THE WOLSELEY WORD

CAR CLUB

N.Z. INCORPORATED

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ORDER OF ARTICLES

"Switch off your engine, sir—you're gaining on me!"

1. EDITORAL - FROM MY POINT OF VIEW

Now that the inevitable round of Summer activities and end of year Xmas functions are upon us once more, it remains just as important to toe the line if we wish to enjoy them to the fullwithout pain or loss of a loved one.

It has rightly been said that litter is a state of mind and for there to be any significant reduction in the amount of rubbish spoiling the countryside there must be a change in public attitudes Certainly this is an ideal worth striving for, but there are incentives available to encourage tidiness, such as legal penalties for those who cannot be bothered to dispose of their rubbish in an acceptable manner.

Not the world's cleanest nation at any time of year, New Zealanders probably perform most of their littering in the summer months, when warmer days make beach, bush and lakeside more appealing. While we may not set off on our picnic with the deliberate intention of messing up the countryside, we may decide when the time comes to return home that we cannot be bothered gathering up our litter and taking it back to town.

Remember that broken bottle left buried in the sand can slice through an artery with ease. It is so easy to be a hypocrite by simply leaving it there and blaming some-one else for not cleaning it away.

The majority of car drivers and drinkers seem able to follow their pursuits without creating difficulties for themselves or their neighbours. When drink and driving unite, however, we have a potentially deadly combination.

Alcohol and the motor car are two major components of modern society. Alone, each can be hazardous if abused - reckless use of a motor vehicle can destroy people and property and alcohol out of control produces innumerable social problems too well known to require examination here.

Perhaps the argument most commonly resorted to by the drinking driver in rationalising his behaviour to himself is that he has never been caught. Were it possible to survey those who habitually drink and drive it may well be found that this is the reason most of them continue playing this particular form of Russian roulette. The continuing gamble is that driving factors will always be favourable. Usually they are, but occasionally two or more negative factors coincide, demanding all the skill a driver can muster. If he is cimpletely sober his chances of mastering the situation are considerably higher than if he has even a small quantity of alcohol in his bloodstream.

Each year's road toll comprises many road users for whom alcohol proves to be the final factor - resolving a possible accident into a dead certainty. One half of all fatal motor vehicle accidents involve a drinking driver. Car drivers, motorcyclists, pedestrians: They all reduce their chances of escaping death or injury by venturing on to the road after taking alcohol.

So take care, we want to have you attending our next Club activity - ALIVE and well.

Colin will be back with us next newsletter, now that his exams are completed.

BILL WILLIAMSON

classified advertisements

THE PRESIDENT SAYS

Dear Member,

Last Newsletter I made mention of a sub-committee formed to look at purchasing and stocklisting spares and accessories. At a General Meeting on 6 November it was decided that spares to be purchased would consist of harder to get items mainly for the makes and models of cars in the Club. Concentration would be on the more popular models initially, but as funds permitted would continue through to all models. Contact would also be made with clubs in Great Britain on the availability of parts there.

A garage has been given to us, which is already knocked down in sections, to enable us to house our spares. Jack Milne has kindly lent us an area of his back yard for the garage for a time. Of course he will need to place the garage on runners for future removal and will require a working bee shortly to clear the area and put the garage up. If you are a carpenter or a handyman with a Saturday up your sleeve we sure need your help. Please contact any Committee member if you are available. We hope to get a large truck to transport the garage.

Response to our Xmas Dine and Dance has been poor and I can only say that I personally am very disappointed indeed.

Response to the childrens Xmas party has also been poor when I consider that last year the children enjoyed it immensely. However, both events will take place even if the attendances will be low.

More use of the grapevine system whereby each Committee member contacts a percentage of local members will be made in future and hopefully by jogging your memory prior to an event we will get a better response.

The raffle is progressing well and I would like to thank you all for your efforts.

As this may be the last Newsletter before Xmas I would like to take the opportunity to wish you all, and especially those of you out of Christchurch, the very best wishes for Xmas and the New Year.

JOHN PARKER

RUN TO ASHBURTON (TINWALD DOMAIN)

On 14 October we held a combined Christchurch and Timaru Branch run to Ashburton. From the Christchurch end approximately 20 cars set off under somewhat dull weather conditions on what was to be a memorable day, for some.

As the procession neared Ashburton the weather got steadily worse; when we arrived and lined up on the north side of Ashburton to proceed through the town it was hosing down. Undaunted we valiantly carried on to our final destination, the domain at Tinwald, with a white 6/110 and large caravan in hot pursuit.

In Tinwald we turned off the main road and after getting lost twice on what appeared to me to be a follow-the-leader type gambot, we were finally steered in the right direction by a local.

On arrival at the domain we were met with an enthusiastic, if not dampened, welcome by the Timaru members who had beaten us by some minutes. They were all huddled in a small pavilion waving frantically to us and obviously impressed by our procession. After a mad dash through the rain to the pavilion loaded with picnic lunches etc., introductions and greetings all round followed. We must have looked a sorry and bedraggled band indeed, but our spirits were high as we ate lunch, cursed the weather and discussed our cars and so on.

Dennis and Gail Carruther from Ashburton arrived at this point sporting their new baby girl and amid congratulations and admirations, Dennis and I decided he would look for an indoor venue for the afternoon. A quick telephone call to the Secretary of the Tinwald Memorial Hall confirmed that the hall was available and we drove around and picked up the key. Arriving at the hall, Dennis and I rushed in, turned on the heaters, and shot back to the Domain to inform the others. Everyone packed up and thankfully proceeded to the hall.

In very comfortable and pleasant surroundings we continued our conversations and progressed to some games for the children with prizes, and held a raffle. Mrs Roebuck from Timaru supplied us with some entertainment on the piano.

I think I could safely say that those present enjoyed themselves pretty well and after a cuppa and chat we all went off home.

Bill Williamson (Club Captain, Christchurch) and Doug McKenzie had several events planned for the day which included a series of driving skill tests. However, perhaps next year in February/March we could try again.

Many thanks to those who participated.

JOHN PARKER

4. Woodend Rally

Only four cars and one motor cycle (Robert Hey and pillion navigator) were flagged away by Marshall Malcolm Graham. He and Cheriene then went straight to the finish line at Woodend to check in the competitors. Two cars apparently got lost somewhere but it was pleasing to see that the Hills Family did get there in the end, (next time try it in a British vehicle as they don't get you off the beaten track). Doug McKenzie, 24/80, was judged to be winner and is now the current holder of the Dalton Trophy. Well done, Doug, after two placings of runner up you have finally got your eye in.

Thanks must go to Malcolm for his time and effort in making the afternoon so enjoyable.

BILL WILLIAMSON

Buying a used car? Look closely at the figures on the speedometer. If the first three digits are not in perfect alignment, you can suspect the mileage has been set back. Try to estimate the true mileage by the condition of the tyres and pedals.

5. The Borg-Warner Automatic Transmission - PART ONE

INTRODUCTION

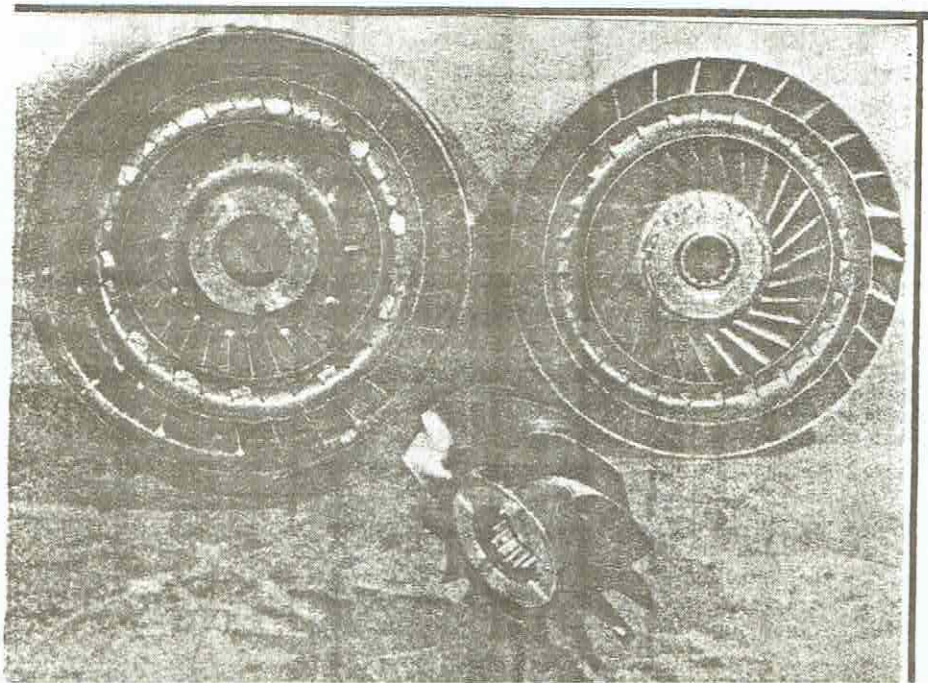
An automatic transmission is, as the name implies, one in which the driver's gear shifting activities are reduced to the very minimum. The automatic transmission is so designed that the driver merely selects the general gear range - such as neutral, forward or reverse - and operates the accelerator and brake. The conventional clutch is omitted in transmissions of this type.

An automatic transmission comprises basically a gear box linked to the engine by a hydraulic torque converter or fluid coupling, which takes the place of the conventional engine clutch.

The selection, timing and engagement of gears for the required speed ratio is accomplished automatically, through hydraulic operation, according to road speed and engine load, by a centrifugal governor and a system of valves. The selector lever operated by the driver actuates a manual control valve which selects neutral, reverse or the range of forward speed ratios desired. Usually, two forward positions are provided: one permitting all the forward gear ratios to be engaged automatically, and the other permitting the transmission to change only in the low gear ratios. The latter position is usually selected when the car is descending a steep grade or travelling through sand or mud.

Driving is simplified to the use of two pedals, one for 'go', and one for 'stop'. There is no call for energy-abosrbing use of a clutch pedal and gear lever, and consequently fatigue is reduced to a really remarkable degree. Additionally, driving attention, freed from the complication of gear changing, can be concentrated upon the road and the traffic.

Three forward speeds and reverse are provided. A finger-tip operated lever is mounted on the steering column near the steering wheel. This is the selector lever, which controls a valve inside the transmission. There are five possible positions for the lever and each position is lettered on a quadrant, 'P' stands for PARK, which means that the transmission mainshaft is locked and the car cannot be moved but the engine can be started. 'N' is NEUTRAL. The mainshaft is unlocked with the lever in this position. The car can be pushed, the engine can be started, but there is no drive. 'D' is the lever position that gives drive and automatic changes up or down as required 'L' indicates that



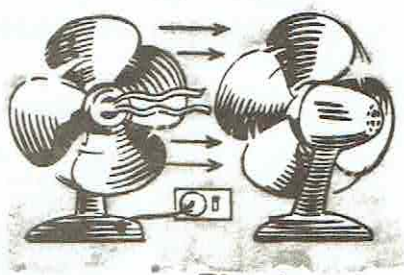


Fig.1

when the lever is in this position the gear is locked in low ratio and full engine braking is available. In emergency the selector lever can be placed in the 'L' position, but it is recommended that this is not done at speeds above 40 miles per hour. 'R' is the fifth and last letter and stands for REVERSE. With a view to normal manoeurvring, it is convenient to have reverse gear next to low: furthermore, it enables the car to be rocked out of snow. This is done by selecting the 'L" and 'R' positions alternately while keeping the throttle opened a little.

Safety precautions are taken in arranging the ignition wiring so that the engine can only be started when the selector lever is in either the PARK or NEUTRAL position. **ENSURE HANDBRAKE IS APPLIED WHEN CRANK-STARTING ENGINE.**

The Borg-Warner automatic transmission consists of two main components- a hydraulic torque converter and an automatically controlled epicyclic gearbox. The torque converter occupies the position taken by the fly-wheel and clutch on the conventional car. The gearbox contains two sets of epicyclic gears arranged one behind the other, or 'in tandem'. This form of transmission features a perfectly smooth take-off and the changes are made automatically, the 'brain' of the gearbox selecting the gear best suited to the immediate need. Although such results are remarkable and involve the use of a good many components, it is possible, step by step, to give a straightforward explanation.

It is simplest to begin with the torque converter - the means by which engine power is transmitted to the gearbox. As a first step towards understanding the torque converter it is best to consider a simple fluid coupling.

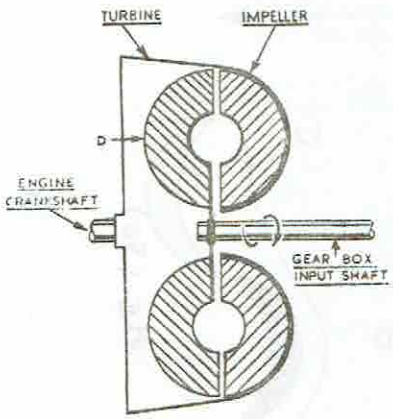


Fig. 2(a)

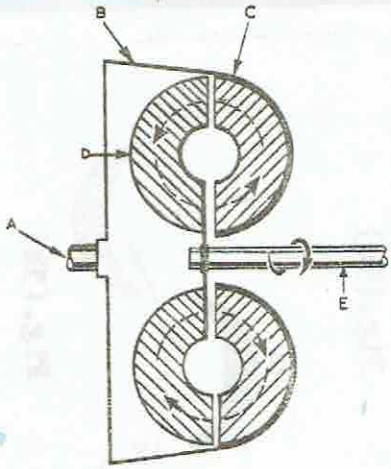


Fig. 2(b)

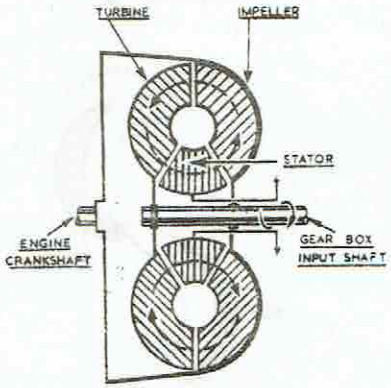


Fig. 2(c)

The action of the fluid coupling can be demonstrated by using two electric fans, placed facing each other at a short distance apart. If one fan is now switched on, the air flow directed from its blades will strike the blades of the stationary fan and cause them to revolve. The second fan's blades will gradually build up speed under the influence of this air flow until the two fans are revolving at approx-imately the same speed. (Fig.1)

In the hydraulic coupling the case is similar except that instead of the fans, two bladed wheels are used which are sealed in a circular casing bolted to the engine flywheel and filled with oil which acts as the fluid medium instead of air. The first wheel, called the impeller, is driven from the engine and its blades direct the oil flow against the blades of the second wheel called the turbine, thus causing it to revolve. The turbine in turn drives the gears and the power is transmitted through the gear box to the rear wheels according to the speed range selected.

When the engine is idling, the turbine will not revolve as there is insufficient force from the oil flow to turn the blades. The car will remain stationary until the accelerator is pressed, causing the engine to speed up and the turbine and gears to turn. Thus, it is not necessary to disengage gear to prevent the car from moving away after bring it to a standstill.

Figs. 2.(a) and 2 (b) are diagrams showing a sectioned fluid coupling in which arrows indicate fluid circulating from one member to another. The driving member attached to the engine is called the impeller, while the driven, or output, member is called the turbine. When, on account of the turbine shape, the fluid is returned to the impeller a good deal of its energy has been expended, but some of it remains, causing it to have a dragging effect on the impeller. This causes loss of efficiency for only part of the turning effort put in by the engine is passed on by the coupling.

In a torque converter this loss of energy is counteracted by introducing a third member, called a stator, between the impeller and the turbine, as shown in Fig.2(c) It is the function of the stator to deflect the fluid returning from the turbine so that it passes into the impeller in the direction of engine rotation. Thus, the energy remaining in the fluid is used to assist rather than hinder the engine. As the speed of the turbine increases in relation to that of the impeller the oil flows almost parallel to the converter axis, and the stator, which previously deflected the oil into the direction of impeller rotation, would itself form an obstruction. On this account the stator is mounted on a freewheel so that, as soon as the turbine speed approaches that of the impeller and oil deflection is no longer necessary, it can revolve together with the turbine and impeller.

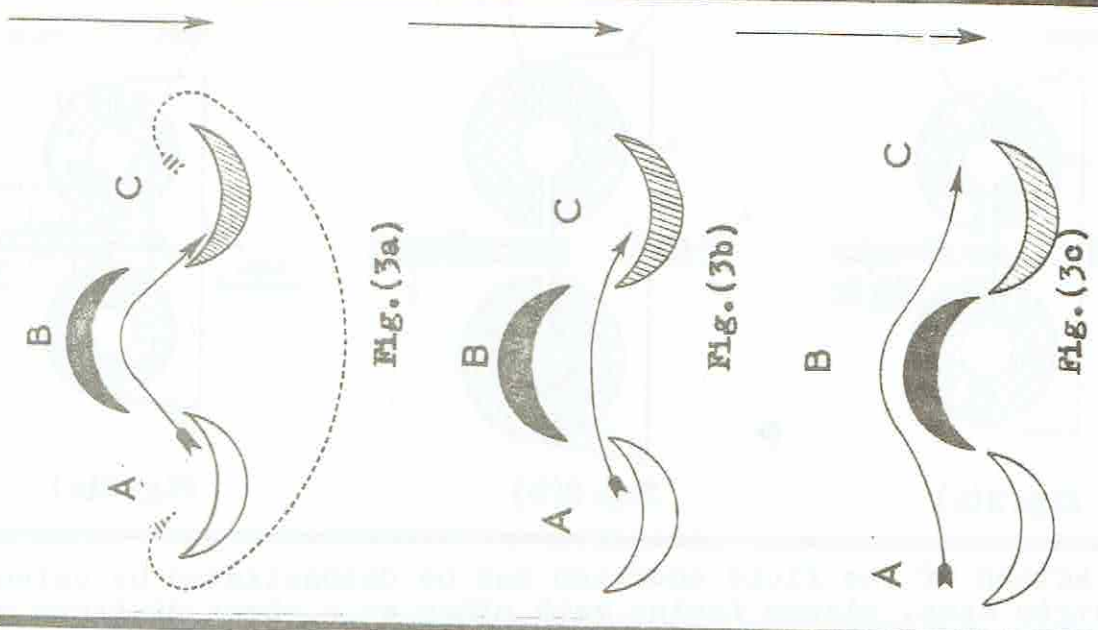


Fig. 3 shows diagrammatically the condition at the central area of the converter:

(a) When there is a wide difference in speed between the turbine on the left and the impeller on the right. Here the stator is deflecting the oil quite sharply in the direction of impeller rotation.

(b) When turbine speed has increased in relation to impeller speed the oil is still deflected but at a less acute angle.

(c) When turbine speed has risen close to impeller speed no deflection is necessary and the stator moves on its free-wheel in the same direction as the turbine and impeller and does not hinder the comparatively straight flow of oil from one member to the other.

The torque converter is a sealed unit, but the photograph at the head of this article shows one that has been opened. Note the vanes in the impeller on the left and the turbine on the right and those on the stator. Guide rings that ensure proper circulation of the oil can also be seen in the picture. The vanes in the impeller are practically straight while those in the turbine are curved. This arrangement subscribes to improved efficiency in the torque converter. A common oil supply serves both the converter and the gearbox.

Oil is drawn from a pan or sump at the bottom of the gearbox and passed into the converter, where it becomes pressurized to reduce cavitation noise and slip. Many streams of oil from the impeller act upon many turbine blades at considerable pressure. Oil circulates from the converter along the gearbox mainshaft, passing through various outlets in the shaft to provide lubrication for the gears.

Although the converter is a sealed unit and repair is a manufacturer's works job, it is provided with a plug which enables it to be drained when it is necessary to renew the oil. It is recommended that the oil be renewed every 24,000 miles.

The Borg-Warner torque converter is capable of torque multiplication at an infinitely variable rate up to an equivalent gear ratio of 2.6:1.

The next instalment in this series will deal with the automatic gearbox, its ratios, and how they are produced.

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6. Home Workshop - Where There's a Will!!!

Ever felt that you're really up against it, pushed for time, a rusted nut or stubborn thread, or even worse, a broken stud and your local garage is shut.

Although most car owners still entrust the servicing and repair of their cars to their Dealer, there is a growing band of 'do-it-yourself' enthusiasts.

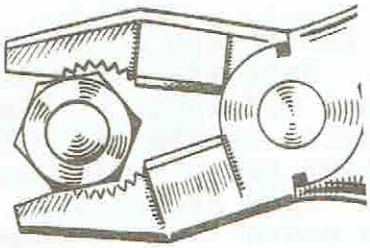
Their reasons are respectable enough: long waiting lists at nearly all garages, lack of funds, the commendable desire to learn, and the sheer pleasure in what wives always call 'grubbing about in the garage'.

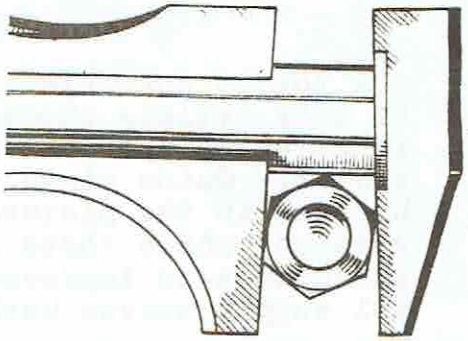
I watched one at work the other day (my next-door neighbour, as a matter of fact). His persistence was admirable, and he was obviously enjoying himself. But I winced at his ham-handedness, his lack of equipment, and the time he took.

For him, and others like him, here are a few hints which should enhance those golden hours snatched from helping with the kitchen chores, or starting on that long-delayed decorating job in the lounge.

Have you ever watched a skilled mechanic at work? Every job is made to look easy. Of course it is - he has the resources of a well-stocked spares and tool store behind him.

The amateur is in a different league, however talented he might be. Rarely can he afford more than a limited tool kit, for a start. So he must choose wisely from what is available, and use every tool to the best advantage.





SPANNERS

As a general rule, forget all about adjustable spanners. They have their uses, butare best left to the expert. And the reason is not far to seek. No matter how good an adjustable is, it will always allow a certain amount of free movement at the jaws due to the necessary working clearances between its component parts.

If a nut is at all tight the jaws of an adjustable tend to slip over the corners of the nut and cause them to become rounded. The result is a spoilt nut that you will find hard to move with any type of spanner.

So use, at the least, a set spanner. Even then, on occasion, you will find that a nut defies all efforts to dislodge it. Don't lose your temper, or blame the tool maker. Get yourself a tin of penetrating oil (they even come in aerosols these days), let it soak in for a while and try again. Nine times out of ten your troubles are over. The tenth time will be dealt with later.

Even so, there are some jobs which the ordinary set spanner will not tackle - a nut set in a 'well' for instance. The tool for this job is a ring spanner, if space and angle permit. An alternative is the box spanner. Both have the advantage that they fit the nut like a glove, which cuts down any chance of slipping.

The particular merit of the ring spanner is that it grips the corners of a nut, not the flat sides as does an ordinary spanner. This feature enables you to work in confined spaces, or a little thought will show that smaller angular movement is needed to go from corner to corner rather than from flat to flat.

To revert to the box spanner for a moment. Don't, ever, use a round file as a tommy-bar. A file is made of specially cast steel, and is extremely brittle. If it should chance to break - and it almost certainly will under stress - you will have gained a very painful wound, and lost a good tool.

Finally, avoid overtightening a nut. The excessive pressure can cause metal strain, and can even lead to the stud shearing off. You are really in trouble then, but some advice follows later

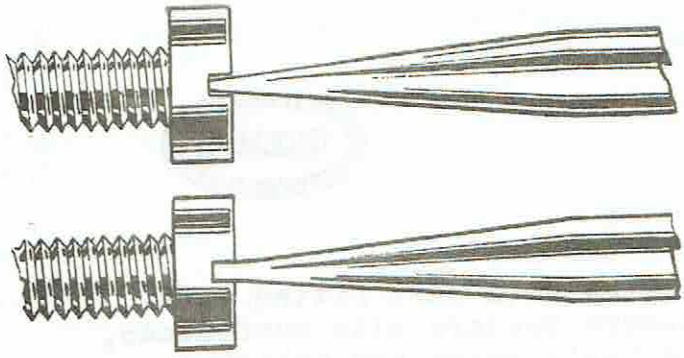
SCREWDRIVERS

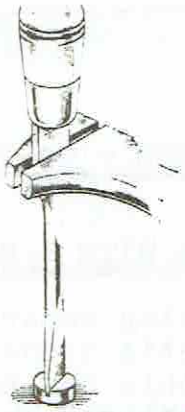
They have some nasty habits, the worst being a tendency to slip out of the screw slot, causing damage to everything around, including your fingers and the screw itself.

If your screwdriver continually does this it needs regrinding.

However, your screwdriver may be perfect yet still the screw refuses to budge. Again, don't lose your temper or resort to brute strength.

Place the screwdriver in the slot of the screw, and deliver a few sharp blows with a hammer to the top of the handle. It should then be possible to loosen the screw. The theory is that shock waves have something to do with it.





Perhaps this subterfuge will fail too. In that case, place the screw driver in the screw head and apply an adjustable spanner (at last, a use for it!) to the flat part of the shaft. The extra leverage obtained should do the job.

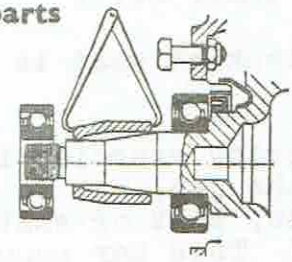
To be continued.

WOLSELEY SERVICE

NO. 2 OF 6 | INSPECTING A USED BEARING

Once a bearing has been removed it can be more closely inspected for any signs of wear or damage. Do not spin it as this will only roll any dirt into the tracks.

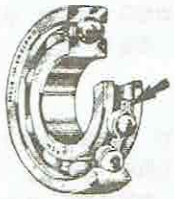
Check mating parts for wear and particularly distance pieces for reductions in length due to bearing creep.



Notice particularly if there is any change in the appearance of the outside diameter or in the bore of the bearing. This could mean that it had been turning in an oversize housing or on an undersize shaft, and the bearing faces may have worn away the softer metal of abutting shoulders or distance pieces. The same trouble would still be there even if a new bearing was fitted. It could lead to early failure.

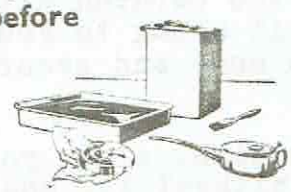
It is sometimes impossible to see why a bearing should be faulty. In such cases the expert and free advice of the bearing manufacturer should be sought.

Check bearing cages for signs of wear, rubbing or cracks.



Avoid further damage to the bearing and do not clean it at all. If the machine or vehicle is still under warranty the bearing should be returned to the manufacturer concerned. Otherwise, return it to wherever it was purchased, together with the fullest possible description of its location, estimated mileage or hours and the reason for removal.

Clean and protect bearings before refitting.



If a bearing has been removed and then passed as fit for further service, it must be carefully washed in clean petrol or white spirit (but not paraffin) and dried in dry compressed air. You can be sure that it is perfectly clean by turning and pressing one ring against the other. Any dirt or dust is easily felt. When the bearing is finally cleaned for use it should be immediately soaked in clean machine oil and wrapped until ready for re-fitting.

Most bearing failures are due to bad working conditions. These notes will help you to enjoy long and trouble-free bearing life.

7. TECH - TOPIC

WOLSELEY

TOWING WITH B.M.C. AUTOMATICS.

Following reports of the dangers of towing with cars fitted with automatic transmissions. We can reassure readers with confidence, that this can be done provided certain basic rules are followed, particularly those concerning maximum weight of caravan (full details were published in our 1979 January issue).

Some years ago George Bishop Public Relations Officer of Borg Warners' Transmission Division contributed the following article.

Automatic transmissions have been popular for many years on towing cars driven by experienced caravanners. If you have tried towing a trailer yourself the reasons will come readily to mind.

Starting on a steep hill, for instance, can put a heavy load both on the car's clutch and the driver's mind, but both burdens are lightened when the fully-automatic transmission takes over, eliminating that awkward business of trying to juggle three pedals with only two feet.

Various people who really shouldknow better have been causing alarm and despondency recently by suggesting that automatic cars are not suitable for towing, and that the gearbox can be damaged by pulling a caravan. Many caravan manufacturers, dealers, and users have been up in arms about this, since the first two recommend automatic cars for towing, and the users have been quite happy with their cars.

To put their minds at rest let's take a look at what is involved and see how real the bogey is.

The first essential when considering a towing exercise is to make use that the car has enough power to tackle the job, or, to put the cart before the horse, to make sure the caravan, boat or whatever it may be is not too heavy for the prime mover. This may sound elementary, but you would be surprised at the optimism of some people.

The rules governing power/weight ratio between car and trailer are simple, and the same ones apply whether the car has a manual or automatic gearbox.

There are two ways of working it out: either the caravan should weigh not more than three-quarters the weight of the car, or the car's engine should have 100 c.c. of capacity for every one hundredweight of trailer.

It is not much good just taking the caravan-maker's word for the weight of the trailer, or just weighing the thing empty and then loading it up with five hundredweight of tinned food, bedding, and personal effects.

The right way to go about it in order to save yourself trouble and expense later is to have a rehearsal. Load the caravan with whatever you are going to take, and then trundle it along to your nearest public weighbridge (most towns have more than one) and secure an official reading of its total weight.

You can if you wish weigh the car at the same time, since you are not likely to get the caravan to the weighbridge without it, and then yo u will be in a position to work out the sum both ways and be quite sure you are on safe ground.

In general terms, common sense will tell you that a large car with, say, a 3-litre engine is capable of pulling just about any normal touring caravan, and a 1½-litre will pull the average 15-cwt., -footer.

It is when we come down to the small engined cars that the situation becomes more critical. There is no reason why a car even in the Mini range should not tow a trailer, provided its weight is related to the amount of power available. The situation is even more critical with a front-wheel-drive car, as excessive weight on the hitch tends to take the load off the front wheels, bringing possible steering problems and wheelspin on wet grass or mud.

The answer is to redistribute the load inside the caravan to lessen the noseweight, which should normally be about on hundredweight on the hitch. BMC recommend less nose-weight with frontwheel drive. Take care with loading though, or the tail will wag the dog.

All these recommendations concern towing in general. When we come to using automatic cars many of the driver's problems are solved. Taking off, even on a hill, presents no problem, as he can release the hand-brake and hold the outfit on the foot brake with his left foot, releasing the brake pressure as he progressively opens the throttle with his right foot.

When parked he has an additional safeguard in addition to the hand brake by engaging the 'Park' position on the transmission, which brings the parking pawl into operation to lock the transmission to the engine and prevent the car moving.

Once on the move the transmission will take care of itself, changing up and down to suit road conditions. When climbing the driver can help the engine by engaging intermediate gear, which is done by selecting 'Lock-up' on the Borg-Warner selector layout. If the speed falls to, say, 15m.p.h. he can then kick-down into first gear, which will remain held until the selector is moved back to 'Drive'. The same procedure applies when descending steep hills, in order to gain engine braking, and take the load off the brakes.

The only problems that can arise with an automatic when towing are due to over-heating of the oil in the gearbox. There are two ways of coping with this.

One is to fit a temperature gauge to the oil pan, which can be done by a specialist. The driver can then keep an eye on the heat level, amd if it rises above 120° C. (250°F) then he should stop and let it cool down. If he finds there is persistent overheating the answer is to fit an oil cooler to the transmission unit. Some cars have one as standard, for example the Vanden Plas Princess.

Borg-Warner themselves, who supply automatic transmissions for BMC 1.5-litre and 3-litre cars, the 'MGB' and MGC', the Princess 'R', and the Wolseley 18/85, cannot undertake this work.

In general, if the power/weight ratio is observed there should be no need for a cooler in the flatter parts of the Canterbury Plains. But if you want to cross the Alps in a traffic jam in high summer then you may well need one. If you have been towing successfully without one then obviously you don't need it, unless your choice of terrain or load has changed.

8. ROAD IMPRESSIONS - WOLSELEY 18/85

A CONDENSED REPORT.

The British Motor Corporation announced on Tuesday, 7 March 1967, the wolseley 18/85, a new luxury saloon fitted with power-assisted steering as standard equipment. The Wolseley 18/85 is powered by the BMC 'B' series four-cylinder o.h.v. engine of 1798 c.c. capacity mounted transversely and driving the front wheels. The Borg-Warner model 35 fully automatic transmission has been specially adapted to conform with the transverse engine arrangement and is offered as optional equipment.

MORE ROOM - ATTRACTIVE BODY LINES.

The transvers engine layout enable 70 per cent. of the overall length of the car to be made available for passengers and luggage, and the attractive but immensely strong body shell of the Corporation's successful '1800 models is used, suitable styled to conform with traditional Wolseley elegance and luxury. Incorporating the renowned Wolseley radiator grille with illuminated name-badge, the elegance is continued with a fashionable stainless steel finisher along the rear wings and boot lid. Large 'wrap-around' rear - and stop - light clusters are incorporated and the Wolseley motif' is mounted on the boot.

Repeater indicator lights are mounted on both front wings and a cleverly designed reversing light is built into the rear bumper where it will not suffer the damage or corrosion by dirt so often associated with this most useful aid to reversing in the dark. Additionally, rubber inserts are fitted to the bumper over-riders both front and rear to give increased protection against parking damage.

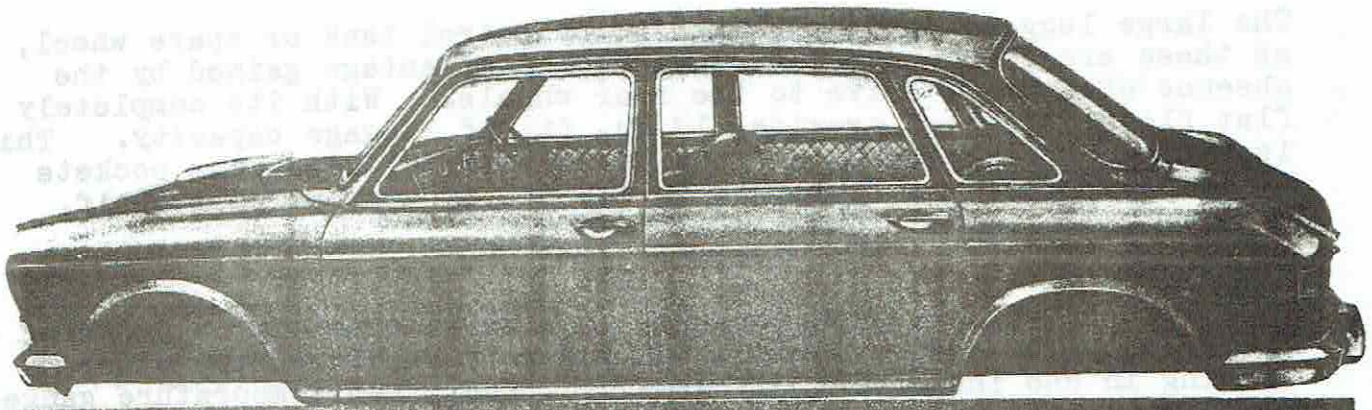
INTERIOR ELEGANCE.

The interior of the Wolseley 18/85 is handsomely appointed in traditional style. Driver and front-seat passenger occupy individual seats, while the rear is divided by a fold-away centre arm-rest Arm-rests are fitted to all doors and the occupants enjoy the luxury of real English hide on all wearing parts of the seats. Deep, moulded nylon pile carpets cover the floor and the roof is fitted with a washable leathcloth lining.

Fully adjustable reclining front seats are available.

Door panels are trimmed with leathercloth and there are walnut door cappings.

The full-width fascia is of highly polished walnut and contains a lockable glovebox, large ashtray, and space for fitting car radio with front and/or rear-mounted speakers. Instruments are grouped in front of the driver and there is a most efficient heating and ventilation system supplemented by adjustable fresh-air vents at each side of the fascia. Extensive use of insulating material makes the interior of the Wolseley 18/85 extraordinarily quiet.



Specification

WOLSELEY

ENGINE: Water-cooled, overhead-valve, four-cylinder. Five-bearing crankshaft, counterbalanced and fitted with vibration damper. In unit with clutch, gearbox, and final drive; installed transversely at front of car. Bore 3·16 in. (80·26 mm.); stroke 3·5 in. (88·9 mm.); cubic capacity 109·75 cu. in. (1798 c.c.); compression ratio 8·4 : 1. Maximum power 86 b.h.p. at 5,300 r.p.m.; maximum torque 99 lb. ft. at 2,100 r.p.m.

FUEL SYSTEM: S.U. carburetter, type HS6, with paper-element air cleaner and warm-air intake. S.U. electric fuel pump, type SP; fuel filter in pump and tank. Tank capacity 10½ gallons (47·7 litres), locking fuel filler cap.

LUBRICATION SYSTEM: Full-pressure feed. Sump forms oil bath for gearbox and final drive; internal pump driven by camshaft; external full-flow filter; gauze filter in sump with internal magnet; total oil capacity (manual) 10 pints (5·68 litres) plus 1¼ pints (0·71 litre) for external filter; (automatic) 6½ pints (3·68 litres) for engine only plus 1¼ pints (0·71 litre) for external filter; automatic box capacity, 13 pints (7·384 litres) including final and transfer drives.

IGNITION SYSTEM: 12-volt coil, and distributor with automatic and vacuum-controlled advance and retard.

COOLING SYSTEM: Closed, pressurized system with expansion tank, pump, fan, and thermostat. Capacity 8½ pints (4·83 litres) plus 1 pint (0·57 litre) for heater.

CLUTCH: (Manual Gearbox) single dry plate, 8 in. (0·20 m.) diameter, with diaphragm-spring plate; hydraulic operation by pendent pedal.

GEARBOX: (Manual) four-speed with synchromesh on first, second, third, and top, central gear lever rubber-insulated from body floor operates box by flexible cables. Final drive casing in unit with engine and gearbox; ratio: 3·882 : 1 (17/66); optional 4·19 : 1 (16/67). Drive to front wheels via helical spur gears and open drive shafts with universal joints.

Gear Ratios	*Gearbox*	*Final Drive*	*Overall*	*Road Speeds at 1,000 r.p.m.*
Reverse	3·076 : 1	—	11·93 : 1	—
First	3·292 : 1	—	12·77 : 1	5·41 m.p.h.
Second	2·217 : 1	—	8·61 : 1	7·98 m.p.h.
Third	1·384 : 1	—	5·37 : 1	12·79 m.p.h.
Top	1·00 : 1	3·882 : 1 (17/66) (Standard)	3·882 : 1	17·69 m.p.h.

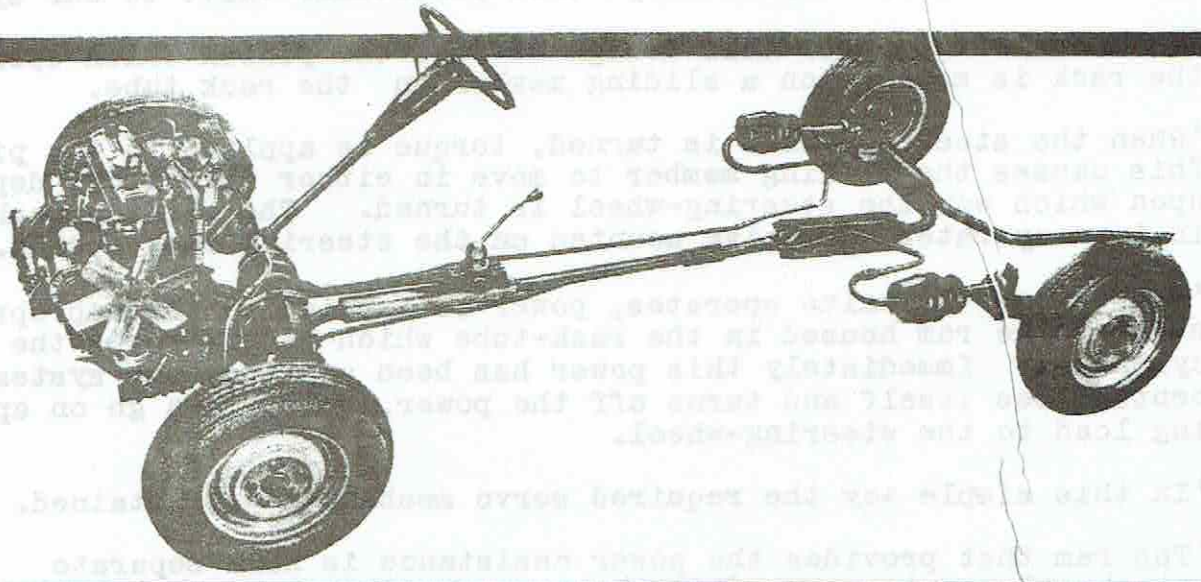
SUSPENSION: Front—independent with upper and lower arms and locating tie-rods, swivel axles mounted on ball joints. Hydrolastic® displacers (interconnected front to rear) are mounted horizontally in front suspension tube across front of bulkhead. Rear—independent with trailing arms incorporating Hydrolastic® displacers.

BRAKES: Foot—hydraulically operated by pendent pedal with servo assistance. Front 9⅜ in. (0·24 m.) diameter disc, self-adjusting; rear 9 in. × 1¾ in. (0·23 m. × 0·045 m.) drums with leading and trailing shoes. A 'G'-conscious pressure-reducing valve is fitted between front and rear brakes to provide balanced braking effort. Hand brake lever is operative on rear wheels only.

ROAD WHEELS: Pressed-steel, five-stud fixing 175 mm.—13 in. Dunlop SP tubeless tyres. Wheel discs are standard.

GEARBOX: Automatic (optional extra). In unit with final drive; three-speed with hydraulic torque converter. Selector lever fascia mounted. Final drive ratio 3·94 : 1. Drive to front wheels via helical spur gears and open drive shafts with universal joints.

Gear Ratios	*Gearbox*	*Final Drive*	*Overall*	*Road Speeds at 1,000 r.p.m.*
Reverse	2·09 : 1	—	8·23 : 1	—
Low	2·39 : 1	—	9·417 : 1	7·291 m.p.h.
Inter-mediate	1·45 : 1	—	5·714 : 1	12·01 m.p.h.
Top	1·00 : 1	3·94 : 1	3·94 : 1	17·43 m.p.h.



LUGGAGE GALORE

The large luggage boot is unimpeded by petrol tank or spare wheel, as these are both underfloor-mounted, an advantage gained by the absence of a final drive to the rear wheels. With its completely flat floor, the boot provides 17 cu. ft. of luggage capacity. This is amply supplemented by a front parcels shelf, capacious pockets on all doors, and no less than 5½ sq. ft. of rear parcels shelf.

INSTRUMENTATION.

Two large circular instruments are located immediately in front of the driver, the one, a speedometer and trip recorder, the other, combing in one instrument oil pressure, fuel, and temperature gauges. Also positioned before the driver is the electric screen washer/wiper switch, electric clock, and engine oil filter warning light. A combined direction indicator/headlight flasher stalk is located on the steering-column and small repeater flashers are on both front wings.

TECHNICAL ARRANGEMENTS.

The Wolseley 18/85 has the 1798-c.c., four-cylinder, o.h.v. engine with a five-bearing crankshaft which produces 85 b.h.p. at 5,300 r.p.m. The all-synchromesh, four-speed, manual gearbox is remotely controlled by a floor-mounted shift lever connected by cables to the gearbox to reduce vibration and noise. When the optional Borg-Warner 35 automatic gearbox is fitted the following positions, 'P', 'N', 'D', 'L' (park, reverse, neutral, drive, lock-up) are selected by a lever mounted on the fascia. This lever, which can be illuminated at night is situated immediately to the left of the fresh-air vent for finger-tip operation by the driver's right hand.

Power-assisted rack-and-pinion steering, which is standard equipment, provides 3.56 turns from lock to lock. It gives precise and sensitive 'feel' under all driving conditions and is invaluable in parking and in manoeuvring in confined conditions such as car parks.

Power-assisted steering on the Wolseley 18/85 is not an adaptation of an existing system, and is very simple.

A special pump had to be designed for it because available pumps for power steering were far too big. The only part on the steering which is not new is the valve mechanism. To avoid excessive development work it was found very easy to adopt this particular valve to our system.

'The novel feature of this design is that the pinion which operates the rack is mounted on a sliding member on the rack tube.

'When the steering-wheel is turned, torque is applied to the pinion This causes the sliding member to move in either direction, depending upon which way the steering-wheel is turned. The sliding member in turn operates the valve mounted on the steering rack casing.

'As soon as the valve operates, power is applied to the appropriate side of the ram housed in the rack-tube which itself forms the cylinder. Immediately this power has been applied, the system centralizes itself and turns off the power, unless you go on applying load to the steering-wheel.

'In this simple way the required servo mechanism was obtained.

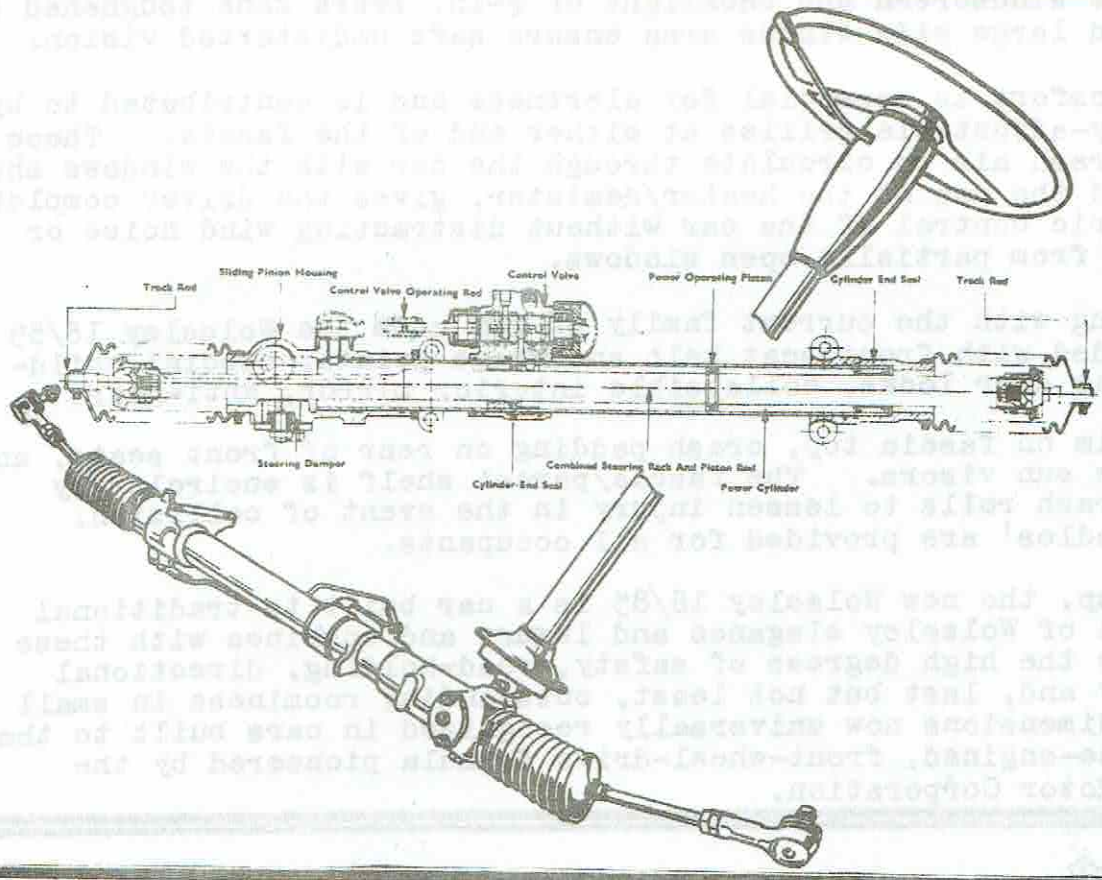
'The ram that provides the power assistance is not a separate attachment, as is very often the case on other cars, but is integral

with the rack itself.

'Special attention has been given to servicing. It is easy to dismantle and reassemble.

'The power steering system on the Wolseley 18/85 incorporates an oil pump that embodies a new principle.

'A rotor annulus oil pump, adapted to produce pressures of 850-1,000 p.s.i., has sealing vanes inserted into slots at the tips of the inner driving rotor, which maintain sealing contact with the outer driven annulus.



'Pressurized oil is directed to the inner ends of these vanes to force them into contact with the annulus. With this arrangement, the vanes will adjust themselves for both pressure and wear ensuring long life for the pump.

'The pump is an entirely self-contained unit housed in its own oil reservoir with an oil filter, flow control and pressure relief valves The whole assembly fits into the rear of the dynamo and is driven through the dynamo shaft by the fan belt in the usual manner.'

The exclusive Hydrolastic suspension coupled with Dunlop SP41 radial-ply tyres ensures a pitch-and roll-free ride combined with superb road-holding and cornering characteristics.

SAFETY FEATURES.

The Wolseley 18/85 has an extremely strong body shell of the monocoque type, in fact the stiffest structure ever used for this category of family car. Tests have shown that the transverse arrangement of the 'power pack' provides a strong barrier and behind this is an extremely strong cross-member housing the front Hydrolastic units which strengthens the barrier between the occupants of the car and the results of impact in the event of a frontal collision.

Front-wheel drive combined with precise, power-assisted rack-and-pinion steering and radial-ply tyres provide standards of road-holding and directional stability seldom met within any car and certainly never in one of so modest a price.

In the event of collision the passenger compartment remains rigid even though damage may be sustained by the front and rear body sections.

Servo-assisted brakes (9-in. discs front, 9-in. drums rear) and a 'G'-conscious valve to prevent the rear wheels from locking under emergency braking conditions provide outstanding stopping power.

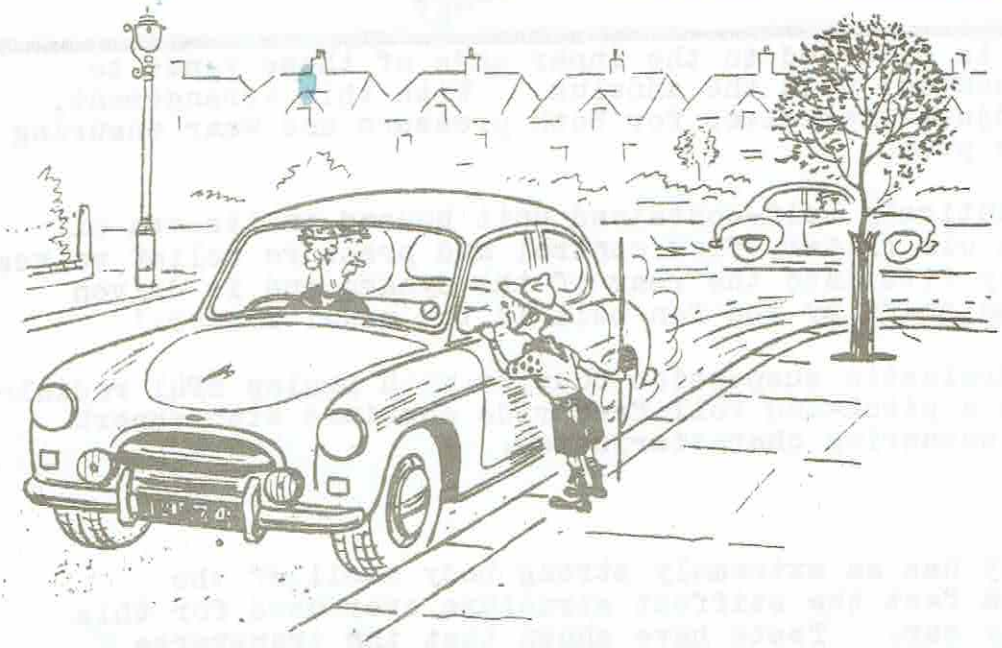
The large windscreen and backlight of ¼-in. zebra zone toughened safety glass and large side window area ensure safe undistorted vision.

Driver comfort is essential for alertness and is contributed to by the fully-adjustable grilles at either end of the fascia. These enable fresh air to circulate through the car with the windows shut. This, and the use of the heater/demister, gives the driver complete atmospheric control of the car without distracting wind noise or draughts from partially open windows.

In keeping with the current family of BMC cars the Wolseley 18/85 is provided with front seat belt anchorage points, special child-proof rear door locks, collapsible interior mirror, anti-glare

black trim on fascia top, crash padding on rear of front seats, and crushable sun visors. The fascia/parcel shelf is encircled by padded crash rolls to lessen injury in the event of collision. 'Grab handles' are provided for all occupants.

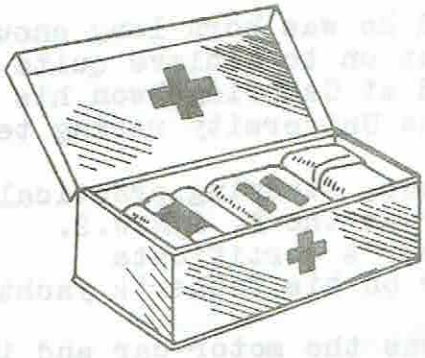
To sum up, the new Wolseley 18/85 is a car built to traditional standards of Wolseley elegance and luxury and combines with these standards the high degrees of safety, road-holding, directional stability and, last but not least, outstanding roominess in small overall dimensions now universally recognized in cars built to the transverse-engined, front-wheel-drive formula pioneered by the British Motor Corporation.



"I thought you'd like to know your flashing direction indicator spelt out a shocking rude word as you took that corner."

9. HOLIDAY HINTS FOR THE LADIES.

Holidays should mean a complete break from routine and a period to refresh for the next year's work. But principles of hygiene, sanitation and safety must be especially adhered to during this happy season. If you are to enjoy the outdoors, you must make provision to ensure the health of your family. Holidays can be fun – but it's up to you!



First-Aid Kit
(Keep it locked, safe from toddlers)
Suggested contents include:
Adhesive dressings
Gauze bandages
3" crepe bandage
Triangular bandage (arm sling)
Cotton wool
Antiseptic lotion
Methylated spirits
Scissors
Safety pins
Antihistamine cream
Suntan lotion
Insect repellant
Travel sickness tabs
Soluble Aspirin tabs

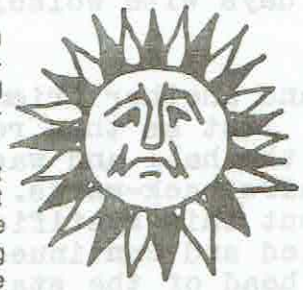
First Aid

Poisoning
Unless the substance or fluid taken burned the mouth, induce vomiting by putting a finger down the patient's throat, after getting him to drink a glass or two of water. Repeat the process several times. It is wise to check with a doctor as soon as possible.

Kerosene, Petrol or any similar Corrosive Substance
Do NOT make the patient vomit! Give large quantities of milk or water to dilute the poison, and get medical attention immediately.

Burns and Scalds
Minor burns and scalds: Cover with a dry dressing or apply antiseptic or antihistamine cream.
Deep Burns: Cool the area immediately with cold water, 5-10 mins, cover with a dry dressing and get medical attention immediately.

Sunbathing



Build up your suntan slowly. Begin with 10–15 minutes a day, gradually increasing the time. Avoid sunburn by putting on a shirt or blouse in good time.
REMEMBER also that the full effect of sunburn is not felt when it occurs; it becomes more intense as the sun goes down. Strong sun on the head or back of the neck can cause sun-stroke. Take care even on overcast days; severe burning is still possible.

Water Safety

Learn to Swim . . . and know your own limitations. Don't swim alone – never leave a child to swim in a swimming pool unattended.

Check swimming places for hidden hazards such as rocks or submerged logs.

Rubber mattresses, beach balls and inner tubes could carry you or your children into danger, so take care when these are used.

Watch children all the time. A child can drown in 5cm of water.

Obey all warning signs and flags.

LEARN RESCUE BREATHING – you could save a life.

A car that's kept clean always seems to run better. Imagination of course, but it does seem to anyway.

A nylon stocking makes a good fan belt in an emergency. Alternatively use about three lengths of thick string plaited together. Either make-shift won't last too long, but long enough to get you out of bother.

Carry a carton of paper tissues in the car. The paper can be used for cleaning the windscreen or dipstick.

10. THE HON. CHARLES STEWART. ROLLS.

The great pioneer cyclist, motorist, and aeronaut, met his death in a flying accident. (69 years ago last July).

The name of Rolls is inevitably linked with everything fine in British motor engineering, but Charles Stewart Rolls, founder of the famous firm, was pioneer in practically every form of mechanical transport. As his name features in "THE WOLSELEY YEARS" it gives us an opportunity to review a venturesome life against a background of scientific development.

Rolls's earliest passion was the bicycle, and he was born long enough ago (1877) to ride a penny-farthing. He went on to achieve quite a reputation among amateur racing cyclists, and at Cambridge won his Half-blue for cycling (1896) and captained the University racing team.

From bicycles Rolls graduated to steam engines, studying practical engineering, and coming to grips with reality at the L. & N.W.R. Crewe works. He emerged with a third engineer's certificate (marine) and, for a while, served as engineer on his father's yacht.

The fourth type of transport to attract him was the motor-car and in 1895 he brought a 3¾-h.p. Peugeot from France. Not only was this the most powerful car then made, but he was only the fourth Englishman to possess any make of car. He drove it to Cambridge from Victoria Station at an average 4½ m.p.h. and was 11¾ hours on the way. That began his motoring fever, and he went on to buy more cars in an endeavour to improve performance and popularize motoring among his countrymen.

THE THOUSAND MILES TRIAL.

In 1900 Rolls won the Automobile Club's gold medal with a 12-h.p. Panhard for the best performance of a privately owned vehicle in the 1,000-mile Trial, and five years later he represented Britain in the Gordon Bennett Trophy. These were just two of the many tests and races in which he participated, all of them involving risks faced with cool courage.

Herbert Austins' daughter was to tell later of one particularly amusing incident during his racing days with Wolseley preparing for the Gordon Bennett Trials.

This occurred after Austin, Rolls and another friend had been out testing a car one Sunday morning. Just as they returned from the run, Mrs. Austin happened to be passing the hall and was surprised to see the Hon. Charles walking up the stairs back-wards. She had become accustomed to most eventualities, but this mystified her, she became more curious when he bowed and smiled and continued in this way until out of sight on the landing at the head of the staircase. This extraordinary performance was explained to her later. The back seat of the car in which Rolls had been travelling was too close to the exhaust pipe, which had overheated and burnt holes in the seat of his trousers making it impossible for him to turn his back in a lady's presence.

THE ROLLS-ROYCE COMPANY.

Early in 1900 Rolls had formed a company (C.S. Rolls & Co.) for the manufacture of cars, and in 1904 Rolls-Royce Ltd. came into being. This was achieved by partnership with F.H. Royce, an engineer prominent among promoters of car efficiency. Four years later Roll-Royce cars were being produced themselves the most powerful on the road

Charles Rolls raced them with remarkable success, and in 1906 broke the Monte/London record with a 20-h.p. model, doing 771 miles non stop in 28 hours 14 minutes.

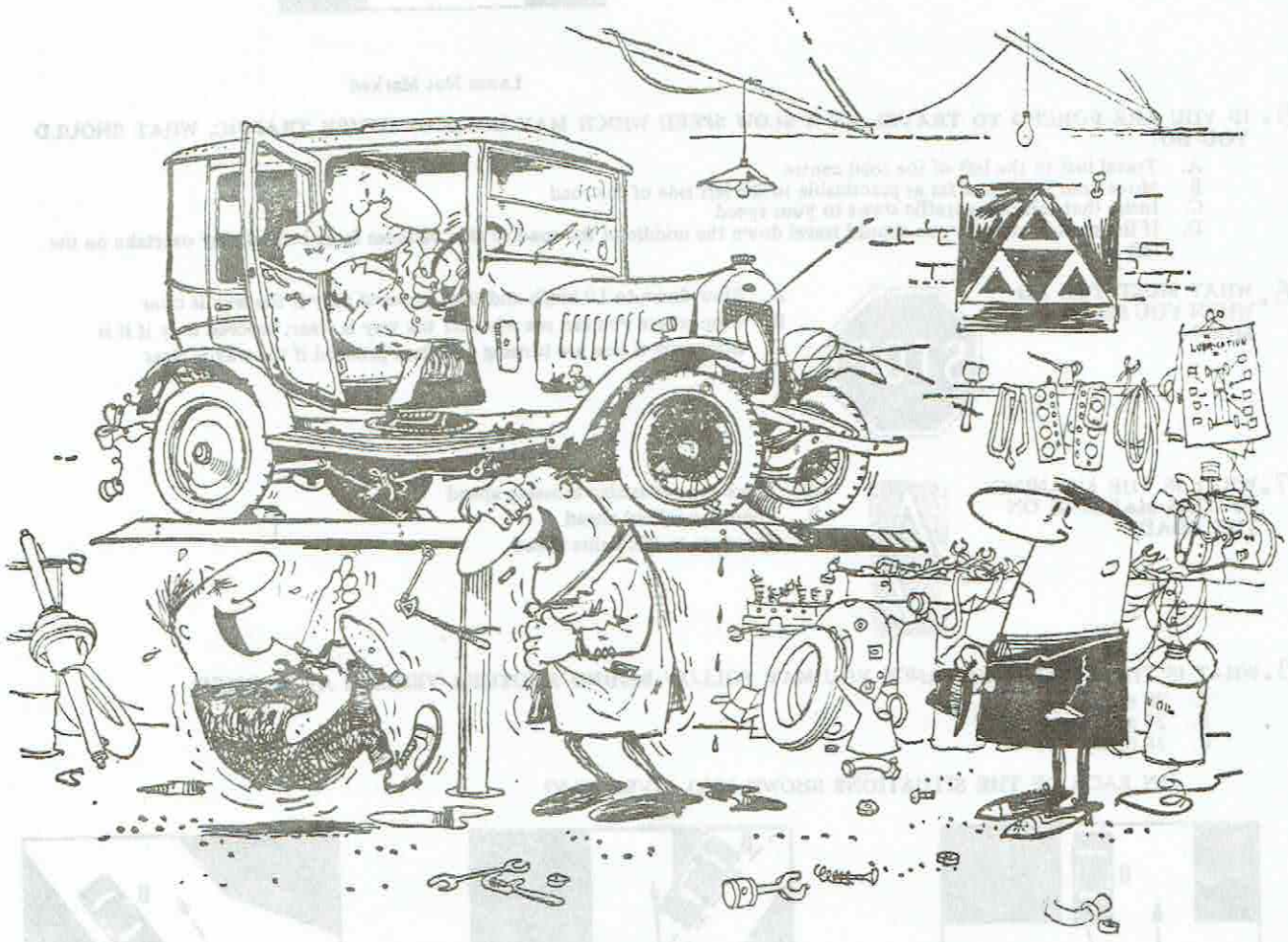
AERONAUTICS - AND TRAGEDY.

But there was still a fifth type of transport to claim his attention. Balloon ascents had begun to fascinate him as far back as 1901, and he made 170 in all. The year of the Monte/London record Rolls won a gold medal for crossing the Channel in a balloon and remaining aloft longer than anyone else.

After that came the aeroplane, and he was one of the first to fly with Wilbur Wright. On 2 June 1910 Charles Rolls, piloting his own plane, crossed the Channel there and back in record time, leaving Dover at 6.30p.m. and landing back there one hour 35 minutes later.

Then, on 12 July, came tragedy when his tailplane collapsed while making a steep gliding descent at the Bournemouth tournament and he was killed.

Bill Williamson



"She won't be ready for the 'WOODEND' rally, better enter the motor bike Robert".

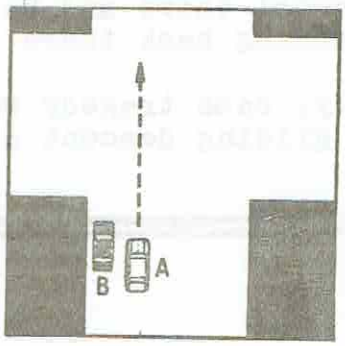
11. WOLSELEY OWNER/DRIVER QUESTIONAIRE

1. HOW OFTEN MUST A WARRANT OF FITNESS BE RENEWED?
   A. Every three months
   B. Every six months
   C. Every year
   D. Every six weeks

2. WHEN APPROACHING A STOP SIGN WHERE MUST YOU STOP?
   A. Where you can see if the way is clear
   B. 6 m back from the STOP sign
   C. 6 m back from the intersecting roadway
   D. 6 m back from the STOP line

3. MUST YOU ALWAYS SIGNAL WHEN TURNING OR MOVING LEFT?
   A. Yes
   B. No – only when there are vehicles behind you
   C. No
   D. No – only when you are turning left

4. WHEN IS A ALLOWED TO PASS B?
   A. In any circumstances but only if it is safe
   B. In any circumstances
   C. Only if B is turning left or has stopped
   D. Not under any circumstances



Lanes Not Marked

5. IF YOU ARE FORCED TO TRAVEL AT A SLOW SPEED WHICH MAY HOLD UP OTHER TRAFFIC, WHAT SHOULD YOU DO?
   A. Travel just to the left of the road centre
   B. Move your vehicle as far as practicable to the left side of the road
   C. Insist that following traffic slows to your speed
   D. If the road is unlaned you should travel down the middle of the road so that vehicles from behind may overtake on the left

6. WHAT MUST YOU DO WHEN YOU SEE THIS SIGN?

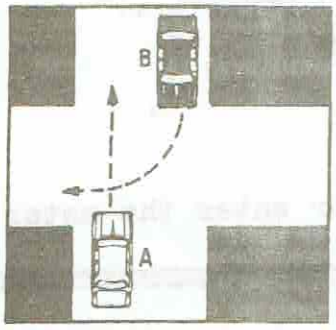
   A. Slow down to 10 km/h and then proceed only if the way is clear
   B. Stop where you can see whether the way is clear; proceed only if it is
   C. Stop only if you are turning and then proceed if the way is clear

7. WHAT IS THE MEANING OF THIS MARKING ON THE ROAD?

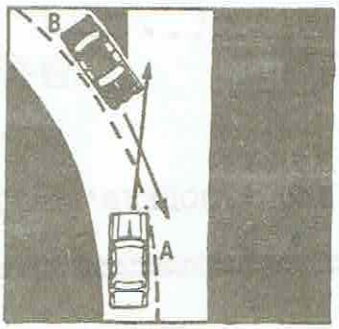
   A. There is a pedestrian crossing ahead
   B. There is a school ahead
   C. There are traffic lights ahead

8. WHAT IS THE CLOSEST DISTANCE YOU MAY FOLLOW BEHIND ANOTHER VEHICLE AT 70 KM/H?
   A. 20 metres
   B. 24 metres
   C. 28 metres

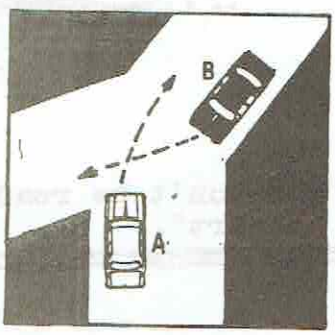
IN EACH OF THE SITUATIONS SHOWN WHO GIVES WAY?



9.
   A. A
   B. B
   C. Neither



10.
   A. A
   B. B
   C. Neither



11.
   A. A
   B. B
   C. Neither

12. OWNER INFORMATION.

6/110 OVERDRIVE.

Q.
The overdrive on my Wolseley 6/110 is behaving strangely in that it engages at about 30 m.p.h. and disengages at about 20 m.p.h. instead of 32 and 27 m.p.h. respectively. I should be glad if you could tell me how to rectify this.

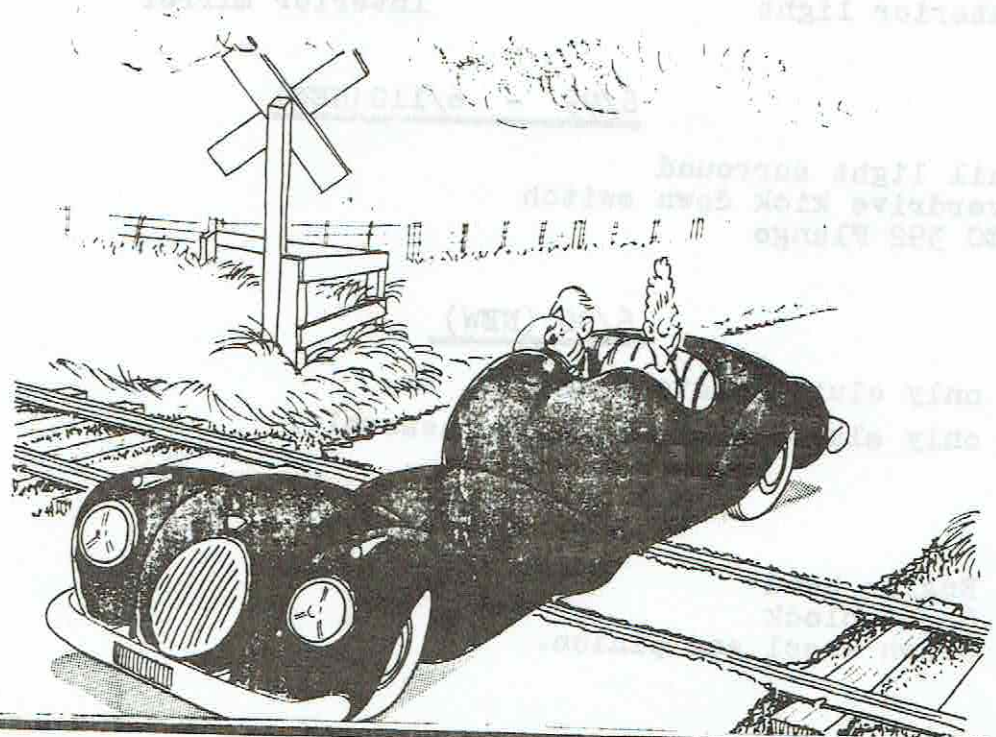
A.
THE speeds at which the overdrive engages and disengages on this model are determined by a switch actuated by a centrifugal governor which is screwed into the side of the overdrive itself. It seems that this is not operating at the correct speeds, but as it cannot be dismantled you will have to fit a replacement.

16/60 QUARTER-LIGHT.

Q.
I was unfortunate in having the quarterlight in my 16/60 broken open Could you please advise me how to replace it? It looks quite straightforward but I have been told there are complications.

A.

THIS is not really a difficult job, and you should start by taking off the door trim panels and the interior handles. The handles are held by pins which can be pressed out after the chrone escutcheons have been pressed in towards the door, after which the panels can be prised off, being held by spring clips. Next, take off the lower stop for the door glass and lower the window as far as possible. Remove the bolt at the bottom of the vertical channel of the quarter-light and take out the contour strips from the lower edge of the window aperture and the felt channel from the top of the aperture. Lift the door sealing rubber away from its channel and remove the two screws inside the channel that hold the quarter-light. Pull the quarter-light assembly towards the centre of the window aperture and lift it clear.



13. BUY - SELL - EXCHANGE

The Club has for sale to financial members the following used and new motor vehicle parts:

4/44 (USED)

--- Doors, Windscreens, front and rear, front mudguards R/H, L/H, Radiators, 1 Grille and surround, boot lids, engine bonnets, interior wood cappings, dash instrument cluster, interior door linings, Wolseley hub caps, fog lights, complete diff housing, wheels, stub axles, tyres, gearbox, engine complete. interior lights, rocker cover, 1 only piston and conrod, manifold.

18/85 (NEW)

--- Interior door cappings
Visor

24G 3792	Protection plate R/H
24G 3791	Protection plate L/H
24E 5138	Finisher
24G 2934	Finisher
24G 2933	Bezel
24G 3268	Finisher capping.

6/80 (NEW)

---	VS 3639	Valve springs "TERRY"
	BS 119	Tie rod end L/H

6/80 (USED)

--- Exhaust valves
Inlet valves
Torsion bar
Tail shaft
Interior light
Handbrake cable
Speedo cable
Oil bath air cleaner
Number plate light
Interior mirror

6/99 - 6/110 (NEW)

--- Tail light surround
Overdrive kick down switch
AEC 392 Flange

6/90 (NEW)

--- 1 only clutch plate assembly
1 only clutch pressure plate assembly.

6/90 (USED)

--- 1 Engine head
1 Short block
1 Crown wheel and pinion.

--- Conditions of sale are, cash before delivery. Local calls please contact Bill Williamson Ph. 382-516 for these or other, part enquires. Out of town members write to Secretary, Box 816.

--- Other new parts for 6/90, 15/50 owners will be published in the future when the club has sufficient income from membership levies to purchase same. All Those that have overlooked financial membership status are, actually holding back the operations of the spares purchasing, to the detriment of the club.

BILL WILLIAMSON.

14 GENERAL NOTES

LETTERS TO THE EDITOR.

The following letter was passed on from the Secretary:

The Wolseley Car Club.

19/9/79.

Dear Sir,

Received your letter to-day as regards the parts levy and I think it is a sound idea, so enclosed please find cheque.

Also enclosed is a photo of our two cars which I thought you may be interested to see, as you will know that they are your southern most members of our association. I am sure that I would be able to get more people interested as there was a very live agency for Wolseley in southland, and many cars were sold, so would be obliged if you would send to me some of those (Join the Wolseley Club) pamplets:-

I had the pleasure of meeting Ken Godfrey (A.O.7766) at Dunedin last Xmas and he had a problem with oil finding it's way into his cooling water. At that stage I did not even have my stickers showing on my car, but he made himself known, and I must say I was delighted to meet him.

I often wonder what the cause of his problem turned out to be, but I am sure it was a minor one.

Hope to meet you all at one of the functions one of these days as am almost retired and will make a point of being in Christchurch at some stage of it. I would also add that I have a 6/90 workshop manual available to members, should they wish to borrow it, and could also lay my hands on Wolseley parts around about.

Best regards to all.
Alex Biggs
INVERCARGILL.

NOTE:
Crankcase pressure was suspected Alex, also Ken is aiming for Manapouri this year, ED.

NERAL NOTES

The Treasurer informs us, there are still 29 subscriptions, and 71 Levies outstanding:

Rule 55 States:-

The Financial Year of the Club will end on the 30th of June of each year.

Please check, have you paid your subscription and/or levy yet?

IF NOT the Committee wishes to remind you of Rules 25-28 Inclusive:

25.
No member shall be entitled to any of the privileges or advantages of the Club until his subscription shall have been paid and no member whose subscription is in arrears shall be entitled to vote at any meeting of the Club.
26.
A member shall remain continuously liable as such until his membership is terminated by resignation or otherwise.
27.
Any member not in arrears or indebted in the Club may resign his membership by delivering notice thereof in writing to the Secretary.
28.
Every member whose subscription remains unpaid for three calendar months after it shall have become payable shall ipso facto cease to be a member of the Club. The Committee may reinstate any such member on satisfactory grounds being shown for failure of payment.

Please find attached another "JOIN THE CLUB" pamphlet for you to issue to a prospective new member. Just think how the CLUB would flourish if you each sign up just one new member per year.

No. 74/6/90 owner A. Biggs, and No. 13/6/110 owner F. Biggs both from Invercargill, see letter to the editor.

ANSWERS TO PAGE 22: 1/b, 2/a, 3/a, 4/a, 5/b, 6/b, 7/a, 8/c, 9/b, 10/a, 11/a.

THE WOLSELEY YEARS

CHAPTER VII

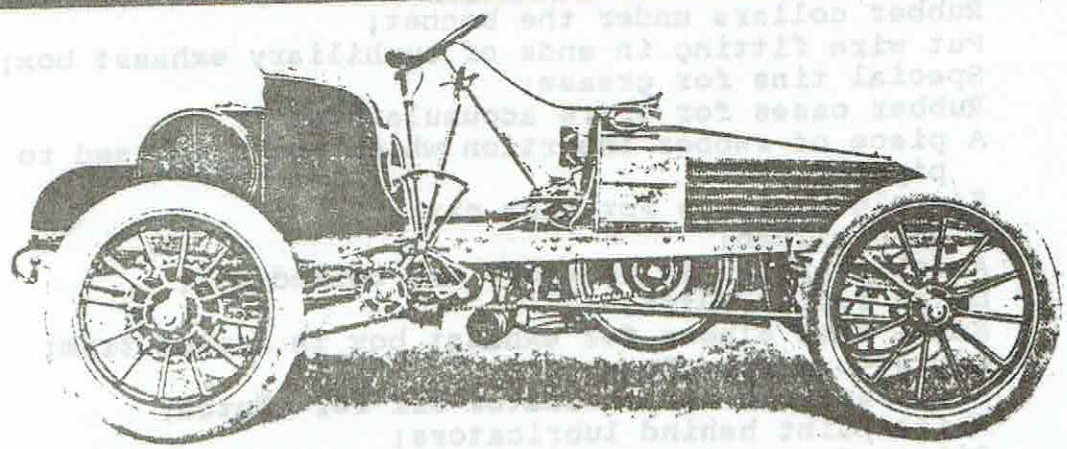
ROAD RACING - PART TWO

1903 Season

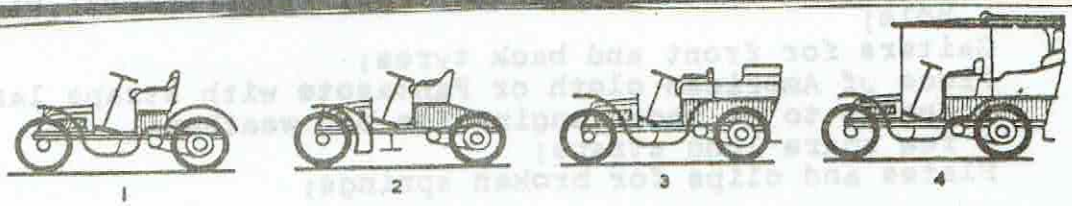
The action of the Wolseley Company in designing a car for competition against the pick of Europe caused a number of sportsmen to become interested, and when a new and improved design was brought out for the 1903 season, some of them were sold to private owners who intended driving them in any competition for which they were eligible.

The 1903 Gordon Bennett Race was run over a circuit in Ireland, but although at least four 50-h.p. Wolseley racers were made that year, none competed. It was during the same year that the disastrous Paris-Madrid race was held, which effectively put a stop to all long-distance point-to-point races on the Continent. Three Wolseley cars took part. Nos. 214, 255 and 243, driven by Herbert Austin, Harvey Foster and Leslie Porter respectively. Both Austin and Foster failed to reach Bordeaux for various reasons and Porter met with a terrible accident. They worked day and night to get the cars ready in time and to drive them to the start at Paris only to discover at the last moment that each car was a few pounds in excess of the maximum weight permitted for the event. A remedy was found and Austin sat down to dinner at midnight. He drove off in car No. 241, the last but one in the line, at about 4 a.m. Austin said later:-

"As for my Wolseley, lubrication troubles commenced just before arriving at Tours. In passing through the town behind the pedal cyclist who piloted us through the control, there was a terrific crash owing to one of the connecting rods seizing and being pushed through the crankcase. So I learned another lesson."



A 50 h.p. Wolseley racing car, 1903.



1 2 3 4

Spider, or Phaeton, Racing car, Tonneau, Closed tonneau.

Leslie Porter met with tragedy when he brought his Wolseley fast round a bend to be confronted with a closed level railway-crossing gate, which should have been signalled to him by a flag-man, who had left his post. He quickly tried to steer into the field nearby, but lost control, and crashed into the wall of a house. The mechanic was thrown out, and killed on the spot, the car turned over, and burst into flames. It was then discovered that the officials responsible for flagging the competitors had apparently gone to a nearby cafe. It is of interest to note, that a part of the steering wheel of this same car is still in the possession of the BLMC Museum.

Owing to the number of accidents which took place, the race was stopped by the French Authorities at Bordeaux and each car had to be towed to the railway station and brought back to Paris by train. Not one engine was allowed to be restarted.

This race was followed on June 22nd of the same year by what was known as the "Circuit des Ardennes" content organised by the Belgian Automobile Club. The total distance was 318 miles and two Wolseley cars took part, driven by Sidney Girling and Arthur Callan, both of the Wolseley Experimental and Car Test Department. One of the 50-h.p. cars, driven by Callan, retired after the third lap. A new 72-h.p. (6in. x 6 in.) model was driven by Girling and covered the course, (318 miles) at 37.5 m.p.h. to take ninth place. 72-h.p. cars were submitted for the Gordon Bennett Eliminating Trials but were not selected.

A page in Austin's 1903 sketch book contains the following notes and a list of equipment and spares which he had considered necessary for the team:

Paris - Madrid

Funnel with large shank;
Catch on seat lid;
Piece of rubber over accumulator holes;
Binding tape;
Light pack for inner tubes;
Rubber collars under the bonnet;
Put wire fitting in ends of auxhiliary exhaust box;
Special tins for grease;
Rubber cases for spare accumulators;
A piece of rubber insertion which could be used to mend pipes;
Six cloth wipers for each car;
A long oilcan;
A collapsible tin of emery and boiled oil;
Large repair outfits;
Small case elbows for exhaust box in racing trim;
Protectors for plugs;
A collapsible tin of castor oil for clutch;
White paint behind lubricators;
Oilers for chains or oil pipes laid on to them to put long oilers in;
Small elbow laid out backwards for crank chamber oil hole;
Gaiters for front and back tyres;
Piece of American cloth or Pantasote with straps large enough to go under engine for bad weather;
A few spare long straps;
Plates and clips for broken springs;

Cover for change-speed lever quadrant;
Are reverse pinions of 50-h.p. cars strong enough on boss?

Spare parts for each car

Four connecting rods;
Spare Renold and Coventry chain links;
Two exhaust valves and two inlet valves with box;
Two exhaust springs;
A few bolts and nuts threaded all the way;
A few special ones, such as exhaust joint bolts;
Two spare floats in suitable case;
Bolts for gear box wheels;
Exhaust bushes for Cummings' car;
One each back and front tyre bolts;
Make point of mechanician's seat opening with lid to get at accumulators;
Two spare piston liners and connecting rods complete to Paris.

1904.

By this time, the Company had learned some valuable lessons about international racing and the class of machine required. For the 1904 season, greater effort was made to produce a team of cars which would offer a serious challenge both to the other British cars entered for the eliminating trials for the Gordon Bennett Trophy and to competitors in the race itself. Five Napiers and three Darracq cars - specially assembled in England to comply with the rules of the contest - were entered. A particularly strong team of first-class drivers was engaged, to drive the three Wolseley cars, namely Campbell Muir - a pioneer driver of great experience in handling racing cars - Charles Jarrott and Sidney Girling.

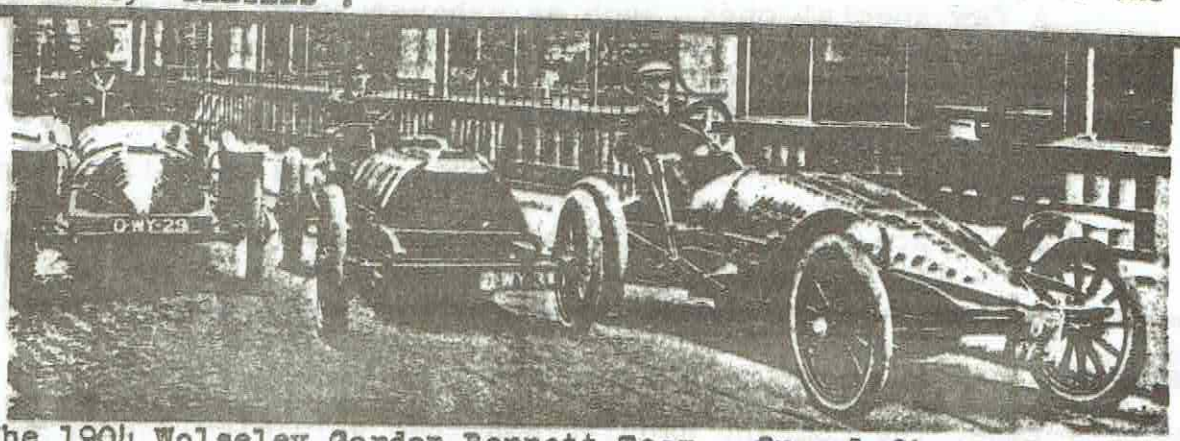
Austin decided to use the experience that had been gained over the last two years to build two new models for the 1904 Gordon Bennett Cup race which took place over the Taunus course in Germany. Girling was to drive a 72 h.p. with 6 x 6 in. bore and stroke, and 1000 RPM, but which was altered in outward appearance; the tubular radiator which extended around the front of the car had been replaced by a more conventional type. Also, the four-cylinder horizontal engine was suspended from the frame immediately below and in front of the dashboard, and was so placed that minor adjustments could be effected by the mechanic while the car was running. The flywheel was of a very large diameter, and the radiator was in the form of a nearly circular nest of tubes surrounded by a water tank. Four speeds were provided, and the gearbox was suspended at three points; ball bearings were used. It had H-section axles and a stamped steel frame with the weight well distributed as the engine was considerably behind the front axle. In order to counter lateral strain, the wooden artillery wheels were provided with wire spokes which ran from the outside flange on the hub to the inside of the rim. This excellent idea, does not appear to have been copied by any other manufacturer of the day.

THE BEETLES

The two cars designed for Campbell Muir and Charles Jarrott were fitted with the more powerful 6x6½, 96-h.p. engine. These new 96-h.p. models were given lighter reciprocating parts, and were able

to run up to 1500 RPM, which enabled them to develop the extra 24-h.p. The general lay-out of the wheels and chassis was very similar to Girling's car: the steering in both cases was very sharply raked, with the drivers and mechanics sitting very low.

In these models, the wrap-round radiator tubes were given up in favour of small, nearly circular, cross-tube radiators mounted in front, very low down, and the bonnet consequently sloped and tapered from the dashboard to give a reasonably streamlined shape. This was carried to a logical conclusion by adding a further length of tapering, ventilated cowling ahead of the radiators: for obvious reasons these cars were nicknamed the Wolseley "BEETLES".



The 1904 Wolseley Gordon Bennett Team , from left are Charles Jarrott, Sidney Girling and Campbell Muir.

In outright speed none of the Wolseleys was spectactularly fast. The designer's aim was to combine reasonable performance with reliability and good handling. Alas! the reliability they sought eluded them until nearly the end of their racing career. Stability and steering of the Wolseleys seems to have been very good, though the 72 and 96-h.p. types at first lacked front-end rigidity. Mr Cecil Bianchi (who drove for Wolseley after his initiation to racing as Charles Jarrott's mechanic in the Paris-Madrid and other events), recalls that the big Wolseleys were much improved in their last year by having the chassis shortened some nine inches and additional cross members being fitted behind the radiators and between the dumb-irons.

Altogether the Wolseley team, both as regards the cars themselves and the drivers, were far more formidable than they had been previously. The preliminary trials were held on the Isle of Man over a five-lap course of some fifty-two miles per lap. This was followed by speed tests over a three-mile stretch, speed over a flying half-mile and a two-mile hill climb out of Ramsey.

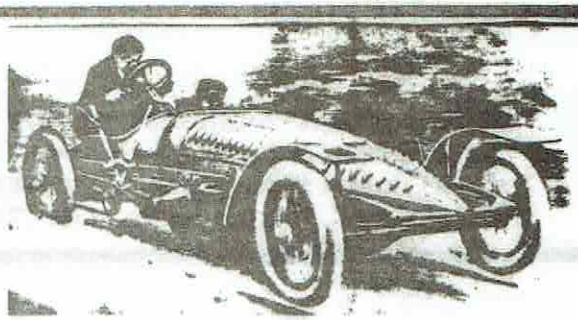
Jarrott's car, which proved the fastest of the team, stripped the first speed and reverse which retarded acceleration considerably. Campbell-Muir's car had lubrication trouble, and was withdrawn and Girling was obliged to fit a new chain.

The Judges decided that the two Wolseleys and one Napier should represent England in the race.

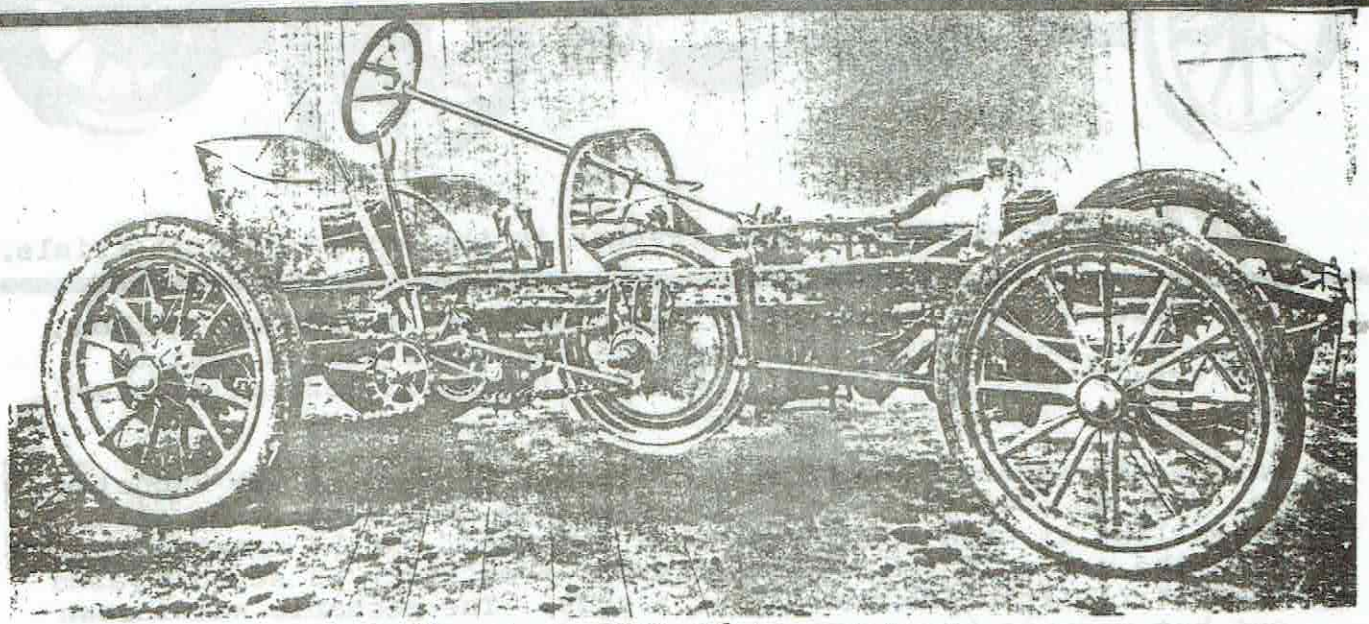
The contest was held in Germany over a circuit near Homburg. The course was a very trying one, and the winner's average speed was 54.5 m.p.h. Jarrott, dogged by bad luck, only finished the race with some difficulty. A chain broke, the third speed stripped its teeth, and for half the distance the engine could not be governed. Girling's car completed the course of 318.86 miles in 7 hrs. 22 mins. 55 secs., which showed an average speed of 43.1 m.p.h.

Left.
early tyre tread showing old type "Clincher" rim.

Right.
"Beetling"-- 1904



Then, during July of the same year, came the "Circuit des Ardennes" race in which two Wolseley cars took part. They were driven, on this occasion, by Sidney Girling and Cecil Bianchi, who had been Jarrott's mechanic in previous races. He put up a very creditable performance, and, although his final placing was twelfth, he beat such famous competitors as Lancia in a 90-h.p. Fiat, Salleron in a 100-h.p. Mors, and others who failed to complete the course. Girling was forced to retire after completing two circuits.



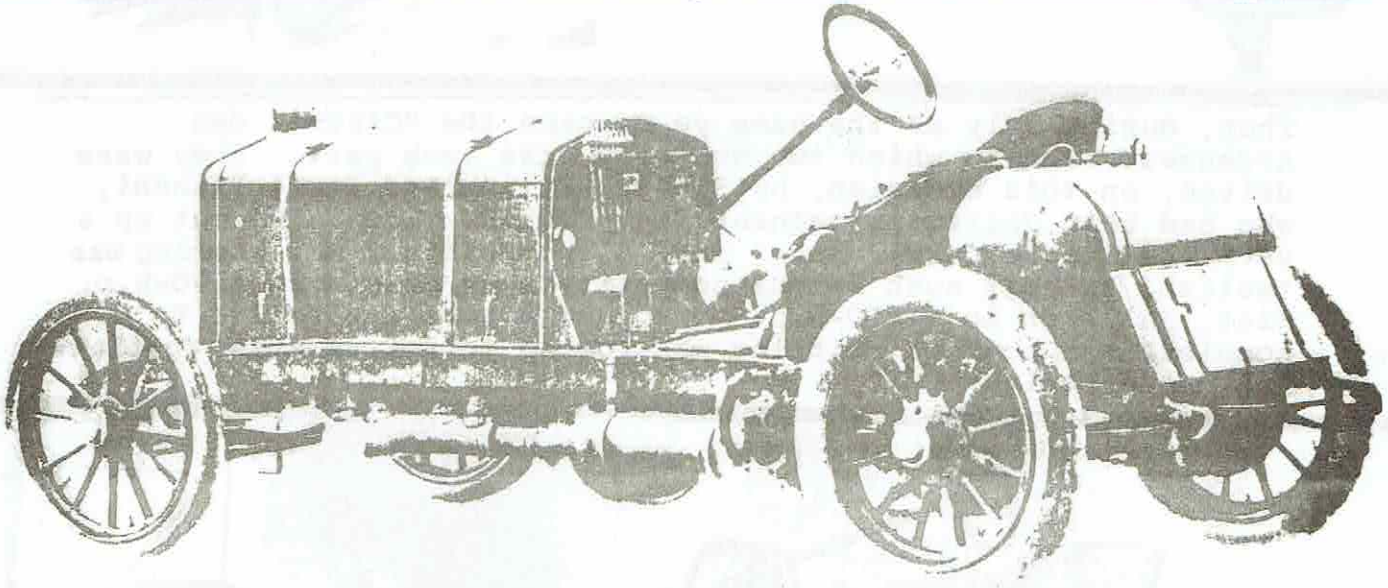
The Chassis - 1904 96 h.p. Wolseley - Beetle.

1905 Season

At the beginning of 1905, it was announced that the well-known Sportsman, Mr Lionel de Rothschild, intended entering a car for the eliminating trials of the Gordon-Bennet Trophy of that year, and that his choice had fallen on a "Siddeley" which was being specially designed and made for him by the Wolseley Company. In a later chapter details will be given of how the Wolseley Company came to manufacture "Siddeley" cars for the Siddeley Autocar Co. Particulars of this new production were awaited with great interest, and when the general lay-out of the chassis was made public, and photos of the complete car were shown, it seemed that it would prove a very formidable addition to the British team if it were successful in the trials in question.

It had a massive four-cylinder engine with a bore of no less than 181-mm. or $7\frac{1}{8}$-in. while the stroke was only 152.4-mm. It had double-ported overhead inlet valves, mechanically operated, and the cylinders and heads were cast in one piece. The crankshaft was hollow with H-section webs. Both low-tension magneto and high-tension ignition were provided which were controlled by levers working on a sector upon the steering wheel. The clutch was of the multiple plate type, but with a greater number of plates than was then common on touring cars.

Three-point suspension for both engine and gearbox was adopted to allow for frame-distortion, etc. The frame was of channel steel section, strongly braced by cross members. The wheelbase was 9-ft. 1-in. and the track 4-ft. 6-in.



The "WOLSELEY-SIDDELEY" that crashed in the Gordon Bennett Trials.

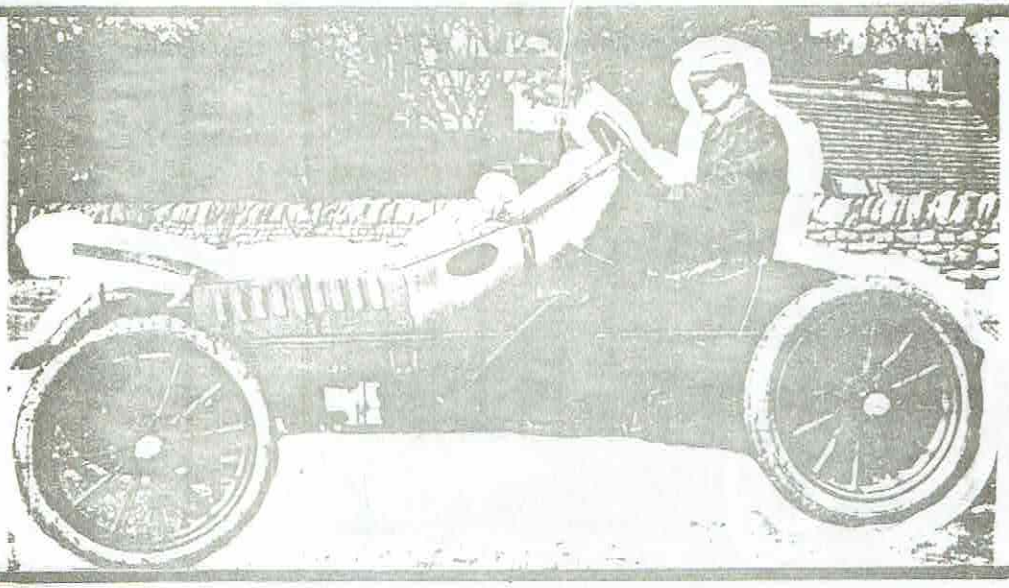
The Wolseley team consisted of two "Beetles", driven by the Hon. C.S. Rolls and C. Bianchi. The remaining cars taking part in the trials were four Napiers, one British-built Darracq and two Star cars.

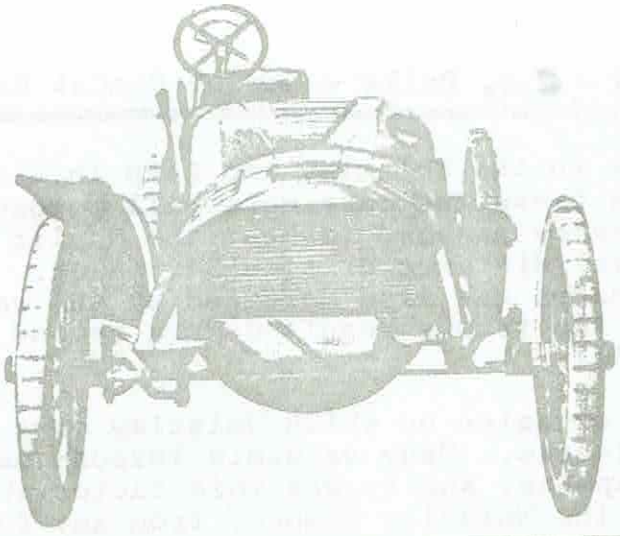
During his second circuit of the course, Girling in the Siddeley met with an accident, due to the collapse of a wheel. He was travelling at high speed when this happened, but he managed to hold the car on three wheels only for some sixty or seventy yards when it ran into the doorway of a shop. The mechanic was thrown out but was not hurt. Girling was badly bruised by the impact of the steering wheel, and one of his fingers was injured.

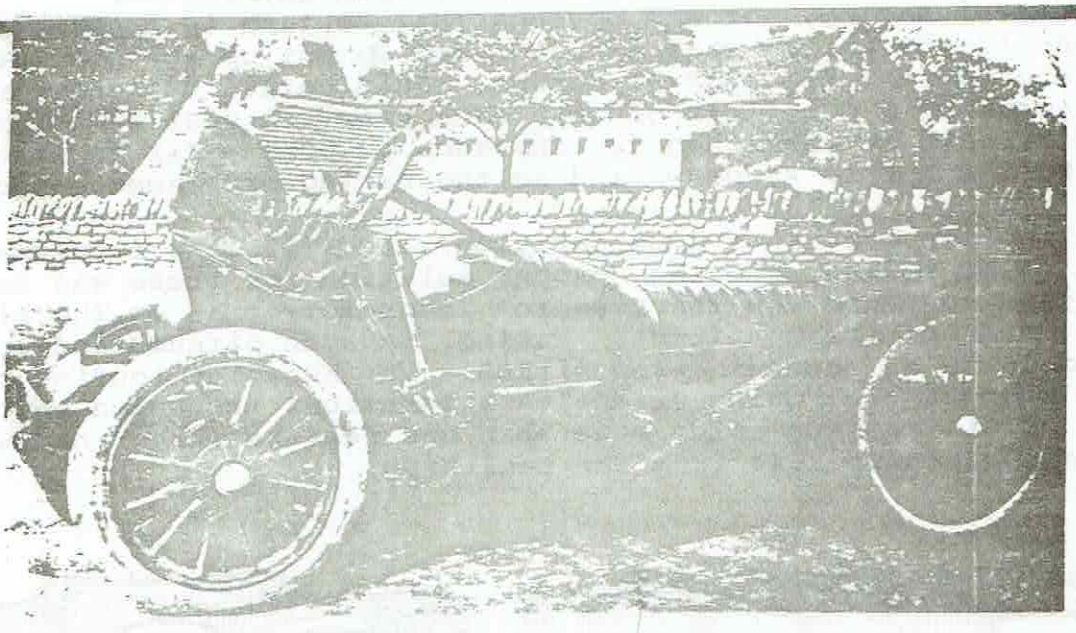
The British eliminating trials were held on the Isle of Man in May to select the team and the two Wolseley team cars, were entered in Austin's name. These "Beetle" cars entered were, except for a few minor modifications, the same vehicles which had been classed as 96-h.p. the previous year; the engines were fixed further forward in order to increase the weight on the steering wheels, as in 1904 the front wheels had failed to grip at the top speeds attainable. In outward appearance, the bonnets were flatter than before. Bianchi did well over the six laps with average times of just under 1 hour 20 minutes, but Rolls damaged the auxilary metal spokes on two wheels in the first lap after charging a bank to avoid a dog. Subsequently, ignition trouble also caused him to slow down and the car was still running but only completed five laps within the time limit. His best was done in 1 hour 17½ minutes.

The selection of the Judges for the Gordon-Bennett Race was the two Wolseleys and a Napier, with two more Napiers in reserve.

The race took place on July 5th, 1905, over the Auvergn circuit- a distance of just over eighty-five miles - which had to be covered four times, and one of the features of the race was a

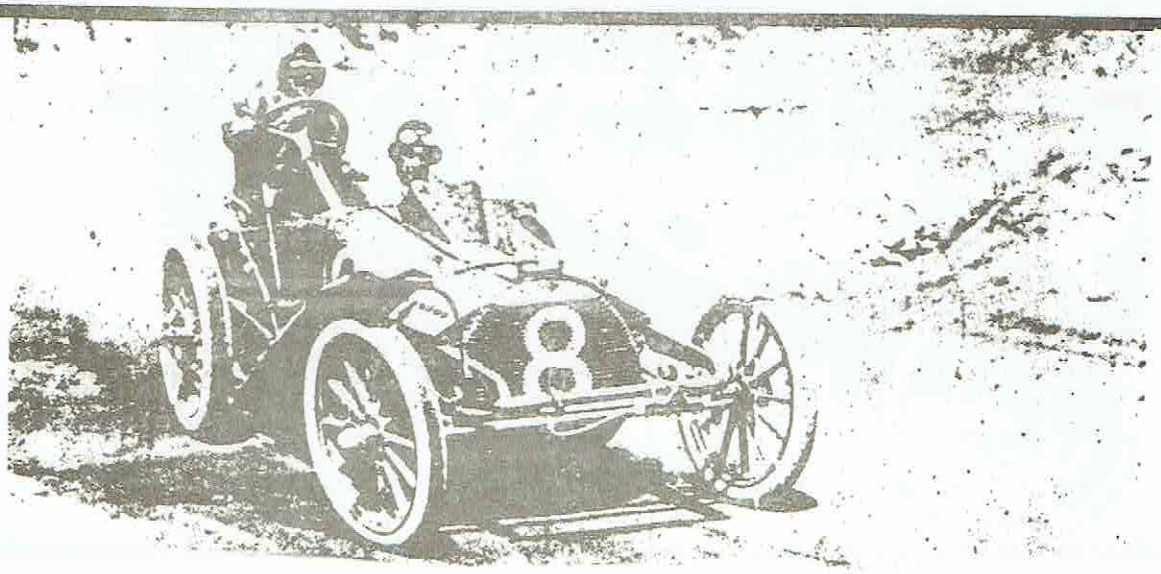






C.S. Rolls in the 96 h.p. "Beetle" with shortened chassis - 1905.

Early transmission chain : Reynolds silent chain.

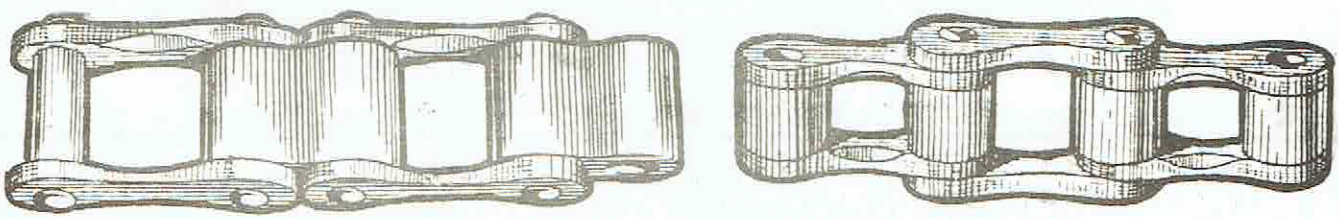


Cornering at speed - C.S. Rolls - Gordon Bennet Race 1905.

duel between Rolls in the Wolseley and Earp in a six-cylinder Napier. How close these two cars were will be gauged by the fact that the Wolseley managed to beat the Napier by exactly 47 seconds over a total distance of some 341 miles. Braun in a huge 120-h.p. Mercedes was also defeated by the Wolseley. This final contest for the trophy resulted in a second win for Thery in a Richard-Brasier.

This was the last occasion on which Wolseley cars took part in any Continental classic. Many valuable lessons had been learnt but at enormous expense, and it was this factor which occasioned the withdrawal of the Wolseley Company from any further Continental Racing. It was obvious that to turn to account the lessons learnt in the racing field, and to put up any good performance against the pick of Europe, would entail designing and manufacturing a new fleet of cars each year. A vast sum of money would have to be earmarked for any such purpose - far too much for the Company to afford - and so the racing programme ended.

There was too, a further consideration. In 1905 many problems had still to be solved, and the proper solution for these was more likely to be found in the research laboratory than on the high-speed roads of the Continent. Racing, in such circumstances, had ceased to be an economic proposition. The Wolseley touring cars would soon be undergoing extensive alterations in design which would entail casting aside more than one feature which the Company had actively supported from the beginning.



Early transmission chains: (left) Block chain,
(right) Brampton roller chain.