

February 2012

North Birmingham News

NEWSLETTER

Review of 2011 taking in some of the runs we have enjoyed visiting



Josie's Jaunt sheltering from the rain



Start of the Girder fork run



A glorious day for the Severn Valley run



Start of the Trent Valley Run



Some of the wonderful scenery on the Trent Valley Run



Velocette's two-stroke

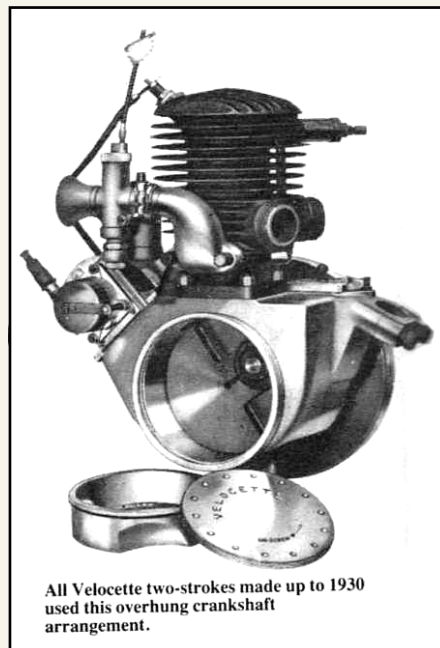
Until the end of the 1929 season, all Velocette two-strokes shared one common feature – an engine of the overhung crank type. Although Velocette Ltd were not unique in this respect there were few others, with the notable exception of Scott, who persisted with his layout for so long.

It has the advantage of simplicity, always a major consideration when working to a tight budget. Furthermore, it makes possible ease of assembly without having to align a set of flywheels or bob-weights, thereby effecting further economies. And because the Velocette design was of particularly robust construction, with a long, plain-bush main bearing, the usual disadvantage of placing a heavy load on the area close to the crankpin could be disregarded.

Exactly why Velocette chose the 1930 season to break away from this design completely is not known. It would have seemed more logical to do so when the line of two-strokes was temporarily discontinued during 1927, for when they were reintroduced a year later, the basic engine design was much as before. Be that as it may, a totally new two-stroke was announced at

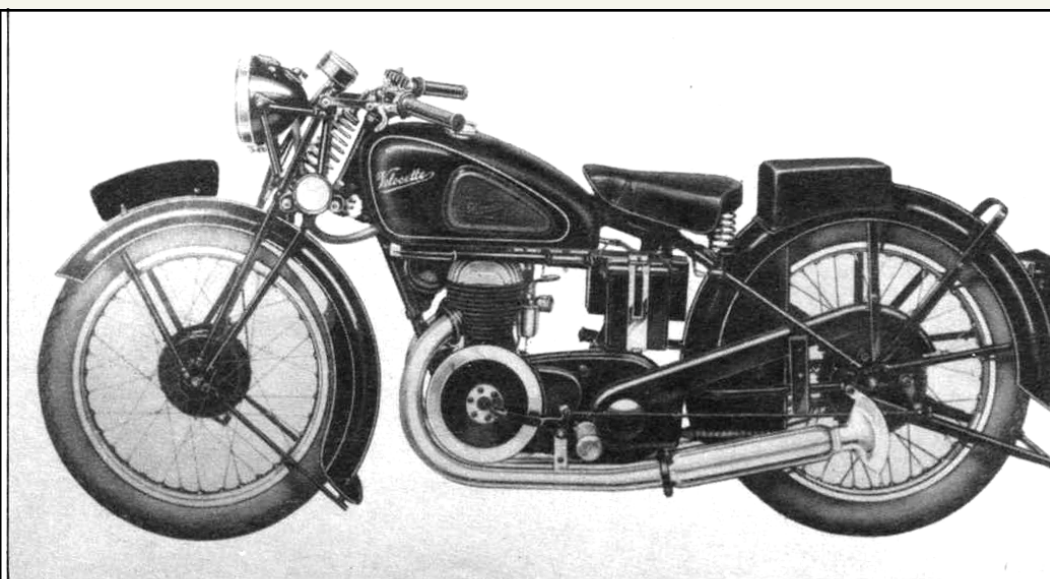
the 1929 Motor Cycle Show, not only the engine but virtually every other part being changed, too. The Model GTP had arrived.

Following more conventional practice, the GTP engine had a crankcase that split vertically, containing a bob-weight assembly with an interference-fit crankpin and an uncaged roller-bearing big-end. The right-hand end of the crankshaft drove a fully enclosed but adjustable oil pump and the left-hand end carried a large-diameter external flywheel, on the back of which was cast a pulley to transmit drive to a belt-driven dynamo. The cast-iron cylinder barrel and detachable cast-iron cylinder head were virtually identical with those of the predecessor,

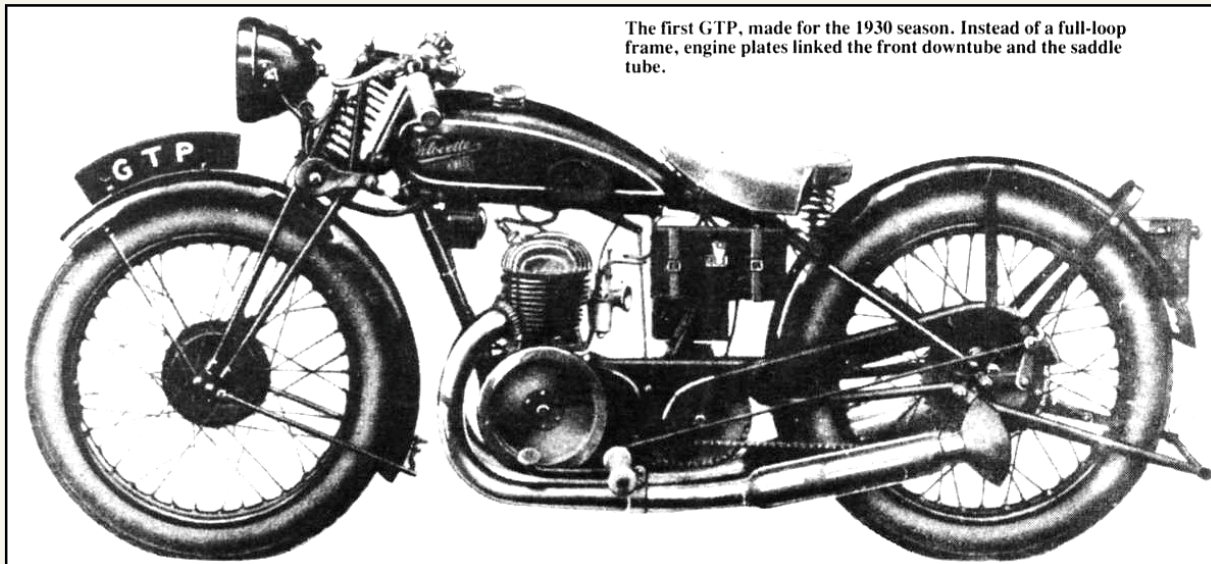


All Velocette two-strokes made up to 1930 used this overhung crankshaft arrangement.

the Model USS. The piston was similar, too, being of the deflector type, cast in aluminium alloy. Both main bearings were phosphor-bronze bushes, oil-grooved to improve lubrication.



The 1939 GTP in its final form, representing nine years of steady development.



The first GTP, made for the 1930 season. Instead of a full-loop frame, engine plates linked the front downtube and the saddle tube.

The gearbox was of the three-speed type, but it differed from the earlier two-stroke units by having pushrod operation of the clutch instead of the now discarded face-cam type. It was mounted in a similar fashion, suspended by two studs from parallel tubes behind the rear engine plates. A hand gear-change used a gate mounted on the side of the petrol-cum-oil-tank, but did not rely on this alone for holding the gear selected in position. A spring-loaded detent plunger had been added to the gear box end cover, which engaged with a notched quadrant within the gearbox, attached to the selector. Gear selection was now much more positive. A Velocette three-plate clutch, with cork inserts, transmitted drive to the rear wheel via the usual outboard final-drive sprocket so characteristic of all Velocettes.

The frame was unusual, in that it was no longer of the full loop type. Instead, the crankcase joined the front downtube and the base of the saddle tube via the front and rear engine plates. Webb front forks were fitted, with adjustable side dampers of the friction disc type. A steering damper was also fitted. Both wheels had bearings of the cup

and cone type, fully adjustable, and brake plates with integral water deflectors.

The tank, in black and lined with gold, had two fillers, the one on the left for petrol and the other for oil. Oil was fed by gravity from the tank to the pump in the crankcase, Veloce eschewing the use of petroil until they made the Viceroy scooter. Unexpectedly, an ignition coil was mounted upside down with in a sealed, circular compartment formed in the forward portion of the left-hand side of the tank. With it was the condenser for the contact breaker points, the latter within a detachable cover over the right-hand end of the crankshaft, on the end of which the operating cm was positioned. The all-important battery was mounted on the right-hand side of the machine, immediately below the saddle and counter-balanced by a leather-faced toolbox on the left. The belt-driven dynamo was

clamped within a circular cutaway in the rear engine plates.

At this time, the use of coil ignition on a motorcycle was considered a somewhat daring innovation, even though it had become acceptable on cars. But as Veloce explained, even if the battery is flat, running with the machine in bottom gear will provide sufficient current for it to be started. What they failed to mention is that one needed the ability to run at a speed of at least 20mph to be able to start. In this fashion, or to live at the top of Ben Nevis! Lighting also was electric, the headlamp being mounted on two stalks from lugs on the forks.

A twin-port downswept exhaust system was used, with twin fishtail silencers with rounded, moon-shaped ends. This design of silencer was used throughout the entire production run and is exclusive to the GTP model.

The GTP proved to be a most delightful model to ride, having none of the vibration associated with the earlier, overhung-crankshaft models. The engine was slow-running and economical

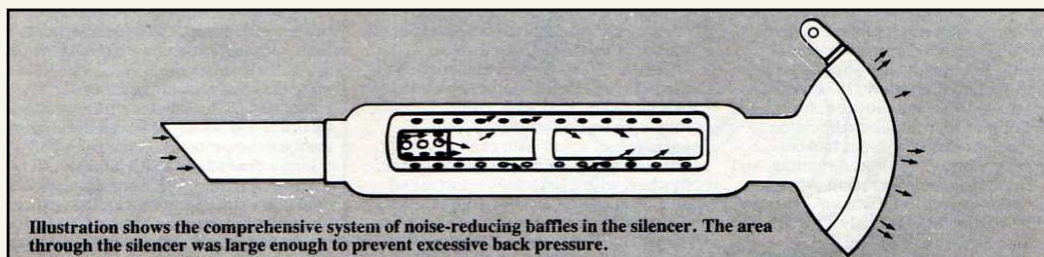


Illustration shows the comprehensive system of noise-reducing baffles in the silencer. The area through the silencer was large enough to prevent excessive back pressure.

Autumn Run

9th October

After a run of decent weather the week leading up to the run was wet and cold, but the day dawned dry and warmer. This probably helped us have a decent turnout with 16 riders signed on, though newly engrandfathered Bill Danks soon sloped off citing grandfatherly duties, promising to do the run on another day.

From the start we went up towards Quatford Wood, then along past Stanmore before turning off for The Hobbins, a lane that seemingly very few had ventured down before. A short while later we went through Worfield village, leaving up a hill that had been made muddy by recent rain, and ending at what we should now call Cow Poo Corner. I heard tales of several members flicking the back end round speedway style, doing nothing for their blood pressure. The 'loose' surface probably led to me seeing a number of riders pull over to wash their boots in a puddle, thus maintaining NBS standards of appearance, makes you feel proud doesn't it.

Then it was up through Badger and Beckbury and down into Ironbridge Gorge for a coffee stop at The Swan. By the time we got there Martyn Griffiths had managed to insert a substantial twig between the lower frame tube and gearbox of his Matchless twin that defied all efforts to pull it out. I was gently threatened with a bill if the gearbox should need removal, which it ultimately didn't, though Martyn may have been motivated by my offer to pop round with a

blow lamp to burn the offending twig away. I'm just glad the twig didn't insert itself up Martyn's trouser leg instead, not a bad advert for riding boots really.

There was some concern at The Swan as to what had happened to young Jonathan Clarke, a new member out for his second run with us but the first time on his A10. Perhaps he had carried on without stopping...? Well he eventually turned up, a bit hot and bothered, revealing that as he lacked a route sheet holder he'd tagged onto the back of a passing BSA C12, only to realise that perhaps it wasn't on the run when they neared Wolverhampton.

After coffee we went up to Little Wenlock, around The Wrekin, and then off towards Cressage, Acton Burnell, up Causeway Hill and onto Wenlock Edge. Then it was down through Bourton to Monkhopton and up Beaconhill for some more splendid views before dropping down back to Bridgnorth.

The run was 59 miles when I planned it on the Velocette, and 55 miles when I rode it on the day on the Flash, aren't Chronometrics great? Afterwards I think some members went down to Hampton Loade station to the Severn Valley Railway Vintage Vehicles Day. By all accounts the run had been enjoyed and I think I'll be allowed to put on another next Autumn. Truth to tell I think they just fancy another go at Cow Poo Corner...

I forgot to take any pictures during the Autumn Run, but this one at the Picnic Concours Run coffee stop on 14th August should probably be seen. It appears to be a rare shot of Kung Fu maestro Eric Greenfield demonstrating the latest karate hand positions to 'Grasshopper' Colin Lloyd. They are standing by Maurice Trupp's 1929 Ariel, Norman.



Continued from the Autumn run

Continuation from page 3

having a distinctive exhaust note accompanied by the characteristic 'ring' of the exposed flywheel. Maximum speed was about 60mph, and both roadholding and braking were well within the standards associated with the Velocette marque. It soon acquired a reputation as one of the better machines of its type.

Such was the success of the new model that the only changes in specification made for 1931 were the fitting of a rear carrier, the use of a different type of Amal carburettor with a butterfly air strangler in place of a push-down air slide, and provision made within the front brake drum for a speedometer drive. For the 1932 season, an aluminium alloy cylinder head was fitted, of similar profile

to the original. The opportunity was also taken to link the oil pump with the throttle slide so that more oil was supplied as engine speed increased – an innovation which the Japanese re-invented three decades later. An improved front mudguard, with side valances, gave better weather protection and a sorbo-rubber pillion seat was fitted as standard, in place of the rear carrier. There was also an improved four-stay mounting for the headlamp. The 1933 models followed similar lines and it was not until mid-1934 that more substantial changes in specification took place. By this time, that long-forgotten item that became an essential part of a manufacturer's catalogue had come into

existence – optional extras. From 1932 onwards customers could obtain the high-level exhaust pipes that were such a craze in the early thirties. These cost an extra 5s (25p) per pipe. Also listed was the patent foot-operated gear-change, a round box that bolted on to the top of the gearbox end cover. This extra cost £1.15s and, strangely enough. I have never seen a GTP so converted.

Before a pillion seat and footrests became part of the machine specification, these cost an extra 10s 6d and 4s per pair. And there was also the speedometer, not originally a legal requirement, for £2.10s with trip, or 5s less if of the non-trip type. A combined stop and rear lamp would add a further 10s 6d.

Continuation from page 5

1934 became the year of major design changes, as the result of which a greatly improved model emerged for the 1935 season. But one modification that had been applied to the early 1934 models had passed almost unnoticed, for it took the form of an internal modification to the engine. Piston seizures had been a problem during high-speed running, and a Phil Irving said in a recent article, some considered GTP was an abbreviation for Generally Tight Piston!

Alan Edwards, a former Levis employee and a two-stroke expert, was asked to sort out this problem. Applying knowledge no doubt gained from the six-port Levis two-stroke, he rearranged the transfer passage in the cylinder barrel to re-enter the cylinder wall just below the twin outlets used previously, by means of a rectangular port. Using a new piston, without the cutaway in the back of the skirt, he arranged for a rectangular shaped 'window' to be cut about an inch up from the bottom of the skirt, in its back.

Now, gas transferred from the crankcase passed through the opening in the piston's rear wall to the passageway in the cylinder and through the twin ports above. By diverting through the piston the flow of gas from the crankcase, it helped cool the underside of the piston crown. Other minor changes included the use of a piano-wire push-pull twistgrip, mudguards with better valances, and a change to a lever-operated ignition advance control in place of the left-hand twistgrip used for this purpose. The late 1934 changes that applied to the 1935 models amounted to the fitting of a four-speed gearbox with a fully-enclosed positive stop, foot gearchange, an oil-bath chaincase with different pitch primary chain, a lighter flywheel with a detachable centre and belt-drive pulley,

a new shape rear brake pedal, and silencers fitted with detachable baffles to aid cleaning. The dynamo drive belt now had its own separate cover.

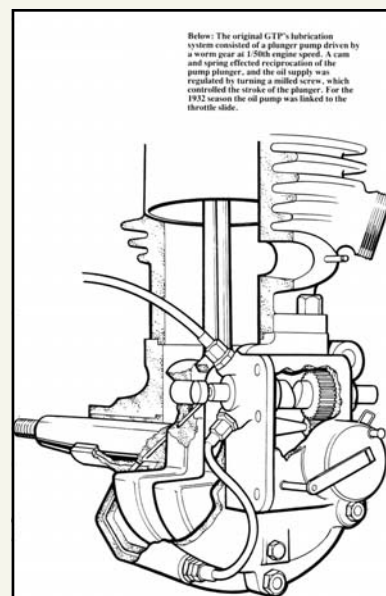
These modifications proved sufficient to see the GTP though the 1936 and 1937 seasons, the '37 modes having the distinction of a flywheel with a chromium-plated rim and a more shapely petrol tank that now held an extra ¼ gallon of petrol.

The last of the changes in specification occurred for the 1938 season, when the electrical system was modified to contain provision for voltage control, dispensing with the half-charge resistance contained within the headlamp. Extras had, at last, been deleted from the catalogue, items such as a pillion seat, footrests and a speedometer now being regarded as essential fitments. As Veloce said on the reverse of their 1938 catalogue, 'It would be strange indeed, if, when buying a suit of clothes one would be told that the buttons would be an extra charge.' 1939 and World War Two brought production of the GTP to a halt for all time, although a batch of 250 were made immediately after the war, all with magneto ignition, and all for export. It was easy to effect a magneto conversion by fitting a sprocket to the taper normally used for the contact breaker cam, and taking a chain drive to a magneto mounted on top of the rear engine plates, enclosed within aluminium alloy covers like those used for the Mark KSS magneto drive. It was a tight fit due to the close proximity of the carburetter, but it could be

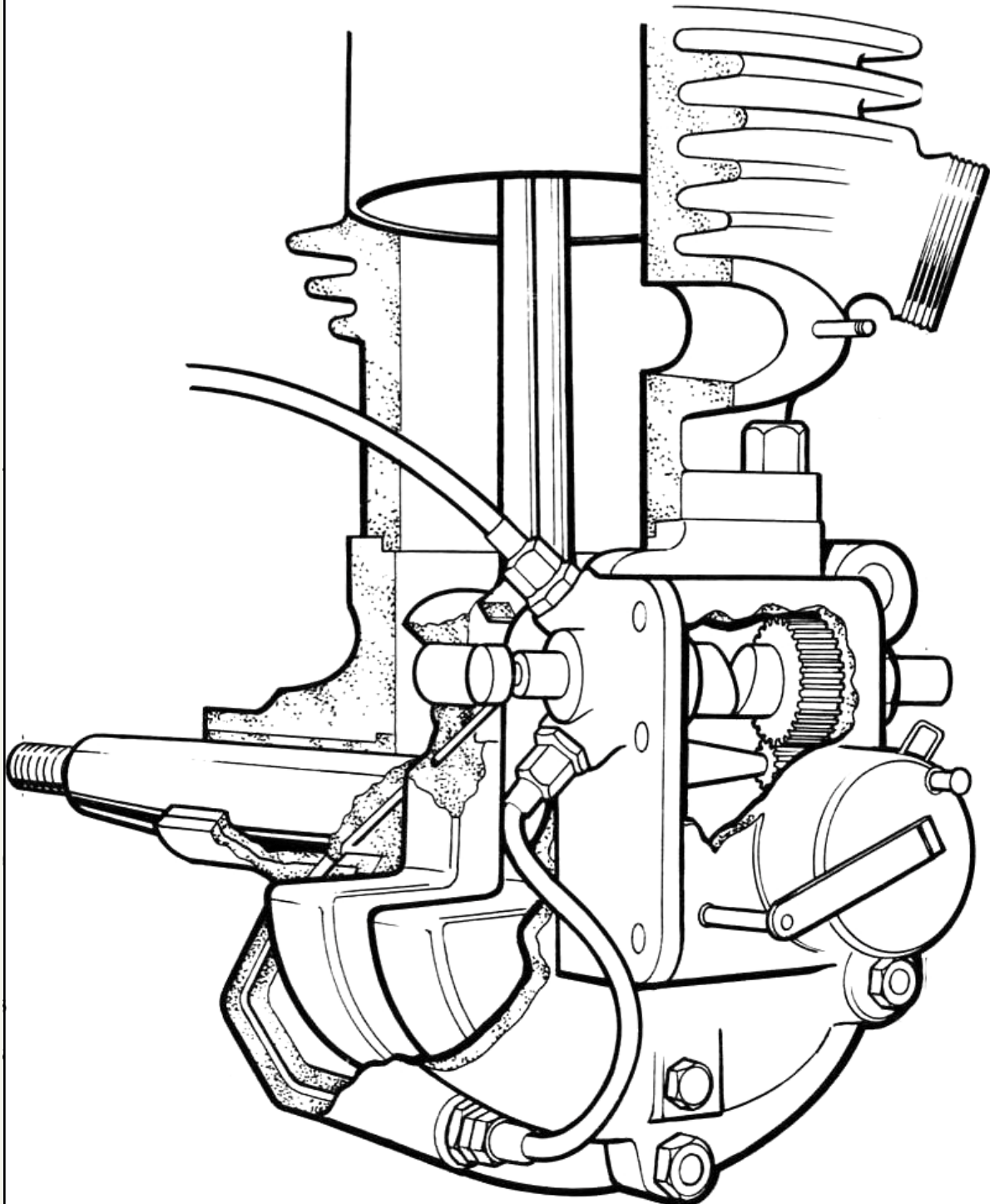
done. One or two of these models are still running, having found their way back to our shores.

When first announced, the GTP cost £38, and by the time it went out of production, the cost had risen only to £44 – not bad over a ten-year span (production actually ceased during 1940) made. Petrol consumption averaged from 78 – 100mpg, depending on how the machine was ridden, and oil consumption well over 1,000mpg. The overall weight varied from the original 222lb to 248lb (1939).

I write about the GTP with affection, because it so happen that my very first motorcycle was a 19321 model, which I bought during 1946 from a fellow technical college student. It was in a terrible state, yet it carried me many thousands of miles, on occasions between my home in Surrey and an RAF camp in infamous winter of 1946-47. By taking it apart frequently I taught myself much that put me in good stead during later years. I wrote so many letters trying to find parts that even today I can remember the engine and frame numbers – GA 1688 and E173 respectively. It is too much to expect BV 546 to have survived, although if it has, I would not be totally stunned. If any machine was bullet-proof, this was it. And that just about sums up the GTP range as a whole.



Below: The original GTP's lubrication system consisted of a plunger pump driven by a worm gear at 1/50th engine speed. A cam and spring effected reciprocation of the pump plunger, and the oil supply was regulated by turning a milled screw, which controlled the stroke of the plunger. For the 1932 season the oil pump was linked to the throttle slide.







A modern version of the sidecar powered by Laverda

PROVISIONAL FORTHCOMING
ATTRACTIONS FOR 2012

	CLUB NIGHTS
JANUARY	AGM
FEBRUARY	Quiz Night with Brian Thomas
MARCH	Talk on Smethwick based racing driver Ken Wharton
APRIL	A biography of John Marston (Sunbeam)
MAY	Visiting speaker or social evening
JUNE	Ride a bike and Concours night
JULY	Fish and Chip supper
AUGUST	Visiting speaker or social evening
SEPTEMBER	Visiting speaker or social evening
OCTOBER	Talk by Central Wheel Co
NOVEMBER	Competing in the Iron Butt Rally by John Young
DECEMBER	No meeting

DATE	RUN	ORGANISER	Tel No
JANUARY 1st	New Years Day	Martyn Round	0121-550-1547
MARCH 11th	Severn Valley Run	Bill Danks	01562-67103
APRIL 22nd	Anchor Garage Run	John Aston	01543-452695
APRIL 25th	Mid Week Run 1	Bill Danks	01562-67103
MAY 20th	Girder Fork Run	Martyn Round	0121-550-1547
JUNE 10th	Josie's Jaunt	Josie Stanley	01543-452695
JUNE 24th	Long Mynd Run	Colin Lloyd	01384-371835
JUNE 27th	Ride a Bike and Concours	Paul Harris	01902-842732
JULY 8th	Trent Valley Run	Brian Empsall	01543-264968
JULY 18th	Mid Week Run 2	Ian Harris	01952-460254
AUGUST 5th	Breakfast Run	Rob Pell	0121-624-7674
SEPTEMBER 2nd	Flight of Fantasy	Trevor Bull	01905-778917
SEPTEMBER 12th	Mid Week Run 3	Roger Greening	01562-730464
SEPTEMBER 16th	Clun Run	Ian Harris	01952-460254
SEPTEMBER 30th	Levis Cup Road Trial	Paul Hutton	01902-842732
OCTOBER 7th	Autumn Run	David Spencer	01746-762957
NOVEMBER 11th	Winter wander	Paul Harris / Martyn Round	01902-842732 / 0121-550-1547