Brian Thomas's 1959 R26



Vintage & Classic Register

The BMW Club

ISSUE 9/2003

VINTAGE DIARY

26th/27th APRIL 2003 STAFFORD CLASSIC MOTORCYCLE SHOW
One again the Register will have a stand at this event.

MAY 17th/18th 2003 BMF SHOW PETERBOROUGH
National Club Marquee plus the Vintage & Classic Register.

SATURDAY 1st JUNE YORKSHIRE GATHERING OF THE REGISTER
Details from Eric Rance on 01943 607358

19th/20th/21st/22nd/23rd JUNE 2nd VINTAGE & CLASSIC RALLY, LLWYNGWAIR MANOR HOLIDAY PARK, NEWPORT, PEMBS, S.WALES.
Format as last year, but longer!

27th JULY VINTAGE CLUB FOUNDERS DAY RALLY STANFORD HALL, LUTTERWORTH,LEICS.
Register Display

22nd-25th AUGUST BMW CLUB INTERNATIONAL RALLY, WARWICKSHIRE
Special Events for the Vintage & Classic Register Members

6th SEPTEMBER SLEAFORD VEHICLE SHOW.

21st SEPTEMBER THE STINKWELL CLASSIC SHOW, BEAUMANOR HALL WOODHOUSE, LEICESTER
Register Stand. Concours etc.

9th- 13th OCTOBER MOTO-CLUB PISTON RALLY, SANTANDER, SPAIN.
A large group from the Register will be attending this Rally.

Please watch the Journal and Newsletter for further details or contact me. Tel. 01908 216623 e-mail vintage@bmwclub.org.uk

I'd like to thank those people who have made contributions to the Newsletter this time - John Julian, Barry Watts, Eric Rance, Craig Vechorik, Stephen Platt, and of course that old regular, 'The Amateur Mechanic'. Please keep your articles coming in. My thanks also go to 'BMW CAR' Magazine for allowing me to reprint their Track Test of the ex-Tim Reid R51.

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Competition Time - Spot the Mistake

For this issue we have a competition, just spot the obvious mistake in this issue and send your entry to me before the end of April. The winner will be the first correct answer drawn from the hat. The prize…. A bottle of ULTRA SEAL has been donated by Ken Hartley (see advert inside).

A second batch of GRP mudguards for 1955 – 1969 twins will be produced in the near future. Please contact me for further details. A pair of these mudguards will be on show at the Classic Motor Cycle Show at Stafford in April.

If you would like to exhibit your machine at the BMF Show in May please contact Tony Cartmell on 01253 768421.

It may be some way off but we are taking an outdoor area at 'The Stinkwheel Classic Show' in Leicester this September. The advance entry fee is £2.00 per machine and this includes pillion rider. The entry allows you to exhibit your machine and be entered in the Show. I have application forms now so give me a call if you would like to attend.

Moving further ahead, there will be an additional event for the Register next year. It is planned for early September in **2004.** It promises to be an exciting event in a picturesque part of the country and will suit the more experienced riders among you. Having seen how hard a number of the 'pipe and slippers' brigade ride I think this will be very popular with them! More details in the future.

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The B.R.C. - Part 2: A Road Report

by The Amateur Mechanic.

Those who read the previous article, Part 1: The History, (in issue 8/2002 of the Newsletter) giving a detailed breakdown of the constructional details of the BRC will need no reminding that this machine, the brainchild of Ivan Rouse, consists of a 1015cc air cooled Citroen GS Club engine installed in a short wheelbase /5 chassis. So, was it worth all the effort expended on it and what's it like to ride?

The first thing you notice when you approach the bike is the sheer physical size of it. Ivan is a big bloke and this is a tall machine. On the centre stand it measures 39 inches to the top of the tank and 56 to the top of the double curvature screen. However, unlike so many other car-engined specials it doesn't have an excessively long wheelbase at 56.5 inches. Push the BRC off the stand and the additional weight, (74lbs giving a total weight of 537lbs including petrol, oil and the toolkit) over a /5 becomes apparent, especially when trying to manoeuvre it without engine power. The weight is, however, low down and as such the bike seems more user friendly than, say, a K. Sitting on the machine the rider is faced with the array of warning lamps and instruments previously described, all nicely angled towards you and easy to read. All the BMW controls fall readily to hand even though the handlebars are a rather strange shape. They're almost like a slightly swept back Vincent Straight bar but shorter in order to enable them to move inside the vast Churchgate fairing.

Turn on the petrol, apply the choke mounted nearside on the starter motor fully, press the button and the engine just might burst into life! I say might because the 28amp hour battery fitted will really struggle if not fully charged. The car starter motor certainly takes some current to turn the engine from cold. It doesn't matter that much as the kick-starter is still fitted, the combination of 254cc cylinders and electronic ignition making it easy to start by foot. Once fired up, the choke can be eased back and as the machine begins to warm up it will settle to a steady 950rpm tick over. Then there's the noise. Well there isn't really much more exhaust noise than on a /5 but it certainly is a unique sound as it burbles away under you. Little if any mechanical noise emanates, above a slight rustle from the valve gear and the whir of the cam belts.

Engage first, using the shortened /5 gear lever, let out the heavy action clutch and away. You immediately notice how very smooth the engine is, like a K1200, but this one isn't mounted on rubber bushes to mask the vibration, it's bolted straight onto the frame. As you change up though the gearbox (slowly, it is a /5 box after all!) the huge amount of torque available at low revs makes itself apparent. Once on the move the gearbox seems a little superfluous, this unit has more grunt than a pig right from tick-over. Overall performance is similar to a good R100RS but with a lot more pulling power. Unlike many car engines the Citroen GS thrives on revs and is red lined at 6750rpm. The crankshaft is a roller bearing pressed up unit, much the same as a pre 69 BMW item. A local Citroen specialist reckons these crankshafts are safe to 8000rpm, but as they are a factory replacement item he probably would say that!

The BRC can be ridden at speeds up to 125mph (so I'm told!) but any speed above about 80mph shows the severe limitations of the Churchgate fairing. From this speed upwards the bike shows an alarming tendency to "wander". This feels to be just like the "wander" caused by over tight head bearings or friction steering damper (but no damper is fitted) however it never gets any worse with increased speed or gets out of control. I put it down to excessive lift caused by the airflow under the front of the fairing but could well be wrong. After the first couple of exciting moments you get used to the movement and tend to ignore it. What it must look like to those following is another matter!

The front end consists of suitably stiffened up R90s forks with twin, floating, ATE callipers working on cast iron discs. These ATE units were never renowned as the best in the business but the combination of Goodrich stainless steel hoses and cast iron discs makes the braking performance acceptable, if not in the league of a modern four pot set up. You just need to drive with the knowledge that the brakes will always stop you, if given sufficient warning!

Front fork dive is always present with a telescopic set up and the BRC is little different in this respect to any other /7 model.

Rear suspension is by two units of unknown origin. These are fitted with two springs on each unit and are longer than the standard Boge suspension legs. They seem to work adequately and, overall, the handling is acceptable up to, and slightly above, the legal limit. The BRC certainly was not designed as a sports bike but as a long legged, long distance, touring machine, performance and handling reflecting this.
So, was all Ivan's hard work worthwhile? Well, yes and no! On the one hand he built a unique machine, (later copied by a French firm and sold as the BMG but using the much wider 1220cc engine), with a lot of flair, excellent workmanship and innovative ideas. On the other hand it probably had little advantage over the R100RS but of course he had two years use of the machine before that came out. Ivan did, at least, pre-date the BMW four cylinder range by some 8 years, and prove that an overhead camshaft Boxer configuration could be installed with less width than the (then) current twin. Perhaps that's the legacy of the BRC, and who knows how long it will be before the rumoured flat four BMW appears?
But remember, Ivan Rouse got there first!

B.R.C. 1000/4 Technical Specification.

ENGINE.

Capacity 1015cc B.H.P. 61 @ 6750 rpm Max.Torque. 54.25 ft.lbs. @ 3500 rpm
Bore 74mm Stroke 59mm Comp. Ratio 9.0: 1 Max Revs. 6750rpm

Sump Capacity 4 litres Oil Pressure @ 80 degrees C.
@ 2000rpm 64psi minimum
@ 6000rpm 77- 88psi

Carburettor.
Twin Choke SOLEX 28 CIC Mk 133. Choke Diameters 19mm and 19mm
Idling Jet 50 Main Jets 100 and 70 Needle Jet 1.7mm

ELECTRICAL SYSTEMS.

Alternator: Ducellier 7541A 12v 510w Ignition: Electronic from Chrysler Alpine
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Battery: 12v 28 amp/hour Starter Motor: Ducellier 6208A

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SHOW US YOURS – A LOOK AT REGISTER MEMBERS MACHINES



John writes……***Amidst all the fanfare and hullabaloo surrounding the launch of the R100RS in 1977, one new model slipped quietly into the range almost unnoticed. This, of course, was the R100/7, the replacement for the R90/6. I was lucky enough to acquire one of these bikes back in 1989 when I was looking for another BMW. After I sold my R75/5 in 1985 I soon realised that I'd made a mistake and started looking around for a replacement. Any twin, 750cc or above would have done, but this R100/7 was advertised locally and after a quick viewing a deal was struck without even a test ride.***

Riding it home was like putting on an old familiar coat, everything felt so similar to the old /5. However, after riding it for a while it became apparent that it was actually a big improvement on the 750 in that it is much more tractable at low revs, and with taller gearing, more relaxed cruising on the motorway. Deciding that I'd got a good bike, 1 settled down for a long period of ownership.

As the bike came fully equipped with panniers, crash bars, RT high handlebars and windscreen, all 1 had to do was ride it and service it! This was fine for a year or two and we enjoyed some great rides in England, Scotland and Wales attending rallies and camping weekends as well as evening rides in the Yorkshire dales with the local Matchless owners club. It was returning home from one of these rides that I hit a really huge pothole in the road, which damaged both wheel rims. This meant new rims and spokes so 1 had stainless spokes fitted. Eventually, after several letters and photographs of the road and the damage, Leeds City council paid up!

Over the years, several modifications and improvements have been carried out as and when the opportunities arose, Stainless exhausts were fitted very soon after buying the bike and gradually all the fasteners have been changed to stainless, many home made in my shed.

Once 1 came across a nice polished alloy fork brace at an auto-jumble and these enhanced the looks and handling and a set of S&W air shock absorbers bought second-hand at Brinsworth transformed the rear suspension. These really are good if you can find some but 1 believe they are not made anymore.

The front brake has come in for a lot of attention lately as originally it only had one disc. This was a bit marginal on a 1000cc bike even in 1977, so when I found some forks at Rufforth auto-jumble with twin calliper mounts 1 snapped them up. Gradually, I obtained the rest of the parts needed to double up the discs, buying new cast iron floating discs and pads from Motor-works. This has made a big difference, especially when loaded up with camping gear.

After fourteen years I've now nearly got the bike how I like it. Electronic ignition seems like a good idea and twin plugging sounds interesting although a bit expensive for my low mileage use. Maybe if I need new valve seats in the future it could be done at the same time but I've run it on unleaded since about 1999 with no problems so far.

All in all I'm very pleased with this machine, as happy pottering about the dales at 40mph as it is cruising the motorways at 70ish! And after 40k miles I'm looking forward to the next 40k. Mechanical problems have been very few, leaking barrel base joints mainly and I think the timing

chain will need renewing soon. I changed all the jets and needles in the carbs once which improved the fuel consumption and new control cables were fitted a bit back, mainly for peace of mind, but that's about it except for consumables, tyres, etc. The tyres I use, by the way are the Avon AM20121 combination, which give good handling and excellent wear rates, 12k at the rear and about 15k at the front.

Someone once told me that this model was the best boxer ever produced and I can't find a reason to disagree with them, so I won't be selling mine for the foreseeable future, if you want one you'll have to find your own. John Julian - Yorkshire

Correct pin striping on BMW Earles Fork Motorcycles (1955-1969) Singles & Twins by Craig Vechorik (Craig is proprietor of Bench Mark Works in the USA and also Technical Editor of the Vintage BMW Owners Ltd)

The base colour determines what colour pin striping you use.

Black motorcycles originally had white striping, which with time, may change to a cream colour.
White and cream motorcycles are striped in black.
Blue motorcycles are striped in white and sometimes they are striped with dark red.
Green motorcycles are striped in white.
Red motorcycles are striped in white.

All pin striping on BMW Earles Fork motorcycles is identical. The big line is 1/8-inch thick and the thin line is 1/16-inch thick. The big line is 1/4-inch from the edge of the fender and the thin line is 5/32-to-1/8-inch apart from the thick line. These measurements are taken from an original BMW motorcycle, but you should remember that all BMW motorcycles were striped by hand at the fact". The pin stripers applied two coats. Minor variations in both the thickness and the location of stripes is to be expected. The BMW factory pin striper usually painted their initials beneath the gas tank and inside fender braces. BMW never applied clear-coat over pin striping. The pin striping is the last coat applied over the finished paint job.

Masking off the lines with tape is a shortcut that is not recommended. Paint tends to seep under the edge of the tape and even when the striping dries there are raised edges in the paint. Coloured tape can be applied, but it is difficult to apply evenly and the tape edges sometimes crinkle. Tape is also distinguished by a raised edge. Special pin striping tape is available that carries both the thin and the thick line on one strip of clear overlay tape. This type of tape is easy to apply evenly. Once applied, the clear overlay (carrier strip) is removed leaving the two coloured stripes on the surface. At a distance, it appears to be excellent pin striping. Upon close inspection, the line edges can be felt with the hand. There is no substitute for hand pin striping, but for economical reasons the special pin striping tape is a good alternative.

Craig's comments are very useful to anyone considering doing their own lining, especially on the GRP mudguards that have been recently manufactured. These guards come in a high gloss black gel-coat and, although they may be sprayed, lining can be applied to them directly.
Hand lining specialists are fairly thin on the ground but two who spring to mind are Lewis Templeton in Coventry and Club member Brian Dees in Kent. A pair of guards will usually cost £65 - £85 to be lined but be aware that you may have to wait a number of weeks for the work to be carried out and then you have to consider postage costs. A pair of GRP guards cost £18 in postage one way!
My own personal preference, as I like to carry out my own work where possible, is to use the 'taping off and painting within method'. 3M Fine Line tape is available from most Motor Factors for this purpose. The tape should not be stretched when positioning on the painted surface and to ensure that paint does not seep under the edge I carefully

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rub the edges with a wooden spatula. The paint used is 'Sign Painters One Shot Lettering White' and is available from Beugler Paint Stripers tel. 01342 317363 at approx. £5.00 a tin. They are usually at the Stafford Classic Show demonstrating their special lining tool so it is an ideal place to buy your paint. Incidentally, this roller tool they market appears to be the restorers dream as it applies paint evenly and give the impression of being a hand lining job but there are a number of 'buts'. The demonstration that they give makes application look easy but remember they are experts in using the tool and its use requires the eye and coordination of an experienced hand liner! Visualise attempting for the first time to roll a line of paint in the correct position around the contours of your tank without lifting it and then doing the same again keeping a constant gap with the second line! A magnetic guide strip is available to use with the tool. This may be helpful but 'Fine Line Tape' may be a better proposition for locating the position. I'm not altogether convinced that this tool is for the amateur restorer.

The one beauty of using this sign writers paint is that it covers black with one coat and can be removed, whilst still wet, with White Spirit without destroying the ground colour, very useful if you do get a seepage under the tape. A small run under the tape can be carefully removed with a 'cotton bud' damped with the white spirit. I apply the paint with a soft artists brush and then remove the tape immediately. This allows the paint to settle without leaving too much of a ridge. When fully hardened a light rub with fine cutting compound will remove any remaining edge. Applying any lining for us amateurs is a job we approach with trepidation but good results can be obtained with care and patience.

Fred Salter kindly sent me a sample of the pin striping tape that he uses. This has the thick and the thin line together on the tape and is easy to use. I have experimented on a number of items and found that it will take a quite small radius with no problem but as with the 'Fine Line Tape' it must not be stretched. As Craig points out, it looks great but the edges can be felt. It is certainly the easiest way of applying lining if you are not a purist. Fred informs me that he has had no problem with the tape lifting since he applied it several years ago. The tape can be obtained from Marghams Motor Factors, 47A, Crocker Street, Newport, Isle of Wight. Tel. 01983 522282 or Fax. 01983 82287. Be sure to check when ordering that the line dimensions and gap are suitable for a BMW as there are a number of variations available.

Malcolm Mc Nair

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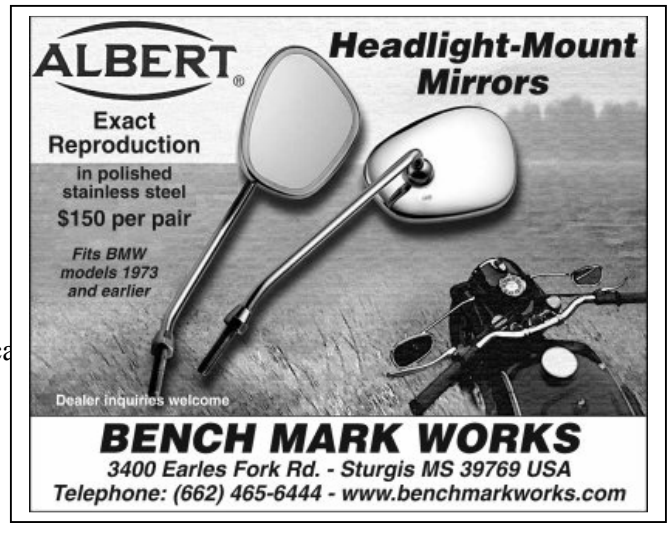
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B.E.M.W

Mirrors- that problem when you've fitted bar end indicators.

A problem I came across when I replaced my bar end mirrors with Hella bar end indicators was a location for new mirrors. Although clamp type mirrors were available I found that the arm on all those available for my machine were too short. It was not possible to mount one far enough out on the throttle side to give good vision and in the end, to get some sort of rear view I switched it to the left side. Okay if you're on the Continent but not a lot of use in the U.K. Then I stumbled onto Craig Vechorik's web site and discovered these little gems; a replica of the 'hard to find' Alberts.



These mirrors look a good alternative although in my case they would interfere with the Club badges I mount on the head lamp bolts. Back to the drawing board for a re-think then along comes Ray Hall with alternative indicators that would free up the bar ends again. Ray had designed two brackets that mount under the two bolts that hold the rubber mounted headlamp brackets to the fork top. Very they neat they are and carry /5 indicators. Two /5 rear indica

replaces the Craven one that's built like the 'Forth Bridge'and probably weighs as much. Ray's own design carrier even allows the rear mudguard to be raised with the minimum of fuss. I'm first in the queue for one of these carriers and possibly for the pair of indicator brackets.
Full details of cost will be announced in the future if Ray goes into production.
Another alternative for mounting mirrors is to use the Magura controls from either the late '60's Earles machines or the /5's. These controls have a tapped boss to take a screw-in-mirror but be warned you need a left hand thread mirror fitting for the clutch control boss.
The subject of keeping the bikes standard was raised within the Journal last year and referred in particular to 'Concours' entries. No matter how laudable this approach to originality is many Register members do high mileages on their machines and the safety aspect should come first. Any 'Concours' events that I organise will always consider the reasons for the modifications.

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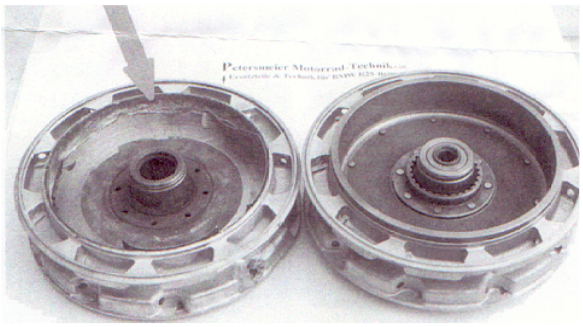
Letters – from Eric Rance on Cracked Brake Drums

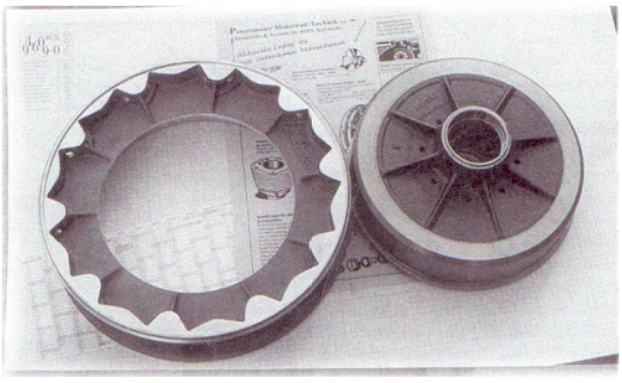
On this subject I enclose details of the Wheel hub and Brake drum restoration being offered by Petersmeir as depicted in the recent "Nachrichten" The journal of the Veteranen Club.

The work is done on your own hubs and costs 262 Euros. The quality of the work is typically German, as can be seen in the enclosed copy of the journal page. I have spoken to Herr Petersmeier directly, and he tells me that his website is about to appear, which will amplify the above. Anyone interested in this work on their own machines might like to contact me first, and I will bring them up to speed.. As our members will be aware, cracking of the brake drum within the aluminium hub casting is a common problem with our machines. Poor braking results, with the real possibility of hub seizure and/or brake jamming.....Nasty!

Wiedersehen,

Eric





This cracking of brake drums is a common problem now, often caused by skimming the drum. Please note the price quoted by Eric does not include Vat and shipping costs, the splines must be in good condition, and the wheel dismantled. Tel. Eric on 01943 607358

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PETROL TAPS

by the Amateur Mechanic

This article was prompted by a discussion I had the other day with Register member and long time Earles enthusiast.

HISTORY

Post war BMW sourced their petrol taps from either Everbest or Karcoma. The pre- Earles models used an Everbest tap with a side outlet and 90 degree banjo, held on by a 14mm AF banjo bolt. Post 55 the Everbest tap was enlarged in size and featured a bottom outlet with 140 degree splayed pipes. In the 70's the Everbest tap was replaced by the Karcoma, which could be (and often was) used as a direct replacement for the Earles tap.

THE TAPS (A) THE EARLY EVERBEST

This uses the familiar right hand/left hand thread arrangement to secure the tap in the tank. The thread size is either 14x1mm or 16x1mm pitch, the main tank and reserve features are obtained by the use of two different length brass pipes on the top of the tap. Many taps I have seen over the years have had these tubes altered; usually the main tank pipe gets a reduction in length to give more mileage before going onto reserve. The effect of this is, of course, to reduce the amount of fuel available on reserve. Quite what is to be gained by this I don't quite see…however? The lever on these taps is arranged to be in the off position when facing the rear of the machine: on when positioned vertically downwards and on reserve facing forwards. On the side of the tap the fuel outlet is as described above. There is a small bowl under the tap containing a detachable filter that can easily be removed for cleaning purposes. A spring steel ring, secured by two dome head 4mm screws, retains the lever. When these are removed the tap can be dismantled to reveal the round cork washer that makes the tap petrol tight. This can be prised out and a repair effected by remaking with new cork from a sheet, easily obtainable in the correct thickness at any large UK Auto-jumble.
The replacement "replica" Everbest tap, is unfortunately, not designed to be dismantled and almost every attempt to do this will inevitably end in frustration and disaster!

(B) THE 'EARLES' EVERBEST

This is similar in some respects to the tap described above but is secured to the tank on right and left hand 20x1mm pitch threads. Whilst the main and reserve tank levels are achieved by the same means the filter for this tap is within the outlet. These taps are off in the vertically down position, have main tank on when facing the rear of the machine and reserve facing forward. I mention this specifically because I can't be the only Earles owner to return to his machine and find the petrol turned back on by some well-meaning Karcoma tap owner who thought I'd inadvertently left the fuel on! These taps were never designed to be rebuilt when they started to leak, but read on…
Eventually, curiosity and an ever growing number of useless petrol taps encouraged me to see how easy it would be to repair a tap. Many will have read Roland Slabon's book that tells you one method of going about it. What follows now is my experience having successfully rebuilt over 30 taps so far.
The dismantling of the tap is easy once you understand how they were assembled! Basically, a washer that starts life with a convex shape is pressed flat after insertion to hold the lever in. By GENTLY applying pressure under the edges of the lever, both it and the washer can be removed in one piece. Once out you will see the cork insert that forms the petrol seal. A small screwdriver pushed down the side of the cork will cause it to collapse inwards for easy (?) removal. Clean up the body and the lever, ensuring that all the drillings are clear. The replacement cork needs to be of good quality. I always save wine bottle corks for this purpose; anyway I enjoy the task of trying to find the best type and size from wines of different parts of the world! Once you have a suitable cork,

which needs to be a really tight fit in the body, the next task is to press it in. I always lubricate the cork and body liberally with red rubber grease in order to press it in more easily. The pressing itself is done in the vice, ensuring that the cork goes in well past the drillings in the body of the tap. Once in position the cork can be trimmed off to the edge of the body with a Stanley knife. The next operation is critical to a non-leaking end product. The tap lever boss is 14mm diameter and experience has shown that boring the cork 1mm undersize (i.e.13mm) provides just the right amount of interference for a petrol-proof seal. The hole obviously has to be concentric with the body. This is possible, if a bit tricky, with a pillar drill. I am fortunate in having access to a vertical milling machine, which enables really accurate location. Rather than use a 13mm twist drill I have found a 13mm slot drill gives the best results.

With the hole drilled the tap can be pushed back together. Again, liberally coating with red rubber grease helps considerably with reassembly. The next thing to do is relocate the fixing washer. This is pressed back into place before carefully tapping round the complete circumference with a suitable drift. The drift I now use is made from the blade of an old screwdriver, ground in such a way as to enable it to go down the gap between the tap lever and body. After tapping the lever in, try to pull it back out again! If you succeed then you didn't get it right first time so try again! Now all that remains is to drill through the new cork in the body. To do this you will need a suitably sized long series twist drill, unless of course you removed the brass feed pipes from the top of the body (not easy to do without damaging them so I suggest you leave them well alone). When drilling through the tap two things need to be borne in mind:

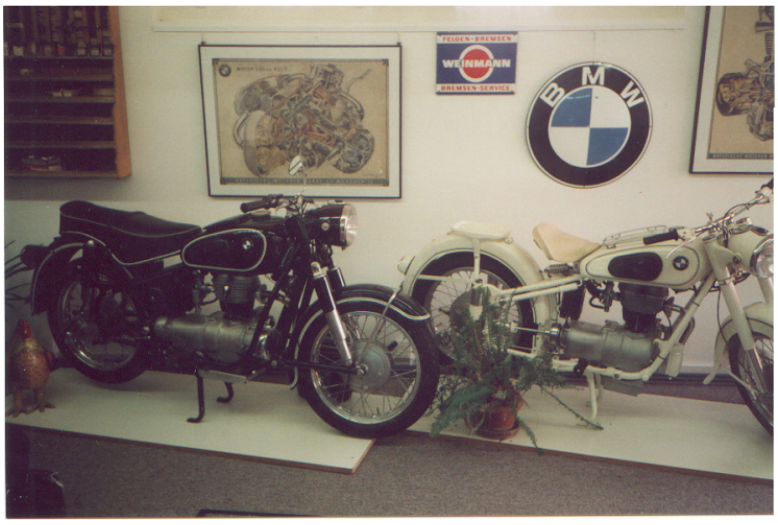
1. The tap MUST be turned on!
2. The feedhole runs diagonally across the tap, but I'm sure you will have noticed this when the tap was dismantled.

You now have one repaired tap which, provided you never let it dry out once its been in petrol, should give many years of trouble free service. If it doesn't, well you'll have to consume yet another bottle of wine and try again!

(C) THE KARCOMA TAP

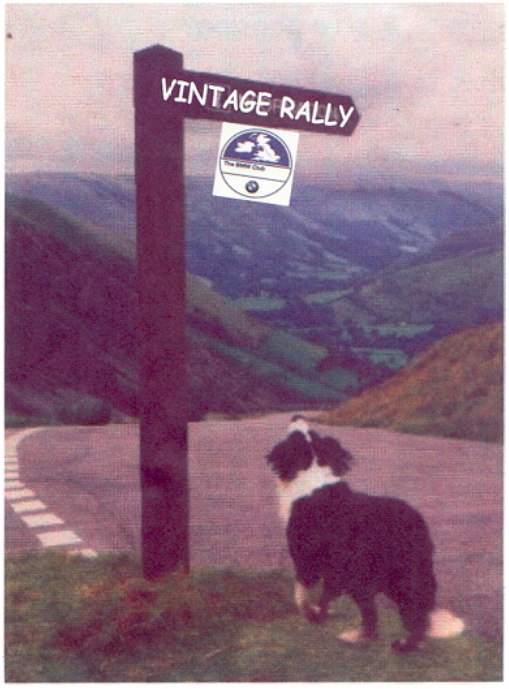
This tap was introduced on the /6 models in place of the Everbest used since the 1950's. I'm not sure if this change was prompted by the demise of Everbest or simply because the later design was considered to be a better (or cheaper?) product. The Karcoma has one major advantage over the previous tap in that it can be very easily rebuilt using a kit available from any BMW dealer. They are also much easier to strip apart. All you have to do is remove the black cover that indicates the various tap positions, once this has been pulled off the threaded ring that holds the whole thing together can be seen. In an ideal world you would have a suitable ring driver to remove this insert, however… careful application of a screwdriver usually does the trick! Once apart the neoprene seal can be removed and replaced from the repair kit. After that you are on the home run. It really is a 10-minute job (provided the threaded ring has not seized in the body!)

The subject of Petrol Taps might, on the face of it seem a pretty dry subject. I just hope the article above has disproved this!!



The two nicely restored 250's are shown in Mark Hugget's shop in Switzerland. Below, Mark himself, supplier to BMW Mobile Tradition.





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While restoring his R60, Ian MacDonald has made a small batch of complete rear brake rod assemblies and front brake parts (f/brake pivot pins and cable ends) in stainless steel. He is willing to make other parts to your specification for pre /5 machines. I may have a number of these items at the Stafford Classic Show in April but if you are interested give him a call on 01560 483503.

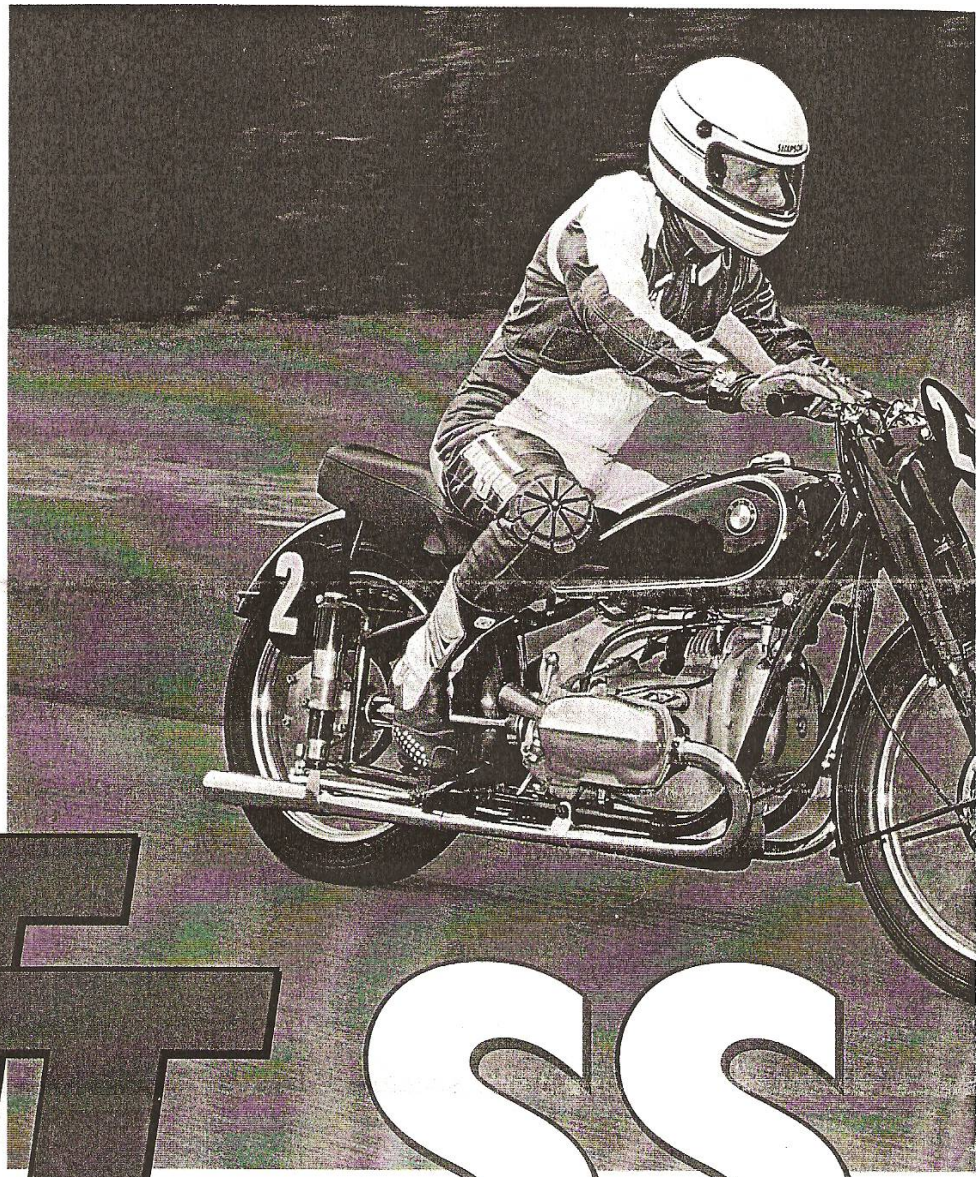
……..



Barry Watts sent me details and photographs of The Hamburg Police Motorcycle Display Team that performed at a very wet Royal Cornwall Show last year. They were founded 25 years ago and put on displays in Germany and occasionally the U.K. The machines are all ex-police R50's and 60's that saw service during 1956 thru to 1960. All are painted in the German Police colour of dark green. It must be quite a sight to see 30 old 'Boxers' going through their routine. It looks from the photos as if they have dispensed with the silencers so no whispering BM's during the display!

While at the Show Barry met Susanne and Norbert who informed him that they have bought a large quantity of new and s/hand Earles spares from the Police Authority. Most are painted in the Police green. They may be a good source of spares. Their telephone number is 04131-850500 and fax. 04131-850550 (German Std. Code) Their web site is www.motorrad-klassiker-ersatzteile.de (please note the site does not mention these spares but they are held in stock.) Their e-mail address is mail@motorrad-klassiker-ersatzteile.de

This R51 SS raced in the 1939 Tourist Trophy on the Isle of Man. Since then it has led a quiter life. But then along came our track tester Laurie Caddell...



TT SS

Road-going motor cycles are far more closely related to their racing brethren than road cars to racers, and it really doesn't take much effort to get a sports bike up to a specification where it will be a competent racer.

It has always been thus and, much as you now can go out and buy a race kit for your road bike and at least have a shout at qualifying for a World Championship Superbike event, so it will probably remain.

Before the war, BMW was the team to beat in international racing with its supercharged flat-twins. But while those banshee racers were earmarked for the works equipe alone, privateers had a good chance of competitive racing with their race-kitted roadsters - except that back in 1937 BMW referred to them as sports versions or SS models.

As previously documented in these pages, there is a strong resemblance between the first flat-twin BMW of 1923 and the models still being produced today by the factory in Berlin.

Somewhere between then and now comes the 1938 R51, a machine which has both a typically vintage minimalist feel, certainly when compared to the bloated exotica of today, yet also feels remarkably modern with proper suspension and, according to legend, genuine reliability.

The R51 had telescopic forks, a plunger-sprung rear end (it was the first BMW with rear suspension, as such), a tubular cradle frame, and that smooth and efficient low-set engine. This in an era when all but the biggest motor cycles were, as the name implied, little more than motorised bicycles.

In spite of its familiarity, the R51's engine looked rather different

The office reversed flat cap and oil skins were already being used, so our man had to don more modern attire (above). Plunger rear suspension (top right) is similar in style to the sliding-pillar type of Morgans. The centre of gravity is obviously very low (right)



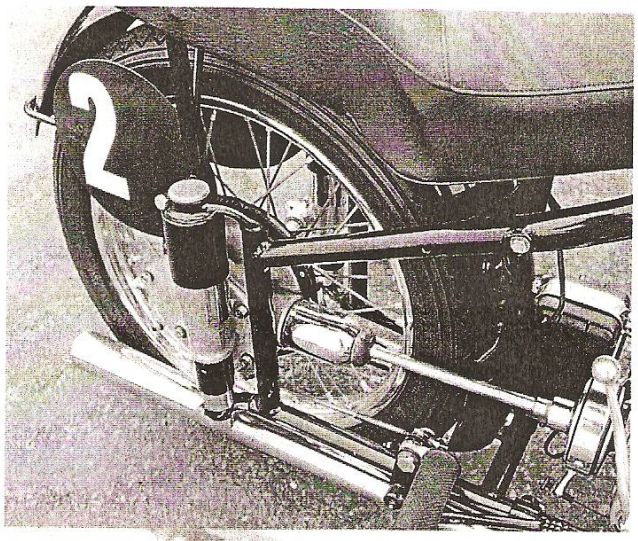
PHOTOS: JOHN OVERTON

inside to those before and since. It featured two camshafts, one for each cylinder, mounted high in the engine block whence they operated overhead valves via short pushrods (each in its own tunnel from block to head), needle-bearing rocker arms and hairpin valve springs (the latter so called because that's what they look like).

Such an arrangement replaced a single, central camshaft of previous models and allowed the engine to rev higher and thus produce more power. Surprisingly, though, the R51's successor saw a retrun to just one camshaft, a design which stayed on stream in Berlin until the four-valve boxers came along a few years ago.

Compared to a parallel twin, a flat-twin engine might appear to be a complex engine to lubricate, but the company got round this for the R51 by having a separate non-circulatory chamber in each rocker compartment.

The standard engine displaced 494cc thanks to an exactly 'square' bore and stroke of 68 x 68mm, and produced 24bhp at 5800rpm when running the standard 6.7:1 compression ratio. The factory 'SS' kit was rather more vigorous: using forged-alloy pistons to raise the compression ratio to the giddy heights of 8:1, the half-litre motor belted out some 28bhp. Now 4bhp may not seem much of an increase, but that did represent some 17 per cent,and was enough to raise the top speed from around 90mph to somewhere nearer 100mph.



Some 25 R51 SS models were produced by the factory and three or four came to England where they saw action mostly on the Isle of Man. The splendid SS from BMW (GB) Ltd's Bracknell collection featured here has an interesting history

...turning up for your début and getting drafted into the Benetton squad

and is linked to a road-racing debutant rider who was elevated to works-rider status for the classic 1939 Senior TT. Can you imagine turning up for your début Formula Ford race and getting drafted into the Benetton squad?

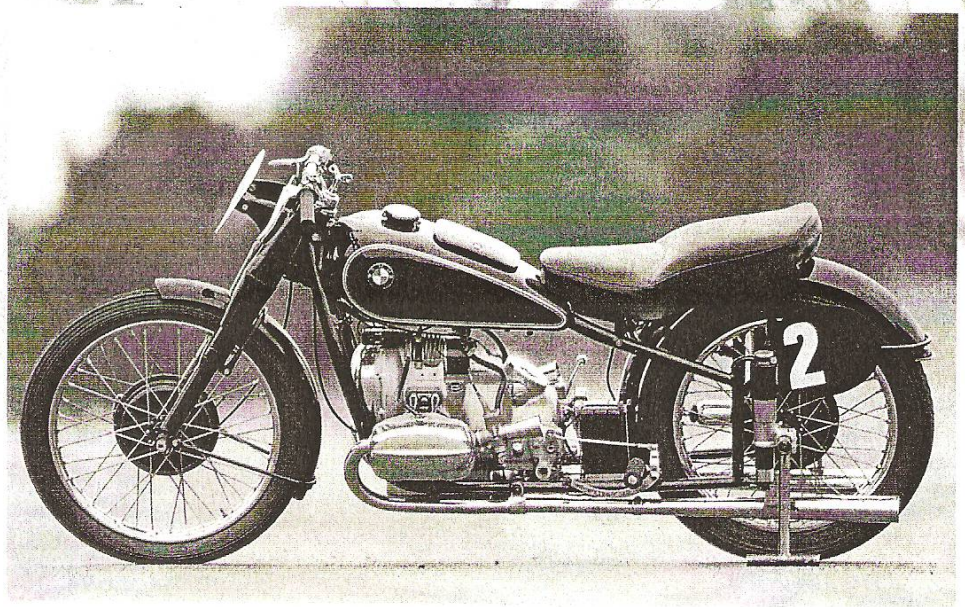
One Tim Reid, previously a speedway rider, scrambler and trialist, decided to have a crack at road racing on Mona's Isle and purchased the year-old R51 SS, no doubt hoping to keep out of everyone's way and gradually get the feel of this new pursuit. Events conspired against him, however.

The works BMW team came over en masse with three of its fearsome supercharged, overhead-camshaft racers to take on home favourites Norton. George Meier, Jock West and Karl Gall lined up for practice, but disaster was literally around the corner as Gall crashed heavily into a pub wall during practice, an accident that was to claim his life a few days later. Desperate to win the coveted Team Cup as well as challenge for outright honours, the Bayerische Motoren Werke seconded the only other BMW entrant in the field, our Mr Reid.

Meier and West finished a fabulous 1-2, but Tim Reid only managed to get to the second lap when a spectator fancied his chances at crossing the track before the R51 SS got there. He didn't and Reid broke his arm in the ensuing crash as he tried to avoid the pedestrian. According to those who had witnessed this particular BMW rider's pace, the spectator had been in with a reasonable chance... .

The bike's contemporary racing career ended with Reid's, and BMW acquired the machine in 1985. In between times, it had been back on the road for a period before entering vintage races in both solo and sidecar form.

Carl Schmidt looks after the road-test bikes at BMW, and has a particularly soft spot for the old





Carl Schmidt, who looks after the motor-cycle press fleet at BMW's Bracknell HQ, explains the R51's advance-and-retard lever to the office retard

racer. Just as with his more modern charges, Carl makes sure that the R51 SS is kept in tip-top condition even if its occasional cobweb-blowing trips round the company's Bracknell headquarters sound more like window-blowing ones.

The bike is akin to what a minimalist architect might produce if given a more modern boxer's specification and told to get rid of anything that wasn't absolutely vital. The thing looks low and tiny and you can see through it, for heaven's sake: there is none of that modern bodywork covering excesses of engineering development.

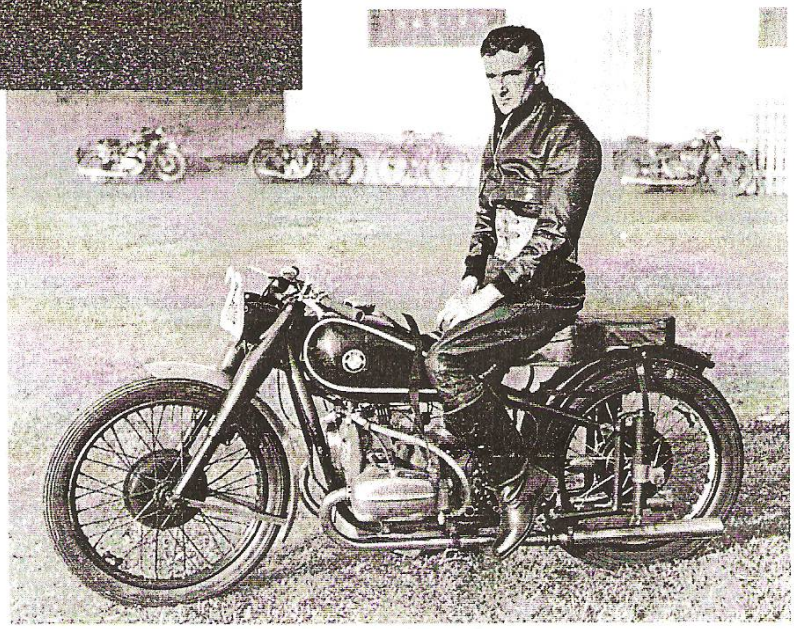
What you see here is what you get and, more to the point, what you can understand. There's the flat-twin motor, the shaft-drive transmission, the tubular frame, the tank, the suspension and the running gear. Yet in spite of its no-nonsense, even delicate appearance, the little thing contrives to weigh just over 400lb, or just a few pounds less than the F650 Funduro we tested in the first issue of this magazine.

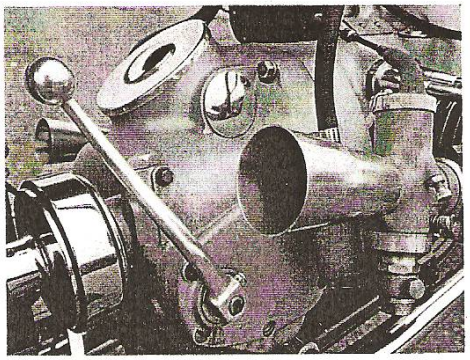
Sit on the racer, though, and it feels like a featherweight, thanks to a low seat height (when and why did BMWs get absurdly tall?) and as low a centre of gravity as can be imagined. Gone for the SS racer is the side-pivoted kick-starter, so it's left to Carl to bump the machine into life and get it nicely warmed up before racer/journalist interface.

At a test track which is quite used to army tanks hurtling round at full chat, and which has had various F1 Grand Prix cars testing on its surface, the bumping into life of the racer still manages to cause something of a stir. In fact, such is the crescendo that everyone in the vicinity heads for cover lest birds start falling from the sky, paralysed by the noise. Each BMW cylinder pulse cracks through the exhaust like a shell belching from the barrel of a World War II battleship.

...like a shell belching from the barrel of a World War II battleship







The gearbox casing is quite a chunk affair (right). The hand gearchange, unlike the foot change, is crisp in action and handy when searching for a neutral. Restoration is excellent



The bare minimum of controls (left). The lever on the left handlebar is for advance and retard, while the big clockwork-toy-like key is for the steering damper

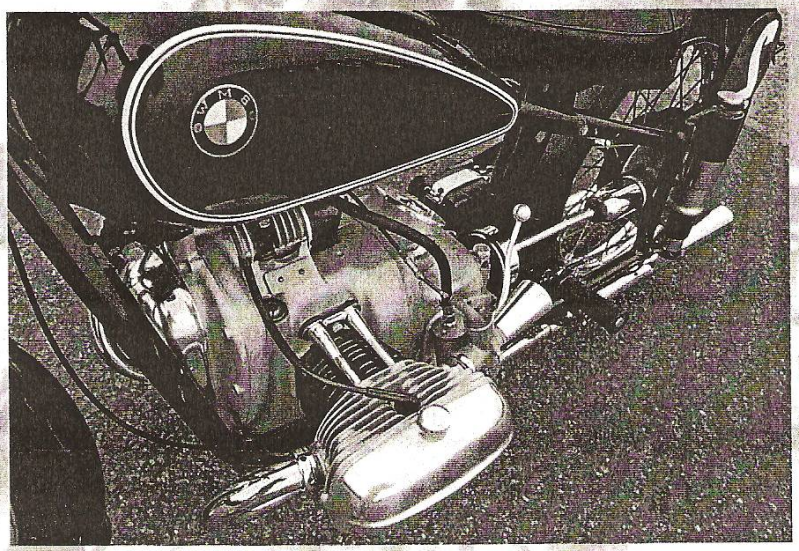
hour that the engine can't provide.

Cracking the throttle open gets the Amal carburettors gasping and response is a little flat, but soon the bike is well on the hearty side of 90mph and the noise is gratefully being left further and further behind to annoy others. Braking is excellent, for the first few stops at least, even though the shoes work directly on the hub at the front. Thereafter, they do fade alarmingly.

The worst aspect of the bike is the gear change, which has more neutrals than a Dulux paint swatch and the sort of positive contact you'd expect trying to screw a shelf to the wall with a wellington boot. Exaggerated leg movements, as opposed to twee ankle ones, are the order of the day; that and a goodly amount of patience. And that ultra-positive hand gear change (down by your right foot) really comes into its own when you amble back to the waiting throng and, conversely, can't find a neutral at all.

In the end, the R51 SS feels a most useful, integrated tool, and one that belies its more than half century of history. On those last couple of laps, the rider wishes that the Surrey track would become that famous 37.75-mile TT course, where some of the landmarks sound as if they've been named by sheep. But then, 100mph between walls, a surface some way from the billiard-table-smooth tarmac of today, 265-odd corners, hard and spindly tyres, the crash protection of pudding-basin helmet, gauntlets and leather jacket, perhaps not. Even Tim Reid was made of much sterner stuff. ●

The shaft-drive side of the bike showing the simple mechanical make-up (left). Note the filler for the separate oil compartment in the rocker cover



Tim Reid (complete with outside body belt) looks a little apprehensive before the 1939 TT (left). He went on to develop sidecars; the bike went on to meet Mr Caddell...

Having warmed the engine Carl arrives back and informs rider of the controls which appear to be thankfully straightforward, except for a

...the gearchange has more neutrals than a Dulux paint swatch

hand gearchange as an alternative for the foot change, and an advance-and-retard lever. Off thrapps the bike with a leisurely gain in speed rather than the neck-snapping shove one might expect, but then if acceleration were equal to noise this bike ought to cover a standing-start quarter mile in less than fifty yards....

My eyes have told me that the racer has suspension but my body resolutely refuses to confirm this, but the track is smooth and stiff suspension initially means safe handling.

And so it proves. Even with the steering damper wound right off, the R51 SS tracks straight and true and steers directly and securely with its race-compound rear tyre complementing the road-going tyre up front. On anything other than a grippy surface, however, the thin covers do slide precariously, and one can only imagine what sort of skills - and courage - racers needed on the broken-up roads that were the pre-war racing norm.

With the bike's weight so low down, turn-in is instantaneous and the little racer grounds its exhausts readily. It feels fast, but in reality a much higher gravitational centre is needed to get a good ratio of cornering speed to angle of bank. It makes you feel heroic, though. And that supposedly out-of-place dual seat comes into its own because it enables you to slip back on the rear half and then fold yourself flat to lower your aerodynamic profile for those precious extra few miles per