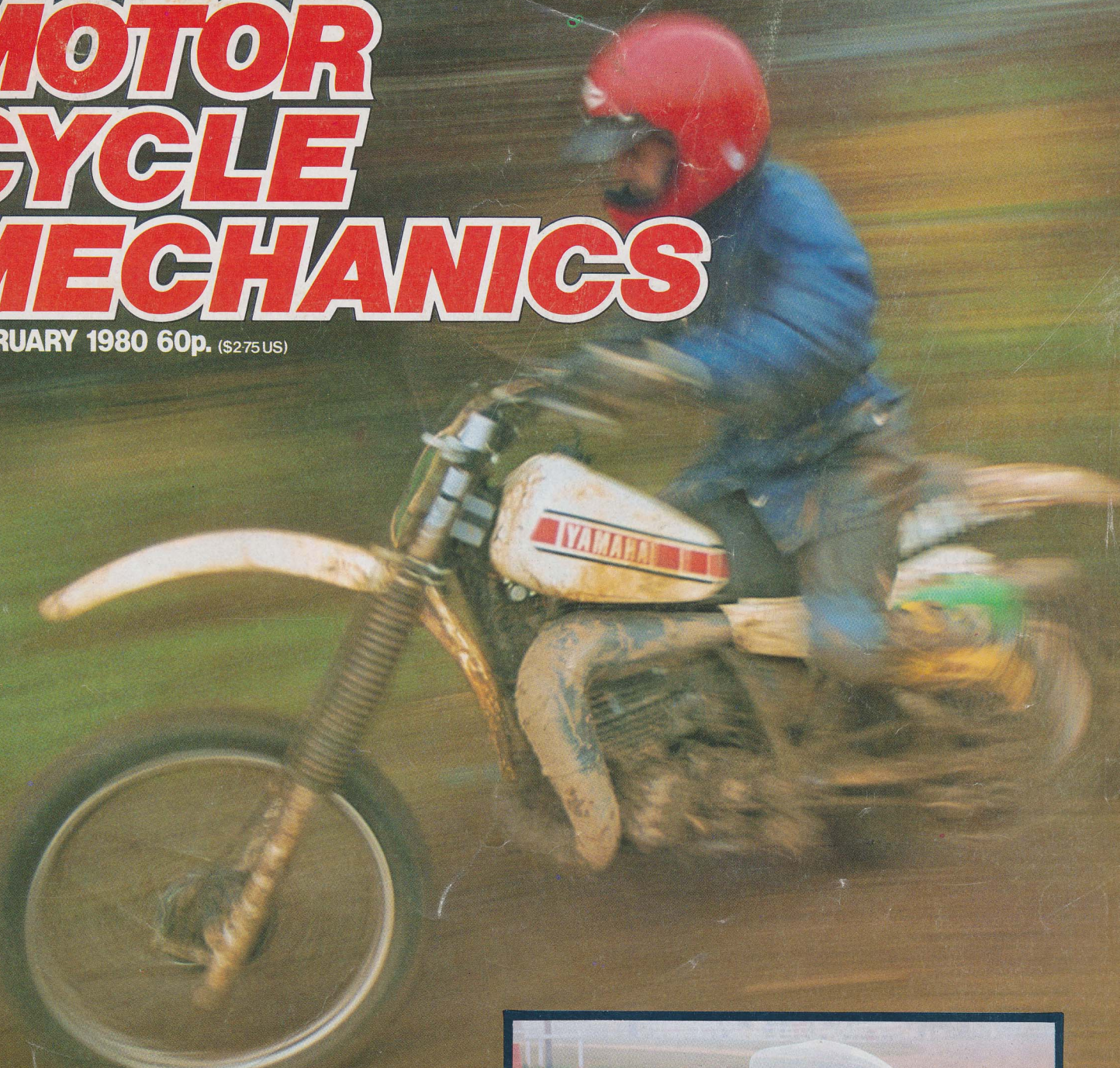


MOTOR CYCLE MECHANICS

FEBRUARY 1980 60p. (\$2.75 US)

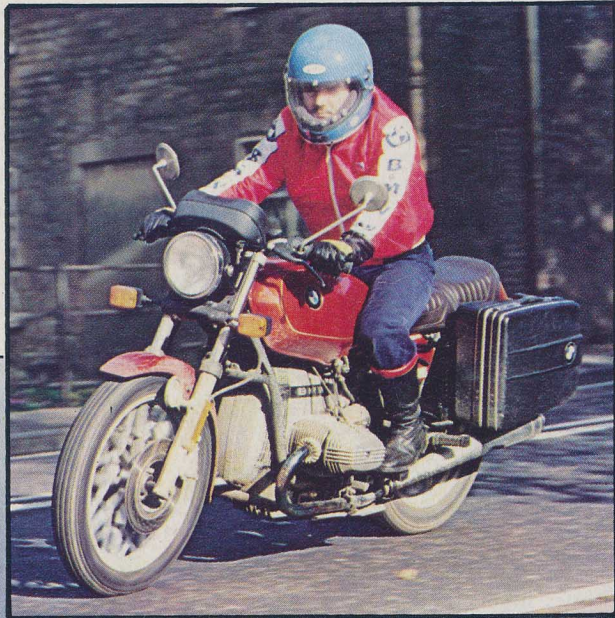


Yamaha's wild ones
LIGHTING-
our critical survey
Kawasaki's workaday
wonders



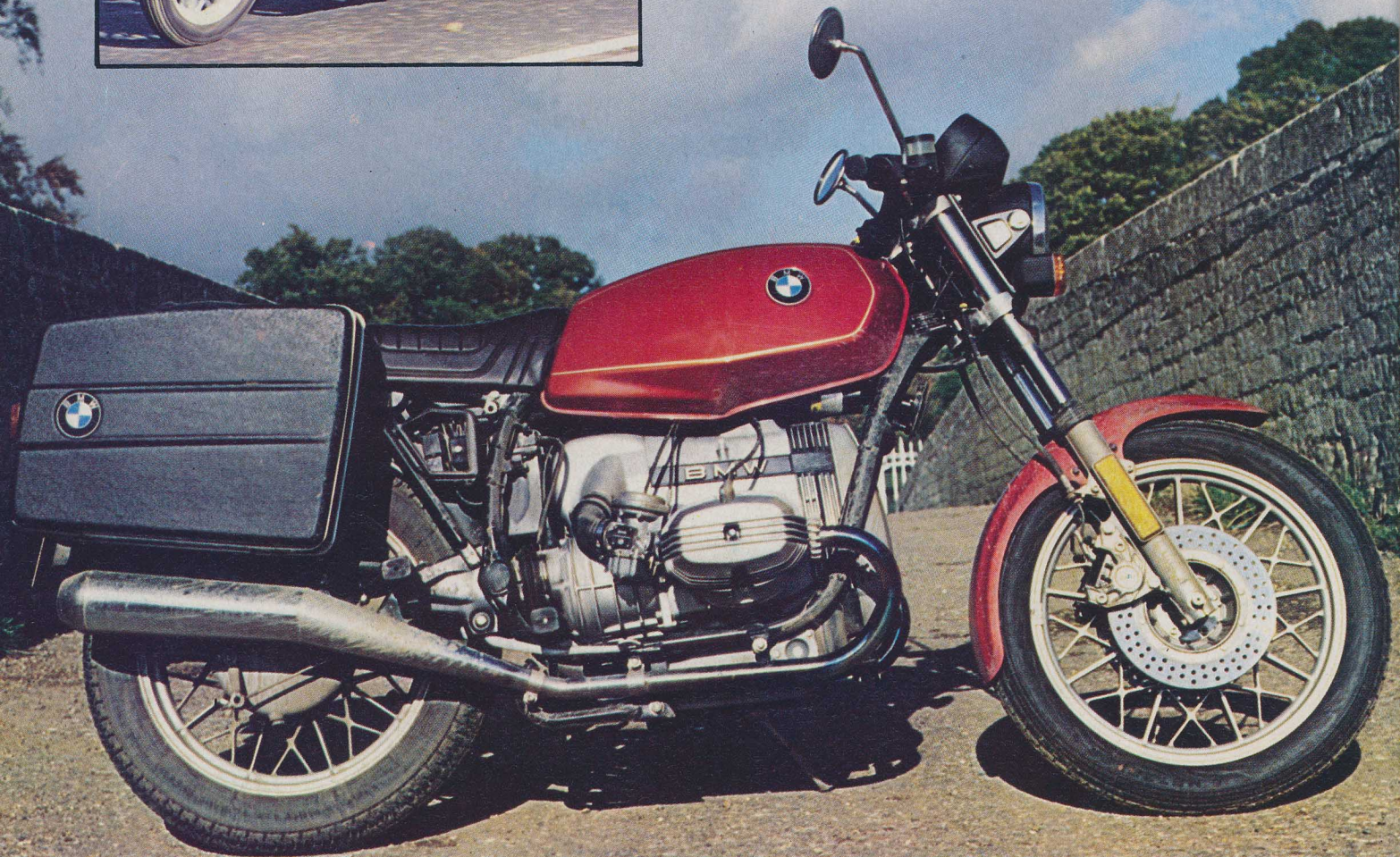
143mph Honda 900FZ tune-up

BMW R45



MCM
Supertest

When in flight it's sweet. When not it has leaden feet. Brian Crichton meets a German albatross.



APPARENTLY BMW had a customer who bought one of the new R45 BMWs and after a short time claimed it was faulty but happily compromised by paying the difference to change up to a 650cc R65.

BMW staff could find nothing wrong with the R45. They concluded that the buyer was obviously disappointed with it and accommodated the fresh deal to keep him happy.

A little over 12000 miles with an R45 left me sympathising with the customer. "Remember that it's only a 450," pointed out a BMW executive after I had outlined my findings with this model.

Actually 473cc, its biggest problem is that it just does not want to get off the line. It has to be revved like a petulant two-stroke to get it rolling.

When I first collected it I stalled it three times in quick succession because I did not have enough revs up when slipping out the clutch lever.

At first I couldn't make it out. I thought the engine was not warm enough, or it needed more choke or vice versa. As I got used to it I discovered that with the engine fully warm the problem was less severe, but still remained.

Before becoming too ensconced on this detail it must be said that you can still tour on the R45, two-up with plenty of luggage and maintain a good average speed.

Apart from collecting the bike the first part of the test involved exactly that: a two-up ride to the Lake District as part of a holiday.

On the motorway the BMW was quite at home, if a little short of stride. Induction noise muffled the already passive exhaust note as the fairly accurate speedometer would sway from 70-95mph depending on gradients and winds with the throttle flat against the stop.

The tall, forward leaning riding position, while a little strained in towns, provided the right degree of body cant into the airstream for fast roadwork.

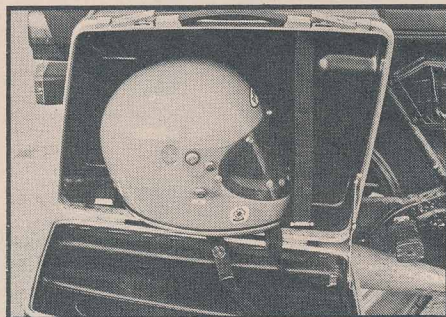
Allowing itself to compress to about half its normal depth the seat became firm but never uncomfortable and there was never any fatigue from vibration. The engine though a high revver for a pushrod twin was always remarkably smooth.

Fitted with £148 BMW panniers which can be crammed full to make a mockery of the quite rightfully included warning notices about maximum loads, the BMW emerged in the marque's traditional mould when top gear was in the running.

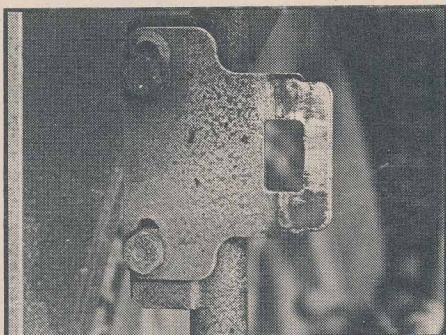
In town it was decidedly unlike a BMW. It would fire readily enough, though a new start motor had to be fitted while on test,



The red line starts at 7500rpm and the engine will happily rev past 8000. Maximum power is quoted at 7250rpm.



Optional panniers and their brackets cost £148. They take a full face helmet and, look part of the bike.



The pannier locks on to this bracket. Unfortunately you only need to undo these two bolts to whisk it away.

but needed full choke for an uncommonly long period. This resulted in a stall due to too much choke if the engine was allowed to idle at a road junction, or with the choke off the engine just would not pick up.

Even when warm the engine had to draw a second breath to pass through a "barrier" at 3000rpm. If you allowed yourself to be caught with less than 3000rpm on the rev counter, opening the throttle produced little result until the engine had struggled to get clear of the 3000rpm line.

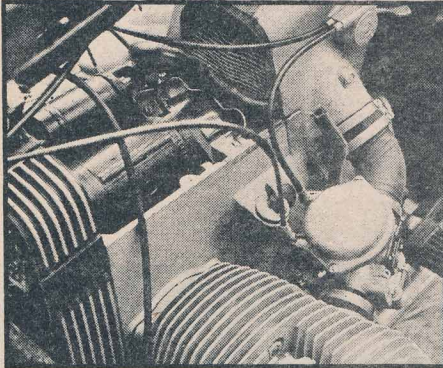
Since BMW have invariably produced twins which pull from no revs this rev conscious newcomer is a complete surprise, and sometimes a complete embarrassment.

The model also desperately needs a quick action throttle. Because of its lack of grunt it has to be revved briskly in the gears to get it to accelerate. When changing up it is difficult without an exaggerated arm movement to throttle off completely from fully open. This results in a jerky upchange if the throttle is not fully closed.

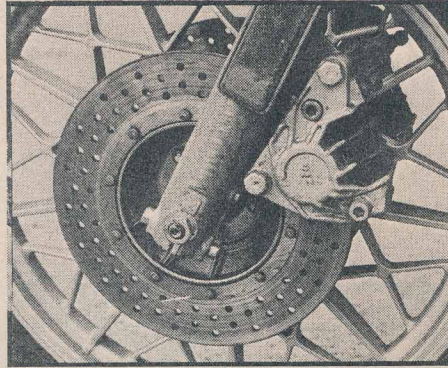
One of the R45 problem's is that it concedes power without an appropriate loss of weight when compared to its bigger brothers. According to the specification it weighs the same as the R65 which in turn is heavier than the R100S, R100T and R80/7!

When the new R45 and 65 models were first introduced in 1978 BMW stressed that

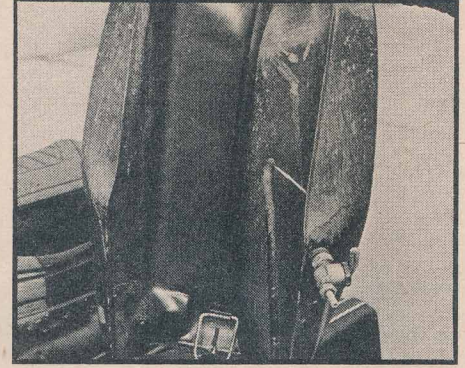
BMW R45



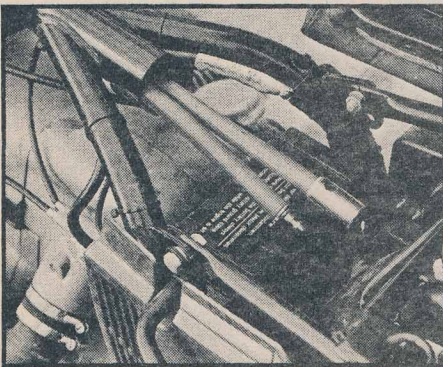
Removing the top engine cover reveals the start motor and air filter. Access to the dip stick is slightly obstructed as on all BMWs by the carburettor cables.



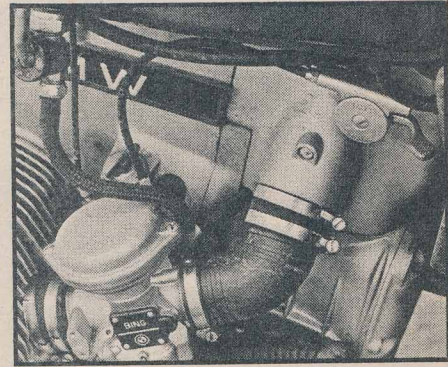
Twin discs are definitely needed. They are powerful but require tremendous pressure to slow the bike in a hurry.



Strangely the fuel tank has a tap on one side only. This results in two reserves: the ordinary type and the type where you get off the bike and lean it over to get fuel into the top half of the tank.



This lock stows in the main spine and is original equipment. Maybe the wrong key was supplied with it, because it wouldn't work. Note how rear subframe is bolted to the main structure.



It takes some time to get used to finding the choke lever without looking down.

Biggest problem of all for the R45 is that it is a BMW. Because it bears that name a lot is expected of it. In terms of chassis, lighting and so on it is equivalent to the 650. It's the engine's lack of power and flexibility which drags it down.

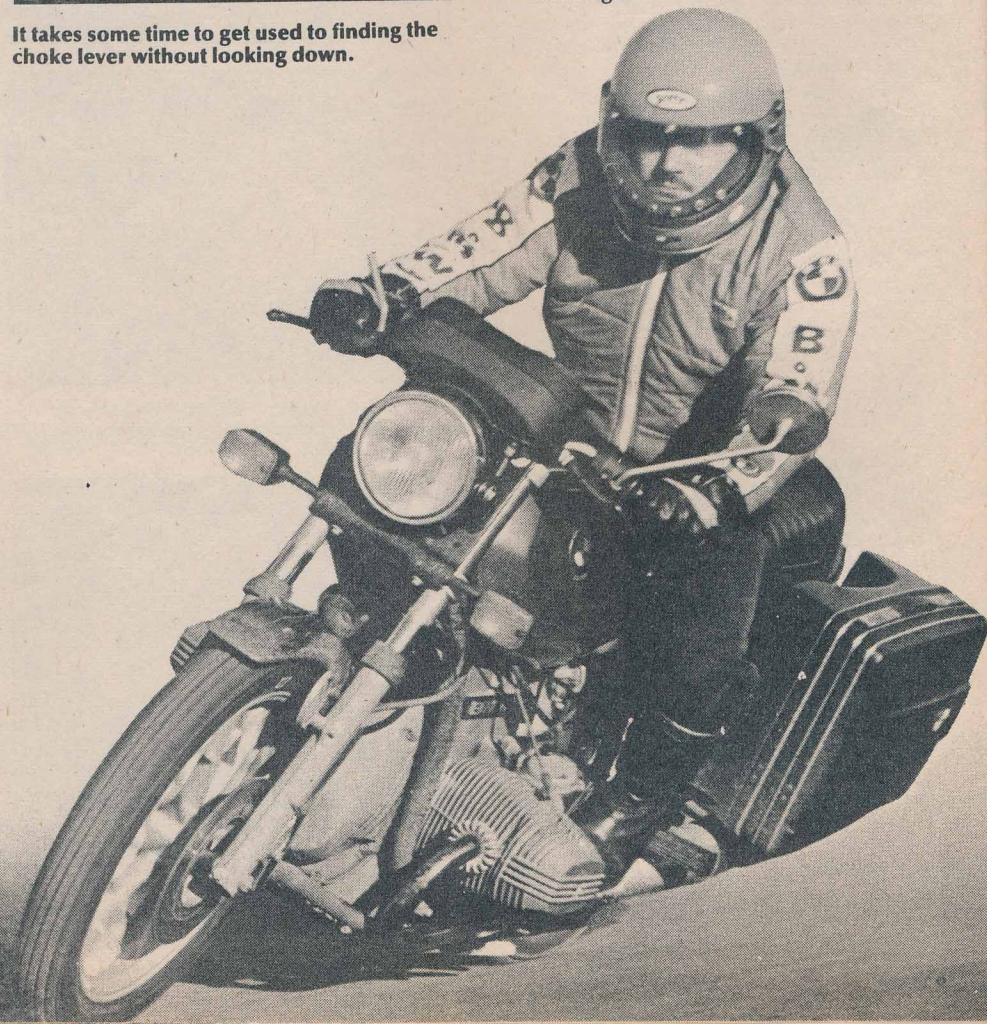
You have to be very careful about puffing your chest out with pride when someone remarks on your BMW. Not too many people will realise that it is only a 450. You could find yourself swallowing your pride in a series of gulps as the engine repeatedly revs and dies in an awkward attempt to get under way. The R45 fails to live up to BMW's refined image.

◀ the external dimensions of the R45 and 65 were smaller and that the seat height was "very low". The idea was to capture a wider market for BMW while still retaining the BMW look and tradition.

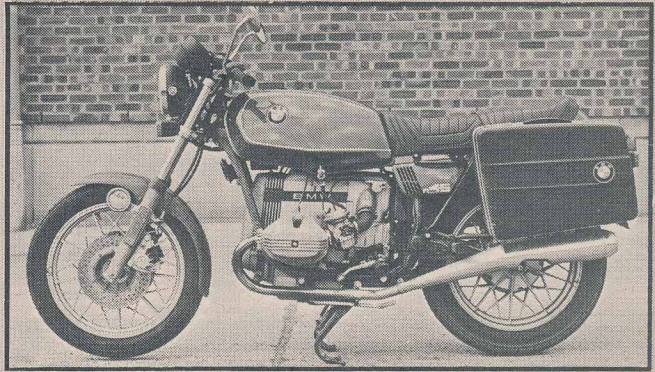
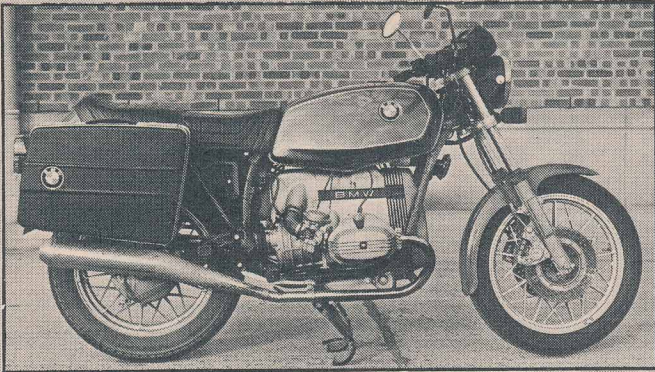
The result is a handsome machine with a particularly good-looking fuel tank. But overall the bike is only marginally smaller than the bigger displacement models. The German idea of a "very low" seat height is considerably higher than a 750 Triumph Bonneville for example.

There was also the claim that the R45 was a "super-fuel version". The test bike varied from 48.5 to 54.8mpg. During the Land's End to John O'Groats run (featured in MCM in July '79) the BMW R100RS varied from 42.4-55.7mpg and averaged 48.7mpg to the R45's average 52mpg. The net result is that it is only slightly more economical than BMW's biggest gun.

While the 650 model emerged as a worthwhile addition to the BMW range (tested June '79) the R45's lack of power brings all the above mentioned points to a head. It shares the same 61.5mm stroke as the R65 which might lead one to guess that the 650 was given all the development, the sleeved down 473cc version being an off-shoot to take advantage of favourable European insurance ratings for low horsepower two-wheelers.



BMW R45



ENGINE:

type..... horizontally opposed four-stroke twin
 displacement..... 473cc
 bore x stroke..... 70 x 61.5cc
 compression..... 9.2:1
 carburation..... two 28mm Bing V64/II
 ignition..... battery and twin coils
 battery..... 12v/16Ah charged by 280 watt alternator
 lubrication..... wet sump
 claimed power..... 35bhp at 7250rpm
 claimed torque..... 27.47ft lb at 5500rpm

CHASSIS:

forks: telescopic with double action hydraulic shock absorbers,
 6.9in spring movement
 rear suspension: swinging arm with three way adjustable Boge
 dampers. Spring travel 4.3in
 front tyre..... 3.255 x 18
 rear tyre..... 4.005 x 18
 wheelbase..... 54.75in
 max fork angle..... 42deg
 trail..... 3.78in
 claimed dry weight..... 452lb
 fuel tank..... 4.84gal
 instruments..... speedo and tachometer
 headlight..... 60/55 watt

TRANSMISSION:

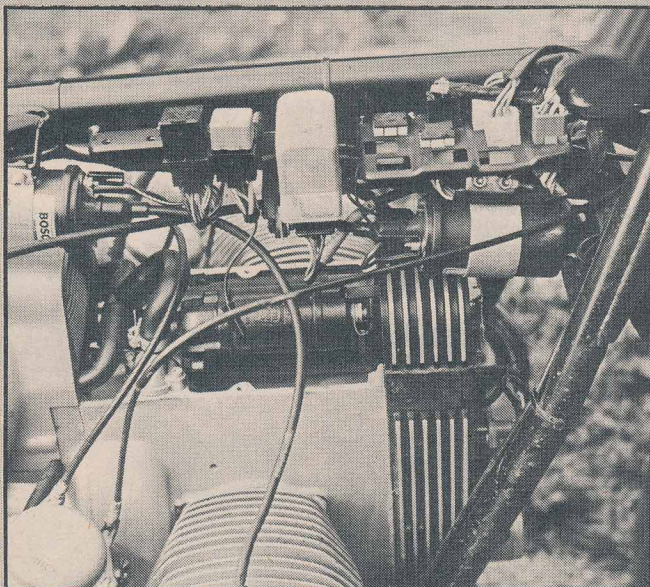
single plate dry clutch with 6.3in diaphragm spring to five speed
 constant mesh gearbox. Ratios: 4.40, 2.86, 2.07, 1.67 and 1.50.
 Final drive by enclosed shaft with universal joint to spiral toothed
 pinion and palloid toothed bevel gear. Ratio: 3.89

PARTS PRICES INC VAT:

handlebar..... £11.47
 front mudguard..... £52.14
 starter motor..... £152.89
 speedo cable..... £6.72
 exhaust system complete..... £167.83
 contact breaker..... £3.93
 list price..... £1849.00
 delivery..... £20.25
 warranty..... 12 months unlimited mileage
 importer: BMW Concessionaires GB Ltd, Motorcycle Division,
 361/365 Chiswick High Road, London W4 4HS. Tel: 01-995 4651.

PERFORMANCE:

max speed at MIRA..... 95.75mph
 ss 1/4-mile..... 16.21sec
 terminal speed..... 80.64mph
 speedo error..... true speed 61.28mph at indicated 65mph
 fuel: best..... 54.8mpg
 worst..... 48.5mpg
 average..... 52.0mpg



HOW IT COMPARES

Price	BMW R45	£1849.00
	Moto Guzzi V50.....	£1449.00
	Honda CX500.....	£1329.00
	Kawasaki Z500.....	£1359.00
	Suzuki GS425.....	£1010.00
Top speed	BMW R45	95.8mph
	Moto Guzzi V50.....	105.1mph
	Honda CX500.....	105.5mph
	Kawasaki Z500.....	108.0mph
	Suzuki GS425.....	108.0mph
SS 1/4-mile	BMW R45	16.21s
	Moto Guzzi V50.....	14.5s
	Honda CX500.....	14.4s
	Kawasaki Z500.....	—
	Suzuki GS425.....	14.5s
Av mpg	BMW R45	52mpg
	Moto Guzzi V50.....	55mpg
	Honda CX500.....	51mpg
	Kawasaki Z500.....	56mpg
	Suzuki GS425.....	66mpg
Issue tested	BMW R45	Feb 80
	Moto Guzzi V50.....	Nov 79
	Honda CX500.....	Jul 78
	Kawasaki Z500.....	Aug 79
	Suzuki GS425.....	Oct 79