# LOOSE FILLINGS

## SIDNEY RUDGE RECALLED

avid White, a great supporter of the air-cooled revival and organiser of MG CC's Historic Rob Roy meeting each November, had the imagination to bring together the Sidney Rudge, its present owner John Hazelden, and its owner/driver from the late 1950s, Bruce Ellis, as guests at Victorian MG club's T Register night on May 23.

An audience of some 40 people heard Bruce talk about the car and his experiences with it, and John Hazelden showed pictures from his extensive photo history of the car. John Coffin, continuing to spread the gospel, added a few words about the 500cc revival.

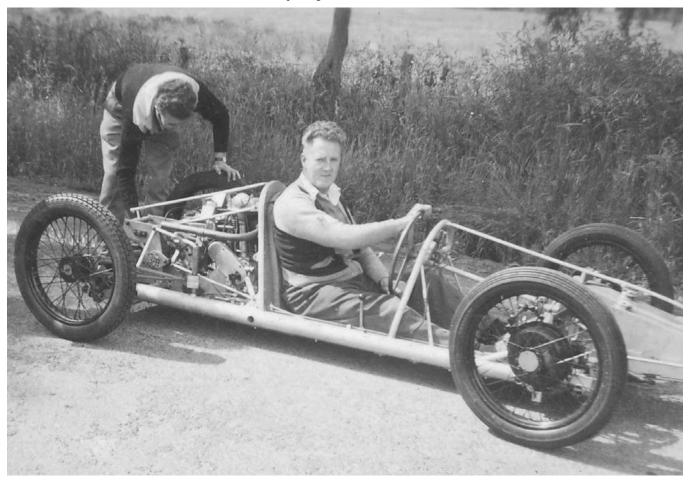
First published mention of Len Sidney and his car was in 1953, and it ran with a Rudge engine until at least 1959. By 1961, when Bruce Ellis was first mentioned as its new owner, it was noted as having a 500 JAP, and from 1962 its next owner, Bob Minogue, continued with this engine before replacing it with a Vincent, then in

### GOOD VIBRATIONS

The strength of the air-cooled revival is again shown by the many entries in this issue's page of The Log, which records appearances of our cars in South Australia, Victoria, NSW and Queensland. As well, our numbers are growing. We are now able to make credible appearances at major events like Speed on Tweed, the October Wakefield Park GEAR day, and the November Rob Roy hillclimb, and there is ample evidence these appearances in turn bring new people interested in our sort of cars. The GEAR and Rob Roy meetings later this year should see our best-ever numbers.

1966 replacing that engine with a Manx Norton. The car later had a number of owners who intended to use it in Historic racing, but it was Cameron MacMillan in NSW who finally re-established it, running the car regularly in NSW and Victoria from

Len Sidney giving his car its first run, on a quiet country road. Colin Williams, who later raced the car, is in the background. This photo shows the car's simple ladder chassis and very neat detailing. Photo John Hazelden archive.

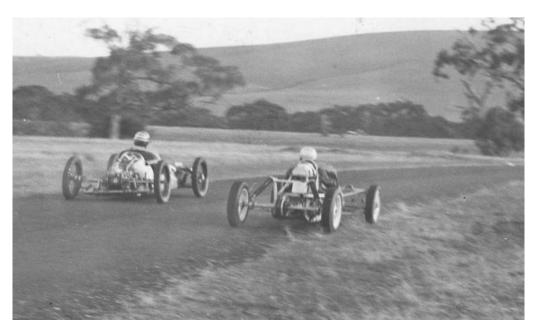


1988. John Hazelden bought the car, returned to Rudge power, in 2005. Until the MG club night, John Hazelden and Bruce Ellis had never met.

The car was based on a simple tubular ladder chassis with wishbone front suspension and zero-roll-stiffness rear suspension. Initially, both end of the car were sprung by rubber in tension, but the front end was converted to use coil springs. Steering is by chain and sprocket, and brakes were originally drums all round, but during Bob Minogue's ownership the rear drum was replaced by a disc, using a caliper made by Allan Staton, as used on his BRM. Also while owned by Bob Minogue, the rear wire wheels were replaced with cast magnesium Cooper wheels.

Top: Sidney Rudge narrowly leads the Jack Godbehear-built JGS at Darley in central Victoria, sometime in the late 1950s. The Sidney still has its original 19-inch wheels, and the JGS displays its beam-axle rear suspension. Photo from the John Hazelden archive.

Right: Former owner Bruce Ellis and present owner John Hazelden with the Sidney Rudge at the May MG club night.





#### BITS AND PIECES

- Four Australian air-cooled cars have recently changed hands, reflecting the growing interest in our corner of the sport. The West Australian Cooper Mk5 Norton recently restored by Don Hall, which was first raced by Bob Gerard in the UK, has been bought by a Melbourne dealer in classic motorcycles who has since been offering it for sale at more than \$40,000.
- The Cooper Mk4 most recently owned by Matt Segafredo has been bought by the Halliday family in Sydney, and an 8/80 is being assembled to replace its current JAP single. Originally owned by Jack Saywell with an 8/80 JAP, this was the first Cooper to race at Mt Panorama, when it made its racing debut at Easter 1950. It was later raced by Bill Reynolds and Doug Chivas, then bought by Jack Myers, for whom the JAP engine broke, Myers replacing it with a pair of transverse-mounted, supercharged Triumph Thunderbird engines. It was rescued from rusting away by longtime 500cc stalwart Bob Joass and many years later restored by Tony Caldersmith - and Bob Joass.
- The Bedson Enfield, the 700cc car raced very effectively in Historics in the 1980s by Peter Fagan and more recently owned by Graham Louk, has been bought by Graham Branch in Port Macquarie, who already has an Enfield-powered Berkeley. His new car was built in South Australia by English-born Gordon Bedson, who before emigrating had designed the UK Mackson 500cc cars.
- One of the family of Kenner specials built in Victoria in the early 1960s has been bought by David Reid, already active with his Mk3 Cooper JAP. His Kenner Special has Mini wheels and a scaled-down Brabham-style chassis powered by a Triumph twin. It was first run by Ian Wells, who set Australian quarter-mile records with it at Salisbury in South Australia in the mid-1960s. David Reid has for many years also owned the Queensland-built Duck Anderson special, which in the 1950s raced with a Manx Norton engine and which will probably have an ES2 Norton pushrod engine when its restoration is complete.
- The traditional late-May historic meeting at Winton in Northern Victoria saw

- South Australian Derry Greeneklee on pole position for the pre-1961 events with his 1100 JAP-powered Mk9 Cooper. In both his scratch races he had to settle for second behind Dick Willis' 2-litre Cooper Climax, but at least this time Derry's car was running properly, unlike Mallala a few weeks earlier. Also at Winton was David Palstra's Newbound BSA, which practiced for regularity but scratched after cracking some chassis tubes, and Neil Videan's Cooper Irving, which ran in the parade.
- Tireless 500cc enthusiast John Coffin took his Robbins BSA to the Wings & Wheels display at Moorabbin in April, where he had Ron Townley's ex-Whiteford Lago Talbot for company. The Lago was fired up but the Robbins wasn't, so no entry in The Log, but another opportunity for John to spread The Aircooled Word.
- Eddington sprints in March had five air-cooled cars running, plus Keith Roberts' JAP-powered BJP special, now beautifully restored but not competing while Keith recovers from recent illness. Two relatively modern air-cooled cars appeared, Paul Schilling's RP Kawasaki and John Hazelden's AGD, a Mini-wheeled car built in the early 1970s by Alan Docking before he went to England in 1973. The car originally used a supercharged 500cc Daytona Triumph, later ran a Honda, and currently runs a 650 Yamaha.

The RP Kawasaki was fastest of the five (16.11) and Graeme Noonan's Cooper Norton just shaded the AGD (17.61 to 17.66), ahead of John Coffin's Robbins BSA on 18.2 and David Palstra's Newbound BSA on 20.15

• Rob Roy hillclimb in early May brought mixed fortunes, Paul Schilling burning the middle piston in the special race engine of the RP Kawasaki. On the brighter side, Neil Videan made a welcome return to Rob Roy with his thoroughly overhauled Cooper Irving, after losing a rear wheel there several years ago, David Palstra went well with the Newbound BSA, and John Coffin achieved a six-year ambition and broke 30 seconds (29.92) with the Robbins BSA. He modestly attributed this to use of a new inlet manifold, which was amongst spares that came with the car and which made a difference to the engine which he said was obvious as soon as the car was started.

- Meantime in the UK, Loose Fillings' production editor Terry Wright has again been hillclimbing with the Walton Cooper. At the May Shelsley Walsh, where last year he was never able to get under 37 secs, he started with 36.67 and 36.42 in practice, had his first timed run spoiled by with a loose plug lead - then ran a very satisfying 35.52. Terry attributes the breakthrough to greater confidence through the bottom corners on the hill following a resurfacing, and possibly also to work done on the inlet manifolds in Sydney between seasons. Midway trap speed for the Cooper was 8 mph faster than last year. America's equivalent of Loose Fillings
- is "The Tingler," now in its fifth edition and which, to quote Editor Tom Cecil, "keeps us all in touch, and thrives on what we have to share." Between issues, Tom is completing the US-designed Dane 500 he

#### CLASSIFIEDS

**For sale:** Scarab Triumph, history from at least early 1960s. Rebuilt Bonneville engine, new 4-speed box, \$20,000, all offers considered. Graeme Worsley, 02 6362 8734.

For sale: Gilbert JAP 500, built 1968 by Roy Gilbert with 1938 4-stud JAP 500, upright Norton box, 10-inch steel Mini wheels. Spares include registered trailer, small Shorrock blower, some engine, gearbox and carburettor spares. \$10,000 or offer, John Cooper, 02 4982 6370, 0407 202 436

**Wanted:** Fiat 500 15-inch wheels, to help complete US 500cc project. Tom Cecil, Rigger2TC@aol.com

For sale: Cooper 500 Mk6, 1952, MK VI-1V-52, fitted with Triumph Tiger 110 motor and gearbox since early '60s, full restoration 1970, used by the same owner ever since. Not immaculate, but truly gives the appearance of a well cared-for old racing car with a delightful patina. Asking \$NZ32000 FOB Auckland, price includes many spares and custom-built covered trailer. Alan Kerr, ph.0064-9-4809881 (evenings) or dollar-save@xtra.co.nz

started in the 1950s, and this is the car he is wants the Fiat 500 wheels for (see Classifieds).

On matters US, check out the very interesting website www.vintageraceprep.com which also has some great links (clubs, cars for sale and spare parts) to US, UK and Swedish 500cc-related sites. We are not alone.

• Lost plug leads (last *Loose Fillings* asked how to avoid this pesky problem) no longer worry Graeme Noonan, who after bitter experience now holds his Cooper's plug lead in place using a pair of plastic cable-ties wrapped around the plug shroud and the two copper oil lines on the Norton engine's cam-box.

#### **NOEL BARNES**

oel Barnes, who started his four-wheel racing career in a JAP 500-powered Marwyn, has died in Tamworth, NSW, aged 80. He ran the Marwyn, a very early UK-built car with narrow-track live rear axle, at sprints and hillclimbs from 1951 until the late 1950s. He never lost his great enthusiasm for motor sport, and kept nearly all his racing cars, including the Marwyn, for the rest of his life.

#### LOOSE FILLINGS BY E-MAIL?

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#### (AIFNDAR

EAR (Golden Era Auto Racing) club is again including events exclusively for our cars at its non-CAMS, non-racing midweek Wakefield Park meeting on October 10. For drivers and/or cars without CAMS paperwork, this is probably the only chance each year to run with similar cars on a real race circuit, and GEAR's user-friendly approach minimises any hassles. In past years this has been the largest single gathering of our cars in NSW. Contact Garry Simkin or Lisa Tobin-Smith on 02 4960 9617, or lisamgb@hotmail.com

King Edward Park hillclimb, in the centre of Newcastle and overlooking the ocean, celebrates 50 years as a competition venue on October 20-21. The organisers are keen to have past cars and drivers at the event or at Saturday night's dinner. More information from Judith Rae at hooraedj@optusnet.com.au, or 02 4944 7356.

Historic Rob Roy in late November has become something of a flagship meeting for air-cooled cars. MG club secretary David White is a great supporter, giving our cars their own class. This is another event we should try to get to.

- September 8-9 Speed on Tweed, Murwillumbah
- October 10 GEAR air-cooled events, Wakefield Park
- October 20-21 King Edward Park hillclimb
- October 21 Mt Tarrengower hillclimb
- November 2-4 Australian Hillclimb Championship, Mt Cotton Qld
- November 11-12 Noosa hillclimb
- November 25 Historic Rob Roy hillclimb

#### THE LOG

ach issue in The Log we record those occasions where one of our cars has been started in public, on the theory that static display is not really what our cars were built for. Furthermore, on the theory that getting the device to run at all is achievment enough, The Log will record any occasion where the car goes "bang" in public, even if it's only once.

And the nominees are:

- March 31 Eddington sprints, Vic.: Paul Schilling, RP Kawasaki; John Hazelden, AGD; David Palstra, Newbound BSA; Graeme Noonan, Cooper Mk7 Norton; John Coffin, Robbins BSA.
- April 7-8 Mallala historic races: Derry Greeneklee, Cooper Mk9 JAP 1100.
- April 23 Mt Cotton hillclimb, Q'land: David Reid, Cooper Mk3 JAP.
- April 28-29 Eastern Creek historic races, NSW: Andrew Halliday, Cooper Mk5 Norton.
- May 6 Rob Roy hillclimb, Vic: John Coffin, Robbins BSA; David Palstra, Newbound BSA; Neil Videan, Cooper Irving; Paul Schilling, RP Kawasaki
- May 25-26 Winton historic races, Vic: Derry Greeneklee, Cooper Mk9 JAP 1100; Neil Videan, Cooper Irving; David Palstra, Newbound BSA
- June 2-3 Oran Park historic races: Andrew Halliday, Cooper Mk5 Norton.

#### LOOSE FILLINGS

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aving checked our brake pedals for location and strength, the pushrods and master cylinders for correct adjustment and operation, we can now move on to the plumbing. By definition, Hydraulic fluid, which we will refer to as brake fluid, must meet the following criteria.

Firstly it must be compatible to the rubber seals used in the cylinders. That is, it must preserve the rubber seals, and not cause them to swell or alter in size or condition. This is fundamental, because any significant change in seal dimension will result in leakage, seizure, or complete failure. Some seals are very sensitive to size variation.

Secondly brake fluid must have a reasonably high boiling point, because if fluid becomes vapour, the pedal will go to the floor. (The basic principle on which a hydraulic brake works is of course based on the physical law that fluids are non compressible, whereas vapours and gases are!).

The good news is that our motorcycle engined cars are super light, stop quickly, and don't go fast enough to ever look like boiling the brake fluid. Not even Stirling Moss could boil his Cooper's brake fluid, and he was really trying! That means we simply don't need the expensive ultra high boiling point fluids, which are necessary in heavier disc braked cars. and are less stable chemically, absorb moisture faster, and need changing more often. We don't need them. Ordinary commercial brake fluid from your local garage is fine for us.

One more thing; silicone brake fluid has got a lot of good press lately because of three features. It doesn't attack paintwork, it has a high boiling point, and it doesn't absorb moisture. The flip side is that over time, silicone fluid tends to swell some rubber seals. In some cylinder designs this may never cause a problem. In other designs it will. It is far safer to use conventional brake fluid, and flush it out every couple of years.

If your cylinders happen to have stainless steel liners fitted, cylinder corrosion is not an issue and you can leave the same fluid there longer. As stated, reduced boiling point due to water absorption is primarily a disc brake problem, and will never concern us. Never under any circumstances use engine, auto trans, or gearbox oils as a substitute for brake fluid. The results are like pouring hot milk on yoyo biscuits! Swelling of the rubbers is almost instant.

Likewise if you are re-kitting a brake cylinder, always rinse your greasy hands in soap and water first. Don't ever use petrol, kerosene, turps, vinegar, or thinners to clean the cylinder! Given time, the residue of the above solvents will be absorbed into and affect the delicate rubbers. The only

## DEMON TWEAKS ON BRAKES

safe solvent to use when cleaning brake parts is ordinary methylated spirits.

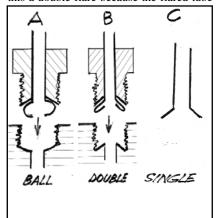
Let's now look at the pipes and hoses. The pipe or tube designed and recommended for use in hydraulic brakes is known as Bundy tube. It is commercially available in several sizes, but the most common automotive size measures 3/16" on the OD. You should be able to buy it in straight lengths from your local brake specialist

Bundy tubing is plated to resist corrosion, laminated for strength, and ductile for easy bending and flaring. If your car is original you just may find all or some of the brake pipes are made of copper. Rub with emery to check for colour. They may have given no trouble, but as a general rule, copper brake pipes are not a good idea. Copper work-hardens with the slightest vibration. Copper pipes are definitely not recommended!

In making up new Bundy brake pipes, you will have to find someone with the proper equipment to flare the ends of the pipe where they enter the cylinders or unions. It is here that we can get into trouble, because there are a couple of variations of pipe flares, and we must flare the end of the pipe to suit the particular cylinder, union, or hose, to which it will be fitted. This is often overlooked.

Pipes can be flared in two ways, either as a DOUBLE flare, or as a BALL flare. Neither has any particular advantage over the other, although someone somewhere sometime must have thought so..

Sketch A (below) illustrates a ball flared pipe and union. Note that the concave curve in the union seat matches the curve of the ball on the pipe. Sketch B illustrates a double flared pipe and union, where the protruding convex union seat matches the angle of the double flared pipe. We call this a double flare because the flared tube



is bent back over itself to double its thickness and strength. (We actually make a double flare, by first making a ball flare, then folding it back with a tapered tool.). If you find pipes which don't want to seal with ordinary spanner pressure, it's possible the pipe flares and union seats aren't matched correctly. Pipe ends are frequently fitted mismatched unknowingly, and occasionally, by some miracle, manage to seal on the wrong seats. But most times they just leak and everyone wonders why! So if you are having new pipes made, tell the operator what sort of seats you want them to fit. Ball or flare. Without that direction he will make them all with double flares. Guaranteed!!!

Bundy tubing is not indestructible. Clamp or tie it down securely to prevent any vibratory movement. Insulate it from sharp edges with split rubber sleeves. Always fit new tube nuts with new pipes, and protect the hexagon by using a good fitting spanner.

Lastly we deal with brake hoses. The length of the front hose is most critical because it has to allow for both steering and suspension. One inch too short, and it may stretch and pull out one end. One inch too long, and it may chafe on the rim or tyre on turns. Check above carefully from lock to lock, particularly if you are tempted to substitute a shorter or longer hose for some reason. Rear hoses are not so critical because the wheel only goes up and down, but the message is the same. Hoses must not rub on anything!

And hoses age! If you can stretch a hose more than a quarter of an inch by pulling on the ends, it's old and needs replacement. Hoses deteriorate internally, and can become partially or completely blocked. The passage is small, less than 1/8" internal diameter! Any further reduction in diameter will slow down the brake application. A partially restricted right front hose might behave this way. You jump on the brakes and the car veers to the left then comes back straight without you touching the steering. What has happened is that the left front wheel braked immediately, and the right didn't. However after a second or two, fluid squeezed through the restricted right hose, pressures equalized, and the car straightened up. The cause of 'pulling' of the brakes is often not in the wheels at all, but in the hoses. A simple hose test is to get the car up on jacks, apply the brake hard for say five seconds to fully expand the shoes, then release. Each wheel should go on and off in equal time. A wheel slow coming off, equals a wheel slow going on, equals pulling.

Well, that's got brake fluid up to the backing plates. Next we'll have a look at wheel cylinders, brake shoes, and lining types, and see what goes on inside the drums.