

oil

# Rider's Handbook

**K100**

**K100 RS**

**K100 RT**



# Rider's Handbook

K 100

K 100 RS

K 100 RT



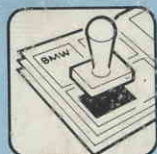
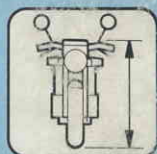
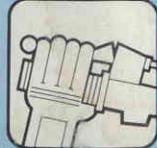
change oil

Oil - 3-4 litres with old filter

Norm - Previous Owner Bus -  
Camden 46268620

**BMW Motorrad GmbH + Co.**

Bestell-Nr. 01 41 9 798 441 4.0 II.84 1. Aufl. englisch Bo



Safety hints

Riding hints,  
minor repairs

Specifications and  
technical descriptions

Care and  
maintenance

Service  
confirmations

In the interests of continuing technical development, we reserve the right to modify designs, equipment and accessories.

Dimensions, weights and performance data are quoted to generally accepted tolerances.

Fuel consumption figures were determined at the time of closing for press in accordance with ISO standard.

Depending on the equipment specification of your motorcycle and on the accessories fitted to it, discrepancies may occur in comparison with the information contained in the text and/or illustrations in this handbook. Furthermore, the specifications of versions sold in specific countries may differ in a similar manner. Please note that no claims will be entertained in this respect.

Errors and omissions excepted.

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### Motorcycle and dealer data

Model V100R/11

Frame No. 0021282

First registered on 22/9/84

Licence plate No. 41 0728 W.A.

Dealer's name and address with telephone number (dealer's stamp)

### 1st owner:

Name \_\_\_\_\_

Address: \_\_\_\_\_

### 2nd owner:

Licence plate No. \_\_\_\_\_

Name \_\_\_\_\_

Address: \_\_\_\_\_

### 3rd owner:

Licence plate No. \_\_\_\_\_

Name \_\_\_\_\_

Address: \_\_\_\_\_

### Keys to motorcycle

The ignition, steering, fuel filler and dualseat have identical locks. A folding-head master key and 2 rigid-head spare keys are supplied. A self-adhesive label bearing the key number is also supplied. Keep keys safe and prevent unauthorised persons from seeing it.

ACN 001 575 453  
**CENTRAL COAST MOTORCYCLES Pty Ltd**  
**5 HELY STREET, WEST GOSFORD 2250**  
**(Cnr. Pacific Highway, Opp. Reif Auto)**  
**Phone: (043) 24 3355**

## Dear motorcyclist and BMW enthusiast,

BMW has always pursued a consistent and far-sighted design policy.

The famous BMW flat-twin motorcycle was basically conceived sixty years ago, and has been developed and refined since that time so that its current versions are as attractive as ever. Now, to join that splendid range of machines, BMW has created new and revolutionary models for the discerning rider:

### The new BMW 'K' range of motorcycles.

Ultra-modern technologies have been incorporated into a brilliant step forward in motorcycle design that is quite without parallel. The "BMW Compact Drive System" has been patented worldwide, and blends efficiently and neatly with such reliable, well-proven mechanical elements as the BMW shaft drive.

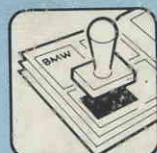
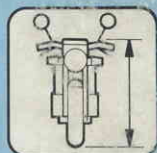
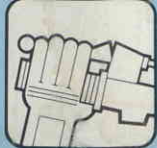
We congratulate you on choosing this advanced, high-quality motorcycle.

Before you start serious riding on your new 'K' model, please spare a little time to read this Rider's Handbook thoroughly. We have tried to make its contents both useful and interesting. The advice it contains will enhance your riding pleasure and safety, and make it easier for you to operate, handle and look after this high-performance motorcycle.

In conclusion, may we wish you and those who ride with you many an enjoyable journey.

Yours sincerely,

**BMW Motorrad GmbH + Co.**



Safety hints

Riding hints,  
minor repairs

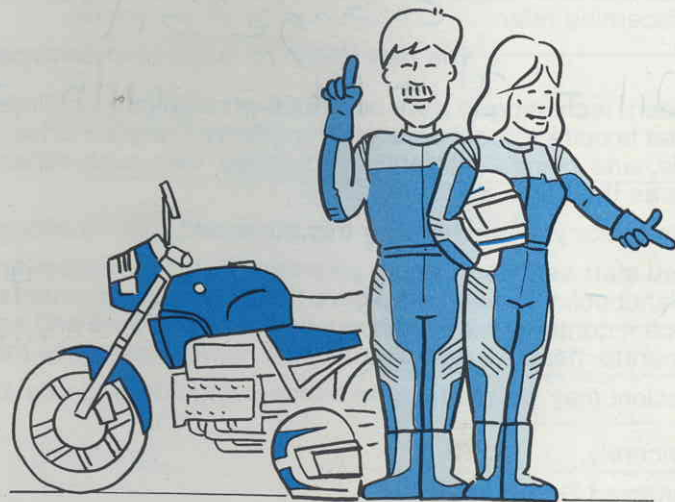
Specifications and  
technical descriptions

Care and  
maintenance

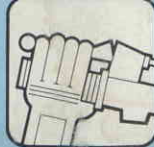
Service  
confirmations



Have the  
facts at  
your  
fingertips!



Before you start – all you need to know – Operating instructions



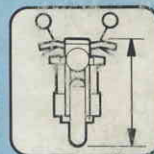
Prevention is better than . . . – Safety hints



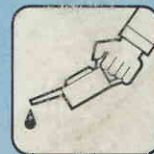
Aim for perfection –  
and enjoy troublefree riding – Riding hints, minor repairs



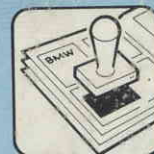
Data and information – Specifications



For reliable results – Care and maintenance



Getting it in writing – Service confirmations  
followed by: Genuine BMW Parts  
and Accessories  
Alphabetical item index



Safety hints

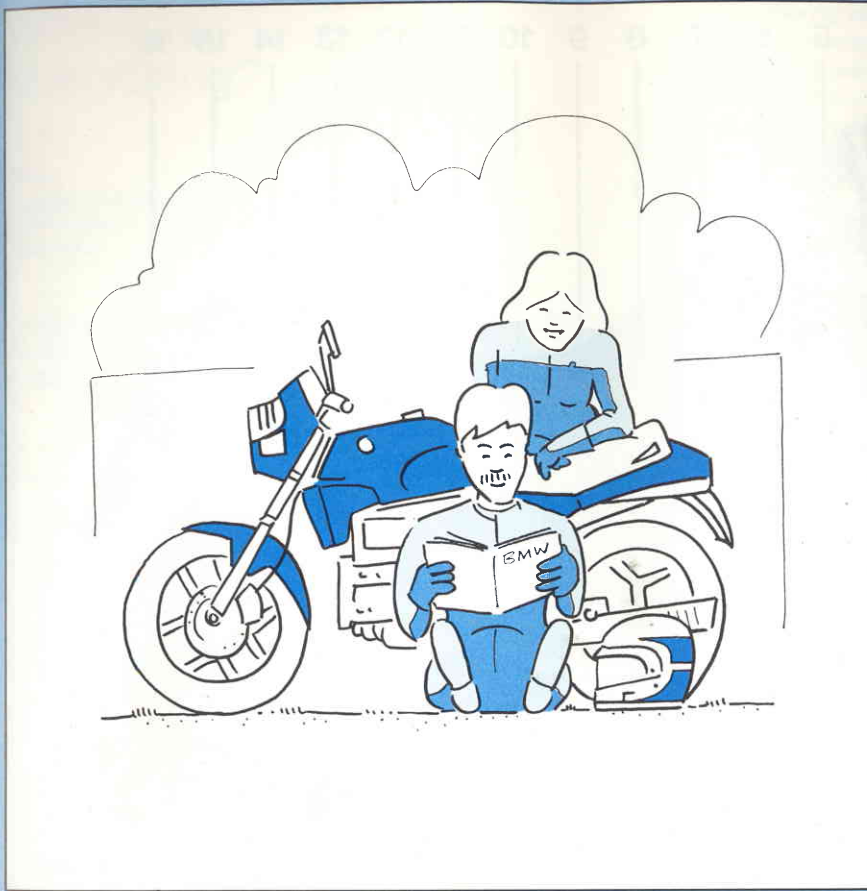
Riding hints,  
minor repairs

Specifications and  
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maintenance

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confirmations

# Before you start – all you need to know!

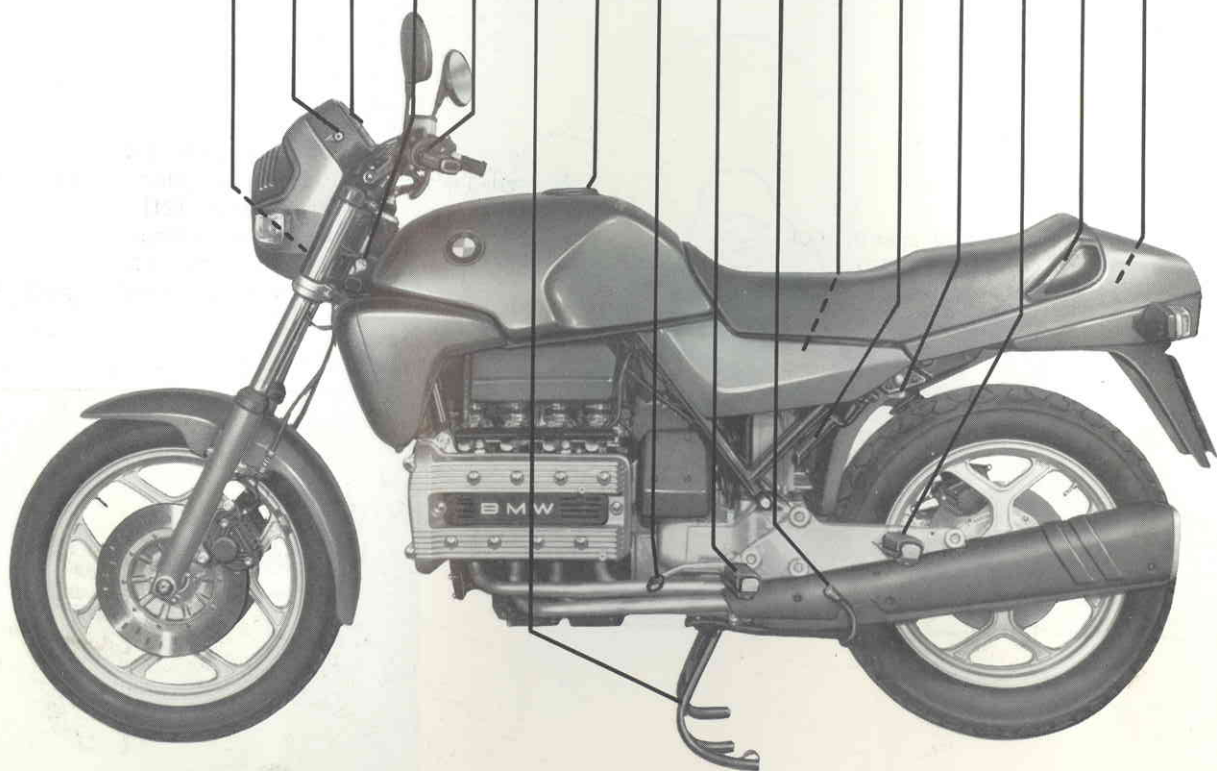


- General views of motorcycle
- Ignition switch
- Telltale and warning lights
- Handlebar controls
- Self-cancelling turn indicators
- Engine oil level
- Coolant level
- Fuel level
- Brake fluid level
- Checking handbrake and foot brake
- Checking clutch
- Spring strut ('monoshock') settings
- Resetting trip distance recorder
- Starting a cold or warm engine
- Rear light monitoring
- Gear change
- Centre and prop stands
- Steering lock
- Dualseat lock
- Helmet holder
- Storage space
- LCD digital clock



**K 100**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



K8 001

## Where is everything?

### Note:

Figures in square brackets [ ] = page number on which item is described

- 1 = Manual headlight beam throw adjuster (K 100) [44]
- 2 = Trip distance recorder reset knob [17]
- 3 = Central instrument cluster [12, 14, 18, 22, 32]

- 4 = Steering lock [21]
- 5 = Left handlebar fitting [13]
- 6 = Centre stand [20]
- 7 = Fuel filler [15]
- 8 = Gear change pedal [19]
- 9 = Left rider's footrest
- 10 = Prop stand [20]
- 11 = Storage tray for first aid kit (accessible when dualseat is open) [22]
- 12 = Folding handle (for placing motorcycle on stand) [20]
- 13 = Dualseat lock with helmet holder [21]
- 14 = Left pillion passenger's footrest (folding)
- 15 = Left pillion passenger's grab handle [36]
- 16 = Storage space (accessible when dualseat is open) [22, 27]

### K 100 RS

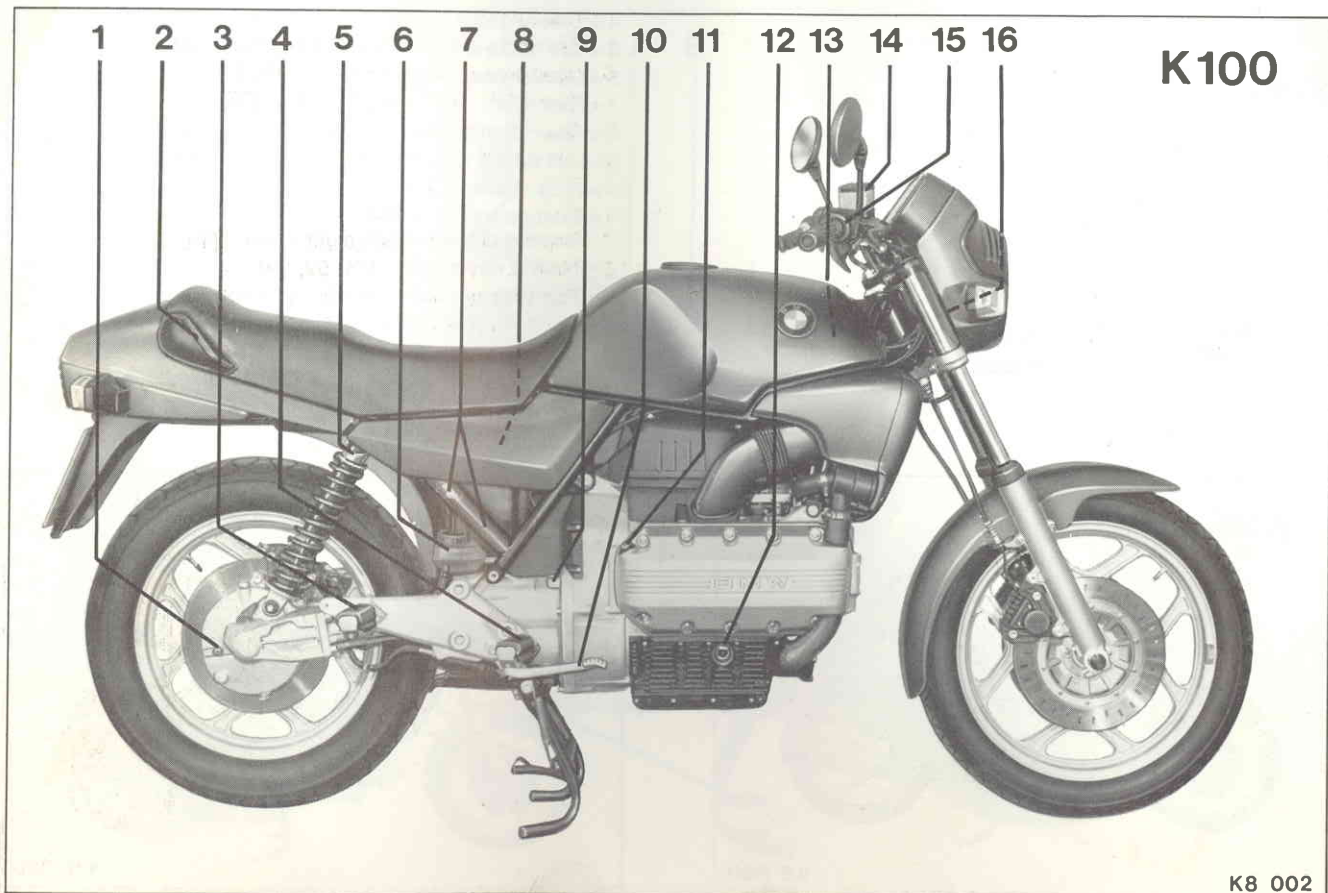


K8 090

### K 100 RT



K8 091



## Where is everything?

### Note:

Figures in square brackets [ ] = page number on which item is described

- 1 = Oil level check aperture for rear wheel drive [87]
- 2 = Right pillion passenger's grab handle [36]
- 3 = Right pillion passenger's footrest, folding

- 4 = Right rider's footrest
- 5 = Spring strut ('monoshock') adjuster [16]
- 6 = Rear brake fluid reservoir [15, 25]
- 7 = Type plate and frame number [67]
- 8 = Cooling system tank [14, 51]
- 9 = Oil level check aperture for gearbox [86]
- 10 = Brake pedal [16]
- 11 = Engine oil filler [85]
- 12 = Engine oil level check sight glass [14, 85]
- 13 = Main coolant filler [51, 52, 53]
- 14 = Front brake fluid reservoir [15, 25]
- 15 = Right handlebar fitting [13]
- 16 = Manual headlight beam throw adjuster (K 100 RS/RT) [46, 47]

### K100 RS



K8 092

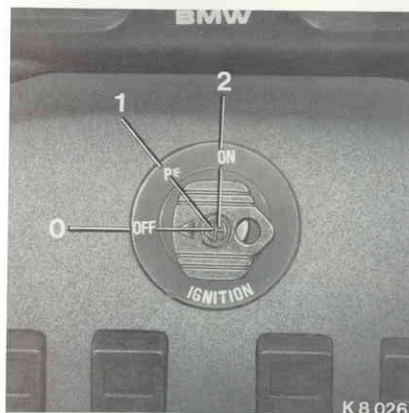
### K100 RT



K8 093

## How does it work?

### Operating instructions



#### Ignition key positions

0 = Off – key can be withdrawn

1 = Parking lights – key can be withdrawn

2 = On – ignition and all other electrical equipment can be operated

Do not leave the parking light on for more than a short period, to ensure that the battery retains sufficient charge to start the engine reliably.



Telltale and warning lights which must come on in ignition key position "2":

1 = Engine oil pressure (red)

2 = Battery charge (red)

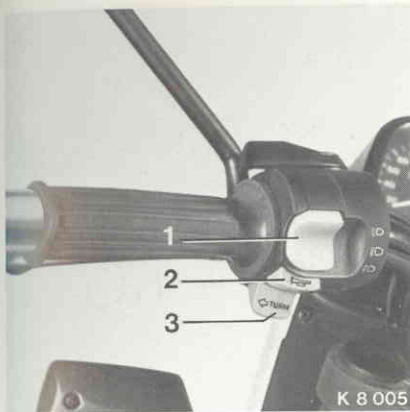
3 = Cold start/choke (orange) if control is operated

4 = Rear light monitor (red)

5 = Neutral (gearbox)/idle (green)

6 = Less than approx. 7 litres (1.5 Imp. gal) of fuel in tank (orange)

7 = Less than approx. 4 litres (0.88 Imp. gal) of fuel in tank (red)



#### Left handlebar fitting

##### 1 = Headlight dip switch

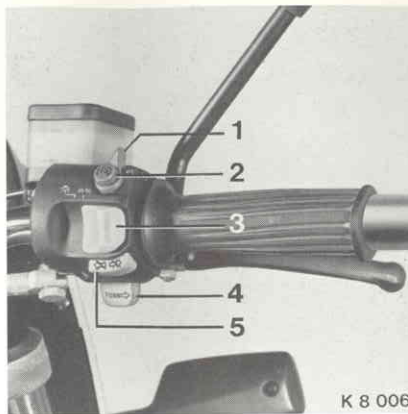
Up position = main (high) beam

Centre position = low (dipped) beam

Down position = headlight flashing  
(switch returns to centre position automatically)

##### 2 = Horn push

##### 3 = Left flashing turn indicator push-button



#### Right handlebar fitting

##### 1 = Ignition cutout ('kill' switch)

Centre position: all electrical circuits live (see Page 17 for further information)

##### 2 = Starter pushbutton

3 = Light switch (operates when ignition is switched on)

Right position: lights off

Centre position: parking light

Left position: low-beam headlight

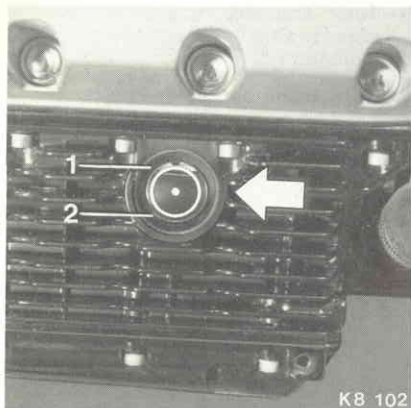
##### 4 = Right flashing turn indicator push-button

5 = Turn indicator cancelling switch:  
press to stop left or right flashing turn indicators

#### Self-cancelling turn indicators

The left or right flashing turn indicators are cancelled automatically after a certain time or distance if this is not done by pressing switch "5":

- after approx. 10 seconds at main-road speeds – above about 50 km/h (31 mile/h), or
- after approx. 210 m (690 ft) in local or slow-moving traffic.



K8 102

### Engine oil level

There is an oil level sight glass on the lower part of the engine block. Oil level at:

- 1 = maximum
- 2 = minimum

Quantity of oil between maximum and minimum marks = 0.6 litre (1.05 Imp. pint).

Adding oil beyond the maximum mark has practical disadvantages in the form of increased consumption and possibly oil leaks. Never allow the oil level to drop below the minimum mark.

### Regular oil level checking

Position the motorcycle on its centre stand on a flat, level surface. Run the engine for a short time at normal operating temperature and then switch it off. Check the oil level after waiting a few minutes.



K8 094

### Coolant level

Read off at the transparent level-check pipe at the coolant tank, when the coolant is cold

If necessary, add coolant up to the maximum mark – for instructions, see Page 51.



K 8 004

### Fuel level

The two-stage low fuel level warning lights come on in succession as the level in the fuel tank drops:

- 1 = app. 7 l (1.5 Imp. gal) remaining
- 2 = app. 4 l (0.88 Imp. gal) remaining

The fuel tank holds a total of 22 litres (4.84 Imp. gal). After the motorcycle has been run in, determine how far it can normally be ridden with the low-level lights on (this will of course depend on your riding style).



### Adding fuel

Unlock the filler cap (all locks on the motorcycle can be opened with the same key), then open it by pressing button (1) and pulling up the hinged cap.

Remember that fuel expands if it becomes warm; for this reason, never fill the tank to the brim.

Use only super (premium, 4-star) fuel to German Industrial Standard DIN 51 600 or equivalent, with a minimum octane number of 98 (Research Method) or 88 (Motor Method).

No additives (for example upper cylinder lubricants) are needed.



### Front brake fluid

The brake fluid level can be seen at the transparent reservoir. Note the maximum and minimum markings.

To add brake fluid, take out the three Phillips-head screws and take off the cover with rubber diaphragm.

Use only fresh brake fluid to DOT 4 "SL" specification (ATE or equivalent).

Warning: brake fluid attacks painted surfaces.



### Rear wheel brake fluid

Level checking: similar procedure to front brake (see previous column).

However, to add fluid unscrew the reservoir cover by turning it anticlockwise.





#### Checking handbrake lever

The free travel at the handbrake lever is a design feature and cannot be influenced.

Sudden changes in the amount of free travel or a spongy feeling at the brake lever are signs of possible malfunctions in the hydraulic system.

In this event, consult a BMW motorcycle service station without delay.

The same applies to the foot brake, the factory setting of which must not be altered.



#### Checking clutch lever

Free travel at the clutch lever should be  $4 \pm 0.5$  mm ( $0.16 \pm 0.02$  in).

Normal clutch plate wear leads automatically to a reduction in free travel. This should be corrected during a BMW Inspection.

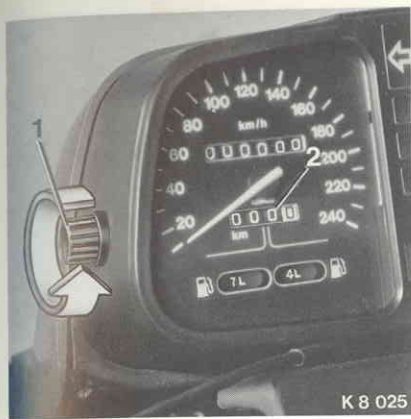
In an emergency, the basic setting can be adjusted as described on Page 54.



#### Spring strut ('monoshock') adjustment

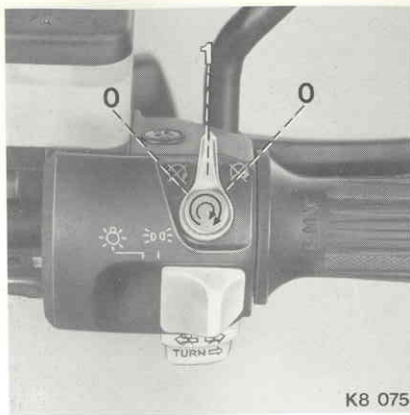
Using the hook wrench with extension from the motorcycle's toolkit, coil spring preload for the rear suspension can be tightened to one of three settings, according to operating conditions:

- Normal spring setting = for solo riding
- Medium spring setting = with pillion passenger or heavy luggage
- Hard spring setting = for maximum loads



#### Resetting trip distance recorder

Turn knob (1) to zero the reading of trip distance recorder (2) in the speedometer.

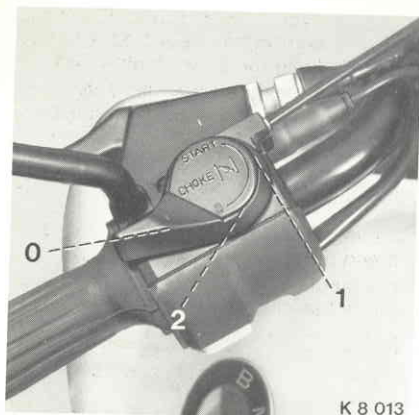


#### Before starting the engine:

Move the ignition 'kill' switch to position "1" to energise all electrical circuits.

If this switch is moved either to left or right (to the "0" position), the engine can be stopped immediately in an emergency.

The engine can only be started in the central position (1) of the 'kill' switch, which interrupts the electric power supply to the ignition, fuel injection, fuel pump and starter motor when it is moved either to the left or the right.



K 8 013

### Starting a cold or warm engine

Depending on engine or ambient temperature, the choke (increased cold starting speed) lever may have to be used:

- Position 1 = below 0° C
- Position 2 = between 0 and 10° C
- Position 0 = when engine is warm or at ambient temperatures above app. 12° C

The throttle twistgrip remains closed (operate the throttle twistgrip gently at temperatures below -10° C).



K 8 016

Switch on the ignition and select neutral at the gear change pedal:

- The "N" telltale light will come on
- The digital gear indicator is at "0"

Press the starter knob. The engine will start.

Move the choke lever gradually back to "0" as the engine runs more smoothly.

Attempting to start the engine with a flat battery will cause the relay to chatter audibly. Have the battery recharged, or else the starter relay will be damaged.



K 8 014

After the ignition has been switched on, the following telltale and warning lights are illuminated:

- 1 = Engine oil pressure
- 2 = Battery charge (alternator)

Both these lights must go out after the engine has been started and is running at idle speed.

If oil pressure warning light (1) comes on during the journey, declutch **immediately** and switch off the ignition. If there is enough oil in the engine, consult a BMW motorcycle service station.

Correct battery charging is also indicated by the charge telltale light (2) going out above engine idle speed.

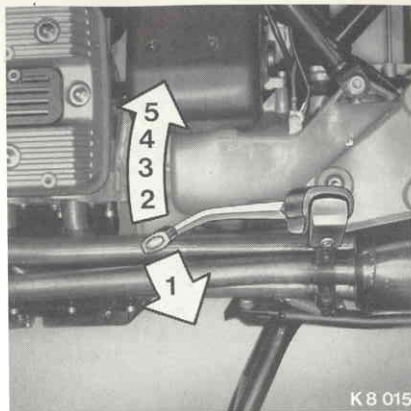
If the charge telltale light comes on during the journey, take the motorcycle to a BMW motorcycle service station as soon as possible, or else the battery will go flat.

3 = Rear light monitor "△"

Switch on the ignition and the parking lights. If this telltale light goes out when the handbrake and foot brake are applied, the rear and brake lights are in correct working order.

The telltale light remains on if a bulb has blown, a switch is faulty or a circuit interrupted, as a reminder to rectify the fault.

If the brake light should fail during a journey, the rear light monitor "△" will come on immediately. Failure of the rear light is indicated only if the motorcycle's main lights or parking lights are switched on.



### Gear changes

The gear change pedal has a certain amount of position adjustment, to suit the rider's foot position.

### Before starting the engine, select neutral at the gear change lever:

Pull up the clutch lever and operate the gear change pedal until the green "N" telltale light comes on and the digital gear indicator displays "0".

To move away from a standstill: run the engine in neutral and select 1st gear by pressing down the gear change pedal.

Release the clutch lever gradually, increasing engine speed to the necessary extent at the throttle twistgrip. The motorcycle will begin to move. Vary its speed with the throttle, not by slipping the clutch.

As speed rises, change up to 2nd, 3rd, 4th and 5th gears in a similar way.

To change down, close the throttle, release the clutch and select the next-lower gear. Engage the clutch again smoothly and alter the throttle opening to reduce the jerk caused by selecting the lower gear.

Note that on wet or slippery roads in particular, sudden changes in transmission load can cause rear wheel slip and should therefore be avoided.

The digital gear indicator in the revolution counter shows which gear is selected.

If engine speed drops below 1500/min during normal riding, select a lower gear.



K 8 019

#### **Removing motorcycle from centre stand**

With the left hand on the left handlebar grip and the right hand on the folding handle, push the motorcycle forwards until the centre stand is able to fold up.

#### **Placing motorcycle on centre stand (left picture)**

Press the centre stand down at the projecting lever until both skids are touching the ground.

With the left hand on the left handlebar twistgrip and the right hand on the folding handle, transfer body weight to the right foot (on the stand lever) and pull the motorcycle upwards and back so that the stand is able to extend fully.

#### **Placing motorcycle on prop stand (right picture)**

Extend the prop stand fully forwards by means of its extension arm, and allow the motorcycle to tilt slowly to the left until the stand takes its weight.

**On a slope, do not use the prop stand unless the front of the motorcycle is pointing uphill. If necessary, select 1st gear to lock the wheels as well.**

**Before the journey starts, the prop stand must be folded up correctly, or an accident may be caused.**

**Make sure that the stands rest on a firm surface, to avoid the risk of the motorcycle falling over.**



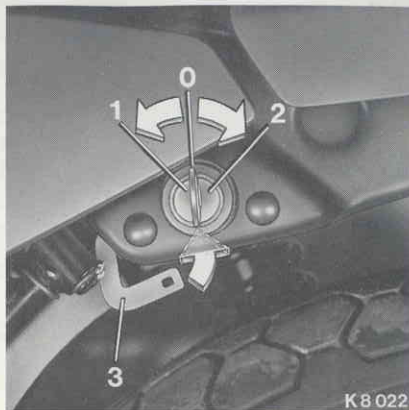
K 8 020



**Locking the steering to prevent unauthorised use of the motorcycle**

Swing the protective cover over the lock to the right (K 100).

Insert the key (the same key fits all locks on the motorcycle) and turn to the left. Move the handlebar slightly to the right so that the lock can engage. Then turn the key to the right to operate the lock, and remove the key.



#### Dualseat lock

**Position 0** = key can be inserted and removed (same key fits all locks)

**Position 1** = press the lock in; the dualseat is then unlocked and can be opened (and the key can be removed)

**Position 2** = press the lock in to open the helmet holder (3).

The dualseat can be closed and locked with the key removed. The helmet holder must be locked by moving it in the direction of the arrow.



#### Helmet holder

The picture shows one of the ways in which the helmet can be left secured to the parked motorcycle yet protected against theft.

Depending on helmet pattern and chin-strap length, it may be possible to secure two helmets to the holder.



#### Storage space under dualseat

Open the dualseat. After removing the covers, access is gained to the

- Storage tray = 2.2 l capacity
- Large storage compartment in tail panelling = 9.0 l capacity.

Lighter items can be kept in the storage tray, e.g. first aid kit, and the tools, documents and possibly a rainsuit stowed in the large compartment.



#### Storage space in fairing – K 100 RT

Storage space is provided in the fairing to the left and right of the fuel tank, with a total capacity of 8 l.

The covers can be unlocked for removal with the master key (folding- or rigid-head).

**If required, the covers can be secured in the special holders to the side of the storage compartments.**

- Place the cover in the spring-loaded holder (1) and push in the direction of the arrow.
- Engage the cover in the rigid hook (2) by overcoming the spring loading.



#### LCD digital clock (special equipment on K 100)

To reset the time, use a suitable pointed object (e.g. ball pen) to press lightly down on the rubber-covered adjusting points above the clock display:

“h” = hours adjuster  
 “min” = minutes adjuster.



## Prevention is better than . . .

### Safety hints relating to the motorcycle:

- Condition of motorcycle
- Wheels and tyres
- Brakes
- Brake fluid
- Lights
- High-performance ignition system

### Safety hints concerning the rider:

- Personal fitness
- First aid kit
- Safety helmet
- Clothing
- Intercom



Always think of your own safety, of that of your pillion passenger and of other road users.

**Remember:** a full safety check before you start is essential!

#### Condition of motorcycle (leave nothing to chance!)

In earlier times, motorcycle enthusiasts used to say: "Grease well for a safe journey!" This reminder has not yet lost its validity today, although modern motorcycles are so well-built and efficient.

**As far as your BMW is concerned, you can (almost) ignore the question of routine lubrication**, apart from checking engine oil level regularly – a task which takes only a moment at the built-in sight glass.

**Only one regular duty should not be neglected:**

**Entrust your motorcycle regularly to the BMW motorcycle service station so that the BMW maintenance programme can be carried out correctly.**

This ensures that essential safety factors are not neglected, checks that all the modern technical features are functioning correctly and is your best guarantee of untroubled riding pleasure.

But the general condition of your motorcycle is also influenced by the care you give it.

We consider this a topic important enough to deserve a more detailed section of its own in this handbook: see "Care and Maintenance".

Apart from hints you may consider obvious, it contains much information you may not otherwise possess.

#### Wheels and tyres

People today are sensible enough to invest in a new pair of shoes as soon as their old ones wear out, despite the quite considerable cost involved.

**But what about the tyres of a fast motorcycle?** Aren't they equally vital? Yet people who could easily afford a new set sometimes let the old tyres wear down to a positively dangerous degree.

This is fine if you fancy yourself as a high-wire artist without a safety net – but what about the safety of other road users?

Let's be honest – riding a high-performance motorcycle with bald tyres is asking for trouble in more ways than one!

#### The remedy:

**German law, for instance, calls for tyres to have at least 1 mm (0.04 in) of tread remaining.**

**But this tread depth could be dangerously low in some circumstances.**

The safety-conscious motorcyclist will renew his tyres when the tread is down to 2 mm (0.08 in) at the front and 3 mm (0.12 in) at the rear. There's no better investment than new tyres as a contribution towards riding safety.

It's **better to discard tyres with two millimetres of tread 'wasted' than to risk a dangerous skid on a wet road.**

**Ask yourself: which is likely to prove less expensive in the long run?**

**And it's best to entrust the fitting of new tyres to your BMW motorcycle service station.**

It knows the factory's make, pattern and size recommendations. Remember that fitting non-standard tyres may render the motorcycle's general operating permit invalid and affect your third-party insurance cover. Most countries have legal provisions to this effect.

**Better safe than sorry – don't take risks that could rebound on you!**

A few words about the correct tyre pressures:

Never take a chance on tyre pressures being correct. It's better to take a minute or two to check them than to discover that they are wrong when cornering fast. A relatively slight drop in tyre pressure can make the motorcycle unstable, although it usually corners so willingly. And then it may be too late . . .

See Page 69 or the label under the dualseat for correct tyre pressures.

**Remember, too, that the wheels (rims) are an important safety item.**

Although the wheels are very strong, they could be damaged or distorted in an accident or by riding too fast over an obstacle.

**Damaged wheels must always be renewed, and must not be straightened or repaired in any other way.**

**Tyre valve caps are essential too** – they not only keep out dirt but **could also prevent a sudden loss of air at high speed.** Tyre valves have been known to open suddenly because of centrifugal force at speeds of 200 km/h (124 mile/h) or over – an unpleasant surprise that the additional seal provided by a valve cap could have helped to prevent.

## Brakes

Before starting any journey, always test the brakes:

- the hydraulic brake circuit is intact if the brake lever and pedal can be operated without a 'spongy' feeling.
- there must be sufficient brake fluid in the front and rear reservoirs.
- brake discs and calipers must be free from oil, grease and traces of solvents or cleansers.

Never ride your motorcycle if you are in any doubt as to the condition of the brakes. Consult a BMW motorcycle service station if in any doubt.

### Brake fluid

Brake fluid is a vital substance often neglected by motorcyclists to a dangerous degree.

Brake fluid is subjected to severe and fluctuating thermal loadings, so that the natural ageing process is speeded up. Furthermore, it is hygroscopic, that is to say it absorbs moisture from the surrounding air; as a result, its boiling point may drop to a dangerously low level in the course of time.

The increased moisture content and lower boiling point can cause steam bubbles to form in the hydraulic brake circuit when the brakes are heavily used and become hot (for instance, riding downhill in too high a gear). In extreme cases, this is bound to lead to total brake failure.

#### Don't forget, therefore:

Regardless of the distance you have covered, brake fluid should be renewed at least once a year by your BMW motorcycle service station.

### Lights

As a safety precaution (provided that national laws permit), the motorcycle's dipped headlight should be kept on during daylight riding as well, to help distinguish it from the surrounding cars and other vehicles.

Before starting the engine, it is therefore good practice (and only a minor chore) to check operation of the

- parking light
- low (dipped) headlight beam
- main (high) headlight beam,

if necessary by holding a hand in front of the headlight glass.

As you will have read on Page 19, the rear and brake lights can be checked at monitor "△".

Pay special attention to the condition of the flashing turn indicators:

Turn indicator bulbs have to withstand severe loadings. A blown or damaged bulb can normally be detected by the increased flashing frequency of the repeater light, and should be repaired or renewed immediately.

### High-performance ignition system

Even on conventional ignition systems with breaker points, an electrical shock could be quite unpleasant. And still people touch live ignition-system components!

On this motorcycle's ignition system, however, much greater care has to be taken.

The motorcycle is equipped with a microprocessor-controlled high-performance digital ignition system. A dangerous or even fatal accident could be caused by touching any live component when the engine is running.

### Personal fitness – an important factor for the enthusiastic motorcyclist

Of course, 'fitness' is a relative term. This is no place to shake a warning finger or to subject you to a lecture on how to look after your health.

**Nevertheless, certain sensible recommendations have always been handed down from one generation of motorcyclists to the next – for instance:**

- If you genuinely don't feel up to riding the motorcycle on any particular day, leave it at home – it's safer that way!
- Motorcycling calls for enthusiasm – but not bravado!
- If you are in a hurry, keep control of your feelings; an aggressive approach is a risk to your own safety and that of others.

- Never ride the motorcycle when you are overtired or short of sleep. If you make a mistake as a result of fatigue or absentmindedness, nobody can help you – not even your pillion passenger! You will need a guardian angel – and they may be busy elsewhere at the time!
- Eat, drink and be merry – a splendid principle, perhaps, but one to be followed only in moderation if you are riding the motorcycle afterwards. Eat a reasonable amount by all means ('little and often' is a good rule); fruit is excellent fare on a long journey. When you arrive in the evening, there will still be time to tuck into a more elaborate meal. Quench your thirst on the journey too, but please stay off alcohol! No alcohol in the blood at all is the only sensible rule, regardless of what local laws still permit. Even a single small glass of beer can affect your sense of balance – something you need to be in perfect working order as a motorcyclist!

### First aid kit

First aid is a subject that many of us would prefer not to think about. We prefer to hope that the situation will never arise.

But imagine being confronted with an injured person and being unable to help!

**The BMW range of Genuine Accessories, available from your BMW motorcycle dealer, includes a first aid kit specially designed for the motorcycle. It can easily be stowed in the storage tray under the dualseat.** (In some countries, carrying a first aid kit is a legal requirement.)

Being able to carry out first aid measures at the scene of an accident may, without exaggeration, be a life-or-death matter for an injured person. Apart from being a moral obligation, it is an act of simple friendship which will not go unrewarded.



7E 81 20

**Safety helmet – or even better: the BMW "System Helmet"**

Your helmet should satisfy official test regulations and be a comfortable fit, so that you can wear it for long periods if necessary without having the feeling of being subjected to some form of mediaeval torture!

The "System" helmet supplied as a Genuine BMW Accessory is particularly versatile: it can be worn in several different ways:



8 81 14

- The visor – also available in a non-misting and tinted version – has a detent mounting and can easily be repositioned to within fine limits.
- Press-button catches at left and right enable the chinguard with visor to be folded up complete – useful for spectacle-wearers.

- The chinguard with visor can be detached completely, leaving the "Jet" helmet version to be worn. A sunshade can then be attached to the press studs.

**As a safety precaution, renew a scratched visor promptly. If a spare visor is carried, it can be attached without difficulty.**

**Incidentally:**

The BMW "System" helmet is ideal for use with the BMW intercom system.

To remain on the subject of things to wear:

#### Leather clothing and rainwear

Have you formed the habit before starting of checking that you are "correctly dressed" – even for a short or fair-weather journey only?

"Correctly dressed" is a term open to misinterpretation; here is what it entails:

**Old hands at the motorcycling game (and not only those older in years) prefer a 'second skin' of real leather, rounded off by good-quality leather gloves and boots for full body protection.**

If you have ever made abrupt and unintentional contact with the ground (especially a hard and abrasive road surface), you will appreciate the advantages of good leather riding kit. Your own skin may turn black and blue temporarily after a severe bump, but the 'second skin' bears the brunt of the impact.

This is, as we have said, the most suitable form of clothing for the serious rider, but **in the rain or on wet roads** further protection is needed in the form of a **rainproof oversuit**.

Light, single-piece rainsuits are obtainable to protect expensive leather clothing and keep the rider dry. Rubber overshoes and rain gloves complete the outfit.

All these additional items can be folded or rolled up small and easily stowed under the dualseat or in a tank-top rucksack or pannier case.

**What remains? The multipurpose riding suit.** This is normally rainproof, but able to 'breathe'. Special heat-retaining material provides effective protection against cold weather, so that the more determined enthusiast can take to the road in any season of the year.

And those who appreciate that there's more to relaxed, comfortable riding than meets the eye, will wear the proper motorcycling underclothing too.

**Do you need riding gear for yourself or your pillion passenger?**

Look no further than your local BMW motorcycle dealer. You will be amazed at the range of Genuine BMW Accessories to choose from.

**BMW Perfection in Detail** – with every item produced and tested for you by the experienced motorcyclists in the BMW design team.

### **An intercom – a luxury?**

**We don't think so!**

**Communication between rider and pillion passenger is a safety factor, makes them more at one with the machine they are riding and adds greatly to journey pleasure.**

**The BMW intercom system has proved this time and again.**

A mini-computer automatically adjusts the volume of the signal to suit the ambient noise level; the system is also switched on and off automatically.

Microphones and loudspeakers can easily be fitted to BMW "System" helmets, which are specially designed to accept them, or to other suitable helmets.

The intercom is run from the motorcycle's electrical system by way of a connecting socket (available as an accessory item).



## Aim for perfection – and enjoy trouble-free riding

- Some running-in rules
- Riding hints
- Long journeys
- Do-it-yourself minor repairs:
  - Changing wheels
  - Tyre repairs
  - Renewing bulbs and fuses
  - Adjusting headlight beam
  - Renewing spark plugs
  - Adjusting coolant level
  - Renewing coolant (after taking off fuel tank)
  - Adjusting clutch
- What to do if . . . (troubleshooting)
- What not to do (limits of do-it-yourself repairs)
- Technical modifications



### Some running-in rules

The performance and troublefree operating life of your new BMW motorcycle can be greatly influenced by careful running in.

Even precision rotating parts need to be run in before their final smooth surfaces are obtained. High-quality running-in lubricants help to complete this process.

Running in is ideally carried out on ordinary main roads with plenty of curves and gradients which are not too steep, so that you can use the various gears and drive at varying loads and torques.

#### Engine speed limits during running in:

From 0 to 1000 km (app. 600 miles)  
= max. 4000/min

From 1000 to 2000 km (app. 600 – 1200 miles)  
= max. 4500/min.



#### Coolant overheat warning light

**Always check that all telltale and warning lights are operating correctly.**

Coolant temperature is regulated automatically. If the coolant overheat warning light (orange) comes on, the coolant level may be too low.

For checking and adding coolant, see Pages 14 and 51.

Above a speedometer reading of 2000 km (app. 1200 miles), you can gradually increase the engine speed of your BMW motorcycle to the maximum permitted value whenever road and traffic conditions permit.

Until about 500 km (app. 300 miles) have been covered, try to avoid violent braking, particularly from high speeds, and do not subject the brakes to lengthy endurance tests. Brake pads also have to be bedded in if they are to achieve their most favourable friction coefficients and minimum rates of wear.

The tyres must also be run-in, over a distance of app. 500 km (app. 300 miles). You cannot be sure of optimum road grip until this distance has been covered.

After 1000 km (600 miles), the first inspection is due. In addition to oil changes, various important maintenance and adjustment work is performed on your BMW motorcycle by trained BMW personnel, and is essential to ensure maximum reliability at a later date.

## Riding hints

If this is your first large motorcycle, a certain amount of practice is a good thing before you attempt to exploit the machine's performance to the full.

### The first lesson: off-road riding!

Your BMW weighs little more than 200 kg (440 lb), and will surprise you with its ease of handling as soon as it is on the move.

Steering round obstacles at a walking pace is naturally more difficult – but well worth learning as a means of improving your control of the motorcycle.

Find a patch of unmade ground – in your garden, in an old sandpit, on a country path or woodland clearing – provided of course that motor vehicles are not prohibited.

Try to ride in large- and increasingly small-radius curves, to the left and right, and in figure-of-eights. Stay seated or stand on the footrests, keeping the body upright so that you can heel the motorcycle over slightly into the corners.

### Try riding extra-slowly

Learn to operate the throttle twistgrip with delicacy. Whenever the throttle is open, the motorcycle will try to maintain the chosen direction of movement.

Tackle slight slopes, loose sand and gravel, and perhaps a shallow ditch.

Mark out a zig-zag or slalom course and try to negotiate it smoothly and elegantly at various speeds.

Try to keep moving very slowly indeed but with your feet on the footrests. This enhances your feel for the machine and is a useful additional safety factor.

As you venture forth more and more often in today's hectic traffic, the following precautions will be of increasing importance:

Always leave the dipped headlight on, even during the day (if national regulations permit).

Wear practical, easily visible motorcycling clothing and **never** ride without your safety helmet on – this cannot be emphasised too strongly. Remember: a harmless dent in a car's bodywork could mean a 'total write-off' for your head, if you were not wearing a helmet.

Keep your eyes open: you must be aware of what's going on in front, behind, to the sides and even beneath you (for instance the state of the road surface).

Abrupt opening of the throttle or sudden sharp braking, unless absolutely necessary, should be avoided; they are a sign of nervous tension, and will in any case result in premature wear.

Change to a lower gear in good time, particularly on uphill gradients, to prevent engine speed from dropping too far.

On downhill gradients, the engine's braking effect can be utilized in some cases by selecting a lower gear (provided that there is no risk of exceeding the maximum permitted engine speed). Never ride the motorcycle with the clutch disengaged, in neutral or with the ignition switched off (this is particularly dangerous).

**Correct braking also needs practice, particularly in critical situations.**

Try to use the front and rear brakes together at all times. The front brake does most of the work in slowing down the motorcycle. Apply the rear brake with care. Dynamic load transfer forwards means that the lightly-loaded rear wheel has a greater tendency to lock or break away, whereas on a dry, high-grip road surface the front wheel almost always runs true when braked. Extra care must of course be taken on wet or loose surfaces (gravel, stone chippings or similar).

**A recommendation: practise reacting to emergency situations such as these where you can do so without exposing any other road users or passers-by to risk.**

Please note that the brake pads on your BMW are designed to produce the desired braking effect almost without delay even when wet.

After stopping, always select neutral; do not let the clutch slip for any length of time, or localised overheating may occur and lead to unnecessary wear.

Always stop the engine by turning off the ignition.

**Straight-line riding**

Does this title surprise you? Isn't riding in a straight line something anyone can do? Well, this is not entirely true.

For the rider of a fast motorcycle, the condition of the road surface is a vitally important factor.

Is the road dry? Is the surface bumpy or wavy? Are there any potholes?

When temperatures are low, even before the winter season sets in, areas in shadow under trees can suffer from surface frost. After the winter is over, there may be piles or layers of loose grit or sand at the roadside, left over from snow-clearing work.

**So keep your eyes open!**

Don't miss a single junction or crossing. Particularly at the weekends, when many an absent-minded motorist is out for a day trip with family or friends.

Many weekend drivers park their cars just off the road, and sometimes reverse carelessly back on as a motorcyclist is approaching at high speed. Force yourself to take a suspicious attitude – it will pay off!

**Always look well ahead and ride 'defensively'.**

For instance, never simply rely on that tractor driver having seen you and waiting to let you go by before he pulls out. If he doesn't wait, it's small comfort to wake up and learn that he is well insured.

Concentrate on your riding. It can be a fatal mistake to daydream when in charge of a powerful motorcycle. You must always expect car drivers in particular to underestimate your speed, or to overlook you entirely.

Always keep a safe distance from the vehicle in front. Never overtake a vehicle which is itself overtaking.

Now for the topic of slow-moving streams of vehicles or traffic jams:

It's always a temptation to thread your way through to the front. Overtaking in these circumstances is permitted only if great care is exercised, when the vehicles are still moving and on the correct overtaking side (not through the middle).

Never attempt to overtake a column of vehicles unless there is ample clearance from oncoming traffic and you do not have to approach the centre line or strip (on motorways or double roads) too closely.

Regardless of the length of a traffic jam, overtaking a line of vehicles which has stopped temporarily is not permitted.

## Cornering

The most difficult aspect of cornering is **approaching the corner correctly.**

The recommendations below apply to the 'right-hand rule of the road'. If you use the motorcycle in a country where traffic drives on the left, the opposite instructions apply.

**Left-hand bends**, particularly if you cannot see round them, should be approached on the outside of the road. Pull over towards the centre line when you can see how the road continues after the corner.

**Right-hand bends**, in contrast, should be approached (after a precautionary glance in the mirror) near the centre of the road, but not of course over the centre line. This provides you with a good view round the corner as soon as possible and enables you to complete the corner neatly by pulling back to the right. At the end of the corner, you should have returned to your normal position fairly close to the right edge of the road.

If you have to brake, do it **BEFORE** you reach the corner. If you have to brake while actually cornering, you have misjudged the corner badly. In this event, heel the motorcycle over very sharply – most riders are unaware of just how steep an angle is possible. Brake on corners only if there is no other alternative.

### Crossing kerbstones

Avoid crossing kerbs or similar obstacles too violently. If it is unavoidable, slow to a walking pace.

If an obstacle has to be crossed in an emergency at high speed, the wheels and tyres must always be inspected for damage immediately afterwards.

If the wheel or tyre has suffered visible distortion or damage, always renew the affected item; remember that tyres can suffer internal damage to the fabric which severely weakens them, yet is invisible from the outside.

Cast alloy wheels are in no circumstances to be straightened.

### Riding in the rain

If you wear good-quality rainproof clothing – integral helmet, rainsuit, overgloves and rainboots – you can ride for many hours through wet weather and still enjoy the journey.

Always open the throttle with more than usual care, to prevent wheelspin. Brake more gently and cautiously as well, leave greater distances from vehicles ahead and – reduce your speed in general.

Take special care when crossing rails, manhole covers, road markings, cobblestone or blue basalt block road surfaces.

Accessory products are available to prevent the helmet visor or goggles from misting over.

### Two-up riding

If you are fortunate enough to share your motorcycling with a companion, do not betray the implicit trust placed in you by your passenger.

The pillion passenger should be as correctly outfitted as the rider. Two-up, the machine must be ridden particularly smoothly and neatly. Adjust the rear suspension to the correct setting for the increased load, and explain to a newcomer how the pillion passenger is expected to react, by stating the following simple rules:

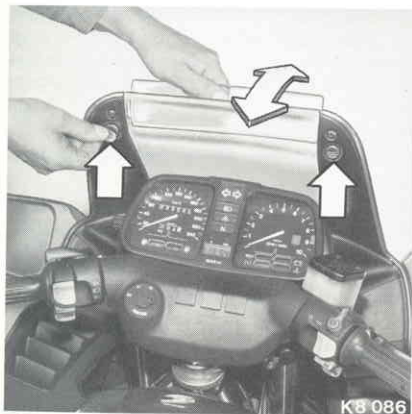
Hold on firmly, either to the rider or to the integral handles on the dualseat.

Do not lean over exaggeratedly into corners, but do not resist the leaning-over movement either. On a right-hand corner, look over the rider's right shoulder; on a left-hand corner, over his left shoulder. That's all there is to it!

### Another tip for greater ride comfort:

#### Adjusting the spoiler at the windscreen – K 100 RS

Depending on the size and seated position of the rider, the air stream at helmet height can be redirected with the adjustable spoiler.



Find the best position by trial and error after releasing the retaining screws (arrows) with a coin:

- steeper position = wind deflected higher
- flatter position = wind deflected lower

**For major journeys:****BMW integral pannier cases****BMW tank-top rucksack****BMW servicing and breakdown accessories****If applicable, details of traffic laws in other countries.**

Even motorcyclists on long journeys can look their best when the day's run is over: there is ample provision for carefully-planned storage space.

With the aid of BMW integral pannier cases, the BMW tank-top rucksack and the BMW luggage grid (all optional extras or Genuine BMW accessories), far more than just minimum changes of clothing can be carried on the motorcycle.

However, the weight of such loads must be kept within careful limits for safety reasons. The following rules apply:

- Max. load per case 10 kg (22 lb)
- Max. load on grid 5 kg (11 lb)
- Place lighter items on top in the tank-top rucksack to improve weight distribution.

With these luggage-carrying items installed, top speed should not exceed 130 km/h (81 mile/h).



Always use both pannier cases and distribute the load uniformly between them.

Each integral pannier case can hold approx. 35 l (1.2 cubic ft). The case lids can be locked, and the cases themselves locked to the motorcycle.

If the motorcycle is parked and left (for a visit or sightseeing), each case can accommodate 1 BMW "System" helmet.

The careful BMW motorcycle tourist always asks his local BMW motorcycle service station to check over his machine before starting a major journey.

Apart from checking the presence of the tools, tyre repair kit and documentation, it is also advisable to carry the following items:

- first-aid kit (if not already carried)
- spare bulb box
- multipurpose lamp (with power socket).

Your BMW motorcycle dealer can show you these and other useful items from the Genuine BMW Accessories range, and provide any advice you may need.

In particular if your journey takes you outside Europe, please check whether you need an international driving licence, special insurance certificate (green card or similar) or inoculations, and whether there are other regulations to be complied with.

Information can be obtained from consulates, travel agents and automobile clubs.

**These careful preparations will help to make your journey a pleasant one.**

### Minor repairs – things you can attend to yourself

You may not need it often, but it ought to be kept to hand:

#### – the toolkit!

The selection of tools permits all the jobs described below to be carried out without additional or special tools.

#### Tools and other items supplied with the motorcycle:

- 1 leatherette wallet
- 1 repair kit for tubeless tyres
- 1 all-purpose pliers
- 1 large screwdriver (reversible blade)
- 1 small screwdriver
- 2 open-ended wrenches, 10 x 13 mm and 17 x 19 mm
- 2 ring spanners, 10 x 12 mm and 17 x 19 mm
- 1 spark plug wrench
- 5 Allen keys: 3, 4, 5, 6 and 8 mm.

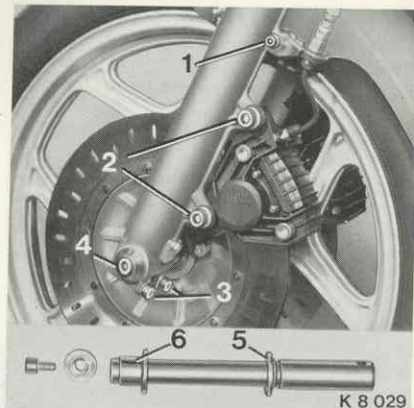


- 1 box spanner for wheel studs
- 1 hook wrench for spring strut
- 1 tubular extension
- 2 flat fuses, 7.5 and 15 A.

#### Removing and installing front wheel

##### Tools required:

- 5, 6 and 8 mm Allen keys
- 10 mm ring spanner
- Tubular extension.



#### Procedure:

- Unscrew brake pipe holder (1) and brake calipers (2) at left and right.
- Unscrew and remove axle bolt (4) and set it aside together with the shaped washer.
- Unscrew the axle clamp bolts (3) at left and right.



- Place the motorcycle on its centre stand and get someone to sit or press down on the rear of the dualseat so that the front wheel is clear of the ground.
- Place a suitable support under the engine (arrow).
- Mark the installed position and direction of rotation of the front wheel, or note the direction arrow on the side of the tyre. The brake caliper or disc must not be accidentally moved to the opposite side.
- Insert an Allen key in the cross-hole on the right, turn the quick-release axle lightly to and fro and pull it out to the right.

- Allow the wheel to roll out forwards, and catch spacing bushings (5) and (6).

**Warning: do not operate the handbrake lever with the front wheel removed. Prevent dirt or moisture from reaching the wheel bearings.**

#### When installing:

- Spacing bushings (5) and (6) must be on the correct sides; looking forwards, these are:
  - left = wider bushing
  - right = narrower bushing.
- Grease the quick-release axle lightly.
- Place both brake calipers carefully over their discs.
- Before tightening the axle clamp bolts (3), lower the motorcycle from its stand and compress the telescopic forks firmly several times, to ensure that there are no trapped stresses in the fork legs.
- The tubular extension may be needed when tightening the axle bolt (4) and the brake caliper retaining bolts (2).
- **A recommendation: at the earliest opportunity, have the bolt tightening torques checked by a BMW motorcycle service station.**





K 8 032

### Removing and installing rear wheel

#### Tools required:

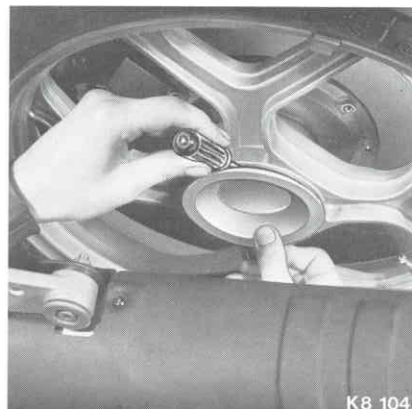
- Large screwdriver (reversible)
- Wheel stud wrench
- Tubular extension.

#### Procedure:

- Take out the two Phillips-head screws on the number-plate holder (arrows).



K 8 033



K8 104

- Open the dualseat and remove the storage compartment cover.
- Loosen but do not remove the two wingnuts (arrows).
- Pull off the number-plate holder downwards.

- Lever off the wheel hub cap with a screwdriver blade inserted at alternate sides in the cutouts provided.



- Select first gear.
- Unscrew the four wheel studs with the angled socket wrench and tubular extension, and remove them complete with the taper rings.
- Pull the wheel off its centering spigot and roll out to the rear.

#### When installing:

- Note the steel washer between the wheel and the brake disc when the wheel is installed.
- The wheel centering spigot and the contact surfaces of the wheel hub, brake disc and steel washer must be absolutely clean and free from grease.
- Use the box spanner with the tubular extension to tighten the wheel studs.
- At the earliest opportunity, have the tightening torque (105 Nm [77 lb.ft]) checked by a BMW motorcycle service station.



#### BMW repair kit for tubeless motorcycle tyres

This repair kit can be used for example to effect a temporary repair if the tyre has been punctured by a nail leaving a hole up to 4 mm (0.16 in) in diameter.

Please refer to the instructions with the kit for repair procedure.

#### After repairing the tyre:

- Maximum speed = 60 km/h  
(37 mile/h)
- Maximum distance = 400 km  
(250 miles)

After this, the tyre should be renewed as a safety precaution.

### Renewing bulbs and fuses

Before working on the electrical system, always switch off at least the actual item of equipment being attended to, or preferably disconnect the negative battery lead at the gearbox.

Use a 5 mm Allen key to disconnect the negative battery lead from the left side of the gearbox, at the same height as the rider's footrest.



### K 100: Renewing parking light bulb and H 4 headlight bulb

#### Tools required:

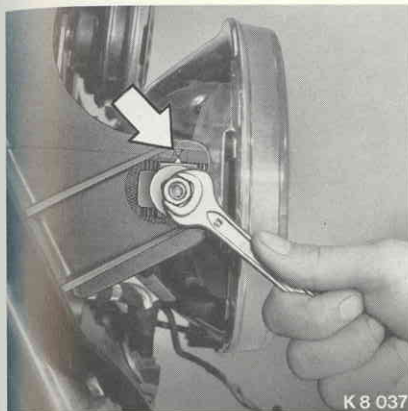
- Screwdriver with reversible blade
- 13 mm open-ended wrench.

#### Procedure:

- Detach the headlight surround after removing the four Phillips-head screws (arrows).



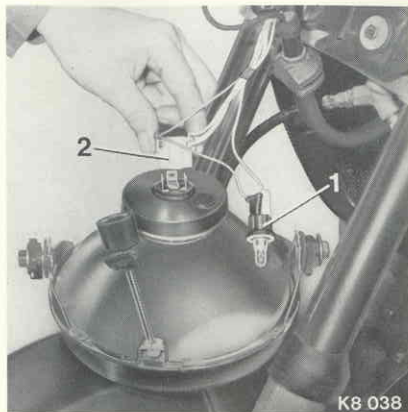
- Disconnect the plug for the flashing turn indicator wiring (arrow).
- Take off the headlight surround and set it aside carefully.



- Detach the headlight at its left and right mountings.
- Pull the headlight out forwards.

**When installing:**

Make sure that the triangular marks (arrow) at left and right are correctly aligned.



**Parking light bulb:**

- Turn the parking light bulb holder (1) to the left to release it.
- Press the bulb into the holder and turn to the left to remove.

**H 4 bulb:**

- Pull out multi-pin plug (2).



- Pull off the protective rubber cap.
- Release the lock ring for the H 4 bulb by turning it to the left, and remove with the H 4 bulb from the reflector.

**When installing:**

Do not touch the glass of new bulbs with the fingers; always use a clean cloth instead. (Dirt and grease will otherwise be burned into the glass and will reduce the light intensity.)



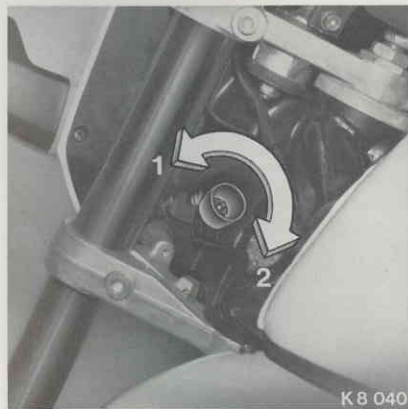
#### Manual headlight beam throw adjuster – K 100

When the headlight is removed and installed, make sure that the adjuster is correctly positioned.

The fixed threaded block (arrow) must engage with the pivot mount.

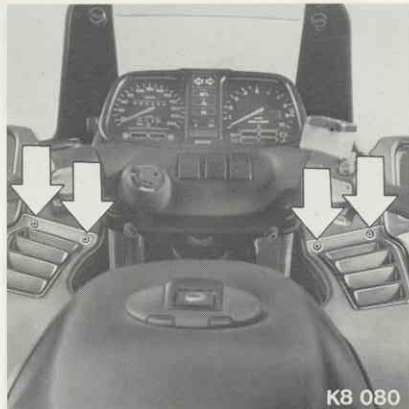
#### A further reminder:

Please do not omit to align the triangular markings (opposite one another) when inserting the headlight.



Using the knurled screw near the left fixed telescopic fork tube, adjust the headlight beam setting as shown in the diagram on page 47.

- Turning in direction (1) = reduced beam throw
- Turning in direction (2) = increased beam throw.



#### K 100 RS: Renewing parking light bulb and H 4 headlight bulb

#### Tools required:

- Screwdriver with reversible blade

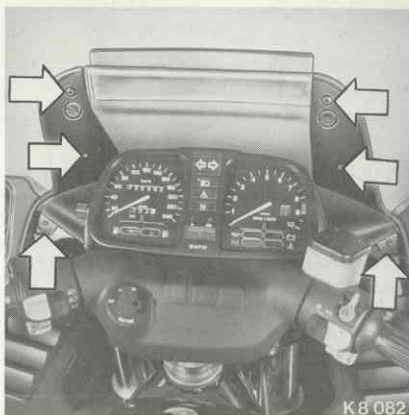
#### Renewing parking light bulb

#### Procedure:

- Undo the upper retaining screws at the left and right knee pads.



- Lift off the covers which have become accessible at left and right



- Undo the retaining screws (arrows) for the windscreen trim and push the trim to the side.



- Release the parking light bulb holder (arrow) by turning to the left.
- Push the bulb into the holder and turn to the left to remove.

#### Renewing the H 4 bulb

To renew the bulb, the headlight need not be removed as on the K 100. Access is gained at steering head height. Otherwise the procedure is the same as for the K 100. See page 43.



#### Manual headlight beam throw adjustment

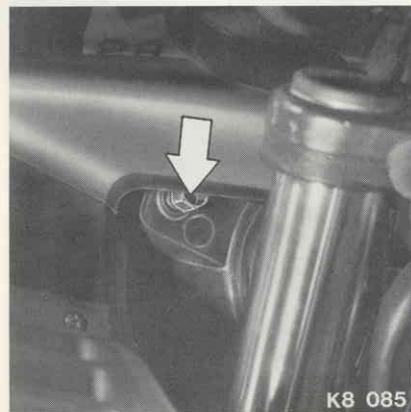
The beam throw distance and sideways beam deviation can both be adjusted.

**The headlight beam throw adjusting mechanism is located near the right fixed telescopic fork tube.**

- A 3-position lever (1) is provided for fast headlight beam throw adjustment to the load condition of the motorcycle.

Top lever position  
= increased beam throw  
Centre lever position  
= neutral beam throw  
Bottom lever position  
= reduced beam throw

**Adjust the headlight beam setting** as shown in the diagram on page 47. **When carrying out the adjustment, the beam throw lever should be at the top position.** In this way, 2 additional beam throw positions are available quickly as the weight carried by the motorcycle is increased. There is no excuse for dazzling oncoming traffic.



**Lateral adjustment of the headlight beam throw is made by turning the plastic hex screw (arrow) near the left fixed telescopic fork tube:**

- Turning to the right = beam throw more to the left
- Turning to the left = beam throw more to the right

### K 100 RT: Renewing parking light bulb and H 4 headlight bulb

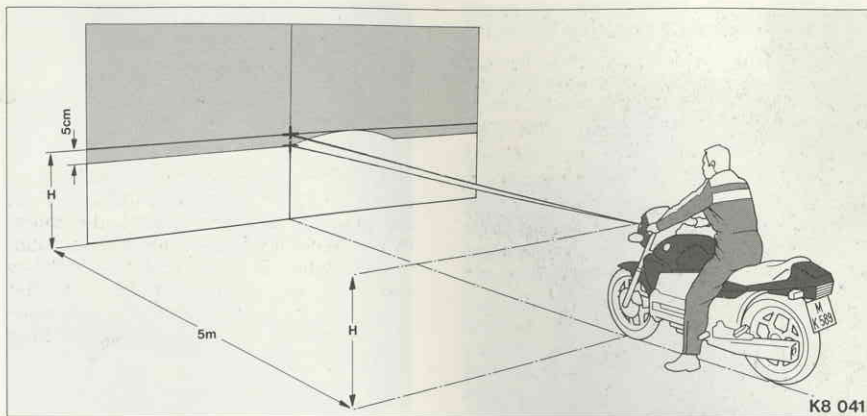
Both bulbs are accessible without having to remove any parts.

Refer to the picture and instructions in the right column of page 45 (K 100) for renewing the parking light bulb.

Renew the H 4 light bulb by following the instructions on page 43 (K 100).

### Manual headlight beam throw adjustment – K 100 RT

The adjustment mechanism and instructions for use are the same as for the K 100 RS. See page 46.



### Aiming headlight beam

With the tyre pressures correct and the spring strut set for one-up riding, place the motorcycle on its wheels 5 m from a light-coloured wall with a rider seated on it. The floor should be flat; measure the distance from the wall to the centre of the front wheel.

Transfer the distance from the ground to the headlight centre to the wall and mark with a cross. Make a second cross 5 cm below the first.

Switch on the low headlight beam. Operate the adjusting mechanism until the light/dark boundary passes through the lower cross, rises to the height of the first cross on the right and then drops back again.

### Note for countries with left-hand rule of the road:

Motorcycles delivered to these countries have an asymmetric dipped headlight beam which rises to the left, not the right, of the centreline.

When aiming these headlights, note that the raised area of the light/dark boundary begins immediately to the left of the cross.

**If a motorcycle is ridden temporarily in a country where they drive 'on the wrong side of the road', the area of the reflector which causes the raised asymmetric dipped beam must be blanked off with adhesive paper or tape.**





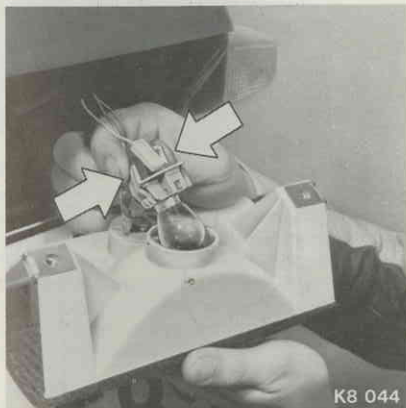
K8 106

### Renewing rear or brake light bulb

No tools are needed.

#### Procedure:

- Open the dualseat and take off the storage compartment cover.
- Take out the two knurled screws (1 and 2) by hand and at the same time take off the rear light insert.
- Press together the clip holding the rear or brake light bulb (in the direction shown by the arrow), and pull it out of the rear light insert.
- Press the bulb into its holder and turn it to the left to remove.



K8 044

### Renewing flashing turn indicator bulb

Tools required:

- Screwdriver with reversible blade.

#### Procedure – K 100:

- Take out the Phillips-head screw and at the same time detach the turn indicator light assembly.
- To renew the bulb, see procedure for rear or brake light bulb.

The above procedure applies to all four flashing turn indicators.

#### Procedure – K 100 RS:

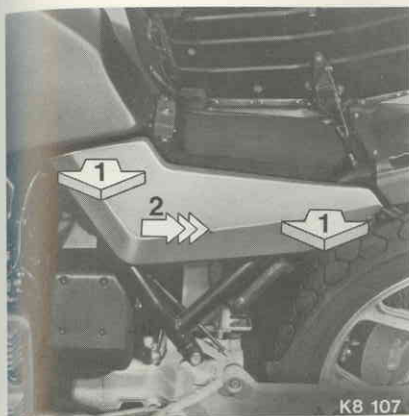
- **Front** – Take out the Phillips-head screw and remove the lens.
- Push the bulb into the holder and turn it to the left to remove.
- **Rear** – Follow the instructions for the K 100.



K 8 101

### Procedure – K 100 RT:

- **Front** – Turn the front wheel fully to the left to gain access to the right-side bulb holder and to the right to gain access to the left-side bulb holder (see picture).
- Release the bulb holder by turning to the left.
- Push the bulb into the holder and turn it to the left to remove.
- **Rear** – Follow the instructions for the K 100.



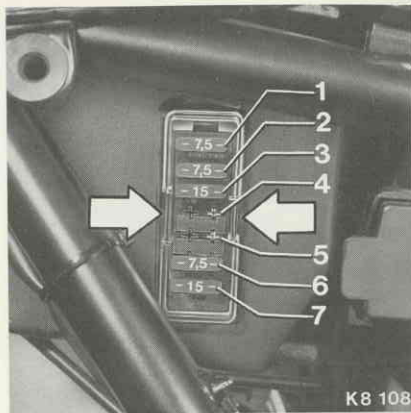
### Renewing fuses

The electrical fuses are located under the left battery cover.

Take off the battery cover as illustrated.

### When installing:

It is easier to attach the battery cover if the three rubber retainers are moistened first.



### Electrical circuits and their fuses:

- 1 = 7.5 A Instrument cluster  
Rear/brake lights
- 2 = 7.5 A Parking light
- 3 = 15 A Flashing turn indicators  
Clock (optional extra on K 100)
- 4 = 15 A Power socket (optional extra)
- 5 = 15 A Optional extra equipment
- 6 = 7.5 A Fuel pump
- 7 = 15 A Twin-tone horns  
Fan

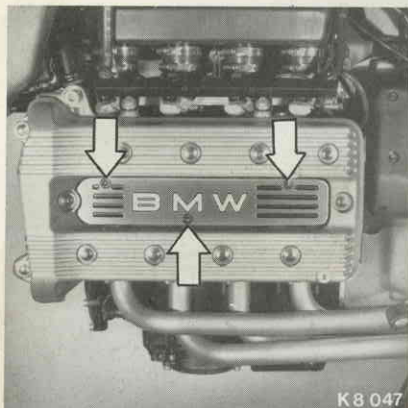
Press the transparent cover lightly together (in direction of arrow) and take it off.

Pull the suspected blown fuse out of its holder. The melted metal strip can only be seen when the fuse has been taken out.

Always insert a new fuse of the same rating.

Never patch up blown fuses with unsuitable materials – risk of fire. For this reason, spare fuses should always be carried on the motorcycle (see "Tools").

If a fuse blows repeatedly, this indicates a fault in the electrical system. You are advised to entrust a BMW motorcycle service station with the work of tracing and repairing this fault.



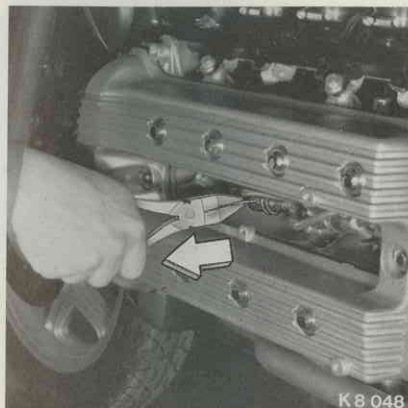
### Renewing spark plugs

#### Tools required:

- 4 mm Allen key
- All-purpose pliers
- Spark plug wrench combined with
- Wheel stud wrench.

#### Procedure:

- Remove the cover from the spark plugs by taking out the three Allen screws (arrows).



- Carefully detach the spark plug leads with the pliers (reconnect in the same manner afterwards).  
Rubber spark plug caps can be pulled off and re-attached by hand.



- Unscrew the spark plugs with the combined socket wrench from the toolkit (do not tilt the wrench).

#### When installing:

- Always check that the electrode gap is  $0.6 + 0.1$  mm ( $0.024 + 0.004$  in) before screwing in the plug. The spark plug gap must never be smaller than this. Renew the spark plugs if the electrode gap is 0.8 mm (0.03 in) or above.
- Tighten the spark plugs carefully without using the tubular extension. Do not tilt the wrench (Tightening torque max. 20 Nm = 2 kpm).
- Use only factory-specified spark plugs – see Specifications.

### Cooling system – basic information

The equalising tank for the coolant circuit is located under the right battery cover. It is always at zero pressure, whereas the remainder of the cooling system is pressurized at a value dependent on engine temperature.

A valve mechanism maintains the correct flow of coolant according to pressure. This means that when the engine is at its normal operating temperature the level in the coolant equalising tank rises (thermal expansion), but is lower when the engine is cold.

**Important:** for this reason the coolant level must only be checked in the equalising tank when the engine is cold, and topped up to the maximum mark if necessary.

If a large amount of coolant is lost or the coolant renewed (this should take place at least every two years), take off the fuel tank and add coolant through the main filler pipe.

Use only factory-approved long-life anti-freeze with corrosion inhibitor. Your BMW motorcycle service station knows the approved grades.



### Correcting coolant level in equalising tank (small coolant loss only)

No tools required.

#### Procedure:

- Pull the right battery cover away from its rubber retainers at front and rear. Carefully move the cover to the rear and take it off – see also Page 49.
- Pull off the filler cap and add coolant up to the maximum level mark (engine must be cold).



### Refilling cooling system at main filler pipe (after a fairly large amount of coolant has been lost or the coolant renewed)

#### Tools required:

- Screwdriver with reversible blade
- 10 mm open-ended wrench.

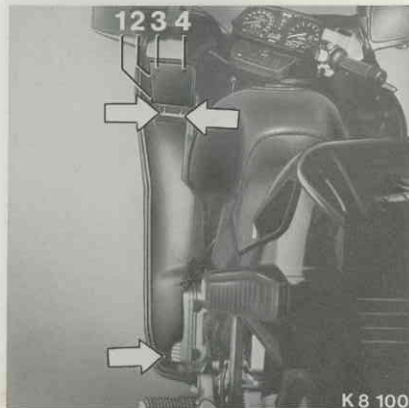
#### Procedure – K 100:

- Remove both battery covers – see also page 49.
- Take off the left radiator surround after removing the three Phillips-head screws (arrows). Pull the surround out of the rubber mounting at the rear and remove it.
- Pull the right radiator surround out of its rubber mounting and detach it complete with the front section.



#### Procedure – K 100 RS:

- Undo the 3 retaining screws (arrows) and take off the left knee pad.



#### Procedure – K 100 RT:

- Release and remove the cover from the left-side storage compartment.
- Undo the 3 retaining screws (arrows) and remove the left knee pad to the rear from above.
- Undo retaining screws (1 through 4) and detach the storage compartment from above.
- Remove the holder for the storage compartment from the trim (2 Phillips-head screws).



#### Before taking off the fuel tank:

- Place a rag under the fuel collector pipe to mop up any leaking fuel.
- On the K 100, detach hose clips (1 and 2), pull off the fuel hoses and detach the electrical connection (arrow).



- Remove the hexagon bolt at the rear fuel tank mounting (arrow).
- On the K 100, lift the fuel tank away to the rear.
- On K 100 RS and RT models, pull the fuel tank slightly back and carefully set it down on the left.



- **Open the screw cap (arrow) on the main filler pipe only when the engine has cooled down** (When the engine is warm, the cooling system may be at a pressure of up to 1.1 bar.)

**In an emergency, open the screw cap carefully with a glove or cloth to protect the hand, and permit the excess pressure to escape. Caution – risk of scalding.**

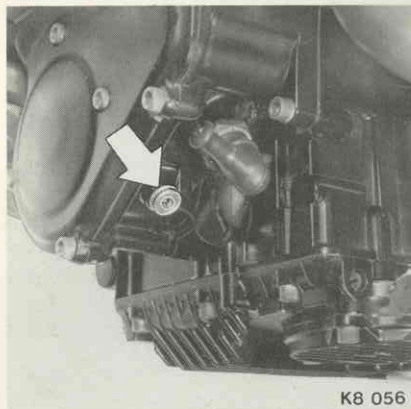
- Add the missing quantity in the correct concentration.

**Example:**

Mixing ratio 40:60 antifreeze to water for protection down to a temperature of 26° C.

Note also the antifreeze supplier's instructions.

- Attach the fuel tank temporarily, and run the engine briefly. Knead the coolant hoses by hand to bleed the cooling system.
- Take off the fuel tank and add coolant as necessary. Seal the system.
- After installing the fuel tank, run the engine until warm and then allow it to cool down again. If necessary, top up the coolant level in the equalising tank as far as the maximum mark.



### Draining the coolant

#### Tools required:

- 5 mm Allen key

#### Procedure:

- Take out the threaded union (arrow). Trap the escaping coolant in a suitable vessel. It can be re-used if not life-expired.
- Note the instructions for refilling and bleeding the cooling system.

**Cooling system content** 2.8 l (4.9 Imp. pints) + 0.4 l (0.7 Imp. pint) in equalising tank.



### Adjusting the clutch

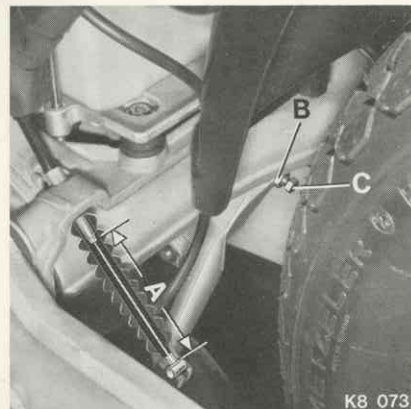
If free travel at the clutch lever on the handlebar (1) varies from the specified value of  $4 + 0.5$  mm ( $0.16 + 0.02$  in), the basic adjustment procedure must be carried out.

#### Tools required:

- 13 mm open-ended wrench
- 10 mm ring spanner.

#### Procedure:

- Measure the exposed length of cable (A) at the clutch lever on the gearbox. It should be  $75 \pm 1$  mm ( $2.95 \pm 0.04$  in).



- Correct to this length if necessary by slackening off locknut (2) and turning adjusting screw (3).
- Slacken off locknut (B) at the clutch lever on the gearbox. Turn adjusting screw (C) by hand up to its stop and secure it there with locknut (B).
- Adjust free travel (1) at the clutch lever on the handlebar to  $4 + 0.5$  mm ( $0.16 + 0.02$  in) with adjusting screw (3), and tighten locknut (2).

## What to do if . . .

### Malfunctions, possible causes and suggested remedial action

First of all, an important reminder:

Your motorcycle is equipped with a microprocessor-controlled high-performance digital ignition system. As a result, it can be highly dangerous or even fatal to touch any live components when the engine is running.

Malfunction	Possible cause	Remedial action
Engine will not start or is difficult to start	● Ignition key not in correct position	See operating instructions, Page 12
	● Ignition 'kill' switch not turned on	See operating instructions, Page 17
	● Gear engaged, clutch lever not pulled up	Select neutral at gear change pedal or disengage clutch
	● No fuel in tank	Add fuel, see Page 15
	● Fuel pump not working	Check fuse, see Page 49
	● Throttle twistgrip/cold-start control (choke) not operated correctly	See operating instructions, Page 18
	● Blocked air cleaner element	Renew, see Page 88, 89
Coolant temperature too high, warning light remains on all the time (comes on above a temperature of 111°C)	● Spark plug(s) defective/wet	Renew, see Page 50
	● Spark plug leads/caps wet	Dry with a compressed air jet
	● Battery flat	Recharge, see Page 92
	● Coolant level too low	Trace and repair any leaks; add coolant, see Pages 51–54
	● Electric fan not switching on automatically (at app. 103°C)	Blown fuse, see page 49

Any more serious faults, and others not described on Pages 38 to 54 as being suitable for do-it-yourself repair, should be entrusted to a BMW motorcycle service station for attention.



**Work you should not normally carry out yourself – a word to the BMW owner with some mechanical knowledge**

Many motorcycle enthusiasts possess a remarkable amount of mechanical skill and aptitude and frequently perform their own maintenance and repair work.

In this section, and under the heading "Care and Maintenance", we have tried to take this into account and have accordingly described a number of procedures in sufficient detail.

**But even if you feel confident, do not attempt any of the tasks we have refrained from describing.**

**This is because the ultra-modern technologies incorporated into many design areas on your BMW call for special tools, diagnosis and testing systems. And for specialised knowledge that only our factory-trained mechanics possess.**

Your BMW service station can satisfy all these requirements and therefore guarantee the standard of servicing you have a right to expect from BMW – for your own personal safety and to ensure that your motorcycle remains reliable and in good mechanical condition at all times.

For similar reasons, we recommend you to install only Genuine BMW Parts and Accessories. These too are guaranteed by your BMW motorcycle dealer.

For further information on this subject, see Pages 100 and 101.

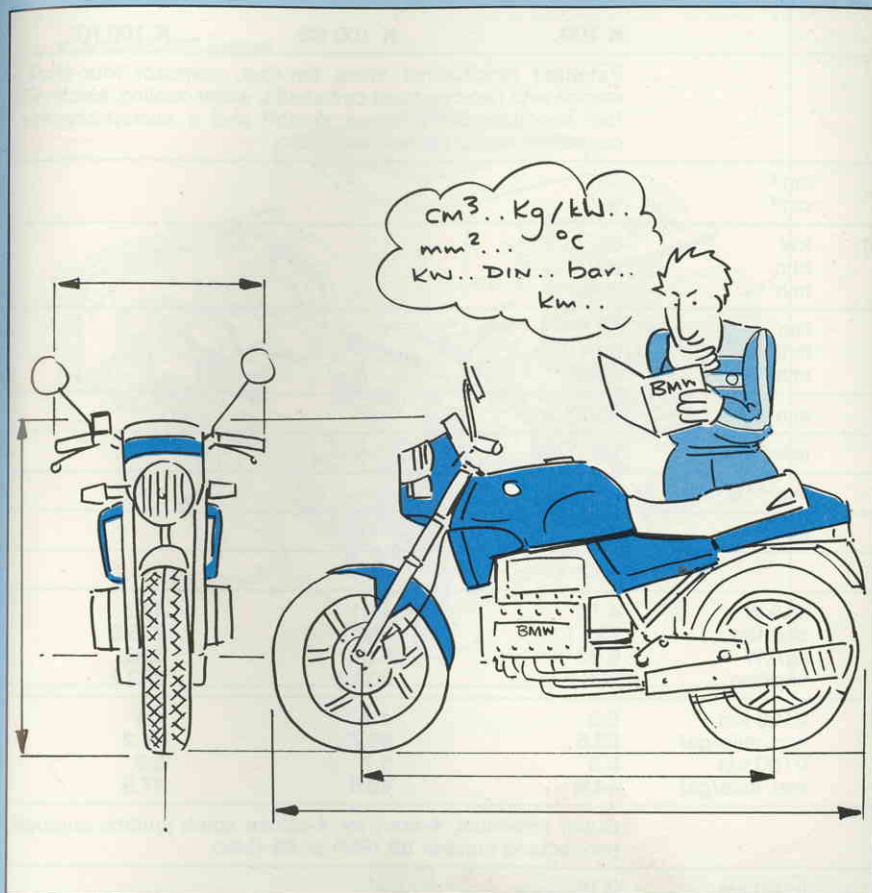
**Technical modifications**

Are you an individualist? We rather imagine you must be, or else you would not have chosen this fine motorcycle in the first place.

But nowadays, the scope for subsequent technical modifications is extremely limited. Most countries of the world have stringent road-vehicle construction and use regulations which must be complied with.

Despite this, there are still many opportunities for 'personalising' your BMW motorcycle.

Ask your local BMW motorcycle dealer. He will gladly advise you on the merits of the changes you have in mind, the legal situation and the factory recommendations concerning specific technical modifications.



## Data and information:

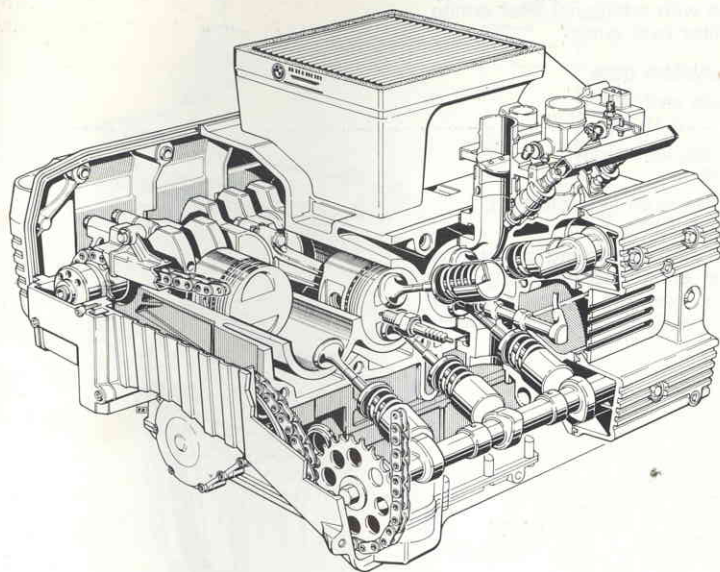
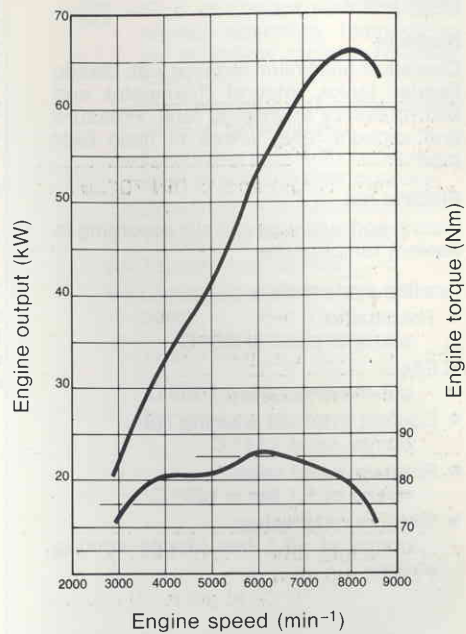
### Specifications and technical descriptions

- Engine
- Cooling/lubricating systems
- Fuel injection
- Ignition system
- Transmission
- Frame
- Fuels, lubricants etc.
- Electrical system
- Dimensions
- Weights
- Performance
- Electrical circuit diagram

## Specifications and technical descriptions

Engine		K 100	K 100 RS	K 100 RT
Type		Patented longitudinal inline flat-four, compact four-stroke engine with two overhead camshafts, water cooling, electronic fuel injection, overrun fuel shutoff and a microprocessor-controlled digital ignition system		
Displacement, effective for tax purposes	cm <sup>3</sup> cm <sup>3</sup>	987 980		
Max. power output acc. to DIN 70020 standard	kW	66		
- at engine speed	bhp min <sup>-1</sup>	90 8000		
Max. torque	Nm	86		
- at engine speed	lb.ft min <sup>-1</sup>	63.4 6000		
Max. permissible engine speed	min <sup>-1</sup>	8600		
Max. continuous engine speed	min <sup>-1</sup>	8500		
Idle speed	min <sup>-1</sup>	950 ± 50		
Bore/stroke	mm	67/70		
Compression ratio		10.2:1		
Power/weight ratio – ready for road, with 75 kg (165 lb) rider	kg/kW	4.76	4.91	4.97
- at gross weight limit	bhp/ton	291.1	282.1	278.8
	kg/kW	6.82	6.82	6.82
	bhp/ton	203.2	203.2	203.2
Fuel consumption acc. to ISO standard	l/100 km	5.0	4.3	4.4
- at a steady 90 km/h (56 mile/h)	lmp. mile/gal	56.5	65.7	64.2
- at a steady 120 km/h (75 mile/h)	l/100 km	6.3	5.7	5.9
	lmp. mile/gal	44.8	49.6	47.9
Type of fuel		Super (premium, 4-star) for 4-stroke spark ignition engines; min. octane number 98 (RM) or 88 (MM)		
Max. oil consumption	l/100 km mile/lmp. pint	0.15 app. 235		

K 100/RS/RT engine

K 100/RS/RT – power output/  
torque graph

### Cooling system

Liquid cooling circuit with centrifugal impeller pump.

### Radiator

Crossflow aluminium radiator with plastic header tanks, integral thermostat and zero-pressure equalising tank. Pressure and vacuum relief valves at main filler pipe.

### Electric fan

Cuts in and out automatically according to coolant temperature.

### Cooling system data

- Thermostat:  
starts to open at 85° C
- Fan:  
cut-in temperature 103° C
- Coolant overheat warning light:  
comes on at 111° C
- Pressure relief valve:  
opens at 1.1 bar = 120° C
- Vacuum relief valve:  
opens at -0.1 bar (during cooling phase)

### Lubricating system

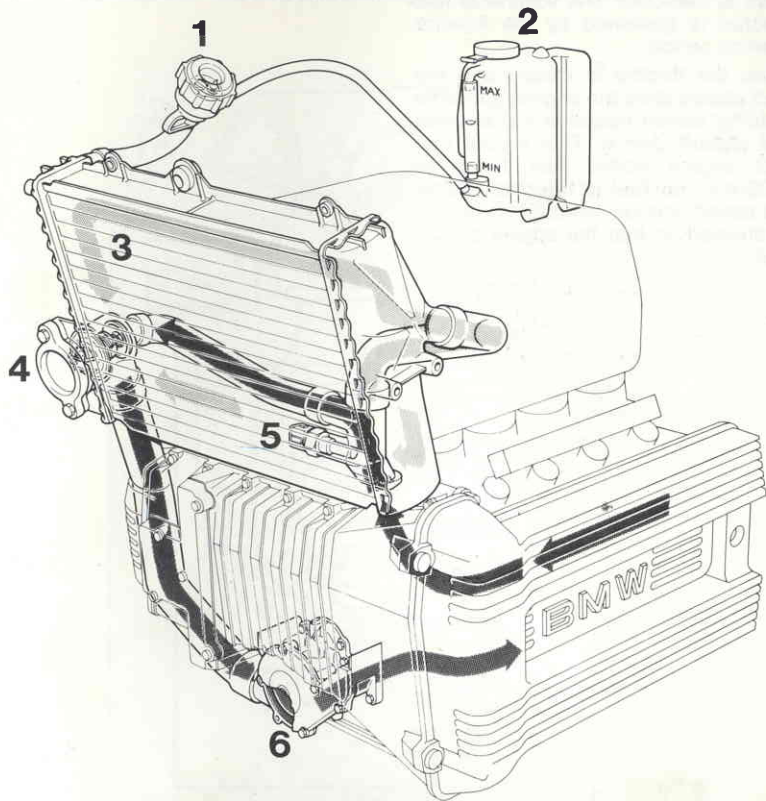
Pressurised oil circuit driven by gear-type pump, with full-flow oil filter, pressure regulating valve on pump side and safety bypass valve with additional filter action at full-flow filter (wet sump).

### Lubricating system data

- Oil pressure switch:  
app. 0.05 . . . 0.15 bar
- Pressure regulating valve:  
app. 5 . . . 6 bar
- Bypass valve in oil filter element:  
app. 2.2 ± 0.3 bar

The coolant and lubricating oil pumps are a central combined assembly in a housing; this has the advantages of compact dimensions and drive by a single shaft.

### Operating diagram – cooling system (K 100/RS/RT)



← = Flow of coolant with engine cold via bypass (thermostat closed)

↖ = Flow of coolant with engine at normal operating temperature via crossflow radiator (thermostat open)

1 = Main filler pipe with pressure and vacuum relief valves

2 = Equalising tank with coolant level check and filler opening

3 = Crossflow aluminium radiator

4 = Thermostat with housing

5 = Temperature sensor

6 = Combined coolant and engine oil pump

### Fuel injection system

The LE-Jetronic electronically controlled fuel injection system with overrun fuel shutoff guarantees optimum performance at minimum fuel consumption, together with excellent warming up and very low exhaust emissions.

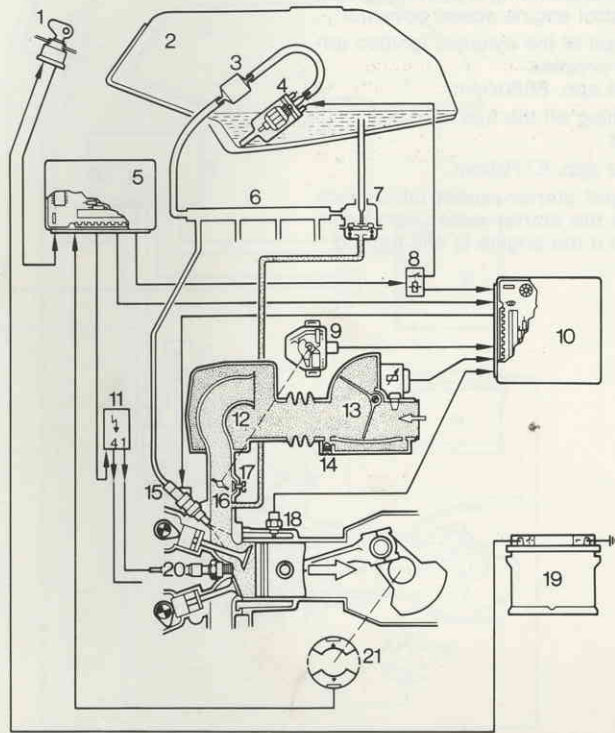
#### Operating principle:

- An electric roller-cell pump in the fuel tank, protected by filters, maintains a system pressure of app. 2.5 bar in the ring line which supplies the injectors.
- The electronic control unit is supplied with the following signals from sensors:
  - intake air volume and temperature (at airflow meter)
  - engine speed
  - throttle butterfly opening
  - coolant temperature

and processes them to obtain output signals which control the injector opening period.

- Fuel is injected simultaneously into all four intake pipes each time an ignition pulse is detected. The volume of fuel injected is governed by the injector opening period.
- When the throttle is closed and the road wheels drive the engine, a throttle butterfly switch operates the **overrun fuel shutoff** device. This means that until engine speed has fallen to 2000/min, **no fuel is injected**. Below this speed, the fuel injection system is reactivated so that the engine cannot stall.

### Operating diagram - LE-Jetronic fuel injection (K 100/RS/RT)



- 1 = Ignition switch
- 2 = Fuel tank
- 3 = Fuel filter
- 4 = Fuel pump
- 5 = Ignition control unit
- 6 = Distributor pipe
- 7 = Pressure regulator
- 8 = Injection relay
- 9 = Throttle butterfly switch
- 10 = Injection control unit
- 11 = Ignition coil
- 12 = Air collector
- 13 = Air volume gauge
- 14 = Idle mixture adjusting screw
- 15 = Injection valve
- 16 = Butterfly valve
- 17 = Butterfly valve lift for idling
- 18 = Coolant temperature sensor
- 19 = Battery
- 20 = Spark plug
- 21 = Hall-effect transmitter



### Ignition system

The all-electronic microprocessor-controlled digital ignition system has no contact-breaker points and therefore requires no routine maintenance.

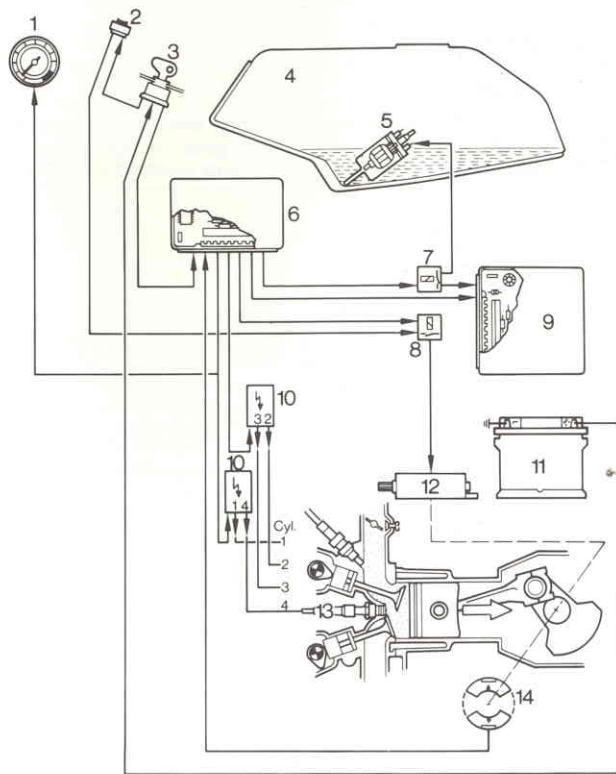
Its central element is the digital control unit.

#### Operating principle:

- The ignition signal is triggered off by two Hall-effect magnetic gate transmitters on the front end of the crankshaft.
- The control unit converts these pulses into a programme with the following functions:
  - Building up the ignition spark
  - Activating the ignition advance and retard system in accordance with a programmed characteristic curve, depending on running speed and intake manifold depression
  - Triggering off the control pulses for the solenoid valves on the injectors.
- Two coils supply the ignition voltage to two spark plugs simultaneously. The sparks occur both on the working stroke and off-load, when the valves are on overlap.
- Engine overspeeding is prevented by a dual-control engine speed governor:
  - Reversal of the dynamic ignition advance process
    - at app. 8650/min
  - Switching off the fuel injection pulses
    - at app. 8770/min.
- An integral starter-repeat inhibit lock prevents the starter motor from being operated if the engine is still turning.



### Operating diagram – ignition system (K 100/RS/RT)



- 1 = Revolution counter
- 2 = Starter switch
- 3 = Ignition switch
- 4 = Fuel tank
- 5 = Fuel pump
- 6 = Ignition control unit
- 7 = Injection relay
- 8 = Starter relay
- 9 = Injection control unit
- 10 = Ignition coils
- 11 = Battery
- 12 = Starter
- 13 = Spark plug
- 14 = Hall-effect transmitter

<b>Transmission</b>	<b>K 100</b>	<b>K 100 RS</b>	<b>K 100 RT</b>
<b>Clutch</b>	Single dry plate, mounted on output shaft and revolving in opposite direction to crankshaft, with lever-action diaphragm spring and asbestos-free lining. Light, easily-controlled mechanical release action, force at handlebar lever app. 70 N		
Clutch plate diameter	mm (in)	180 (7.1)	
<b>Gearbox</b>	Constant-mesh 5-speed gearbox with integral shock damper on all gears; light-action direct gear change with adjustable-position pedal and shift drum with overshoot protection		
Gear ratios		1st = 4.50 : 1 2nd = 2.96 : 1 3rd = 2.30 : 1 4th = 1.88 : 1 5th = 1.67 : 1	
<b>Transmission from gearbox to rear wheel</b>	New type of propeller shaft with torsional vibration damper housed in swinging arm (BMW 'monolever'); arm pivot aligned with universal joint axis to avoid changes in shaft length. At both ends, drive through flank-centred involute splines		
<b>Rear-wheel drive</b>	Crown wheel and bevel pinion with Palloid gear pattern, running on anti-friction bearings. Rear wheel attached directly to flange formed on back of crown wheel. Integral castellated ring and inductive transmitter supply pulses for electronic speedometer		
Final drive ratio (standard version)	2.91 : 1	2.81 : 1	2.91 : 1
Number of teeth	32/11	31/11	32/11
Final drive ratio (special version)	3.0 : 1	2.91 : 1	3.0 : 1
Number of teeth	33/11	32/11	33/11

Frame and suspension	K 100	K 100 RS	K 100 RT
<b>Frame</b>	Single-piece torsionally rigid lattice tube frame including engine and gearbox assembly as a stressed element; <b>sidecar attachment not permitted</b>		
Location of type plate Location of frame number	on rear right frame tube strut		
<b>Suspension, front</b>	Long-stroke, responsive telescopic fork with double-acting hydraulic dampers and progressive spring rates		
Total suspension travel	mm (in)	185 (7.3)	
Fixed tube diameter	mm (in)	41.4 (1.63)	
<b>Suspension, rear</b>	Swinging arm (BMW 'monolever') made from a high-strength light alloy, with a single suspension strut (progressive-rate coil spring and double-acting gas-filled telescopic damper); three-position setting to suit varying loads		
Total suspension travel (at wheel)	mm (in)	110 (4.33)	
Swinging arm length	mm (in)	400 (15.7)	
<b>Front wheel max. lock angle</b>	2 x 40°		2 x 35°
<b>Front wheel caster</b> at unladen weight	mm (in)	101 (3.98)	
in normal-load position with 75 kg (165 lb) rider	mm (in)	105 (4.13)	

<b>Frame and suspension</b>		<b>K 100</b>	<b>K 100 RS</b>	<b>K 100 RT</b>
<b>Front brake</b>		Hydraulic, twin disc, with slotted stainless-steel brake discs and two fixed calipers with semi-metallic brake pads		
Brake disc diameter	mm (in)	285 (11.2)		
Brake disc thickness	mm (in)	4 (0.16)		
Piston diameter	mm(in)	38 (1.5)		
Actuating cylinder diameter	mm (in)	13 (0.51)		
Brake pad area	cm <sup>2</sup> (in <sup>2</sup> )	166 (25.7)		
<b>Rear brake</b>		Hydraulic, fixed caliper disc brake integrated into rear-wheel drive. Stainless-steel disc, semi-metallic pads and brake application element for sensitive response		
Brake disc diameter	mm (in)	285 (11.2)		
Brake disc thickness	mm (in)	4 (0.16)		
Piston diameter	mm (in)	38 (1.5)		
Brake actuation		with input-side regulating element		
Actuating cylinder diameter	mm (in)	13 (0.51)		
Brake pad area	cm <sup>2</sup> (in <sup>2</sup> )	83 (12.9)		

**Frame and suspension****K 100****K 100 RS****K 100 RT****Wheels and tyres**

BMW cast light alloy wheels of Y-spoke design and H-profile pattern

**Front wheel**with inclined-shoulder rim  
and double hump

Size and designation

2.50 – 18 MT H 2

Tyre size and designation

100/90 V 18 tubeless

**Rear wheel**with inclined-shoulder rim  
and double hump

Size and designation

2.75 – 17 MT H 2

Tyre size and designation

130/90 V 17 tubeless

**Tyre pressures**in bar (lb/in<sup>2</sup>) with tyres cold

Road speed	One-up		Two-up	
	Front	Rear	Front	Rear
Unrestricted	2.25 (32.6)	2.5 (36.3)	—	—
Up to 180 km/h (112 mile/h)	—	—	2.25 (32.6)	2.7 (39.2)
Above 180 km/h (112 mile/h)	—	—	2.7 (39.2)	2.9 (42.0)

**Warning:** note the legal requirements concerning minimum tread depth.**Recommended minimum tread depths:**

Front wheel = 2 mm (0.08 in)

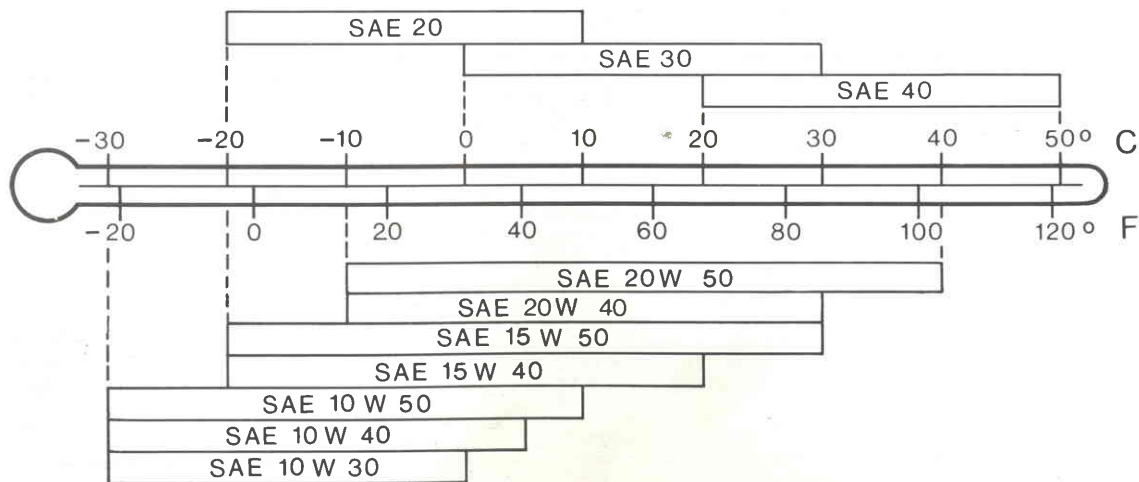
Rear wheel = 2 mm (0.08 in) up to 130 km/h (81 mile/h)

3 mm (0.12 in) above 130 km/h (81 mile/h)

**Lubricants etc.****K 100****K 100 RS****K 100 RT****Engine oil**

Brand-name HD oil for 4-stroke spark ignition engines; API classifications SE and SF

Viscosity in relation to outside temperature



Engine oil content  
 without filter renewal  
 with filter renewal

l (Imp. pint) 3.50 (6.16)  
 l (Imp. pint) 3.75 (6.60)

**Engine coolant**

Brand-name long-life antifreeze and corrosion inhibitor

Content of cooling system

l (Imp. pint) 2.8 (4.92) + 0.4 (0.7) in equalising tank

<b>Lubricants etc.</b>	<b>K 100</b>	<b>K 100 RS</b>	<b>K 100 RT</b>
<b>Gear oil</b>	Brand-name hypoid gear oil, API classification GL 5		
Gearbox content	l (Imp. pint)	0.85 ± 0.05 (1.50 ± 0.09)	
Rear-wheel drive content	l (Imp. pint)	0.27 (0.475)	
Viscosity above 5° C	SAE	90	
below 5° C	SAE	80	
<b>Telescopic fork oil</b> — approved grades	Aral 1010; Aral P 3441; Bel-Ray-Fork Oil with "Seal Swell" SAE 5; BP Aero Hydraulic; BP Olex HLP 2849; Castrol Fork Oil Extra Light; Castrol DB Hydraulic Fluid; Castrol Shock Absorber Oil 1/-318; Castrol LMH (preferred at below 0° C); Esso Univis 13; Golden Spectro Suspension Fluid Very Light; Mobil Aero HFA; Mobil DTE 11; Premium Fork Lubricant "Spectro SAE 10"; Shell Aero Fluid 4; Shell 4001		
Content per fork leg			
initial filling	l (Imp. pint)	0.33 ± 0.01 (0.58 ± 0.0175)	
subsequent filling	l (Imp. pint)	0.33 ± 0.01 (0.58 ± 0.0175)	
<b>Greasing steering, wheel bearings and other lubrication points</b>	Brand-name anti-friction grease, usable temperature range -30°... +140° C, drip point 150°... 230° C, high corrosion protection, good water/oxidation resistance; e.g. Shell Retinax A		
<b>Battery terminal posts</b> — (anti-oxidant)	Acid-free grease, e. g. Vaseline		
<b>Brake fluid</b>	DOT 4: ATE "SL"		
Total content, front and rear circuits	l (Imp. pint)	0.13 (0.23)	
For renewal, incl. flushing out, approx.	l (Imp. pint)	0.30 (0.53)	



		K 100	K 100 RS	K 100 RT
<b>Electrical system</b>				
<b>Battery</b>		BMW-Mareg, with transparent polypropylene casing		
Voltage/capacity	V/Ah	12/20 (standard version)		
	V/Ah	12/30 (special version)		
<b>Alternator</b>		with all-electronic voltage regulator; direct drive, ratio 1 : 1.5		
Rating	W	460		
<b>Starter motor</b>		Permanent-magnet version with 4 reduction gears (ratio 27 : 1) and freewheel		
Rating	KW	0.7		
Ignition timing, speed-related	° CS	6 ... 30 (advance)		
<b>Firing order</b>	Cyls.	1-3-4-2		
<b>Spark plugs</b>		M12 x 1.25 mm thread		
Approved make and type		Bosch X5DC Champion A6YC		
Electrode gap	mm (in)	0.6 + 0.1 (0.024 + 0.004)		

**Electrical system**

		K 100	K 100 RS	K 100 RT
<b>Circuit protection</b>		'Minifuse' flat-pattern fuses (7 circuits)		
Load rating	A	7.5 (3 circuits)		
	A	15 (4 circuits)		
<b>Headlight</b> – circular version, diameter	mm (in)	180 (7.09)		
	– rectangular version	mm (in)	200 x 130 (7.87 x 5.12)	
<b>Bulbs</b> High/low headlight beam		H4-halogen, 60/55 W, asymmetric dipped beam		
Parking light	DIN 72601	12 V/ 4 W	Standard designation T 8/4	
Rear light cluster: rear light brake light	DIN 72601	12 V/10 W	Standard designation R 19/10	
	DIN 72601	12 V/21 W	Standard designation P 25-1	
Flashing turn indicators	DIN 72601	12 V/21 W (4 x)	Standard designation P 25-1	
Instrument cluster: turn indicator repeater	DIN 72601	12 V/ 4 W (2 x)	Standard designation T 8/4	
Other telltale and warning lights, instrument lighting	DIN 72601	12 V/ 3 W (3 x)	Standard designation W 10/3	

<b>Dimensions</b>		<b>K 100</b>	<b>K 100 RS</b>	<b>K 100 RT</b>
Overall length	mm (in)	2220 (87.4)		
Width over mirrors	mm (in)	960 (37.8)	800 (31.5)	920 (36.2)
Width over handlebar	mm (in)	730 (28.8)	610 (24.0)	770 (30.3)
Width over rider's footrests	mm (in)	640 (25.2)		
Width over pillion footrests	mm (in)	690 (27.2)		
Max. height (excluding mirrors)	mm (in)	1155 (45.5)	1271 (50.0)	1460 (57.5)
Seat height at unladen weight	mm (in)	810 (31.9)		
Wheelbase at unladen weight	mm (in)	1516 (59.7)		
	in normal-load position with 75 kg (165 lb) rider	mm (in)	1511 (59.5)	
Ground clearance at unladen weight	mm (in)	175 (6.8)		
	in normal-load position	mm (in)	150 (5.9)	
Turning circle	m (ft)	5.1 (16.7)	5.4 (17.7)	5.4 (17.7)

Weights		K 100	K 100 RS	K 100 RT
Dry weight (without fuel, coolant, lubricants or tools)	kg (lb)	215 (474)	225 (496)	229 (505)
Unladen weight (ready for road, with tank full)	kg (lb)	239 (527)	249 (549)	253 (558)
Gross weight limit	kg (lb)	450 (992)		
Wheel load limits – front	kg (lb)	200 (441)		
– rear	kg (lb)	307 (677)		
Axle load distribution, front/rear, at unladen weight	%	47/53	48/52	47/53
in normal-load position with 75 kg (165 lb) rider	%	44/56	45/55	44/56

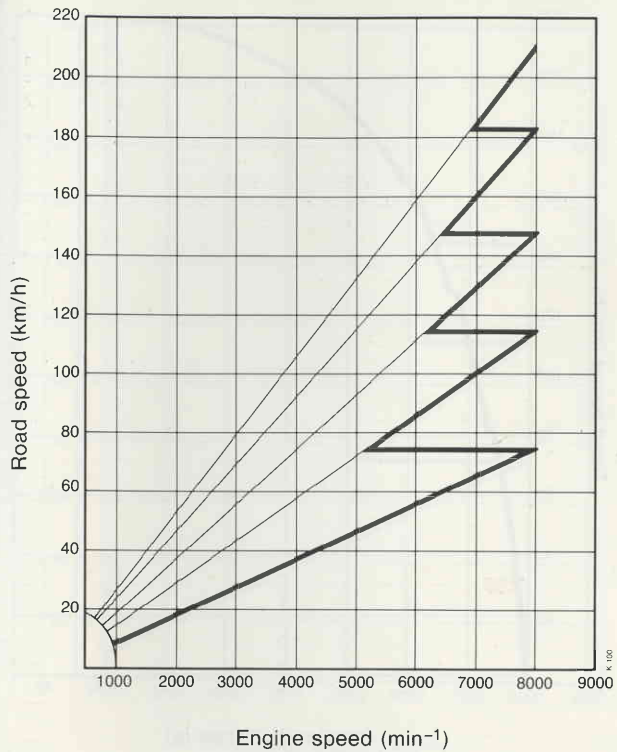
Performance		K 100		K 100 RS		K 100 RT	
		*)	**)	*)	**)	*	**)
<b>Acceleration</b>							
- from 0 ... 50 km/h ( 31 mile/h)	s	1.6	1.9	1.7	2.0	1.7	1.9
- from 0 ... 100 km/h ( 62 mile/h)	s	3.9	4.8	4.0	5.0	4.1	4.9
- from 0 ... 120 km/h ( 75 mile/h)	s	5.4	6.6	5.5	6.6	5.6	6.8
- from 0 ... 140 km/h ( 87 mile/h)	s	7.1	8.7	7.2	9.0	7.5	9.0
- from 0 ... 160 km/h ( 99 mile/h)	s	9.6	11.9	9.7	12.3	10.3	12.5
- from 0 ... 180 km/h (112 mile/h)	s	* 13.0	16.6	13.0	17.2	14.2	17.7
- from 0 ... 400 m (1312 ft)	s	12.0	13.2	12.1	13.3	12.3	13.3
- from 0 ... 1000 m (3280 ft)	s	23.6	24.9	23.5	25.1	24.1	25.2
<b>Top speed</b>							
- rider prone	km/h (mile/h)	215 (134)	- 220 (137)	- 215 (134)	-	-	-
- acc. to type test	km/h (mile/h)	209 (130)	- 215 (134)	- 209 (130)	-	-	-
- two-up	km/h (mile/h)	- 201 (125)	- 206 (128)	- 203 (124)	-	-	-
<b>Braking distances</b> to a standstill, using front and rear brakes together							
- from 50 km/h ... (31 mile/h)	m (ft)	12.0 (39.4)	*)	12.5 (41.0)	***)		
- from 80 km/h ... (50 mile/h)	m (ft)	29.4 (96.5)		31.5 (103.3)			
- from 100 km/h ... (62 mile/h)	m (ft)	44.5 (146.0)		46.5 (152.6)			
- from 130 km/h ... (81 mile/h)	m (ft)	76.1 (249.7)		78.0 (255.9)			
- from 160 km/h ... (99 mile/h)	m (ft)	113.5 (372.4)		117.0 (383.9)			

\*) one-up

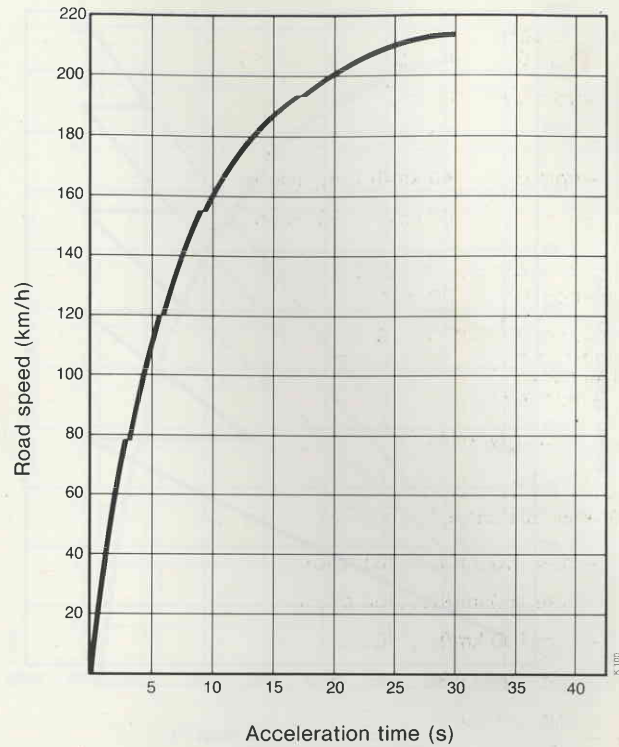
\*\*) two-up

\*\*\*) at gross weight limit

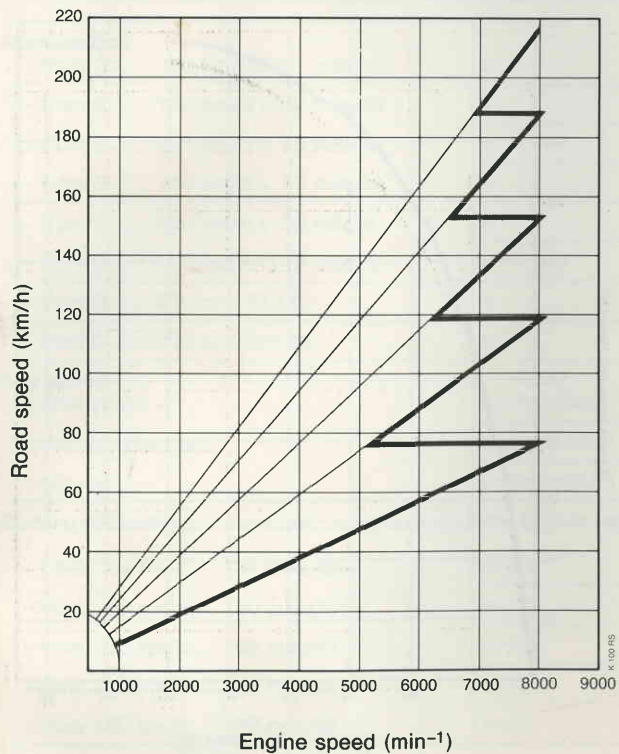
Road speed/engine speed – K 100



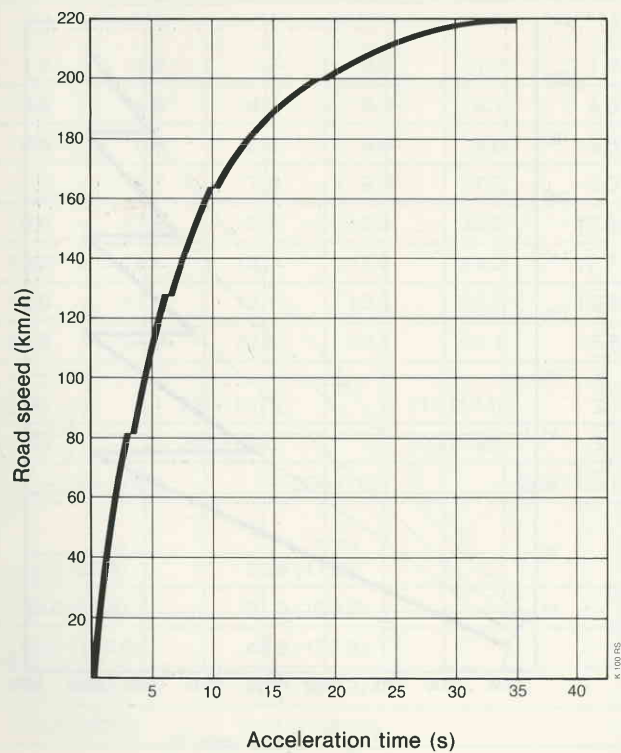
Acceleration through gears – K 100



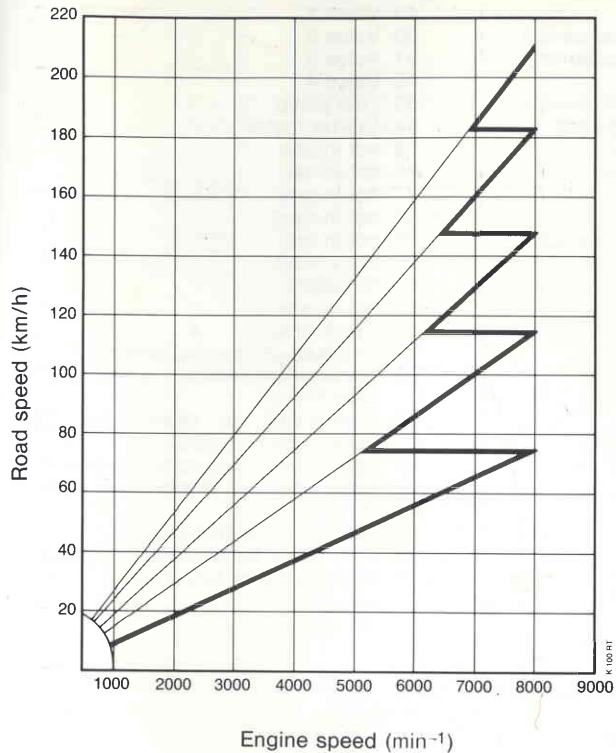
Road speed/engine speed – K 100 RS



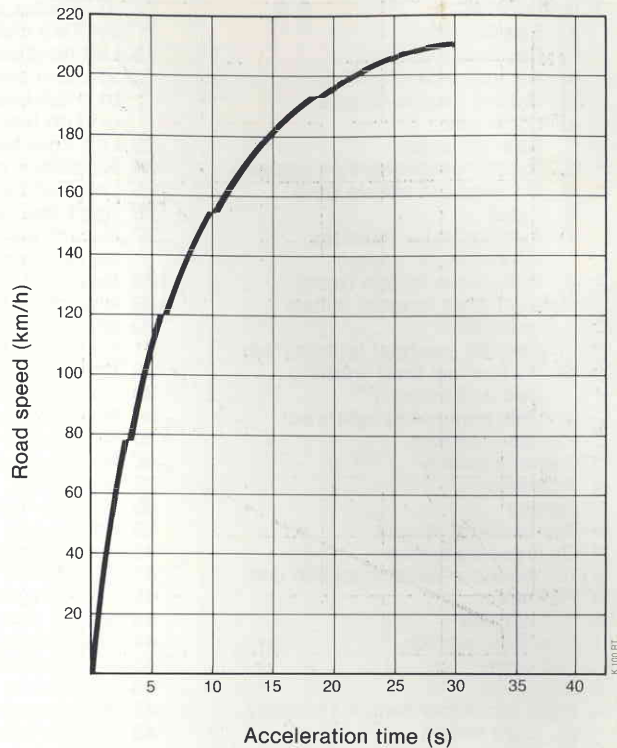
Acceleration through gears – K 100 RS



Road speed/engine speed – K 100 RT



Acceleration through gears – K 100 RT





### Key to electrical circuit diagram – K 100/RS/RT

- |   |   |  |
|---|---|--|
| 1 Instruments   | d) Starter switch                                       | 49 Valve 1   |
| a) Speedometer  | e) Turn indicator cancel switch                         | 50 Valve 2   |
| b) Revolution counter                                 | 15 Left handlebar switch assembly                       | 51 Valve 3   |
| c) 4 x instrument lighting                            | a) Horn switch  | 52 Valve 4   |
| d) Battery charge telltale                            | b) High beam headlight switch                           | 53 Fuel pump   |
| e) not in use   | c) Left turn indicator switch                           | 54 Starter motor   |
| f) Gear indicator                                     | 23 Left front turn indicator                            | 55 not in use  |
| g) Neutral indicating light (green)                   | 24 Right front turn indicator                           | 56 not in use  |
| h) Oil pressure telltale (red)                        | 25 Left rear turn indicator                             | 57 not in use  |
| i) Clock  | 26 Right rear turn indicator                            | 58 not in use  |
| k) Turn indicator repeater,<br>left and right (green) | 27 Hazard warning flasher switch<br>(special equipment) | 59 not in use  |
| l) High beam telltale (blue)                          | 28 Rear light   | 60 Horn relay  |
| m) Cold-start (choke) telltale<br>(orange)            | 29 Hall-effect transmitter II                           | 61 Headlight   |
| n) Coolant overheat telltale (red)                    | 30 Ignition control unit                                | 62 not in use  |
| o) 2 x low fuel level warning<br>(red and orange)     | 31 Hall-effect transmitter I                            | 63 Spark plugs 1 ... 4                                       |
| p) Bulb monitoring light (red)                        | 32 Coil 1   | 64 Pressure-differential switch                              |
| 2 Inductive sensor                                    | 33 Coil 2   | 65 Increase cold-starting speed (choke)<br>switch            |
| 3 Gearbox switch                                      | 34 Bulb monitor   | 66 Connection for heated handlebar<br>grips (optional extra) |
| 4 Alternator  | 35 Front brake light switch                             | 67 Connection for special equipment                          |
| 5 Battery   | 36 Rear brake light switch                              | 68 Connection for thiefproofing system<br>(optional extra)   |
| 6 Temperature sensor                                  | 37 Brake light  | 69 Electrical equipment box                                  |
| 7 Oil pressure switch                                 | 38 Parking light  | 70 Connection for additional instruments                     |
| 8 Temperature-sensing switch unit                     | 39 not in use   | 71 Connection for faring cable                               |
| 9 Fan motor   | 40 Fuel injection relay                                 |  |
| 10 Flasher unit                                       | 41 Fuse box   |  |
| 11 Fuel level sensor                                  | 42 Ignition switch                                      |  |
| 12 Left horn  | 43 Starter relay  |  |
| 13 Right horn   | 44 Load-shedding relay                                  |  |
| 14 Right handlebar switch assembly                    | 45 Clutch switch  |  |
| a) Light switch                                       | 46 LE-Jetronic control unit                             |  |
| b) Right turn indicator switch                        | 47 Airflow meter  |  |
| c) Emergency cutout ('kill')<br>switch                | 48 Throttle butterfly switch                            |  |



For reliable results . . .

### Care and maintenance

Jobs you can perform yourself if you wish:

- 'Beauty care'
- Laying the motorcycle up out of use
- Getting ready for the road again
- Checking oil levels/oil changes
- Renewing the air cleaner element
- Battery maintenance

...and jobs that are best left to your BMW motorcycle service station:

- BMW Service
- BMW Inspection

### 'Beauty care'

Most motorcycle owners are familiar with the way an admiring crowd – of all ages – gathers round a sparkling, clean motorcycle whenever it is parked for a few minutes.

Who would not be just a little proud to receive this public recognition of his efforts?

Of course, there are many successful methods of cleaning. Most motorcyclists have devised their own ways of tackling the job.

**Yet in view of the problems that can occur even with modern cleaning products and equipment, and the very real risk of damaging the motorcycle or spoiling its appearance, we have compiled a few hints which may be useful.**

Points to note:

- Many garages operate high-pressure water or steam jet cleaners, which are of course a very easy way to shift the dirt from a motorcycle; sometimes they can even be hired on the coin-in-slot principle.

However, these powerful jets cannot always be kept out by the normal seals at the wheel, swinging arm or steering head bearings, and may also penetrate the breather covers at the gearbox and final drive and electrical or electronic equipment and fittings.

The consequences can often be not only expensive to repair, but actually represent a safety hazard.

- A better approach: spray very dirty areas, e.g. wheels and transmission, with a mild-action engine or cold cleaner, allow this to soak in for the period of time specified by the supplier and then wash it off with a not-too-strong water jet. Tilt the motorcycle over to the left to drain water from the top of the engine. Finally, dry thoroughly.

After washing the motorcycle down in this way, it is advisable to test the brakes.

- Rubber and plastic components, particularly flashing turn indicators, rear light, instrument cluster, switches etc., must be protected against cleansers and solvents.
- Wash paintwork with plenty of clean water, using a clean sponge or wash-leather. Remove dead insects in the same way. To eliminate tar stains, use only a commercial tar-stain remover; rinse down thoroughly afterwards.

Painted and chromium-plated areas should be treated with a good polish having a preservative action from time to time. This will preserve the motorcycle's smart appearance even if it is ridden all the year round and exposed to salt spread on the roads in winter.

**Concerning road salt:** this is well known to attack motor vehicles of all kinds, and is particularly unkind to light alloys. You should therefore rinse down the motorcycle immediately after a journey with **cold water**; warm water increases the chemical action of the salt.

As a precautionary measure, a commercial wax-based corrosion proofing agent or similar product can be used.

- Minor paint damage caused by flying stones or similar can be touched in easily and quickly with a BMW paint pencil. The motorcycle's paint colour is stated on the label under the dualseat. The BMW Parts Service can also supply paint spray aerosols, though these are more difficult to use accurately.
- The polished stainless-steel exhaust system will gradually change its appearance in operation and as a result of exposure to the environment. It can be restored to a condition approaching new with 'Unipol blue' metal polish (supplied by the Höhn company of 5657 Haan, West Germany) followed by treatment with 'Wiener Kalk' (Schmitzol company, 4019 Monheim/Baumberg).

Please do not use any abrasive products to improve the finish of the exhaust system; only 'Wiener Kalk' is suitable, and is obtainable from hardware stores or drugstores.

#### Laying up the motorcycle out of use

If you intend to store your motorcycle for any length of time, the following measures should be taken to maintain its value and to prevent internal corrosion:

- General care as specified in the manufacturer's maintenance instructions.
- Drain the engine oil while warm.
- Add a special corrosion-inhibiting oil up to the lower mark on the sight glass (app. 2.5 l [4.4 pints] are needed). Run the engine for about 1 minute off-load.
- Drain the oil from the gearbox and rear-wheel drive. Add app. 0.4 l (0.7 pint) of corrosion-inhibiting oil to the gearbox and app. 0.1 l (0.175 pint) to the rear-wheel drive. Select 2nd gear and run the engine for a few seconds.
- Take out the spark plugs and inject app. 10 cm<sup>3</sup> of upper-cylinder preservative into each cylinder. Turn the engine over briefly with the starter motor. Screw the spark plugs back in.

- Remove the battery (see Pages 90 to 92) and have it stored and maintained by a specialist workshop if you have no suitable facilities of your own.
- Spray a suitable lubricant on to the brake and clutch lever pivots, and the centre and prop stand pivot bearings.
- Coat all bright metal and chromium-plated steel parts with non-acid grease (Vaseline), and if necessary spray the entire motorcycle with corrosion-inhibiting oil.
- Store the motorcycle on its centre stand in a dry room. Place blocks under the front of the engine, so that there is no load on either wheel.

#### **Getting the motorcycle ready for the road again**

- Remove all protective materials applied to the exterior. Clean the motorcycle.
- Drain the corrosion-inhibiting oil from the engine, gearbox and rear-wheel drive. Renew the engine oil filter element and add fresh oil of the specified grade (see Pages 70 and 71). Renew the oil in the telescopic fork.
- Install a fully-charged battery, connect the leads and coat the terminal posts and clips with the correct grade of protective grease.
- Take out the spark plugs, run the starter motor and in this way eject the upper-cylinder preservative from the cylinders. Clean or renew the spark plugs as necessary and screw them back in.
- Check tyre pressures and correct if necessary.

Before the motorcycle is used again you are recommended to have the above work combined with a BMW Inspection at your authorised BMW motorcycle service station.

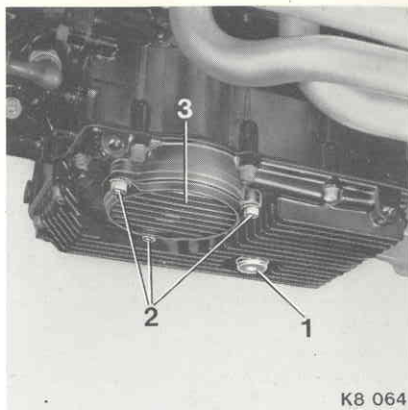
## Oil changes

As we implied earlier, oil changes belong in the category of jobs which you **may** perform yourself if you wish.

But before you do so, please consider the following points.

Even assuming that you are among those riders capable of performing an oil change correctly, without allowing dirt to enter, using the correct parts and proceeding according to factory recommendations – what will become of the old oil and of the discarded filter element?

If you have oil changes carried out by your BMW motorcycle service station, you are no longer faced with these problems. And the cost is very reasonable compared with the time you might have saved.



K8 064

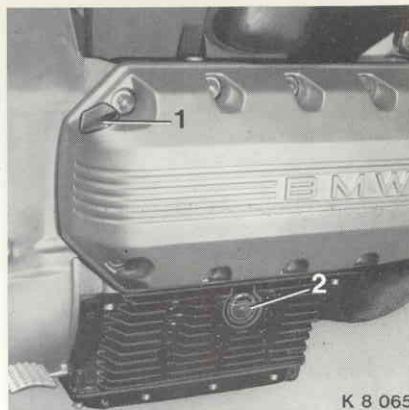
### Changing engine oil, renewing oil filter element

#### Tools required:

- 5 mm and 8 mm Allen keys
- Special wrench (for oil filter element)

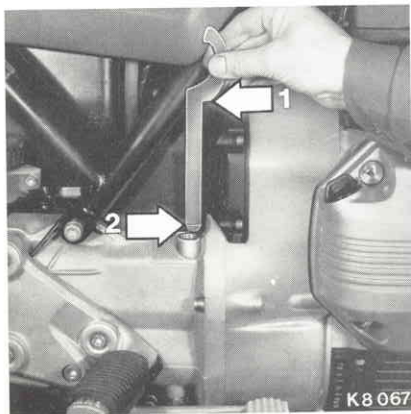
#### Procedure:

- Take out Allen screw (1) and allow the old oil to drain out. Insert and tighten the Allen screw with a gasket in perfect condition.
- Take out the 3 Allen screws (2) and detach the oil filter cover (3).



K 8 065

- Unscrew and remove the throwaway element. Before screwing in the new element, wet its sealing ring with oil. Screw in carefully, without using force.
- Attach the cover with a new gasket.
- Add fresh engine oil (for grades, see Page 70) at the filler cap (1). Content: 3.75 l (6.6 Imp. pints).
- Run the engine, then switch it off and wait a few minutes before reading off the level at sight glass (2). See Page 14.



### Checking gearbox oil level

#### Tools required:

- 8 mm Allen key
- Hook wrench for spring strut (to be used as a dipstick).

#### Procedure:

- Remove the oil filler screw (with Allen key).
- Insert the handle of the hook wrench fully (1), transversely to the direction of travel.
- **The oil level should be up to mark (2) but no higher.** The bottom edge of the wrench serves as the minimum mark.



### Gearbox oil change

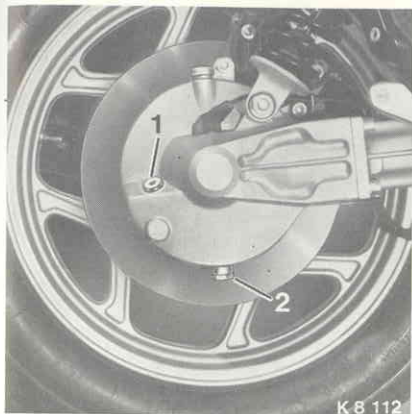
#### Tools required:

- 8 mm Allen key
- 19 mm ring spanner.

#### Procedure:

- Take out the oil drain plug (1) followed by the oil filler plug (2). Allow the old oil to drain out.
- Insert and tighten the oil drain plug, using a gasket in good condition.

- Add fresh gear oil (for grades, see Page 71) at filler plug (2). Content:  $0.85 \pm 0.05$  l ( $1.50 \pm 0.09$  Imp. pint).
- Finally, check oil level.



### Checking oil level in rear-wheel drive

#### Tools required:

- 6 mm Allen key.

#### Procedure:

- Take out oil filler plug (1).
- With the motorcycle on its centre stand, the oil level must be just up to the lowest turn of thread in the oil filler opening.

### Rear-wheel drive oil change

#### Tools required:

- 6 mm Allen key
- 19 mm ring spanner.

#### Procedure:

- Take out oil drain plug (2) followed by oil filler plug (1), and allow the old oil to drain off.
- Insert and tighten the drain plug with a gasket in perfect condition.
- Add fresh gear oil (for grades, see Page 71) at filler (1).  
Content: 0.27 l (0.475 Imp. pint).





K 8 069

### Telescopic fork oil change

#### Tools required:

- 10 and 22 mm open-ended wrenches
- 8 mm Allen key
- Screwdriver (with reversible blade).

#### Procedure:

- Unscrew the oil drain plugs from the left and right fork slider tubes, and drain off the old oil.



K 8 070

- Unscrew the oil filler plugs from the left and right fixed fork tubes, preventing these from turning with the open-ended wrench.
- Compress and extend the telescopic forks several times to expel all the old oil.
- Insert and tighten the drain plugs.
- Add fresh telescopic fork oil (for oil grades, see Page 71) at the filler openings on the fork legs. Content of each fork leg:  $0.33 \pm 0.01$  l ( $0.58 \pm 0.0175$  Imp. pint).
- After filling the fork legs, bleed the dampers by compressing and extending the telescopic fork 5 to 10 times, until the full damping effect becomes noticeable.



K 8 071

### Renewing air cleaner element

#### Tools required:

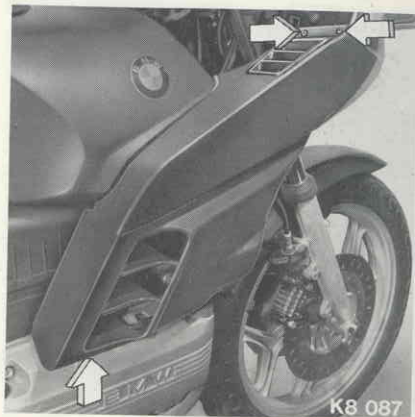
- Screwdriver (with reversible blade).

#### Procedure – K 100:

- Pull the air guide channel in the direction of arrow (1) out of the lower part of the air cleaner (moisten the rubber seat when installing).
- Remove the air guide channel to the rear as shown by arrow (2).



- Release the three spring clips connecting the upper and lower halves of the air cleaner housing.
- Raise the upper part slightly and pull the air cleaner element out to the right.
- Note correct installed position of air cleaner element, with inscription at the rear (looking forwards) and "TOP" arrow mark pointing upwards.



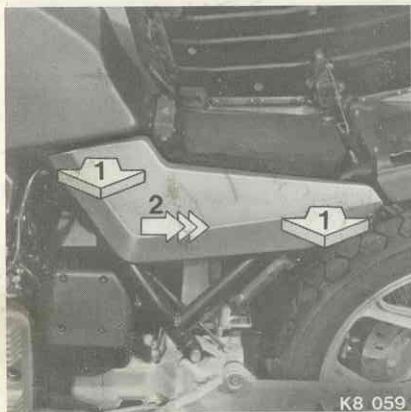
#### Procedure – K 100 RS:

- Remove the retaining screws (arrows) for the right-side knee pad and take off the fairing from above.
- Renew the air cleaner element by following the instructions for the K 100 model.



#### Procedure – K 100 RT:

- Release and remove the cover from the right-side storage compartment.
- Remove the retaining screws (arrows) for the right-side knee pad and take off the fairing to the rear from above.
- Renew the air cleaner element by following the instructions for the K 100 model.



K8 059

### Removing and installing battery

#### Tools required:

- Screwdriver (with reversible blade)
- 10 mm open ended wrench and 10 mm ring spanner.

#### Procedure:

- Take off the battery cover as illustrated.

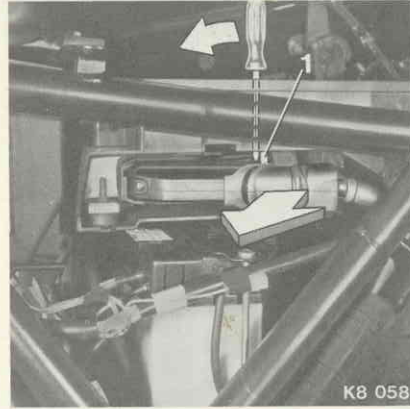
#### When installing:

Moisten the three rubber retainers to simplify fitting.



K8 057

- Pull off the protective cover for the fuel injection control unit and set it aside.



K8 058

- Remove the storage tray cover.
- Insert a screwdriver through the hole in the floor of the tool tray. Release the keeper of multi-pin plug (1) by moving the screwdriver blade forwards (arrow).
- First pull the multi-pin plug carefully to the rear (direction of arrow), then disconnect it at the front.



K 8 060

- Lift storage tray with fuel injection control unit out of its mounting (arrow).



K 8 061

- Dismantle the battery holder.

**When installing:**

Do not overtighten the battery holder screws to prevent possible damage to the battery casing.



K 8 062

- Remove the battery from the frame upwards and to the rear.

**When installing:**

Guide the battery vent tube through the hole at the base of the rear mudguard.



### Checking battery acid level

The acid level in the battery can be checked with the battery in position on the motorcycle, thanks to the transparent battery casing.

It should be 5... 10 mm (0.2... 0.4 in) below the black upper section of the battery.

Use only distilled water to top up the battery. For access to the filler plugs, see "Removing and installing battery".

The sealing plugs can easily be unscrewed and retightened with a suitable coin.

### Further maintenance instructions:

**The life of a battery greatly depends on its state of charge.**

Recommended procedure:

- During the normal riding season, the battery should remain well charged if the acid level is correct, since the alternator produces a generous charge at all normal engine speeds.
- If the motorcycle is not ridden regularly, for instance in winter, remove its battery and at about monthly intervals have it recharged at a current equal to app. 10% of the battery's nominal rating.

Example:

20 Ah (ampère-hour) battery:  
max. charging current 2 Amp.

30 Ah battery:  
max. charging current 3 Amp.

The state of battery charge is determined by measuring the specific gravity of the battery acid: the correct value is when the hygrometer reads 1.28 kg/l.

- Another way of maintaining battery charge is by trickle charging at app. 0.03 Amp. A suitable trickle charger can be left connected to the battery whenever the motorcycle is not in use.

**Note that there are safety precautions to be observed when working on vehicle batteries.** In case of doubt, obtain the services of your local BMW motorcycle service station or ask it to store and maintain the motorcycle's battery when not in use.

### The BMW maintenance programme

Before you receive the new motorcycle from your authorised BMW motorcycle dealer, a **free pre-delivery check** is carried out. Details of this work and confirmation that it has been performed fully and correctly are provided on the next page.

Please have all the servicing work specified in the BMW maintenance programme (see Pages 98 to 99) performed punctually by a BMW motorcycle service station, and confirmed with company stamp and signature in the correct spaces in the "Service Confirmations" section of this handbook.

This is vital in case you have to submit a warranty claim. Furthermore, proof that all maintenance work has been carried out correctly is a most useful selling point if you later dispose of your motorcycle.

After the **First Inspection at 1000 km (app. 600 miles)**, a regularly spaced routine of servicing work commences.

At speedometer reading 7500 km (5000 miles), a **BMW Service** is due. Starting at 15 000 km (10 000 miles), the more comprehensive **BMW Inspection** should be carried out.

After this, BMW Service and BMW Inspection are due alternately every 7500 km (5000 miles).

After performing the first Inspection, your BMW motorcycle service station will remove the adhesive reminder label for the next BMW Service from the "Service Confirmations" section of this handbook, and affix it under the dualseat. The same procedure will be adopted for all subsequent BMW Inspection and Service routines.

In the interests of reliability and long, troublefree operation of your motorcycle, you are recommended to have **at least one BMW Inspection a year** carried out even if the distance specified in the BMW maintenance programme has not been covered.

Each BMW motorcycle service station calculates its prices for the BMW maintenance programme on the basis of the number of flat-rate units laid down by the factory for each job. This ensures that the entire BMW motorcycle service organisation in all countries bases its prices on the same job descriptions and amount of work.

Items needing replacement such as lubricants and other operating materials, filters, seals etc. are charged for separately, together with any cleaning work needed.

Please remember to bring this handbook with you when you have an appointment for motorcycle servicing work at the authorised BMW motorcycle service station.

**Free pre-delivery check**

- Unpack the motorcycle from its transit packing, clean and install items carried separately.
- Remove and install the battery, add battery acid, charge the battery and grease the terminal posts.
- Check oil levels in the engine, gearbox and rear wheel drive.
- Check front and rear wheel brake fluid levels.
- Tighten the rear wheel studs to a torque of 105 Nm (77 lb. ft).
- Check tyre pressures.
- Check the lighting and signalling equipment.
- Final operating check: clutch, gear change, steering, foot brake, handbrake, instruments, telltale and warning lights, engine idling.
- Check that the following items are present and complete: tools, documents and handbook, keys, all optional extras ordered with the motorcycle.

**Free pre-delivery check**

performed correctly in accordance with the schedule printed alongside

on: 22-9-84 (date)

at: 3 km (miles)

**MOTTS OF WELSHPOOL**  
 by: **145 WELSHPOOL RD.,**  
**WELSHPOOL 6106**

(stamp and signature)

**1st Inspection at 1000 km  
(app. 600 miles)**

performed correctly in accordance with the maintenance programme on Pages 98 and 99 of this handbook

on: 11-3-85 (date)

at: 1036 km (miles)

by:

(stamp and signature)

**MOTTS MOTORCYCLE WORLD**  
**145 WELSHPOOL ROAD,**  
**WELSHPOOL 6106**

7236  
 1438  
 20-30



## Service confirmations

followed by:

- Genuine BMW Parts and Accessories
- Alphabetical item index



**BMW Service**  
**7500 km (5000 miles)**  
performed correctly

Date 21-6-88

km (miles) 7695

Stamp and signature

Engine oil added:

Brand Castrol GTX

SAE viscosity 20W50

**BMW Inspection**  
**15000 km (10000 miles)**  
performed correctly

Date 7-2-86

km (miles) 14938

Stamp and signature

Engine oil added:

Brand Castrol GTX

SAE viscosity 20W50

Brake fluid renewed: yes/no

Coolant renewed: yes/no

**BMW Service**  
**22500 km (15000 miles)**  
performed correctly

Date 30-1-87

km (miles) 22500

Stamp and signature

Engine oil added:

Brand PENRIZ

SAE viscosity 20W50

**BMW Inspection**  
**30000 km (20000 miles)**  
performed correctly

Date 9-11-87

km (miles) 20300

Stamp and signature

Engine oil added:

Brand Extra Sport 4

SAE viscosity 20W50

Brake fluid renewed: yes/no

Coolant renewed: yes/no

**BMW Service**  
**37500 km (25000 miles)**  
performed correctly

Date

km (miles)

Stamp and signature

Engine oil added:

Brand

SAE viscosity

**BMW Inspection**  
**45000 km (30000 miles)**  
performed correctly

Date

km (miles)

Stamp and signature

Engine oil added:

Brand

SAE viscosity

Brake fluid renewed: yes/no

Coolant renewed: yes/no

**BMW Service**  
**52500 km (35000 miles)**  
performed correctly

Date

km (miles)

Stamp and signature

Engine oil added:

Brand

SAE viscosity

**BMW Inspection**  
**60000 km (40000 miles)**  
performed correctly

Date

km (miles)

Stamp and signature

Engine oil added:

Brand

SAE viscosity

Brake fluid renewed: yes/no

Coolant renewed: yes/no

**Next  
BMW Service**

**at 67 500 km (45 000 miles)**

or not later than  
6 months

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**Next  
BMW Service**

**at 82 500 km (55 000 miles)**

or not later than  
6 months

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**Next  
BMW Service**

**at 97 500 km (65 000 miles)**

or not later than  
6 months

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**Next  
BMW Service**

**at 112 500 km (75 000 miles)**

or not later than  
6 months

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**Next  
BMW Inspection**

**at 75 000 km (50 000 miles)**

or not later than 12 months  
or the end of the riding season

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**Next  
BMW Inspection**

**at 90 000 km (60 000 miles)**

or not later than 12 months  
or the end of the riding season

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**Next  
BMW Inspection**

**at 105 000 km (70 000 miles)**

or not later than 12 months  
or the end of the riding season

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**Next  
BMW Inspection**

**at 120 000 km (80 000 miles)**

or not later than 12 months  
or the end of the riding season

on \_\_\_\_\_

**Oil in engine:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**BMW Service  
67 500 km (45 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**BMW Service  
82 500 km (55 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**BMW Service  
97 500 km (65 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**BMW Service  
112 500 km (75 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

**BMW Inspection  
75 000 km (50 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

Brake fluid renewed: yes/no \_\_\_\_\_

Coolant renewed: yes/no \_\_\_\_\_

**BMW Inspection  
90 000 km (60 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

Brake fluid renewed: yes/no \_\_\_\_\_

Coolant renewed: yes/no \_\_\_\_\_

**BMW Inspection  
105 000 km (70 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

Brake fluid renewed: yes/no \_\_\_\_\_

Coolant renewed: yes/no \_\_\_\_\_

**BMW Inspection  
120 000 km (80 000 miles)**

performed correctly

Date \_\_\_\_\_

km (miles) \_\_\_\_\_

Stamp and signature \_\_\_\_\_

**Engine oil added:**

Brand \_\_\_\_\_

SAE viscosity \_\_\_\_\_

Brake fluid renewed: yes/no \_\_\_\_\_

Coolant renewed: yes/no \_\_\_\_\_

## Maintenance programme

	1st BMW Inspection at 1000 km (app. 600 miles)	BMW Service at 7500 km (5000 miles) and every additional 15 000 km (10 000 miles)	BMW Inspection at 15 000 km (10 000 miles) and every additional 15 000 km (10 000 miles)
Change engine oil when at operating temperature, renew oil filter element.	X	X <sup>1)</sup>	X <sup>1)</sup>
Change oil in gearbox, rear-wheel drive and telescopic fork; clean inductive transmitter at rear-wheel drive.	X		X <sup>2)</sup>
Grease upper/lower clutch cable nipples and prop stand pivot		X	X
Renew intake air cleaner element			X <sup>3)</sup>
Renew fuel filter			X <sup>4)</sup>
Check hose connections on fuel and cooling systems for leaks and tighten clips if necessary; check coolant level and concentration, and top up if necessary; <b>renew coolant after not more than 2 years*</b> )	X		X
Check brake system connections and lines for leaks, damage and incorrect positioning; check front/rear brake fluid level and top up if necessary; <b>renew brake fluid at least once a year*</b> )	X		X
Check brake pads and discs for wear, and renew if necessary*); check operation of brake calipers and freedom from leaks, and repair/renew* ) if necessary			X
Check clutch operating clearance and adjust if necessary	X		X
Check free travel at throttle and cold-starting (choke) cables, and adjust if necessary	X		X

## Maintenance programme

	1st BMW Inspection at 1000 km (app. 600 miles)	BMW Service at 7500 km (5000 miles) and every additional: 15 000 km (10 000 miles)	BMW Inspection at 15 000 km (10 000 miles) and every additional 15 000 km (10 000 miles)
Check valve clearances and adjust if necessary	X	X	X
Check spark plug electrode gaps		X	X
Renew spark plugs			X
Check play in steering head bearings and adjust* ) if necessary			X
Check battery acid level, and top up with distilled water <sup>5)</sup> , if necessary; clean and grease* ) the battery terminal posts if necessary			X
Take up any slack at the following nuts and bolts: engine mountings, exhaust system at engine, spring strut mounting, centre stand to pivot mount, prop stand, rear wheel studs	X		X
Final inspection with safety/operating check: condition of tyres and wheels, tyre pressures, lighting and signalling equipment, telltale and warning lights, clutch, gear change, hand-brake and foot brake, steering, instruments; check idle speed and adjust if necessary	X	X	X

**Recommendation:** in severe operating conditions, grease the throttle twistgrip, steering and wheel bearings again at least every 30 000 km (20 000 miles)\* )

\* ) Charged additionally

- 1) At least every 6 months; if motorcycle is used only for short journeys or at outside temperatures below 0° C, every 3 months, and at least every 3000 km (2000 miles)
- 2) At least once a year
- 3) In very dirty or dusty conditions, renew the intake air cleaner element every 7500 km (5000 miles), or even more frequently if necessary
- 4) Normally every 30 000 (20 000 miles), but if fuel is of poor quality every 15 000 km (10 000 miles)
- 5) At least every 3 months

## Genuine BMW Parts and Accessories

Superior design and engineering inspire confidence. It doesn't take far to discover this when you ride a BMW.

A high-quality motorcycle needs expert maintenance and general care, and will then provide you with the same high level of riding pleasure for many years to come.

If possible, have your BMW motorcycle serviced and repaired only by an authorised BMW motorcycle dealer or service station. They concentrate on BMW products and possess all the necessary special tools and equipment; in addition, they are bound by contract to install only **Genuine BMW Parts** on your BMW motorcycle.

You are entitled to be suspicious if offered other spare parts, the quality of which we are of course unable to check.

In this connection, please refer to the terms of our warranty.

Genuine BMW Parts protect you against the possibly unpleasant consequences of installing possibly inferior items of unknown origin, and reduce the risks of riding in present-day traffic and in all weathers to a minimum. Remember – spare parts are available from many sources, but only Genuine BMW Parts are identical in every respect with the parts originally fitted to your new BMW motorcycle.

Every authorised BMW dealer is required to maintain stocks of the BMW spare parts and exchange assemblies most frequently needed.

Genuine BMW Parts required less frequently (remembering that the complete list includes some 10 000 items!) are obtained by smaller dealers and workshops from their larger colleagues or from national importers.

Genuine BMW Parts are all parts, assemblies and accessories supplied by BMW Motorrad GmbH + Co., regardless of whether they were manufactured by BMW or an outside supplier.

**For safety reasons, you are recommended to use only Genuine BMW Parts.**

Your authorised BMW motorcycle dealer will gladly supply full details of our extensive range of accessories and a complete selection of BMW motorcyclists' clothing.

## Quality guarantee

Genuine BMW Parts are completely identical with the equivalent parts on new BMW vehicles.

BMW Motorrad GmbH + Co. hereby issues a warranty in respect of these parts' freedom from defects in materials and workmanship.

BMW – Perfection in Detail

**Genuine  
BMW Parts**



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