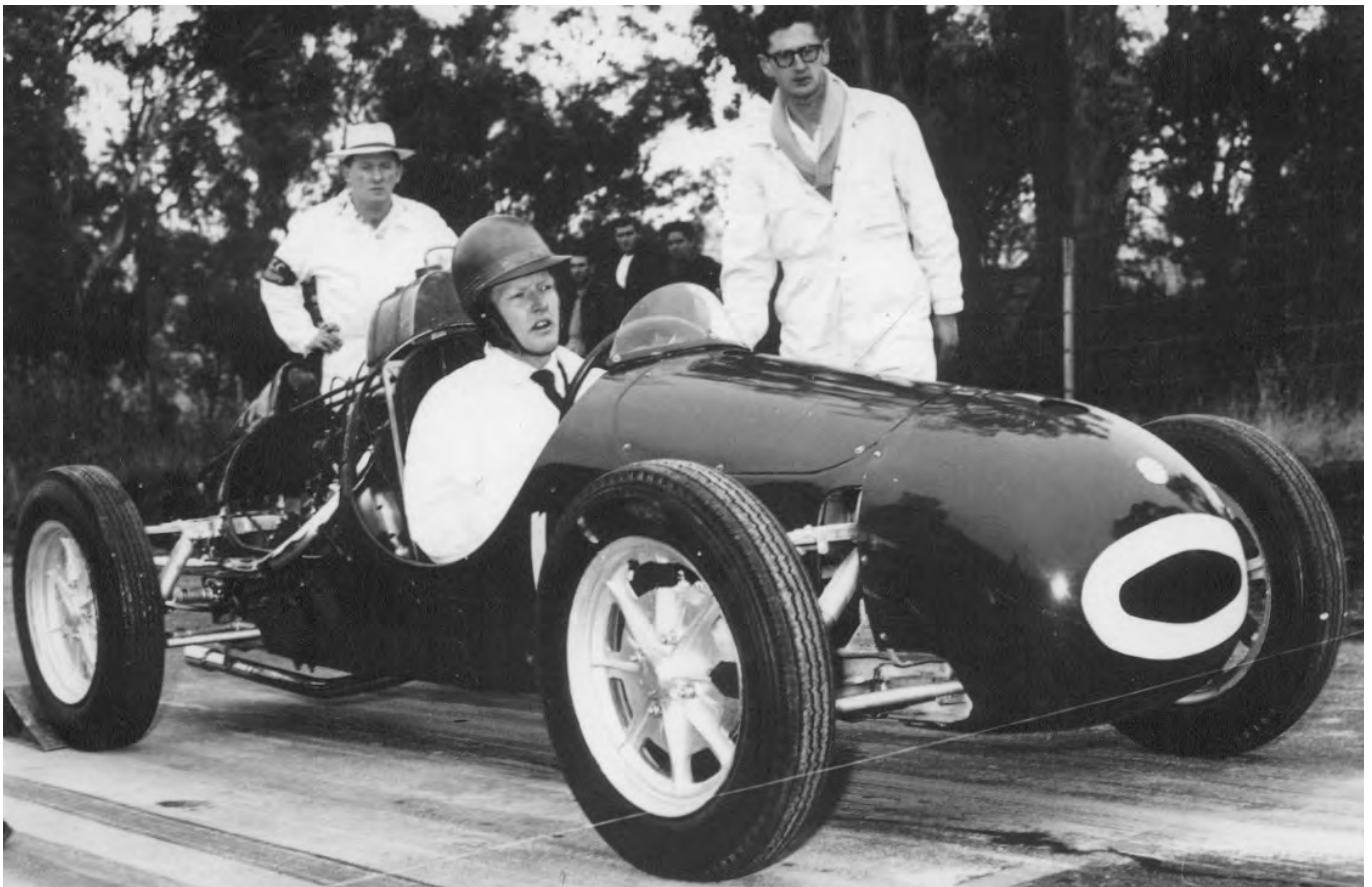


LOOSE FILLINGS

As winter departs, things are also warming up for older Australian air-cooled cars. There is a promising entry of 500-type cars at Speed on Tweed, likewise for the October GEAR day at Wakefield Park, and our cars will be able to run in separate classes at Mt Tarrengower and Rob Roy hillclimbs. Long-lost cars continue to re-surface. John Gale's incredibly original 1100cc Mk4 Cooper should be back on the track within weeks, the South Australian-built Waye 500 is almost a goer again, Peter Harburg's ex-Patterson Mk5 Cooper is almost rebuilt, and there are reports Leo Bates' original Cyclo 500 has been found. Not that air-cooled cars need to be hard to find – there are three of them in our Classifieds!



Keith Soames in his immaculate Mk4 Cooper-Vincent at Bathurst hillclimb in September 1959, where his best time was 44.65 on the original 1.4km course up the Mt Panorama esses. The start-line string is just visible across the front wheels. The tall figure behind the Cooper is Ted Hilder, who prepared the car. In place of the car's teal-blue paint in the hands of previous owner John Bryson, Soames painted the car red, his father adding the white oval on the nose.

This Cooper was briefly raced by Paul Roberts, then bought without engine by Jack Brabham in 1952, raced by him until early 1954, then sold to Victorian Jack O'Dea. In the early '60s the car was back in Victoria, and after a trailer accident is believed to have provided the Cooper parts of the DonLand Special. Photo courtesy Keith Soames.



Terry Wright's Walton-Cooper has been back at Shelsley Walsh and got into trouble in July at the Esses, as these photos by John Hayward graphically illustrate. What happened next? Read all about it in *Loose Fillings* #24 along with news of Garry Simkin's adventures at Laguna Seca in August.



ON NO ACCOUNT FORGET THIS ...

LAATEST issue of the US 500 newsletter *The Tingler* carries a reminder of Max Fisher's point in *Loose Fillings* some years ago, on the need to have a secondary method of stopping the steering column pulling off its connection to the actual steering gear. In the US case, the car was a Cooper with rack and pinion steering, where the pinch-bolt checked tight, but the column still pulled off the pinion spline. This caused a minor accident which could have been far worse. Close examination revealed careless manufacture at the factory, where incorrect drilling of the pinch bolt hole meant that from day one (fifty-odd years ago) the bolt had never registered in the slot. The US recommendation is exactly the same as Max Fisher's. Use a secondary stop - a small hose clip will do - at the top of the column just below the mounting at the dashboard.

WHO'S GOT WHAT?

GROWTH of the air-cooled revival could be helped if we all knew where to find other owners of air-cooled cars. How do you feel about the idea that in some future issue we publish a list of cars, their owners, and the owner's contact phone number? If you are willing to have these basic details published in *Loose Fillings*, contact Garry Simkin, whose address is (as usual) noted elsewhere in this issue.

CALENDAR

THE following dates cover eastern states events where air-cooled cars could run without needing high-level CAMS paperwork for car and driver. For GEAR events suitable clothing is necessary, and some form of roll-over protection is now obligatory, but no CAMS paperwork is required. A Wakefield Park licence is required, but CAMS licences are also accepted.

The October GEAR meeting, and the hillclimbs at Mt Tarrengower and Rob Roy, are major dates where we should try to get the best-possible turn-up, to repay organisers who have provided special air-cooled classes.

- October 11: Gear NSW (special air-cooled events)
- October 21-22: Mt Tarrengower (Vic) including an air-cooled class
- November 3-5: Australian Hillclimb Championship, Mt Panorama
- November 28: MGCC Historic Rob Roy
- December 6: GEAR NSW

THE LOG

THIS section of *Loose Fillings* records public appearances by air-cooled cars. Since our last issue five different cars have run, at venues in three states. Maybe when the weather gets warmer...

- March 25, Eddington (Vic), sprints: David Palstra (Newbound BSA, 19.82 secs), John Coffin (Robbins BSA, 17.82, 17.69 in practice)
- March 25-26, Eastern Creek historic races: Andrew Halliday, Cooper Mk5 Norton
- April 15-16, Mallala historic races: Derek Greneklee, Cooper Mk9 JAP 1100
- April 17, Collingrove hillclimb: David Palstra, Newbound BSA
- May 7, Rob Roy hillclimb: David Palstra (Newbound BSA, 38.24), John Coffin (Robbins BSA, 32.38)
- July 16, Wakefield Park historic races: Garry Simkin, Cooper Mk4 Vincent

ALCOHOL FIRE SAFETY

US historic racing magazine *Victory Lane* recently summarised fire risks and fire precautions related to use of methanol. The magazine listed methanol's safety advantages over petrol:

- Methanol's lower volatility means it does not vaporise as readily as petrol, which can produce two to four times as much vapour;
- Methanol's higher flammability requirement means that, compared with petrol, it needs to be four times more concentrated in the air for ignition to occur;
- Methanol vapour is slightly denser than air, and disperses more rapidly to non-combustible concentrations, whereas petrol vapour is two to five times denser than air and tends to travel along the ground to ignition sources;

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.

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

For sale: Cooper MkV Norton ex Bob Gerard. Don Hall, 08 9386 2346

For sale: Cooper Mk 4 JAP 500, superbly presented, not run since total rebuild. Ex-Saywell 8/80 car, first Cooper at Bathurst. \$35,000, Matt Segafredo, 0418 280 000

● Methanol has a slower heat-release rate, burning at one quarter the rate of petrol and releasing heat at only one-eighth the rate of a petrol fire;

● Methanol requires more than 700 degrees F for auto-ignition, where petrol ignites at 495F.

"These properties together make methanol inherently more difficult to ignite than [petrol] and less likely to cause deadly or damaging fires if it does ignite," *Victory Lane* said.

Invisibility of the methanol flame is a recognised problem. "Until a localised methanol flame begins to char rubber, fibreglass or other nearby materials, it is possible...to unknowingly walk into a methanol flame," the magazine said. Firefighters should be encouraged to spray their approach path before entering a fire zone.

While water is the extinguishant of choice for methanol fires, conventional drychem and halon extinguishers are also effective, but less so than they are with petrol fires. Only a small water dilution of a methanol pool will make the pool non-flammable.

To take best advantage of methanol's safety features, *Victory Lane* said, cars using this fuel should be clearly labelled, fire fighters should spray their approach path before spraying the fire, and any available extinguisher should be used in the event of fire. While water is ideal, time is critical.

BITS AND PIECES

● Through the good work of John Coffin, there will be a class for air-cooled cars at Mt Tarrengower hillclimb on October 21-22. Entry forms are available from Roger Boehme, 03 5443 7008.

● Do these words somehow sound familiar? "Harry's first 500 was a home-built job which he proudly refers to as The Scarecrow. Such was the optimism of the home builder that The Scarecrow was entered for five races before it was finally completed, and it wasn't until its seventh race that it finally finished one. The only trophy it ever earned was a hard luck trophy...where it broke the clutch cable on the starting line on Saturday, broke a rear axle in practice two hours before its race on Sunday, then after glueing the axle together seized the engine in the race itself." The quote comes from Spring issue of the *The Tingler*, newsletter of the US 500cc revival movement, recalling US 500cc pioneer Harry Morrow. The story is testimony that the 500cc experience is universal.

● Writing in *The Tingler*, editor Tom Cecil

reports that after two issues of the newsletter he already has 67 subscribers. Cooper was to be the featured marque at Laguna Seca this August, and while it was unlikely the 500s would have their own race he hoped to have a display of 500s there.

● Murray Rainey, former Geelong racer and engineer, has died in England, aged 89. His extremely short stature brought him into conflict with 1950s motorsport administration but did not deter him from competing in a wide variety of cars, notably a 500cc Mk 9 Cooper which he first ran in the 1955 Australian Grand Prix. Helped by the legendary George Wade he successfully adapted its single-cylinder Norton engine to supercharging, making the little blue car a formidable 210 km/h device on Victorian circuits and hills.

From 1967 he lived in England, where he was recognised as an authority on 1930s Alfa Romeos. He applied his engineering ingenuity to the development of hillclimb cars with which his daughter Joy held the ladies record at Shelsley Walsh between

1979 and 1984, and again between 1986 to 2002.

● John Dymond, head of the Penrite oils organisation, died in Melbourne on June 1, aged 75. He was an active participant and supporter in Vintage and Historic circles, and a behind-the-scenes benefactor as well, both for motor sport and for charity. Long-time friend Chester McKaige recalled he served his apprenticeship with Vauxhall in England, gained oil industry experience with BP, and came to Australia in the 1960s. He bought Penrite when it was a small Melbourne specialist oil company, and developed it to its present position as a supplier of a wide range of automotive lubricants. His family will continue to run the company.

● First issue of *Old Bike Australasia*, a magazine about motorcycle sport history just launched by prolific author Jim Scaysbrook, includes a well-illustrated story about Darley, the narrow track in central Victoria where, from 1955, Austin

7s, and later 500cc and 250cc single-seaters, shared the program with the bikes. The story notes that in June 1960 hillclimb maestro Bruce Walton was invited to run his blown 1100 JAP V-twin Cooper, and lapped in 1.10.8, two seconds faster than the motorcycles ever achieved up to the time the circuit closed in 1962.

● At Eddington sprints in March, John Coffin talked to Keith Roberts about the restoration of Keith's BJP 500, and reports the JAP-powered car is "well on the way." The BJP could be running at Victorian events later this year, and will be a nice addition to the steadily growing number of Victorian air-cooled cars.

STAMPS, GENTLEMEN, PLEASE

WHILE *Loose Fillings* continues as a free publication, it greatly assists distribution if our readers can cover their mailing cost by occasionally sending a \$5 book of stamps to publisher Garry Simkin.

with the radius arm, but there do not seem to be any front brakes. The rear wheels could be using early Ford 10 centres, in which case the rear axle might also be Ford 10. On the firewall is a small tank which might be the oil supply, and on top of the scuttle there is a larger tank, probably for fuel, attached by very temporary-looking brackets.

The two stripes on the side of the scuttle suggest the car had a paint scheme which extended onto a nose-panel which was not fitted on this run. As well, there is a glimpse of a tail-panel behind the driver, and overall this looks like a serious, well thought out car.

However, many details - the small-diameter wheels, the lack of front brakes, and the lettering "N.S.W." on the scuttle - strongly suggest that the primary purpose of the car was speedway racing. In the late 1930s there were many motorcycle-engined speedway cars, including some with 500cc engines, and Jim Shepherd, in *A History of Australian Speedway*, includes Frank Lyell amongst early NSW drivers. While the car is not mentioned in any later NSW road-race type events, the investment in the car suggests it is unlikely to have been written-off after just one hillclimb. It is more likely that it continued in competition at the speedway, possibly with some other sort of engine.

This car is a reminder that motorcycle-engined cars were in regular use in speedway in the 1930s. However, Lyell was drawing a very long bow to later claim (*Australian Motor Sports*, June 1952) that this car had any real link with the post-WW2 500cc movement. *GH*

LOST AUSTRALIAN 500S - AN OCCASIONAL SERIES

FOURTEEN years after it appeared, this car was claimed by its constructor to be Australia's first 500. It is the Rudge-powered FJL Special, run in October 1938 by Frank Lyell at Waterfall dirt hillclimb in Sydney's Royal National Park. The car seized on its maiden run, possibly due to being kept too long on the start-line. Its subsequent career is unknown.

The photograph below was taken by the late Russ Short, and under close examination tells quite a lot about the car. The four-valve engine has been mounted transverse-

ly, the two exhaust pipes readily visible and an Amal float bowl just visible on the off side. The engine appears to be on the centreline, and as there is a live rear axle there could also have been a car-type gearbox.

The beam front axle is sprung by a transverse leaf spring, has friction dampers operated by long links, and has a deeply-cranked steering drag link visible behind the axle on the off side. The rear axle appears to use long radius arms and a transverse leaf spring. What is probably a rear brake cable is visible above and parallel



THE LUCKIER I GET

(The above words come from the saying, "The harder I work, the luckier I get," sometimes quoted by Loose Fillings publisher Garry Simkin, author of the following notes.)

AT Albert Park this year my Cooper Vincent successfully completed three 20-minute runs in the Repco Historic Demonstrations, held to celebrate Stirling Moss's victory at this venue 50 years earlier. Having had three previous engine failures I considered the car's Albert Park performance was a step in the right direction.

The first engine failure occurred at Albert Park two years earlier when a protective coating in the main fuel tank came adrift and clogged the fuel pump. Exit one pair of pistons and enter a new fuel tank made of non rusting turn-plate.

Failure 2 was due to overheating and subsequent detonation. The third failure, and the third set of pistons, happened about four laps into a race at Eastern Creek and once again excessive heat appeared to be the culprit. Before a fourth set of pistons became scrap metal, serious changes and a close examination of car and engine were called for.

Using an industrial pedestal fan and a smoke-making device to make a low-tech wind tunnel, it soon became obvious that air entering the openings at either side of the seat was going straight out again through the louvres in the engine cover. By fitting shaped aluminium panels behind the seat air was then deflected over the heads and barrels. In addition the regular Cooper underseat scoop was enlarged to the maximum available space, and a panel was inserted in front of the engine so the ducted air did its job and didn't disappear under the engine and down to the road.

The sleeves in the barrels had been replaced after the first failure and the interference fit was found to be only 0.002". This was corrected in the rebuild after Failure 3 with new sleeves to 0.006", which required heating the barrels to 200C before inserting the sleeves and holding them in place in a press. The tighter fit prevented the aluminium barrel expanding off the sleeve. Previously there had been an air gap which had prevented piston heat being transferred to the finned barrel.

Despite using modern low-expansion alloys in the pistons, the manufacturer's suggested clearance of 0.003". seemed on the tight side so this time around we opted for 0.006".

Oil used in the first three failures was a 25W60 mineral-based competition oil, one compatible with methanol. However each pull-down of the damaged engine showed



Above: Snug-fitting alloy panels deliver maximum cooling air to Garry Simkin's Cooper Vincent-engined Cooper (right at Albert Park).

no residual oil adhering to any components, and it was noted that gudgeon pin failure had occurred twice. Recalling how the Castrol R40 in my Norton engine had "gotcha" properties and coated everything, I decided to try a castor-based oil in the Vincent engine. The bean counters at Castrol deemed the R range oils not worthy of stocking any more so Shell Advance Racing M became the next choice. Running-in on the dyno, test miles at Wakefield Park and then the Albert Park runs seem to show that this "use once only" oil has been a good choice. Failure to drain castor oil after running can cause considerable damage, especially to magnesium components, see *Loose Fillings* #7, Autumn 2001.

The castor oil and methanol mix can make cleaning engines and cars a chore after a race meetings, but a Kenko product, made in Australia and called "Shift It," does a great job of moving the grunge.

In an attempt to keep heat out of the enclosed engine bay I have had the exhaust pipes ceramic coated inside and outside. Temperature of heads and other components can be monitored by "Mocal" heat sensing strips. I get mine from Eastern Race Parts in Sydney. The "C" strip covers the 270-360F range which seems to cover our area of head temp. These strips only indicate the highest temp that has been reached and aren't something that can be monitored whilst racing. At Albert Park on a warm Thursday the rear head showed 305F and the front head, which cops better air flow, never reached 270F. I ran one main jet higher on the rear cylinder to get



more cooling alcohol to this cylinder.

The oil return line disliked the high head temps so I use silicon hose which can withstand 260C and which, being translucent, allows you to see the oil flow.

Whilst my 500 car seems fine with a good pre race warm-up I have opted not to warm the 1000cc Vincent much before racing. I feel that time at the dummy grid, the drive to the main grid and sitting there waiting for the start would appear to be sufficient warmup. Should the day be cold I would pre-heat the oil, using an electric immersion heater in a tall container, then pour this into the tank before startup.

These many changes appear to be helping keep the Cooper running well and my bank balance in a happier shape. *GS*

*Edited by Graham Howard,
Box 37, Bathurst NSW 2795, phone/fax
02 6332 9125 (grimes@ix.net.au).*

*Produced by Terry Wright,
(tsrwright@gmail.com).*

*Published by Garry Simkin,
28 McClelland Street, Willoughby,
NSW 2068 phone/fax 02 9958 3935,
(gjsimkin@iprimus.com.au).*