to same CO-value (1 - 1,5 % Vol at a speed of 900 - 950 rpm). Control again CO-content at tail pipe, rear.

7. Adjustment of compensation speed

Disconnect carburetor vacuum hose (8) from the dashpot. Actuate throttle linkage by hand - up to approx. 2500 rpm - and gradually decrease throttle opening until contacting adjustment bolt. (Fig. 1) Release throttle.

The rpm obtained should be 1800 approx. For adjustment loosen dashpot clamp and turn dashpot (9). Fig. 5

III. Check and Maintenance instructions

For difficulties at the engine here is a trouble shooting guide:

Before performing the following trouble shooting make sure that the engine adjustments are according to specifications and that no open circuits (also hoses, connections, cables, cable connections) do exist.

Dashpot, two-way magnetic valves, electric speed relay.

Connect a tachometer to distributor terminal of No. 1 cylinder. Start the engine and increase engine rpm to approx. 3000 rpm. Observe dashpot plunger movement while carburetor linkage is permitted to return to initial position. Above 1800 rpm the plunger shall contact the lever of the carburetor linkage. Below 1800 rpm the plunger should be attracted.

- A) Dashpot plunger (13) does not free throttle lever (10) and engine speed remains above 1800 rpm:

Loosen dashpot clamp and turn dashpot counterclockwise.

If the plunger is attracted at control speed - approx. 1800 rpm - Fig. 6, the compensation speed was maladjusted and must be corrected (see adjustment instructions point 7).

- B) Plunger does not free the throttle lever although the engine speed is below control speed - approx. 1800 rpm:

Disconnect the vacuum hose (8) from the dashpot (9) and close the hose port with your finger tip to check existence of suction effect. .

- a) If suction effect exists, but the plunger is not attracted with the vacuum hose (8) installed, the dashpot diaphragm is defective and the dashpot, parts No. 13 21 1 252 253, must be replaced.

- 6 -

- 6 -

- b) If suction effect does not exist, check plug of speed relay (12) for proper fitting e.g. relay for properly grounding (mass).
- c) If correct, unplug lead (14) from magnetic valve (11) and connect a voltmeter. (During this the engine speed must be at approx 2000 rpm). When the reading is 12 V, the magnetic valve, parts No. 11 64 1 252 254, is defective and must be replaced.

When the reading is 0, the rpm relay is defective and must be replaced, parts No. 11 64 1 252 408.

Check of ignition tuning

Remove vacuum hose from "advance" side of vacuum unit. Start the engine and increase speed to 2500 rpm. Then the double-acting vacuum unit must reverse the ignition tuning to "advance".

When you close the hose part with your finger tip, and the engine speed is at 2500 rpm, a suction effect should be recognized. If a suction effect does not exist, the following failures must be considered:

- a) speed sensitive relay (7) is defective
- b) magnetic valve (5) is defective.

To a)

The speed sensitive relay is tested as follows:

Remove plug from magnetic valve and connect a voltmeter. Connect a tachometer to distributor terminal 1. Start the engine and increase speed. The voltmeter reading must be 12 V below 2200 ± 100 rpm. If the reading is zero, the relay assembly is defective and must be replaced.

To b)

If the voltmeter is reading 12 V below 2200 ± 100 rpm, the magnetic valve is defective and must be replaced.

Testing the diaphragm valve assembly of the exhaust gas recirculation system

The part of the exhaust return tube (15) from the diaphragm valve (16) to both intake ports is removed and the ports are blocked. Check diaphragm valve by finger tip whether above approx. 2000 rpm pressurized air (blowing effect) is to be recognized. Diaphragm pressure line (17) has to be connected.

- 7 -

- 1 DEC 1971

S.I.No. 11 06 71 (694) e.

- 7 -

If this is not so and the return tube is not obstructed, the valve assembly must be replaced.

At idle speed a blowing effect should not be recognized. If a blowing effect exists, the valve is defective and must be replaced.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

ppa.

i.V.



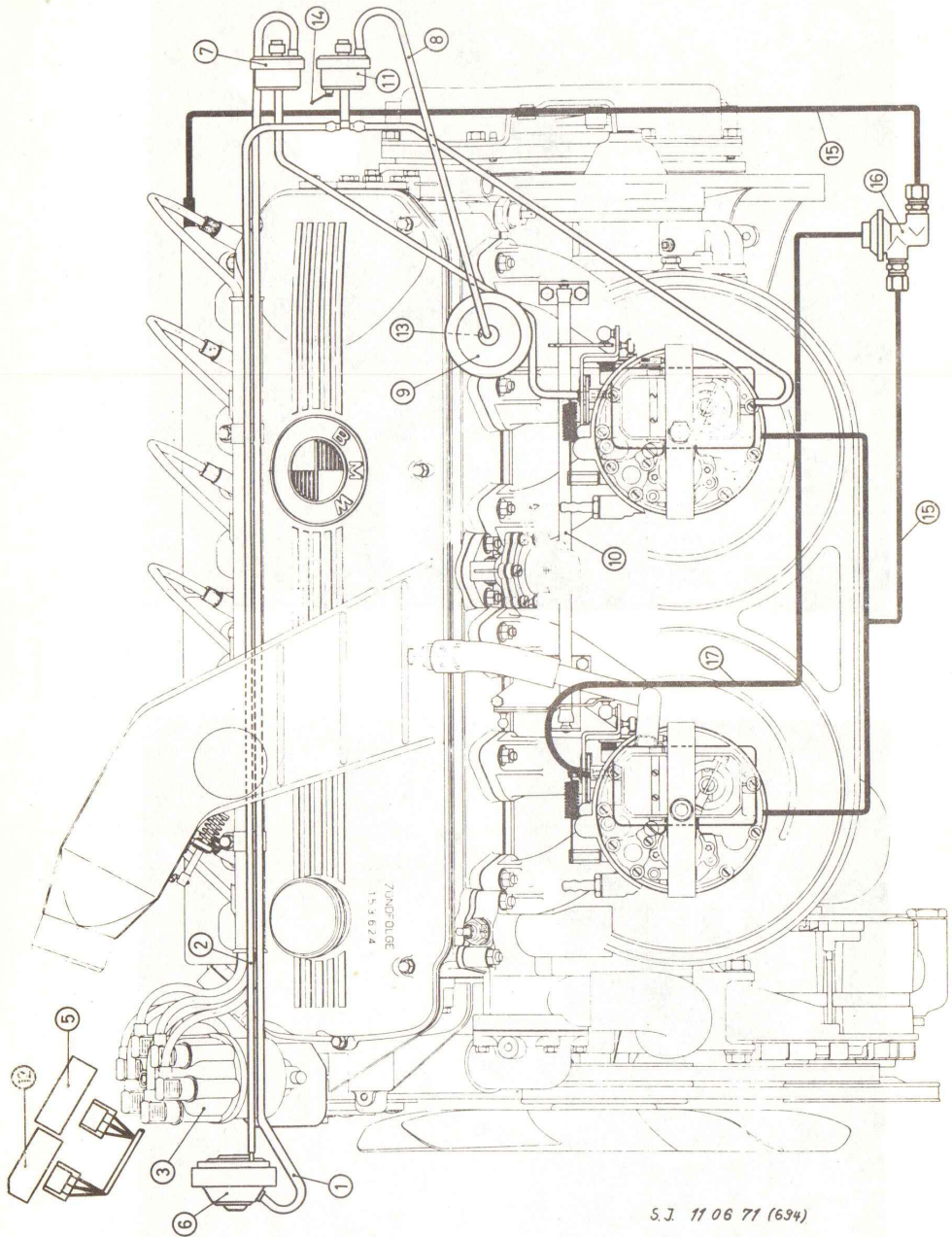
Delleske


Flohr

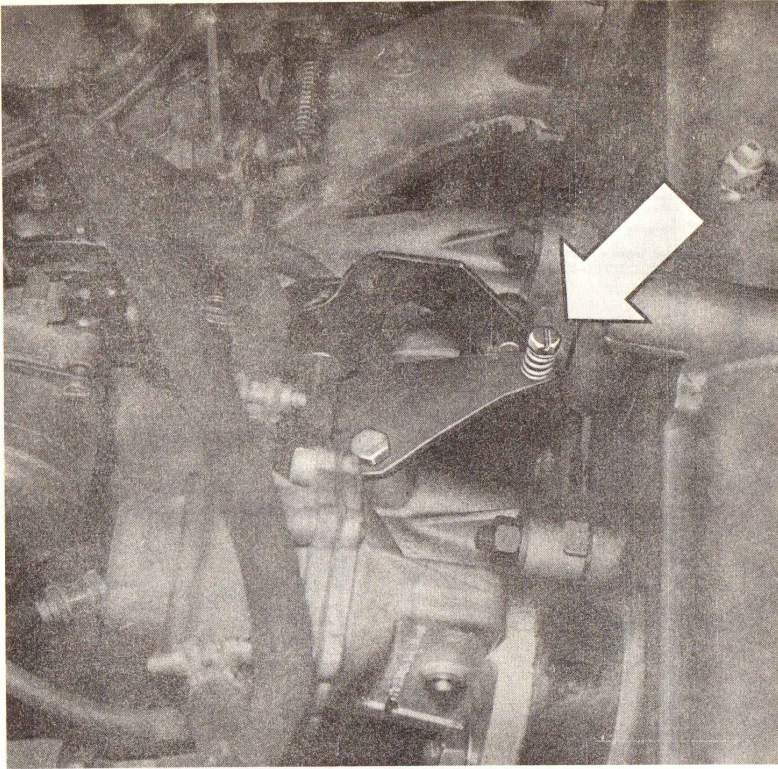
Encl.

- 1 vacuum hose - advance hose
- 2 vacuum hose - retard hose
- 3 distributor
- 4 Adjustment bolt (not indicated)
- 5 rpm relay for magnetic valve 7
- 6 distributor vacuum unit
- 7 two-way magnetic valve (advance)
- 8 vacuum lines dashpot - two way magnetic valve
- 9 dashpot
- 10 gas rods + links
- 11 two-way magnetic valve
- 12 rpm sensitive relay
- 13 dashpot plunger
- 14 cable connection
- 15 exhaust gas return tube
- 16 diaphragm valve
- 17 diaphragm pressure line

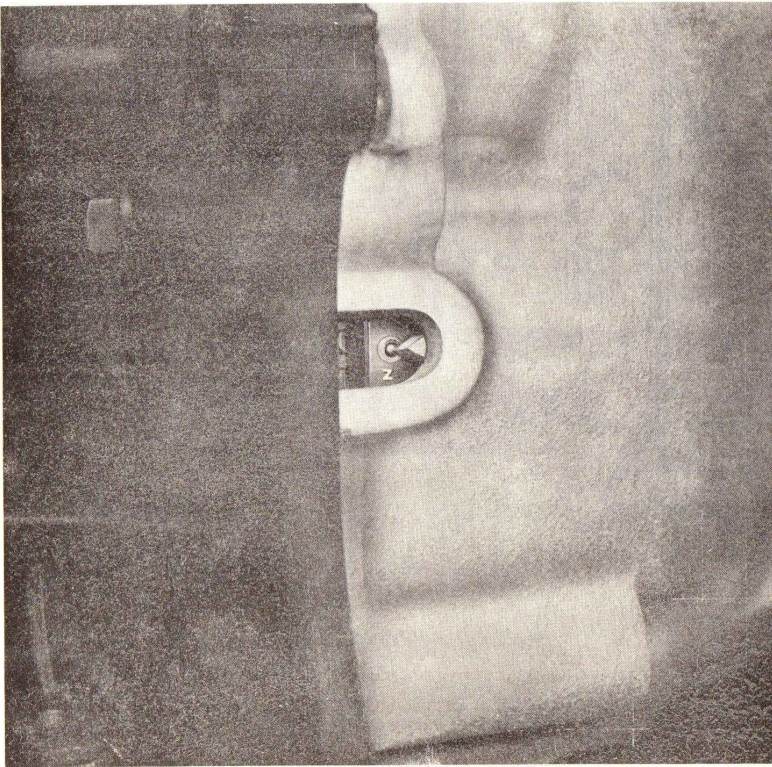
1 DEC 1971



S.J. 11 06 71 (634)

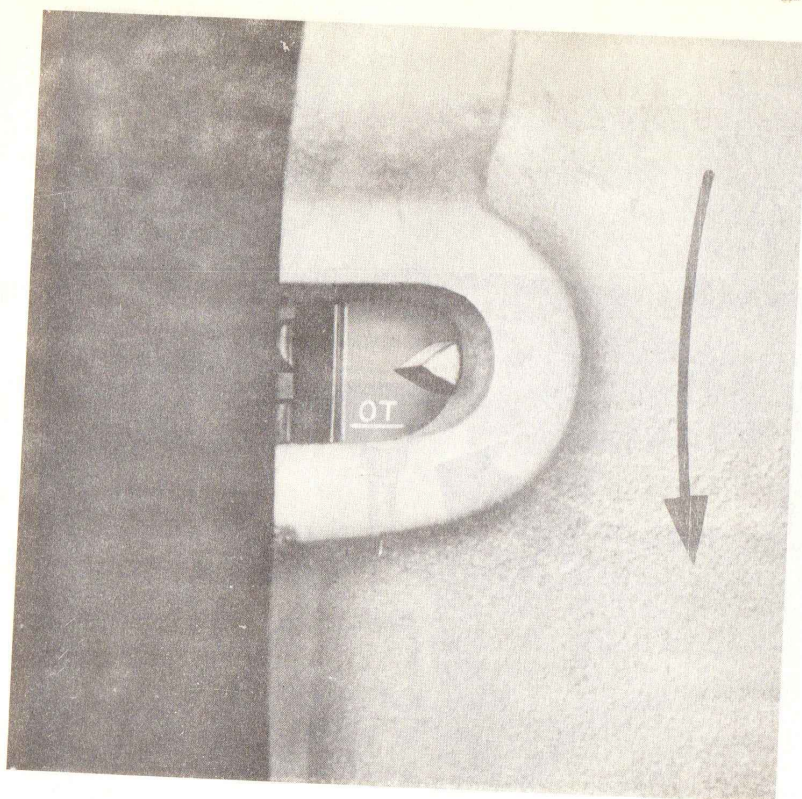


FILE 1

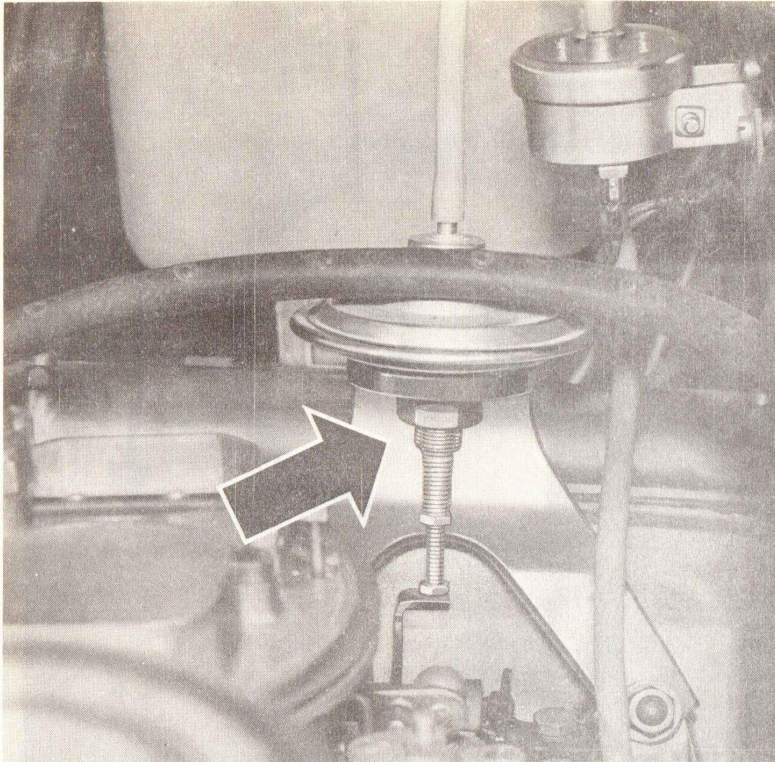


FILE 2

- 1 DEC 1971

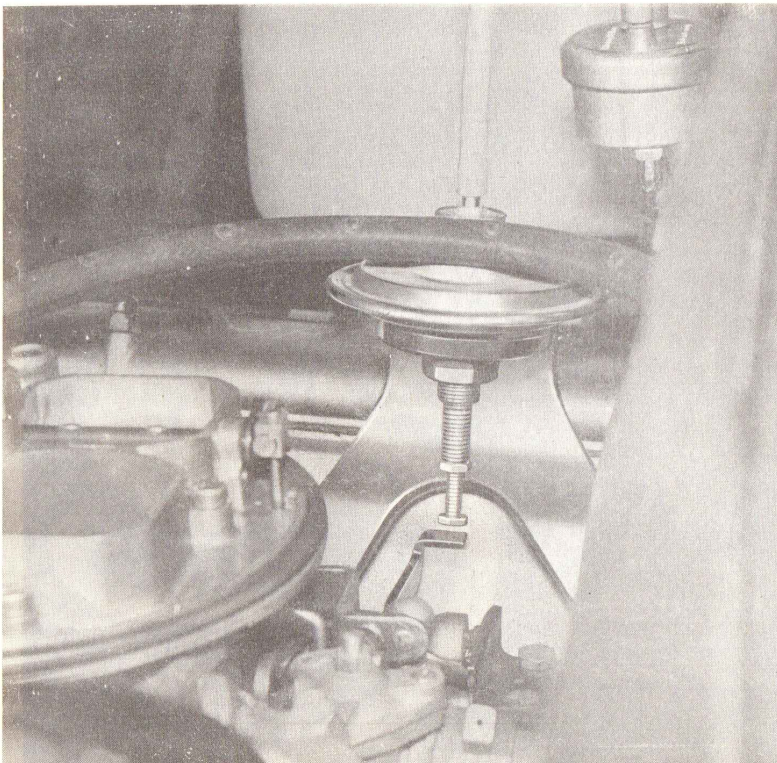


FJ DEC 1971



FJ DEC 1971

EX-13 5



EX-13 6



-1 DEC 1971

SERVICE INFORMATION

Tech. Cust. Service
VKT 20 DB/Zr

BMW 2800 CS - 3.0 CS
group: body - equipment

Munich, August 71
51 02 71 (695) e

Ref.: Luggage compartment lock - 6-cyl. Coupé models

Dear Sirs,

due to functional reasons we altered the rosette-sleeve of the luggage compartment lock of the models BMW 2800 CS....., 3.0 CS.... This alteration can be seen by a grey sealing ring - actually black - for the locking cylinder.

During the next workshon stay - service, BMW Programtest, etc. - of the following chassis Nos., also Coupés, which by former complaints already got an altered luggage compartment lock - nickel key, code CB or DB -, please change the rosette sleeves, parts No. 51 24 1 819 494.

BMW 2800 CS	- 2 204 638 to 2 206 362
2800 CS-A	- 2 221 476 to 2 221 949
2800 CS-US	- 2 270 404 to 2 270 641
2800 CS-A-US	- 2 280 402 to 2 280 526
3.0 CS	- 2 210 000 to 2 211 330
3.0 CS-US	- 2 240 001 to 2 240 053

Please tell us the quantity you need with your next monthly parts order.

Working process:

1. Disconnect upper housing - final tin
2. Dismount luggage compartment lock
3. Take sealing ring - seeger ring - out of rosette sleeve and draw out locking part. Insert locking part into new rosette sleeve, however clockwise changed by 90° (in driving direction) see enclosure plan 2.

- 2 -

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Insert sealing ring, connect lock and housing.

Check function after installation, before closing luggage compartment:

Control lever of locking cylinder shows as before upside and can actuate via release lever the lock-mechanism.

In "closed" position the control lever of the locking cylinder shows to the right side (seen in driving direction, formerly to left side), the key slot shows to left side (formerly right side). Compare with enclosure, plan 2 to plan 1.

Check also the luggage compartment locks of your parts store and re-fit, if necessary.

Necessary FP:

lock transformation, in car 5 FR
" " in parts store 1 FR

this can be invoiced in the usual warranty procedure, fault No. 00 00 51 01 00, warranty step 5.

Notes regarding plans 1 and 2 see enclosure:

plan 1 : actual model
plan 2 : altered model

- 1 = rosette
- 2 = control lever
- 3 = sealing ring
- 4 = guide noose

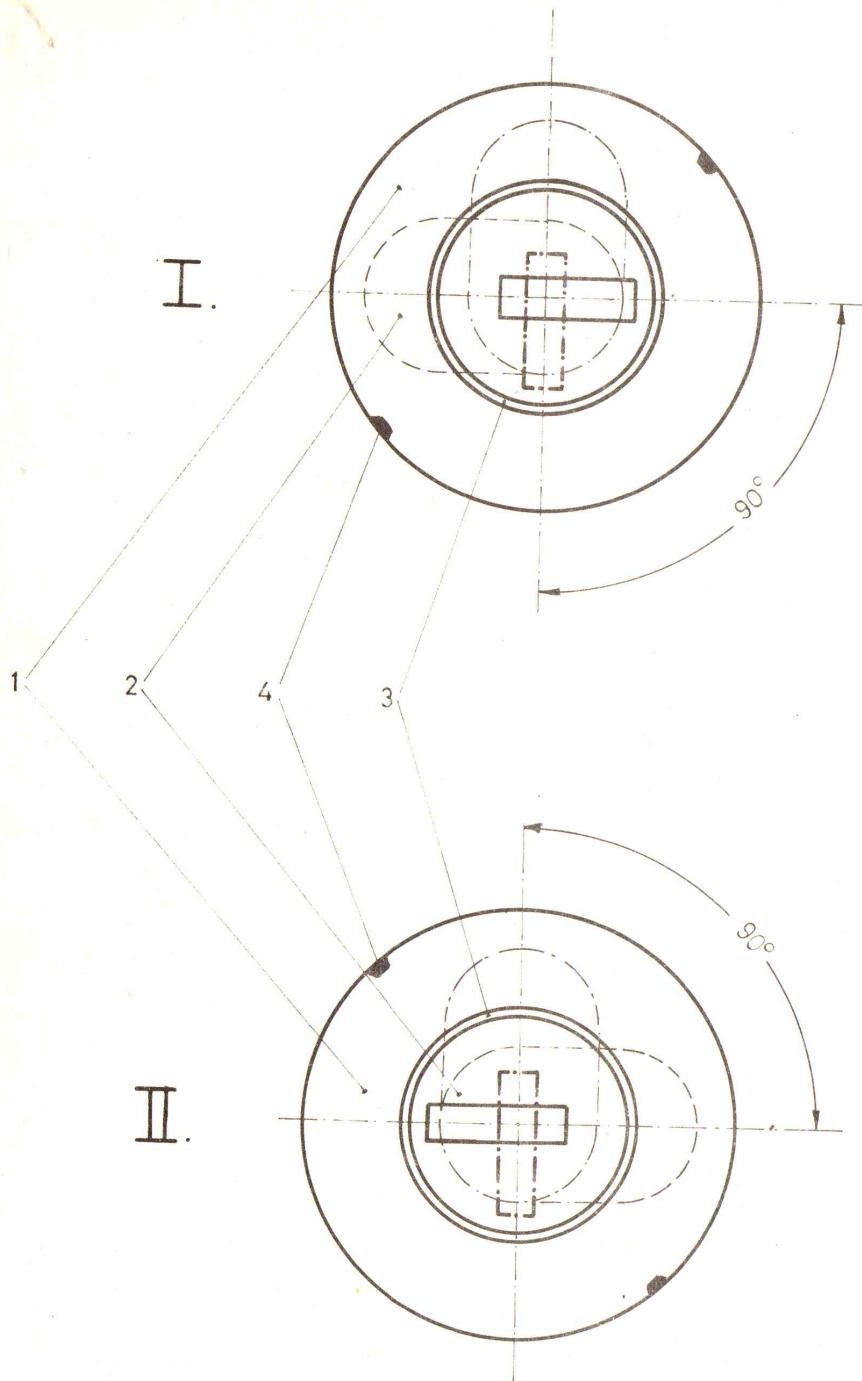
Yours very truly,
BAVERISCHE MOTOPEN WERKE
Aktiengesellschaft
Service Division
mpa. i.V.


Delleske


Flohr

Encl.

1 DEC 1971



51 02 71 (695)



SERVICE INFORMATION

Tech. Cust. Service
VS-201 B1/zr

BMW 2002 ti - 3.0 CS
group: brakes

Munich, Sept. 71
34 01 71 (697) e.

19 JAN 1972

Ref.: Pad quality for disc brakes -
double circuit brake system

Dear Sirs,

In order to correct special brake complaints, we released
two new pad qualities.

To correct brake squeezing and to improve the straight
ahead-driving conditions during braking, please use the
brake pad

J u r i d 218 F F .

The heat fading (thermal stress) which occurs at the serial
pads during competitions can be reduced with the pad

F e r o d o D S 11 F F

which we released for competition use.

This pad has a greater heat conductivity, but a lower friction
value at normal brake stress - and a higher pedal force
is necessary.

This quality is not suited for normal driving conditions, as
the optimal friction value only enters at very high brake
operation temperatures.

Caution: By the greater heat conductivity of the Ferodo pad
there is a greater danger of overheating the brake liquid and
the possibility of brake failure by vapor blisture formation
(if you go down pass-roads).

The overleaf pad table completes our S.I. No. 34 02 70 (628).

- 2 -

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- 2 -

Front wheel brake (double circuit brake)

model		pad quality	parts No.
2002 ti	)	Jurid 218 FF+	34 11 1 103 321 +
2002 tii	)		
1800	)		
2000 /touring	)		
2500	)		
2800	)		
bavaria	)		
2800 CS ..	)	Ferodo DS 11 FF++	34 11 1 108 853++
3.0 S ..	)		
3.0 CS ..	)		

Rear wheel brake (double circuit brake)

2500	)		
2800	)	Jurid 218 FF+	34 21 1 103 322 +
bavaria	)		
3.0 S ..	)		
3.0 CS .	)	Ferodo DS 11 FF++	34 21 1 108 854++

colour marking:

Jurid 218 FF	green-blue-green
Ferodo DS 11 FF	blue-yellow-blue-yellow-blue
Textar V - 1431 G FF	green-yellow-green-yellow-green

+ not for cars with interior vented brake discs. For these models we released the serial pad Textar V-1431 G FF.

Parts No: front wheel brakes 34 11 1 103 726
 rear wheel brakes 34 21 1 103 323.

++ Caution: Only use pads which you ordered via our parts division - quality differences at the licencees.

At cars with 4 disc brakes only use brake pads of the same make - designation - and per axle out of same charge No. e.g. production date (partly coded). These remarks are stamped onto the lining-carrier-plate.

Only use per axle brake discs of one make.

19 JAN 1972

S.I. 34 01 71 (697) e.

- 3 -

Features:

massive brake discs: ring step at face on the fixation flange,
e.g. plane fixation flange.

Interior vented brake discs: without marks, only of one producer.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

ppa.

i.V.


Delleske


Flohr



SERVICE INFORMATION

Tech. Cust. Service
VS-222 K1/zr

BMW 1602 - 2002 ti
group: body equipment

Munich, September 71
51 03 71 (699) e.

19 JAN 1972

Ref.: Lateral Chrome / Rubber moldings

Gentlemen,

also at the models BMW 1600-2 to 2002 ti - until model 1971 - our customers request the later fitting of the lateral chrome / rubber moldings.

Under parts No. 51 13 9 898 589 a complete set of moldings is available.

From the enclosed sketch you see the dimensions - measured on outside body - for the fixation bores.

Bolted connection = $\varnothing 5 + 0,1$ mm, symbol on sketch

Plug-in connection = $\varnothing 8,0 + 0,1$ mm, symbol on sketch

The +marked dimension of the bores can vary at the different cars. In any case make the bore so that the hat nut of the molding fixation gets fully effective.

For a more easy mounting shorten the molding fixation in the width from 18 mm to 14 mm and insert into chrome / rubber molding with shortened side showing towards the rear final edge of chrome / rubber molding. By this is granted that the chrome / rubber molding ends with the rear door edge and thus no damage at the front end is possible when opening the door.

The bores are to be made in several work steps - pre-bore - and mount the chrome / rubber molding with the necessary care, so that body damage () is avoided. Protect the bores with spot-welding paint or similar against corrosion.

- 2 -

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- 2 -

For this re-equipment only disconnect rear seats so that
you can take off the lateral lining.

Necessary work time: 21 FP.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service-Department

ppa.

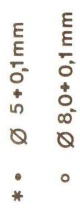
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see encl. plan



19 JAN 1972



SERVICE INFORMATION

Tech. Cust. Service
VS-222 Db/zr/mz

BMW 1500 - 3.0 CSi.
group: wheels and tires

Munich, Sept. 1971
No. 36 03 71 (701) e

-8 APR 1972

Ref.: Recommended Tire Pressures

Dear Sirs,

From the enclosed list you will see the tire sizes and pressures for the models 1500 - 3.0 CSi.

Please, absolutely observe these values, as tire complaints are often caused by wrong tire pressures.

This is to replace S.I. No. 36 01 70 (585).

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

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Encl.

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Model	load	normal tires	tire pressure		for highway		radial tires		tire pressure		winter tires		tire pressure		winter radial tires		tire pressure	
			front	rear	front	rear	size	size	front	rear	size	size	front	rear	size	size	front	rear
1500	1-4 persons	6.00 S 14	24,2	24,2	27,0	27,0	165 SR 14 (1)	165 SR 14 (1)	25,6	25,6	6.00-14	6.00-14	27,0	27,0	165 SR 14 (1)	165 SR 14 (1)	28,5	28,5
1600-4	5 pers.+ luggage		24,2	27,0	27,0	29,9			25,6	28,5			27,0	29,9			28,5	31,3
1602	1-4 persons	6.00 S 13	24,2	24,2	27,0	27,0	165 SR 13	165 SR 13	25,6	25,6	6.00-13	6.00-13	27,0	27,0	165 SR 13	165 SR 13	28,5	28,5
1600 touring	5 pers.+ luggage		24,2	27,0	27,0	29,9	165 SR 13	165 SR 13	25,6	28,5			27,0	29,9	165 SR 13	165 SR 13	28,5	31,3
1600	1-2 persons		-	-	-	-			25,6	25,6			-	-	165 SR 13	165 SR 13	28,5	28,5
1600 6T	4 pers.+ luggage		-	-	-	-			25,6	28,5			-	-	155 SR 14	155 SR 14	28,5	31,3
1600	1-3 persons		-	-	-	-	155 HR 14	155 HR 14	28,5	24,2			-	-	155 SR 14	155 SR 14	28,5	31,3
1600 Cabrio	full load		-	-	-	-	165 SR 13	165 SR 13	25,6	27,0			-	-	165 SR 13	165 SR 13	31,3	29,9
1600	1-2 persons		-	-	-	-	165 SR 13	165 SR 13	25,6	25,6			-	-	165 SR 13	165 SR 13	28,5	28,5
1600 ti	4 pers.+ luggage		-	-	-	-	165 SR 13	165 SR 13	25,6	28,5			-	-	165 SR 13	165 SR 13	28,5	31,3
1802	1-4 persons		-	-	-	-	165 SR 13	165 SR 13	25,6	25,6			-	-	165 SR 13	165 SR 13	28,5	28,5
2002/A	5 pers.+ luggage		-	-	-	-	165 SR 13	165 SR 13	25,6	28,5			-	-	165 SR 13	165 SR 13	28,5	31,3
1800 touring	1-2 persons		-	-	-	-	165 SR 13	165 SR 13	25,6	25,6			-	-	165 SR 13	165 SR 13	28,5	28,5
2000/A tour.	4 pers.+ luggage		-	-	-	-	165 SR 13	165 SR 13	25,6	28,5			-	-	165 SR 13	165 SR 13	28,5	31,3
2002 ti	1-4 persons		-	-	-	-	165 HR 13	165 HR 13	27,0	27,0			-	-	165 SR 13	165 SR 13	28,5	28,5
2002 tii	5 pers.+ luggage		-	-	-	-	165 HR 13	165 HR 13	27,0	29,9			-	-	165 SR 13	165 SR 13	29,9	29,9
2000 tii	1-2 persons		-	-	-	-	165 HR 13	165 HR 13	28,5	28,5			-	-	165 SR 13	165 SR 13	31,3	31,3
1800/A	4 pers.+ luggage		-	-	-	-	165 SR 14	165 SR 14	25,6	25,6	6.00-14	6.00-14	27,0	27,0	165 SR 14	165 SR 14	31,3	34,1
2000/A	5 pers.+ luggage		24,2	27,0	27,0	29,9	165 SR 14	165 SR 14	25,6	28,5			27,0	29,9	165 SR 14	165 SR 14	28,5	28,5
1800 TI	1-4 persons	6.45/165 S 14	24,2	24,2	27,0	27,0	165 SR 14	165 SR 14	25,6	25,6	6.45-14	6.45-14	27,0	27,0	165 SR 14	165 SR 14	28,5	31,3
1800/69/A	5 pers.+ luggage		24,2	27,0	27,0	29,9	165 SR 14	165 SR 14	25,6	28,5			27,0	29,9	165 SR 14	165 SR 14	28,5	31,3
2000/69/A	1-4 persons	6.00 S 14	27,0	27,0	27,0	29,9	165 SR 14	165 SR 14	25,6	25,6	6.00-14	6.00-14	27,0	27,0	165 SR 14	165 SR 14	28,5	28,5
2000 TI	5 pers.+ luggage		24,2	24,2	27,0	27,0	175 SR 14	175 SR 14	25,6	28,5	6.45-14	6.45-14	27,0	29,9	175 SR 14	175 SR 14	28,5	31,3
2000 ti lux	1-4 persons	6.45/175 H 14	24,2	24,2	27,0	27,0	175 SR 14	175 SR 14	25,6	25,6	6.95-14	6.95-14	27,0	27,0	175 SR 14	175 SR 14	28,5	28,5
2000 ti lux	5 pers.+ luggage		24,2	27,0	27,0	29,9	175 SR 14	175 SR 14	25,6	28,5			27,0	29,9	175 SR 14	175 SR 14	28,5	31,3
2000 tii	1-4 persons	6.95/175 H 14	24,2	24,2	27,0	27,0	175 HR 14	175 HR 14	25,6	25,6			27,0	27,0	175 SR 14	175 SR 14	28,5	28,5
2000 C/A	5 pers.+ luggage		-	-	-	-	175 SR 14	175 SR 14	25,6	28,5			-	-	175 SR 14	175 SR 14	28,5	28,5
2000 CS	1-2 persons	6.95/175 S 14	24,2	24,2	24,2	24,2	175 SR 14	175 SR 14	25,6	25,6	6.95-14	6.95-14	27,0	27,0	175 SR 14	175 SR 14	28,5	31,3
	4 pers.+ luggage		24,2	27,0	24,2	27,0	175 HR 14	175 HR 14	25,6	28,5			27,0	29,9	175 SR 14	175 SR 14	28,5	31,3
	1-2 persons	6.95/175 H 14	25,6	25,6	25,6	25,6	175 HR 14	175 HR 14	25,6	25,6	6.95-14	6.95-14	28,5	28,5	175 SR 14	175 SR 14	28,5	28,5
	4 pers.+ luggage		25,6	28,5	25,6	28,5			25,6	28,5			27,0	29,9	175 SR 14	175 SR 14	31,3	31,3

(1) see S.I. group brakes, wheels and tires 3/69 (545) of 28-8-69

Model	Load	normal tires	tire pressure		for highway		radial tires	tire pressure		winter tires	tire pressure		winter radial tires	tire pressure	
			size	lb./sq.in.	front	rear		size	front		rear	size		front	rear
2500/A	1-4 persons	-	-	-	-	175 HR 14	28,5	27,0	-	-	-	175 SR 14	29,9	28,5	
	5 pers.+ luggage	-	-	-	-	-	29,9	31,3	-	-	-	-	31,3	32,7	
	1-4 persons	-	-	-	-	DR 70 HR 14	27,0	25,6	-	-	-	DR 70 SR 14(3)	27,0	25,6	
	5 pers.+ luggage	-	-	-	-	195/70 HR 14	29,9	31,3	-	-	-	195/70 SR 14	29,9	31,3	
2800/A	1-4 persons	-	-	-	-	DR 70 HR 14	29,9	25,6	-	-	-	175 SR 14	29,9	28,5	
	5 pers.+ luggage	-	-	-	-	-	29,9	31,3	-	-	-	DR 70 SR 14 (3)	31,3	32,7	
	1-4 persons	-	-	-	-	-	-	-	-	-	-	-	31,3	32,7	
	5 pers.+ luggage	-	-	-	-	-	-	-	-	-	-	DR 70 SR 14 (3)	27,0	25,6	
2800 CS/A	1-2 persons	-	-	-	-	DR 70 HR 14	28,5	28,5	-	-	-	175 SR 14	29,9	31,3	
	4 pers.+ luggage	-	-	-	-	195/70 HR 14	31,3	31,3	-	-	-	-	29,9	29,9	
	1-2 persons	-	-	-	-	-	-	-	-	-	-	DR 70 SR 14 (3)	32,7	32,7	
	4 pers.+ luggage	-	-	-	-	-	-	-	-	-	-	-	28,5	28,5	
3.0 S/SA	1-4 persons	-	-	-	-	DR 70 HR 14	28,5(1)	28,5 (1)	-	-	-	195/70 SR 14	31,3	31,3	
	5 pers.+ luggage	-	-	-	-	195/70 HR 14	29,9(1)	31,3 (1)	-	-	-	175 SR 14	29,9	29,9	
	1-4 persons	-	-	-	-	-	-	-	-	-	-	DR 70 SR 14 (3)	31,3	31,3	
	5 pers.+ luggage	-	-	-	-	-	-	-	-	-	-	195/70 SR 14	29,9	31,3	
3.0 SI/Sl/A	1-4 persons	-	-	-	-	DR 70 VR 14	28,5(1)	28,5 (1)	-	-	-	175 SR 14	29,9	29,9	
	5 pers.+ luggage	-	-	-	-	195/70 VR 14	29,9(1)	31,3 (1)	-	-	-	DR 70 SR 14 (3)	31,3	31,3	
	1-4 persons	-	-	-	-	-	-	-	-	-	-	195/70 SR 14	29,9	31,3	
	5 pers.+ luggage	-	-	-	-	-	-	-	-	-	-	175 SR 14	29,9	29,9	
3.0 CS/CSi/Autom.	1-2 persons	-	-	-	-	DR 70 VR 14	28,5(2)	28,5 (2)	-	-	-	DR 70 SR 14 (3)	32,7	32,7	
	4 pers.+ luggage	-	-	-	-	195/70 VR 14	31,3(2)	31,3 (2)	-	-	-	DR 70 SR 14 (3)	28,5	28,5	
	1-2 persons	-	-	-	-	-	-	-	-	-	-	-	28,5	28,5	
	4 pers.+ luggage	-	-	-	-	-	-	-	-	-	-	195/70 SR 14	31,3	31,3	

- (1) at speeds over 120 mph: + 4,3 lb./sq.in, except Michelin 195/70 VR 14
 (2) at speeds over 120 mph: + 7,1 lb./sq.in, except Michelin 195/70 VR 14
 (3) winter tires DR 70 SR 14 have same pressure as summer tires DR 70 HR 14

Encl. to S.I. 36 03 71 (701) e.

- 8 APR 1972



SERVICE INFORMATION

Tech. Cust. Service
VS-201 DB/zr

BMW 1602 - 3.0 CS
group: rear axle

Munich, Sept. 1971
33 05 71 (702) e.

19 JAN 1972

Ref.: Short-neck differential
radial seal ring - drive flange

Dear Sirs,

We have noted at the short neck differentials sent to us, which already had been sealed at the car acc. to S.I. group: rear axle 3/68 (444), the radial seal ring was mounted incorrectly and the adjustment work was done insufficiently.

By this, follow damages arrived and a renewal of the differential was necessary.

In the future do the sealing work as follows:

1. Disconnect differential (drain oil).
2. Remove locking plate of collar nut. Mark by a radial line drive pinion, collar nut and flange using a **centre** punch.
3. Find out total friction value with friction meter "Cartool 40 cmkp" at drive pinion (e.g. Md = 6,5 cmkp).
4. Loosen collar nut, draw off drive flange and radial seal ring.
Caution: To avoid damages, use suited tools, see S.I. 33 01 71 (666).
5. Find out and fix total friction value of axle (without bearing pre-tension and retaining ring) (e.g. Md = 2,0 cmkp). Screw by hand collar nut and washer into drive pinion.
6. Fill new radial seal ring between sealing and dust lip with **grease** (e.g. Shell-Retinax) and insert it centrally and fitting with mounting pin.

Kenntnis genommen - Pris connaissance - Noted - Tomado nota - Preso conoscenza					Ablage - Archives - File - Archivo	
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7. Check surface of sealing ring at flange, renew drive flange if it is very uneven.
8. Mount drive flange with press-on tool, BMW No. 7026, (for this new tool you will get extra S.I.) and screw by hand collar nut and washer to drive pinion.
9. Find out and fix again with friction meter total friction of axle (without bearing pre-tension, but with retaining ring) (e.g. Md = 5,0 cmkp).
10. Calculate necessary new friction value:

friction value with seal ring	e.g.: Md = 5,0 cmkp (Pos. 9)
././ friction value without seal ring	e.g.: Md = 2,0 cmkp (Pos. 5)
friction value of new seal ring:	Md = 3,0 cmkp
+ total friction value old :	Md = 6,5 cmkp (Pos. 3)
total friction value new :	Md = 9,5 cmkp

11. Bring collar nut by screwing to installation position acc. to Pos. 2 and check friction value.
12. Increase friction value by repeated turning of collar nut until total friction value of Pos. 10 is reached. Caution: The torque of the collar nut has to be at least 15 mkp. The mark at the collar nut can be 2 mm over that of the pinion. The nut never should be turned backwards!
13. Secure collar nut by safety lock
14. Mount differential and fill overflowing with brand hypoid gearbox oil SAE 90:

BMW 1602 - 2000 tii touring = 0,8 l
 BMW 1800 - 3.0 CS = 1,5 l

Necessary work time:

BMW 1602 - 3.0 CS = 22 FR
 BMW 2800 CS ..., 3.0 CS ... = 23 FR

S.I. group: rear axle 3/68 (444) is no longer valid.

Yours very truly,

BAYERISCHE MOTOREN WERKE
 Aktiengesellschaft
 Service Division

ppa.

i.V.


 Delleske


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SERVICE INFORMATION

Tech. Cust. Service
VS-20 Sch/Zr

BMW 1500 - 3.0 CSI
group: engine

Munich, Nov. 71
11 07 71 (706)e.

- 8 APR 1972

Ref.: Petrol and Additives

Dear Sirs,

we get more and more complaints regarding carbon deposits on cylinder heads and valves caused by the use of brandless fuels. Unsuitd petrol can influence the function of the engine.

The deposits, f.ex. Polystyrol, out of low quality fuels are glazous and mostly at the intake valves and in turn the valves seize in their guides damages resulting from the use of unsuitd petrols are not covered under warranty.

Exceptional cases please discuss with our service field engineer and arrange to secure a fuel sample out of the car's tank and one from the filling station, in clean, suited containers and valves etc.

Regarding oil additives, we would like to state once more that no oil additives are so far released by our research department for BMW engines.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

ppa.

i.V.


Delleske


Flohr

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SERVICE INFORMATION

Tech. Cust. Service
VS-201 DÜ/zr

BMW 1500 - 3.0 CSI
group: engine electric

Munich, Sept. 71
No. 12 04 71 (709) e

19 JAN 1972

Ref.: Released spark plugs
BMW 1500 to 3.0 CSI

Gentlemen,

Additional spark plug releases and an extension of our program to the 3 litre injection engines brought a new list of spark plug recommendations.

You will find them in the enclosed list. S.I. 12 03 71 (688) is replaced by this, but the following indicated deviated still is valid.

If you still have on stock spark plugs from the former list, so please do use them.

These new spark plug releases will be considered in our next owner's handbooks.

Please, correct the S.I. No. 13 04 71 (679) as follows:

Torque for electromagnetic idle switch-off valve of Zenith 35/40 INAT carbs has to be 0,25 + 0,05 mkp instead of cmkp.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

ppa.

i.v.


Delleske


Flohr

t.c.p.

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Model	spark plug	parts No.
1500, 1600-4, 1600-2, 1600 ti, 1600 GT, 1602, 1802, 2002/ti, 1800/TI, 2000/TI/tilux/ C/CS, touring 1600/ 1800/2000	Beru 200/14/3 A Bosch W 200 T 30 Champion N 8 Y	12 12 8 636 168 12 12 8 636 166 12 12 1 353 286
1600 US, 1602 US, 2002 A, 2002 tii, 2002 US/A/tii, touring 2000 A, touring 2000 tii, 1800 A, 2000 A, 2000 CA, 2000 tii	Beru G 200/14/3 Bosch WG 200 T 30 (air surface gap)	12 12 1 257 082 12 12 1 257 081
2500/A/US/A-US 2800/A/US/A-US 2800 CS/A/US/A-US 3.0 S/A, 3.0 CS/A/US/ A-US, Bavaria/A 3.0 Si/A, 3.0 CSi/A/ US/A-US	Beru G 175/14/3 Bosch WG 175 T 30 (air surface gap)	12 12 1 257 513 12 12 1 353 673
electrode gap:	all spark plugs 0,6 + 0,1 mm	



SERVICE INFORMATION

Tech. Cust. Service
VS-201 ZR/mz

BMW 3.0 Si - 3.0 CSI
group: Service and general
hints

Munich, Sept. 1971
00 15 71 (710) E

- 8 APR 1972

Ref.: BMW 3.0 Si - 3.0 CSI

Dear Sirs,

in the following we give you the deviating technical data and alterations for the 3.0 l injection models and service hints (due to reasons of completeness we also indicate some unaltered data, marked with a *).

Engine	BMW 3.0 Si	BMW 3.0 CSI
<u>Capacity*</u>		
fiscal		180.9 cu.in.
effective		182.9 cu.in.
<u>Max. output</u>		
at rpm.		200 PS (DIN) 5500 rpm. 222 PS (SAE) 5500 rpm.
<u>Max. torque ratio</u>		
at rpm.		201 ft/lbs. 4300 rpm.
<u>Compression ratio</u>		
		9,5 : 1
<u>Output per litre</u>		
		1,09 PS/cu.in. (DIN)
<u>Max. permitted rpm*</u>		
		6400 rpm
<u>Max. continuous rpm*</u>		
		6000 rpm
<u>Stroke/bore*</u>		
		3.15"/3.5"
<u>Torque weight (empty)</u>		
		145,5 PS/ton

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BMW 3.0 Si

BMW 3.0 CSi

Power/weight ratio

in road trim, with full tank	15,2 lbs/PS	
all seats occupied and luggage	20,40 lbs/PS	19,25 lbs/PS

<u>Fuel consumption (DIN 70030)</u>	23,3 m.p.US gal.	23,7 m.p.US gal.
	28 m.p. Imp.gal.	28,5 m.p.Imp.gal.

BMW 3.0 Si (same as BMW 2500 - 3.0 S, model 71)

Front axle

newly adjusted springs.
Stabilizer as a standard equipment.

Rear axle

Newly adjusted springs. On request: locking differential 25 % and lamellas.

All models BMW 2500 - 3.0 Si without stabilizers at the rear axle. Please correct S.I. 00 11 71 (690) accordingly.

BMW 3.0 CSi

Transmission

Hypoid bevel gears in taper rolling bearings.

<u>Bevel-/spur bevel gear</u>	<u>number of teeth</u>	<u>kind of toothing</u>
3.25 : 1	39 : 12	Klingelnberg

On request: locking differential 25 % and lamellas

Tires

BMW 3.0 Si

DR 70 VR 14 e.g. 195/70 VR 14 with tubes and screw in metal valves 40 G DIN 7771.

Winter tires*: 175 SR 14, DR 70 SR 14, 195/70 SR 14 M + S e.g. M + S ice.

BMW 3.0 CSi

195/70 VR 14* with tubes and screw-in metal valves 40 G DIN 7771.

Winter tires*: 175 SR 14, DR 70 SR 14, 195/70 SR 14 M + S e.g. M + S ice. Use snow chains only with winter tires 175 SR 14 M + S e.g. M + S ice.

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Performande

Admitted top speed during first 6000miles:

	BMW 3.0 Si (3.0 Si A)		BMW 3.0 CSi (3.0 CSi A)	
1st gear (selection lever pos.1)	22	(35)	23	(37)
2nd gear (" " " 2)	38	(58)	40	(61)
3rd gear (" " " 3)	60	(84)	63	(89)
4th gear	84	-	89	-

Admitted top speed 600-1200 miles:

1st gear (selection lever pos.1)	24	(39)	26	(42)
2nd gear (" " " 2)	43	(65)	45	(69)
3rd gear (" " " A)	67	(94)	71	(100)
4th gear	94		100	

Admitted road rpm.: 6000 rpm. 6000 rpm.

Admitted road speed:

1st gear (selection lever pos.1)	32	(52)	35	(56)
2nd gear (" " " 2)	57	(86)	61	(92)
3rd gear (" " " A)	89	(125)	95	(133)
4th gear	125	-	133	-

Admitted top rpm.: 6400 rpm. 6400 rpm.

Admitted top speed:

1st gear (selection lever pos.1)	35	(55)	38	(58)
2nd gear (" " " 2)	61	(90)	65	(96)
3rd gear (" " " A)	96	(127)	102	(133)
4th gear	131	-	137	-

BMW 3.0 Si

BMW 3.0 CSi

Max. gradients

1st gear	61 %	58 %
2nd gear	38 %	37 %
3rd gear	21%	20 %
4th gear	12 %	12 %

Accelleration

gear	mph	sec.	sec.
-1	0- 31	2,5	2,5
-2	0- 50	5,5	5,5
-3*	0- 62	7,8	7,7
-3	0- 75	11,4	11,2
-3	0- 87	15,0	14,6
-4	0-100	21,0	20,2
standing start km		28,9	28,6

*3.0 CSi: 2nd gear

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	BMW 3.0 Si	BMW 3.0 CSi
Average speed	77,5 mph	78,4 mph
Terminal speed	112,5 mph	114,3 mph

Electrical System

BMW 3.0 CSi/A

List of fuses

No.	fuse DIN 72581	user
1.	5 A (yellow)	left hand side parking lamps, tail light, engine compartment light
2.	5 A (yellow)	ID-plate light, instrument lighting, operation lever lighting
3.	5 A (yellow)	right hand side tail light and parking lamps
4.	8 A (black or white)	clock, interior light, glove bot light, hazard warning flasher, luggage compartment light
5.	16 A (red)	cigar lighter, autom. antenna
6.	16 A (red)	screen wiper engine, screen washer, stop lights, turn lights, rear driving light, horn relay
7.	8 A (black or white)	fuel and coolant temp. telltale, oil pressure and brake control lamp, tank warning, selection lever telltale, electric fuel pump
8.	25 A (blue)	heated rear window reserve for air condition, electric window lift (left side)
9.	25 A (blue)	heater blower, electric window lift (right side)
10.	16 A (red)	electric r sliding roof, misc. electric equipment

Threephase generator

Bosch K 1 14 V 55 A 20 (770)W)

Injection Plant

electronic fuel injection (Bosch)

Spark plugs

Beru G 175/14/3

Bosch WG 175 T 30

electrode gap: 0,024 + 0,004"

Ignition timing

22° BTDC (mark) at 2500 rpm

Deviations regarding service:

1st BMW Programtest at 600 miles

Lubricate bearing spots and cluster of throttle lever.

Check fixation clamps and bolts of injection valve holder.

Check hoses for tightness and fitting.

BMW Programtest every 8.000 miles

starting at 8.000 miles for the first time.

Lubricate bearing spots and cluster of throttle lever.

Every 40.000 miles clean pre-filter in intake device and micro filter in feed line of fuel pump.

Renew fuel main filter and air filter at additional-air-vent.

Renew contact pusher at distributor.

Idle speed adjustment

Necessary Meters:

BMW Programtester (tachometer and CO-meter)

Engine temperature approx. + 80°C

idle rpm 900 + 50 rpm

CO at idle speed 1,5 - 2,0 Vol %

The idle speed only is to be adjusted with the idle mixture screw. It is next to the angle gear of the throttle switch, see fig. 1.

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By turning the idle mixture screw clockwise, the air quantity for the idle is reduced and the rpm goes lower. By turning the idle mixture screw counterclockwise the rpm increases.

The potentio-meter at the control device - fig. 2 - is only suited to adapt the fuel quantity at idle speed to the air, so that the prescribed CO value is obtained.

If CO-content is too high, turn screw at potentio-meter counterclockwise - fuel quantity gets lower, also CO content.

Adjust rpm alterations by turning of idle screw.

If no alteration of the CO-content by turning of the potentio-meter is possible, check throttle, e.g. throttle switch position.

We will send you within short a detailed service instruction.

Please, inform your salesmen about this S.I.

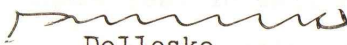
All dimensions and weight and performance data are to be understood with the usual tolerances. Alterations reserved.

Yours very truly,

BAYERISCHE MOTOREN WERKE
Aktiengesellschaft
Service Division

ppa.

i.v.



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Encl.

