

HUSTLER

Journal of the kit car élite

no. 2



COVER CAR

Met Andrew MEDD of Darwen, Lancs. at the Kit Car Show at Kenilworth. He gave me a photograph of his Hustler 4. I don't know how it will reproduce on to the front of this Newsletter but the car looks excellently finished from the original photo.

Here are a few details of the car:

Date first registered : DEC. 83

The car took 5½ months to actually build but an extra 3 months to rebuild all the Mini components.

One of Andrew's most difficult problems to overcome was fitting of the front Sub frame and Floorpan in the Bottom Frame.

Engine capacity is 848cc with HS4 SU Carb.

Wheels are Weller 5J x 10 with 145 x 10 Tyres.

Insurance Group 2 St Katherines.

One of Andrew's comments, " It took me a lot longer to build than the instructions and Kit Car Magazines led me to believe". (I seem to have heard that story somewhere before, ed.)

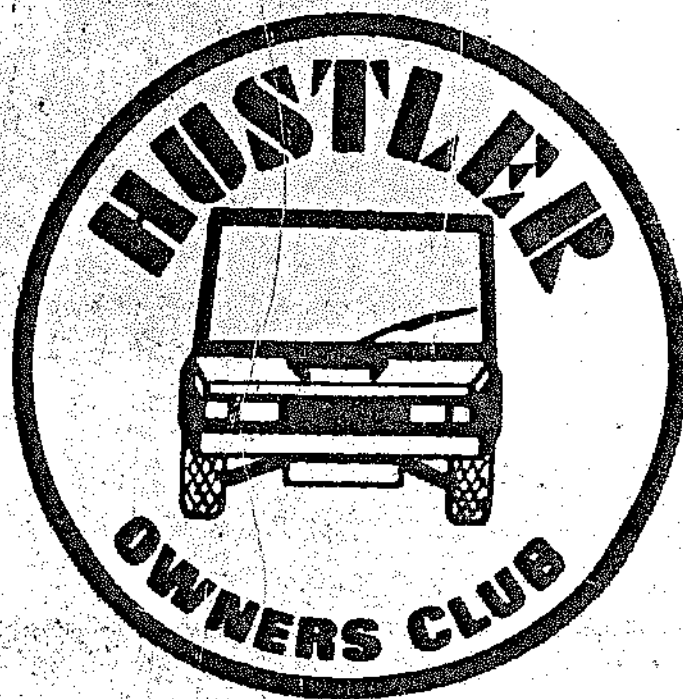
HUSTLER CLOTH BADGES

The Club Badges are now available, Design and size as on the right.

Colour Black & White 3½" Dia.

Ideal for sewing to T Shirts, Windcheaters, Blazers or Best Suits. Price. £1.20 each.

If anyone would like one please write to me here at Aldershot.



INTRODUCTION

Newsletter No.2. I bet you began to think there would'nt be another one. There were times when I thought so. Thankyou everyone who has written in, or shown an interest in the Newsletter. I would like to express a very special thanks to Steve KIREY of Twickenham, for most of the Technical Articles in the Newsletter. Without him I would have been lost. It seems that every time I am about to despair over what to write , a letter arrives from Steve to save the day again. Please keep writing in I have never got enough material. Any subject, articles for sale, unwanted bits etc. You send it in and I will print it !

Thanks to everyone who went to Kenilworth, it was nice to meet other owners and have a chat about the cars. I thought the show was excellent, with plenty of Manufactures present and Car Clubs. Its nice to know there are other nutters about as well as us. Also there was something for the children as well.

I was looking at the Hustler with the Conventional opening doors on William Towns Stand at Kenilworth. I liked it very much, but my wife Isobel says I can't have one , or the Amphibian. Never mind I will just have to wait until one of you builds one and I can come round and scrounge a ride in yours.

I think I have discovered the advantages of having a Club Spot at the various Car Shows. It does'nt cost any extra and you are guaranteed a good Parking spot right inside the Showground, instead of a two mile walk from the car park. You don't have to take part in anything if you don't want to. All the Organisers ask is that you park your car so that other paying customers can have a look at it. There is usually room for you to sit down and have a Picnic if you want to, there is normally always another Club Member about to make sure no one tampers with your car while you are away doing other things. You are also guaranteed some friends to talk to.

If you sell your Hustler or just want to drop out of the Club for any reason, Please drop me a line or phone and let me know. It will save me a great deal on postage and you from recieving unwanted material.

Trevor

FORTHCOMING EVENTS

Sunday May 20th.

KIT N CABOODLE

The South West Premier Kit and Alternative show
To enter your vehicle send SAE to

KIT N CABOODLE, 24 TYTHING WAY, WINCANTON, SOMERSET.
as soon as possible.

Saturday June 23rd.

SUSSEX FAYRE

To enter your vehicle send SAE to

ON GOW. OATHALL SCHOOL, APPELEDORE GARDENS,
HAYWARDS HEATH. RH16 2AQ

Sunday June 24th

1984 BROMLEY PAGEANT OF MOTORING

Contact PPG PUBLISHING LTD.

90 Wickham Road , BECKENHAM, KENT.

Sat 30th June / Sun 1st July

MICROLIGHTS & KIT CARS

William Towns

PARK FARM, COMPTON VERNEY, WARWICK.

Sat & Sun 14th/15th July

ANNUAL HUSTLER AT HOME

Address as above.

Sat & Sun 4th/5th August

7th ANNUAL SOUTHERN KIT CAR MEETING

HINDHEAD

See separate details.

The next big Show in my area is Hindhead I have included details with this Newsletter. If anyone intends going for the weekend, or the day, will you please Book directly with the Organisers and then drop me a line and let me know.

As soon as I know how many of us are going I can Reserve us a Club Spot so that we can all be together. Hindhead is not nearly as large as Kenilworth but it gets packed and space is at a premium. So you need to book early.

If anyone knows of other meetings taking place please let me know so that I can inform the rest of the Club Members.



SPOTLIGHT ON AUXILIARY LIGHTING

No matter how satisfied you are with the car's standard lighting - and the widespread use of halogen bulbs and better lenses has brought tremendous improvements in headlight efficiency in the last decade - there's always those occasions when you wish you could spread more light on the unfolding road. Fog is the condition that strikes most terror in the heart of caring and careful drivers despite the Meteorological Office's official figure's which say that large areas of Britain suffer fewer than 10 whiteouts in a year. Of course, they fail to catalogue what every motorist experiences - the morning and evening mists that are fraught with danger as a full-blown fog. Then there's those times you're hastening along unfamiliar country roads when every clue you can get about the nature of the hazards ahead is a vital aid to your safety and that of other road users. Two of the most popular types of car accessory are designed to help you see and be seen in just these conditions.

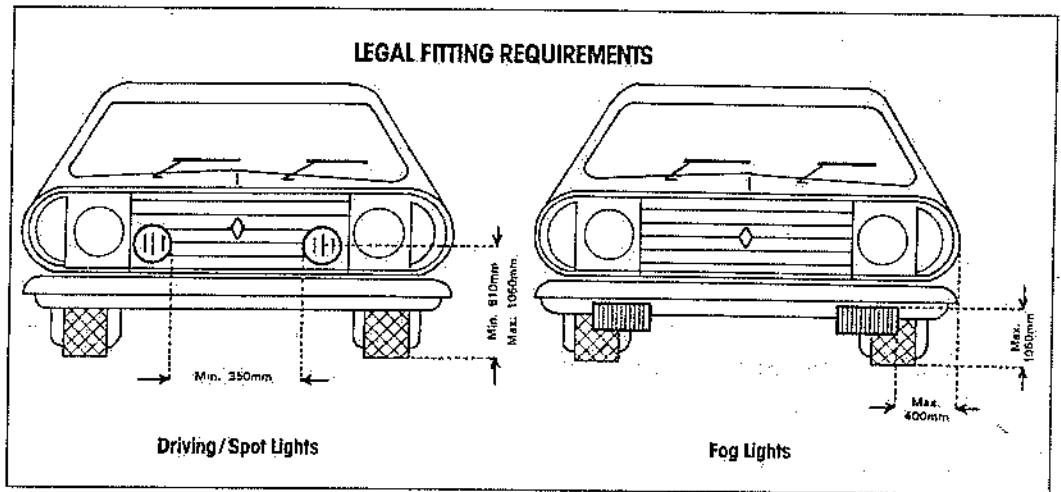
Foglights and driving lights are a relatively inexpensive, easy-to-fit addition to your car's safety armoury that are fully functional as well as adding considerable style to a car's frontal appearance. And, if you don't have the standard rear foglights fitted to cars made after October 1979, there's help at hand to make your vehicle visible for far greater distances in the thickest of pea-soupers. Accessory rear fog warning lights are real life-savers and a constant reassurance that the vehicle behind has adequate warning of your presence.

WHY FOGLIGHTS ARE NECESSARY

Britain's air is always laden with water and relative humidity rarely falls below 55%. As soon as air temperature drops (at sunset, for example) the water is precipitated in the form of minute droplets of liquid, a mist. There's a fine distinction between mist and fog. Very slightly larger droplets of water, formed around dust and industrial pollutant particles, makes the rather denser cloud defined as fog. In both cases the water droplets cause drivers problems.

Typically, a considerable proportion of the light from the car's lamps is reflected, scattered and re-reflected by adjacent droplets. The result is glare in the driver's eyes and a severe curtailment of the light's ability to penetrate and reflect from the road surface. Fog also absorbs light, particularly at the blue end of the spectrum which forms a large part of the output of modern lights.

Foglights use the same kind of halogen bulb as those used in head-lamps but it is the design of the lens which tailors the shape of the beam and the position of the foglights on the car that makes them so much more effective than main or dipped beam lights. A foglight's beam pattern is designed to be flat-topped and very broad. The flat top reduces the amount of glare perceived by the driver while the beam width makes it possible to pick up reference points as far apart as the kerb and the centre white line. For the best effect foglights should be as low down on the car as possible. Again this reduces the amount of reflected light thrown into the driver's line of sight. Foglights should



be aimed slightly down at the road surface giving a throw of light which is about the same as that of the dipped beam headlights.

DRIVING LIGHTS - A DIFFERENT QUESTION

The main object of a driving light is to throw a beam of light a very long way in front of the car to illuminate hazards slightly before the car's main beam headlights would be able to pick out any features. Driving lights therefore tend to have a very much narrower beam than a foglight and this beam is shaped by the lens to project a considerable distance by focussing like that of a spotlight. The distance the beam throws is affected by the height of the lamp above the road. For more road surface ahead of the car and better illumination of vertical hazards can be achieved if the driving lamps are mounted in the same horizontal plane as the headlights.

You won't get the best out of either foglights or driving lights if you buy one of each and mount them in matching positions just under or over the bumper. The wisest choice is to have two of each type of lamp, the driving lamps mounted on a bar or in the grille at headlamp height and the foglights under the bumper. This configuration allows you to get considerably more use from your lights without falling foul of the law (see later).

MOUNTING AUXILIARY LIGHTS - THE OPTIONS

Foglights are best fixed by clamps or bolts to the underside of the bumper where there may already be mounting holes provided, or to bodywork immediately behind and below the bumper. They should face straight ahead of the vehicle and be carefully angled to throw light no further than the beam pattern of the dipped headlights. Foglights usually have 55 watt bulbs and a pair of them will have a current demand in the region of 9 amps so they should be connected via a relay wired into the car's sidelight circuit (or dipped beam circuit for a single foglight). The switch used should be the same one that controls the rear fog warning lights which must have an indicator to show that the lights are on.

The most attractive and practical way to mount driving lights is as a grille kit. The kit consists of a grille to replace the

standard item on the car containing two driving lights with provision for aiming adjustment. Grille sets are available to fit a wide range of popular cars matching the standard grille down to the provision of a place to mount the maker's badge and using the same types of fixings. Alternatives are to use a lamp mounting bar or to bracket them either to the existing grille or the bumper apron. Like foglights, driving lights have 55 watt bulbs and should be connected via a relay wired to the car's main beam circuit and a switch with a warning indicator light.

THE LAW AND AUXILIARY LIGHTS

Lighting regulations are among the most complicated of motoring laws to follow and it's all too easy to fall foul of them both by abusing the lights and by fitting them in an illegal position.

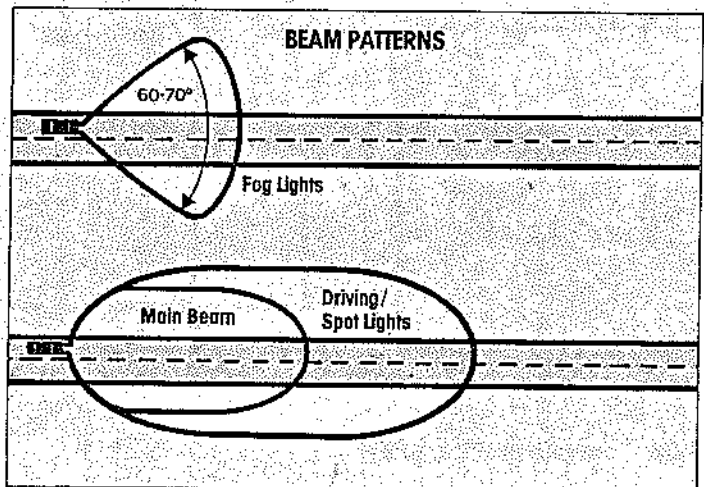
Foglights - Lamps with centres less than 610mm from the ground can only be used in fog or falling snow. A single foglight can only be used in conjunction with dipped beam or main beam headlights. A pair of lamps must be mounted symmetrically about the vehicle's centre line with the outer edge of each lamp no more than 400mm from the vehicle's width extremity. The top of the lamp should be no more than 1060mm from the ground (see diagram). Foglights must be aimed so they do not dazzle an observer 7.7 metres in front of the car with an eye level of 1.1 metres.

Driving lights - To be used as an auxiliary to main beam headlights only provided that the lamp centres are more than 610mm (2ft) from the ground (grille lamp kits satisfy this requirement). The lamps must extinguish on dipped beam. Pairs of lights must be mounted symmetrically about the vehicle's centre line. Maximum height above ground is 1060mm and two lamps must be greater than 350mm apart. A single lamp can only be used in conjunction with headlights.

COVER YOUR REAR

If your car was made before October 1979 the chances are it won't have the added protection of rear fog warning lights. Best fitted as a matching pair these powerful red warning lights can be positioned between 250mm and 1m above the ground provided no part of the lens is closer than 100mm to the stoplight lens. A single light must be mounted on the offside - pairs should be symmetrically mounted about the vehicle centre line.

It isn't legal to connect rear red foglights into the stoplight circuitry but you can give following drivers more warning of your brake application using the very popular High-level brake warning lights. These ingenious additions to the car's overall safety are mounted inside the car on unobtrusive pillars and can be seen for considerable distances through the rear window.



HIGH LEVEL BRAKE LIGHTS



66m

58 m

124m

ARMS RAISE

Is your steering wheel too low ?

If so have you considered swapping the Mini steering column for an 1100/1300 one ?

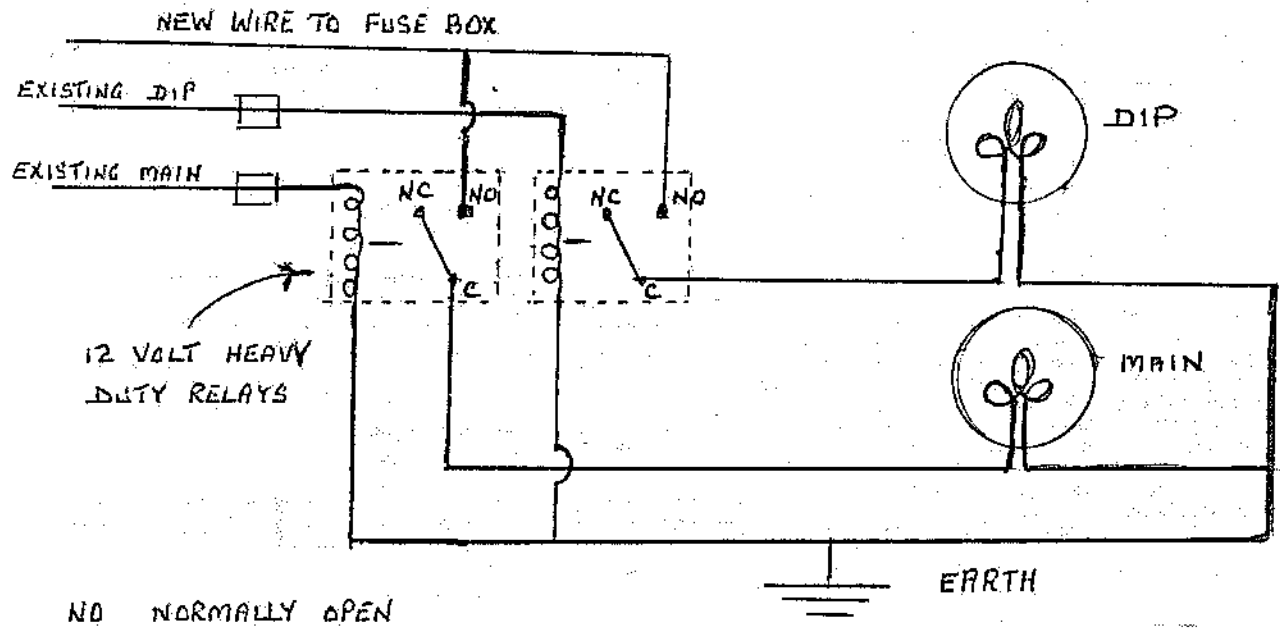
The fittings are identical, including the wiring, but about 2" longer.

HUSTLER BY CANDLELIGHT

Were you tempted to put lots of switches and controls on the roof console ?

The excessive length of wiring can cause problems. In one case the Headlamps were only getting 8 volts and lit up like candles !

This was cured by putting relays in the system. The following circuit diagram should help those having a go.



- NO NORMALLY OPEN
- NC NORMALLY CLOSED
- C COMMON

TREAD DEPTH! NOT TREAD?

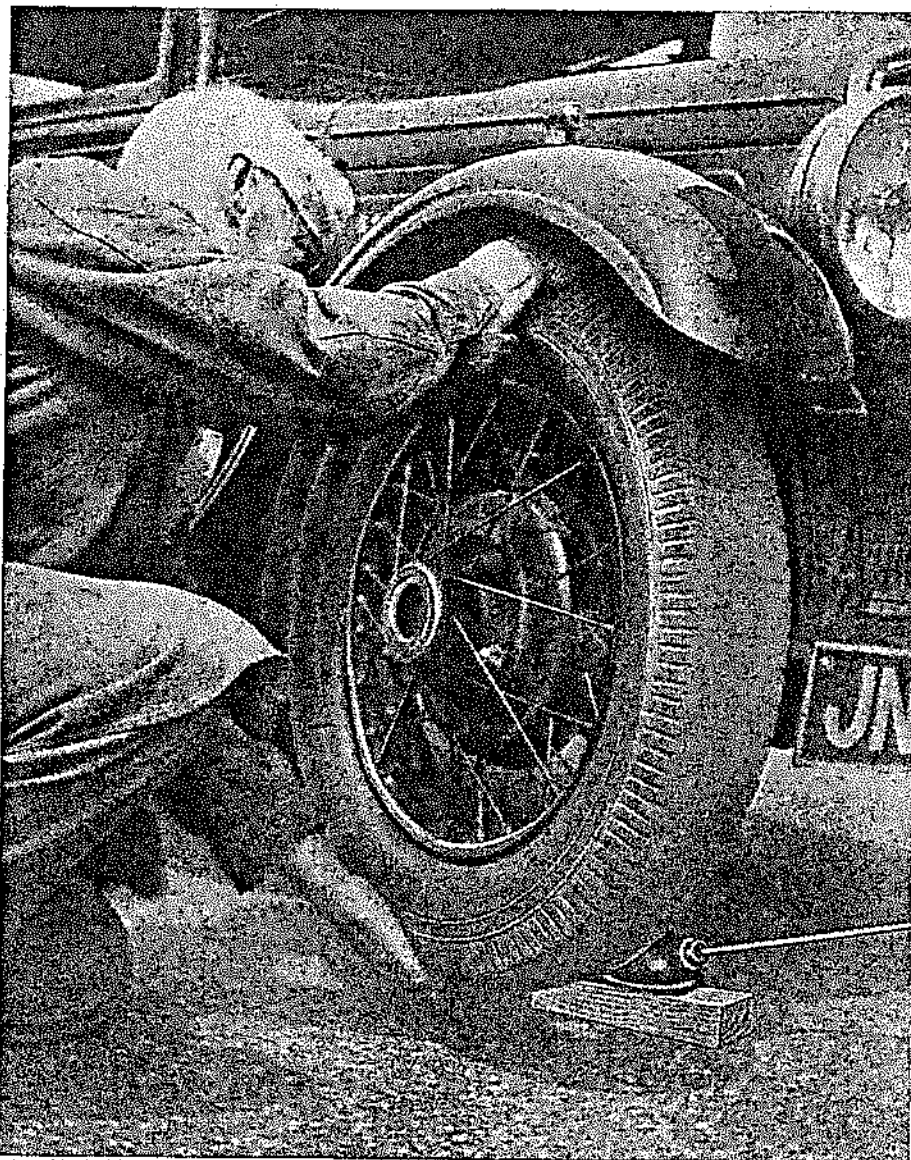
Found this article in a motor maintenance book dated about 1936. No mention whatever is made of the bald tyres. Still, maybe its a Racing Slick.

Has any one else got any motoring gems such as this? If you have please send them in, so that we can all have a chuckle.

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Motor Car—The Steering Gear

THE STEERING GEAR



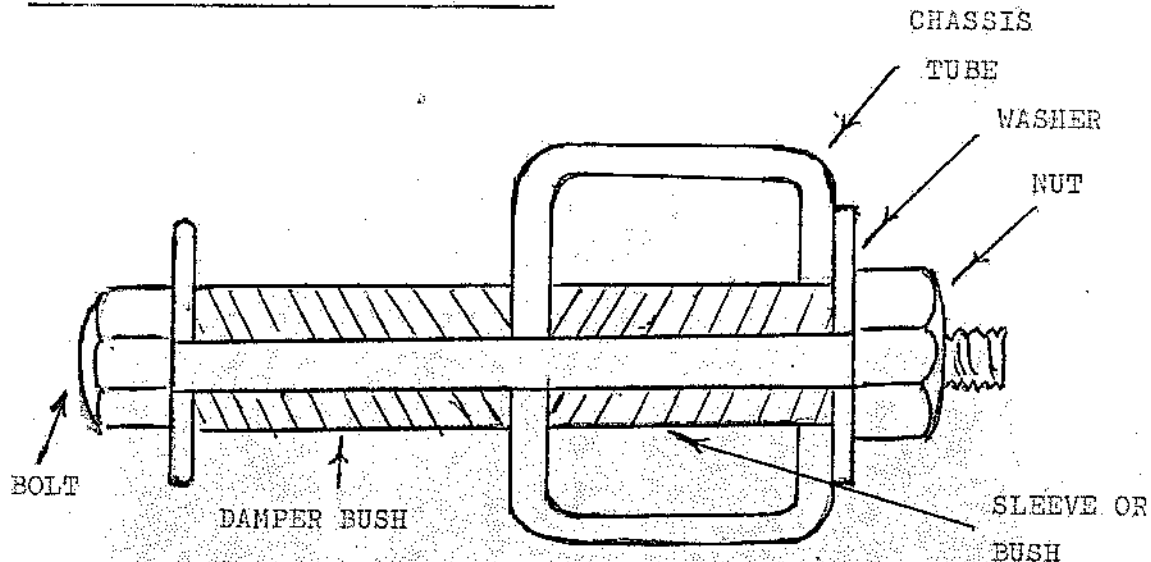
A (above). Testing the Steering Mechanism for Wear: By jacking up each front wheel in turn and grasping the tyre at top and bottom as shown, wear in the steering king pins and bushes can be felt. By attempting to lift the wheel vertically, wear in the thrust-washers will be revealed. If the wheel is grasped at horizontally-opposed points and an attempt

made to rock it around the steering pivot, wear in the steering connections can be detected. General wear in the steering gear-box and connections can be estimated by noting the amount of lost motion present at the steering wheel. This should not exceed $1\frac{1}{2}$ to 2 in. at the rim in most cases, but might be greater in American cars.

This article came in response to a Topic for Discussion which was raised in the last Newsletter.

' The holes for the front shockers, in the diagonal tubes, should be sleeved to prevent possible fretting when the car is in use.'

FRONT SHOCK ABSORBER MOUNTING



Note. This clamps one wall of the tube and floats in the other.

The problem here is that the hole is through a tube and excessive tightening of the bolt may crush the tube. A sleeve right through is not the answer. The above sketch is probably the best way.

Steve KIRBY, Twickenham

INSURANCE

I get quite a number of enquiries from people who have almost completed their cars, on the matter of insurance.

Looking through the proformas that most of you have returned to me there seems to be an almost equal number of us with either St Katherines or Norwich Union. These two appear to be the most popular. I have heard comments that the so called Kit Car Insurers who advertise in the various Car Mags. tend to quote unacceptable premiums.

I personally went to Norwich Union because I have always been with them. I recieved no hassle whatsoever. I supplied a picture of the car and completed an Engineers Report which Norwich Union sent me, and was duly insured MINI GT Group 4.

Trevor

PERFORMANCE BOOST

I have always been a little disappointed at the performance of my Hustler Six, even though it is fitted with a reconditioned 1300 cc engine. It always seemed to be struggling to reach 4000 rpm. I tend to tow quite a heavy Goods trailer quite often and also a small Sprite Cadet caravan and the performance with either of these on tow was abysmal. I decided it was time to do something to rectify the problem especially after hearing from many of you who say that your cars fairly zip along.

I visited AVONBAR RACING LTD. Mini and Metro Centre at Eyfleet, Surrey. According to them one of the biggest drawbacks to more power on the BMC A Series Engine was the standard Inlet and Exhaust Manifold, and changing this should be the first step in a quest for more performance. My car was already fitted with a 1½" S U Carburettor but on the original inlet manifold was being totally wasted. After many delays I eventually managed to get the car to AVONBAR to have the new parts fitted.

They fitted a TORQUEMASTER Watercooled Inlet Manifold, a Long Centre Branch Exhaust coupled to a 6' length of 1 ¾" Steel Tube and a Straight Through Silencer on the end. They also fitted a Different Needle to the Carburettor.

The improvement in performance was amazing. The engine now revs much more freely, giving me much better performance right through the speed range. On the journey to the KIT CAR Show at Kenilworth I was able to tow my caravan well over the legal limit. (Although I didn't do so, honestly.)

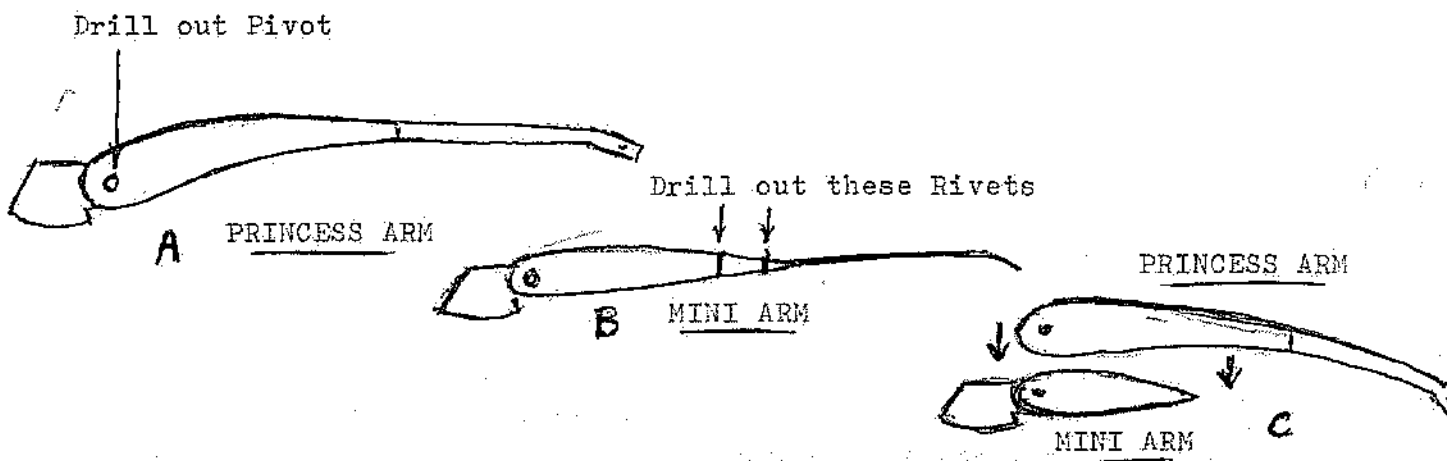
The total cost of the parts including clips, brackets, hoses etc. came to £103, if you were to shop around and do it yourself I am sure you could make the same modification much cheaper and the results are definitely worth having.

Trevor

CHAUVINISM

To his castle Lord Fothergay bore his young bride,
And he carried her over the drawbridge so wide,
Through the Great Hall, the Solar, the West Hall, the East,
And thirty-eight principal bedrooms at least.
Up seventeen stairways and down many more
To a basement twelve yards by a hundred and four,
And at last set her down - he was panting a bit -
In front of the sink and said, ' KID, THIS IS IT.'

If you wish to retain the Mini Wiper box, obtain a Princess Wiper Arm, drill out the Pivot. If the rivets are removed from the Mini Arm the Princess Arm will fit over it and can be riveted in position



Bill BROWN, Coventry.

TRAMPOLINE FLOOR

When I was building my car, I was standing in the back and found the floor rather flexible. It Crunched and creaked as I moved and realised it would need some reinforcement. I used a sheet of 3/8" plywood the full length of the rear floor and about 1" wider than the base width, bevelling the edges with a plane to get a nice fit in the 'U' of the tub. The wood was bolted down with 8 bolts (6 should do for a Four wheeler) with the heads buried in the wood by counter-boring, this is like counter sinking except that the cut is flat bottomed, not V shaped. When the rear is carpeted, the wood does not show of course and there are no grooves under the carpet for heels etc. to sink into.

Steve KIRBY, Twickenham.

WIVES KEMO

As long as you share his great British passion for cars,
its beauty and horizons -- you should have a
reasonably happy marriage



Any articles or letters for publication, controversial or otherwise
should be addressed to me at the following:

Trevor FAITHFULL

4 Lodge Close, Church Lane East.

ALDERSHOT. Hants GU11 3TA

Tel. Aldershot 310191.

Please try to remain within the bounds of the obscene publications
act if possible.

DO IT NOW !!!!!

Due to increased security at the GLASS CENTRE, this copy of
the Newsletter was again surreptitiously Printed, next door
at JENNYFIELD LTD.

