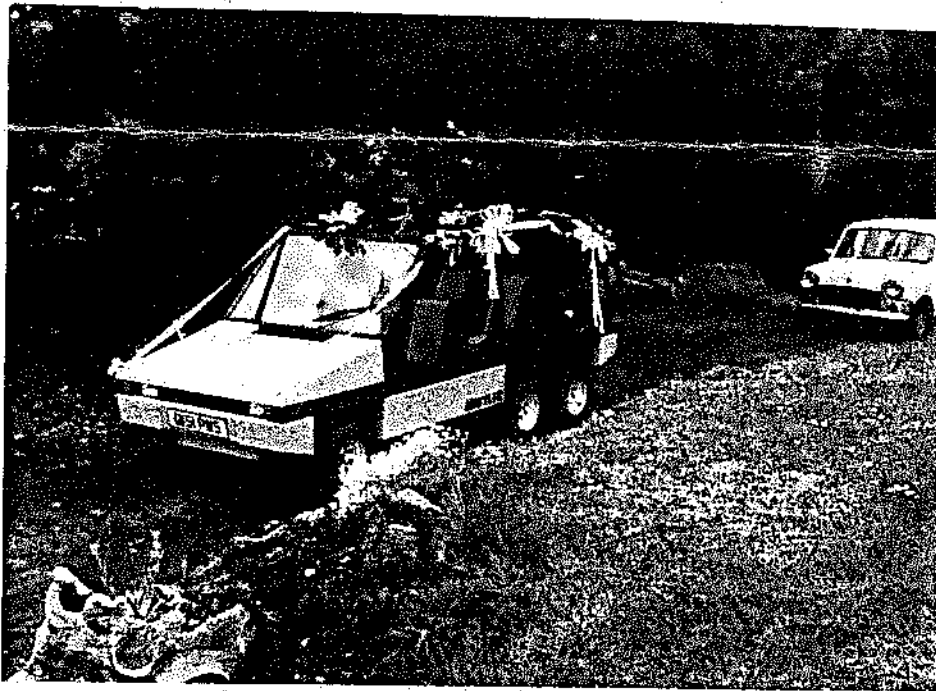


# HUSTLER

Journal of the kit car élite

no. 7



HUSTLER AT HOME Details page 10.

And it came to pass that in the Spring of 1985 a second Ice Age had descended upon the world. Anyway thats what it felt like at Kenilworth this year. I actually stood there and watched snow falling on my lovely polished Hustler. There were tears in my eyes.

But it was nice to see so many Hustler owners braving the weather, we had 12 cars each day. Plus lots of Club members who were still building, came along for a chat. Alex and David Craig travelled down all the way from Wishaw in Scotland for the day. Thats what I call Commitment and dedication.

This issues' cover picture is Steven Drabbles Hellcat Six. Not for Steven's sister anything so mundane as a Rolls Royce for her Wedding, she would be satisfied with nothing less than Steven's bright yellow Hellcat and nice White ribbons.

There is still a desperate need of articles for publication. When I see some of the super things many of you have incorporated into your cars, I am certain other builders would be more than a little interested. So come on lets have AN ARTICLE FROM YOU NOW. Please?

At the present time we have 70 paid up members, with more joining all the time.

#### THE HERITAGE MOTOR MUSEUM. SYON PARK, BRENTFORD. MIDDLESEX.

I received the following information and thought it might make a nice day out for us during the Summer.

Museum. The Museum was refurbished during 1984 and now exhibits approximately 100 historic vehicles that chart the history and development of the British Motor Industry. This refurbishment has meant that the cars are now "displayed" rather than "parked" as was previously the case.

Gardens. The grounds to the rear of the Museum extend to 2.5 acres. This area is mainly grassed with specimen mature trees. The road access to this area is made up. Picnic tables and sun umbrellas are provided to make this a most pleasant setting for club gatherings. Approximately 100 cars can be parked within the Museum grounds. Additional free parking is available on Syon Park main car parks which are situated within 100 yards.

Special Exhibitions. The additional Technical Centre buildings are used to display special exhibitions and restoration displays. Again these are within the Museum grounds.

Club Room. For Clubs staging a rally in the grounds the Manager will make available an indoor meeting room which is equipped with video and TV if required. This will be free but is obviously subject to availability and should be booked as early as possible.

Refreshments. A Cafeteria is situated within 100 yards of the Museum. Additional to this facility we have recently sited a "tea-room" in the rear paddock area for car clubs use. This facility is free to car clubs.

Added Attractions. Syon Park offers other attractions to make this an ideal family day, e.g. Butterfly House, Garden Centre, Gardens, Syon House and Craft Centre.

The cost for us to visit as a club would be £1.20 per adult with children at 50p. This admission would include the use of all Museum facilities and use of the paddock area for Club car parking. If enough Club Members show an interest in a visit I will go ahead and make a booking. Just drop me a line if you would like to go.

Trevor

SPECIALIST AND COMPONENT CAR SHOW. LEEDS 27th to 29th SEPT 1985

I have recently recieved a letter from a company who propose to stage a component car show in the Leeds Exhibition Centre, Queens Hall. 27th to 29th Sept 1985.

I have very few details as yet, other than they have requested Photographs of club members cars who would be willing to show their vehicle at the above show.

If anyone is interested in participating would they please forward to me a good quality Photograph of their car, so that I can pass it on to the organisers. Even if you are still building, a photo and description will enable them to make a judgement.

MOTORAMA 85      SANTA POD RACEWAY      AUGUST 17th & 18th 1985

A brand new event for your diary, designed specifically for component and special marquee clubs, together with those catering for off road vehicles.

Camping, films, evening disco, driving tests and numerous trade stands together with exclusive use of the world famous drag-strip on Saturday. Only at Santa Pod can you assess the performance of your vehicle accurately. For after each quarter mile run you will receive a Certificate of Speed which gives times and speed down to 2 decimal points, calculated by electronic equipment and accepted by world famous drag racing stars.

As 2 vehicles are allowed on the strip, side by side runs soon provide usual proof as whose vehicle is the quickest.

There will not be another weekend quite like it anywhere else.

Entrance fees, which will include unlimited access to the drag-strip are expected to be £2 for one day and £5 for the weekend including camping or caravans. Both fees are per person.

Club Badges as on the right.

Cloth, Black & White.

£1.20 each.

Club Keyrings as on the left. 30. pence each.

Cheques made payable to 'Hustler Owners Club'.

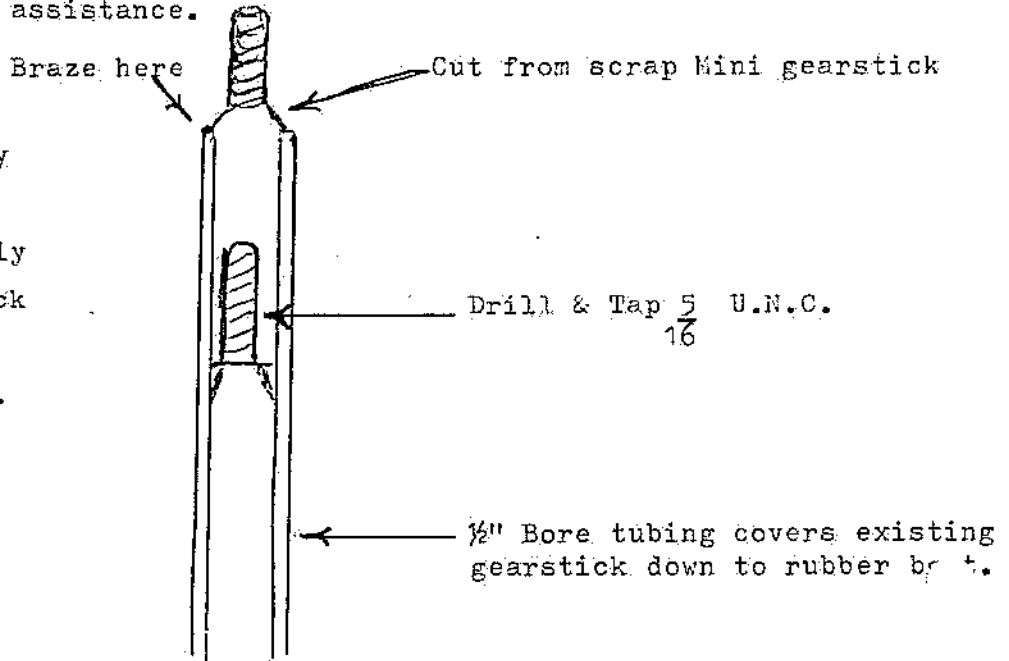
Send to :  
Trevor Faithfull  
4 Lodge Close  
Church Lane East.  
ALDERSHOT  
Hants GU11 3TA



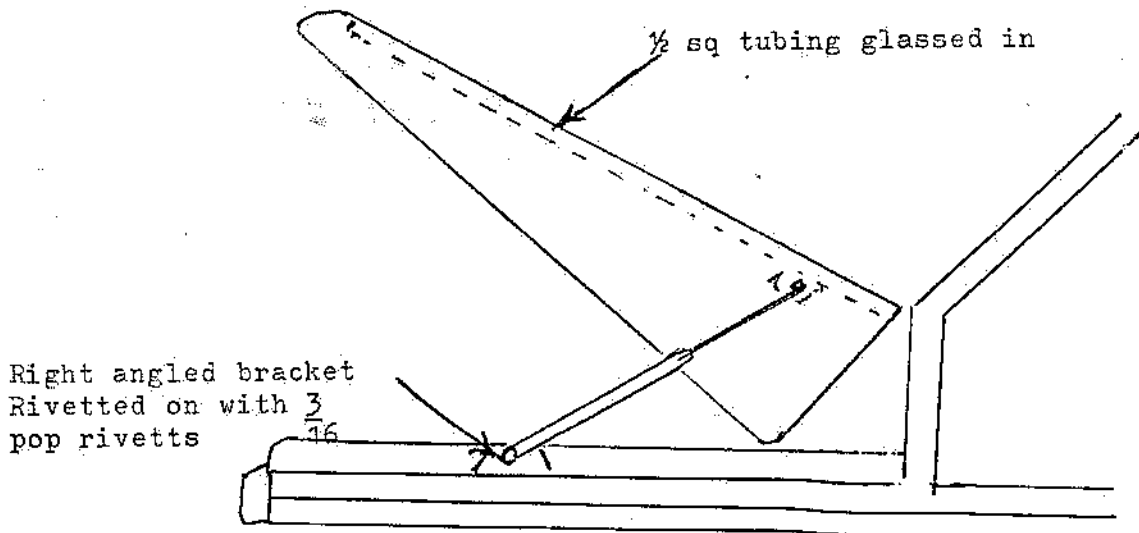
LONGER GEAR LEVERS AND BONNET STRUTS.

In reply to those owners whose complaint is too short a gear lever, the following diagram may be of assistance.

If any club members have any difficulty getting these gearsticks made, I can supply them in stove enamelled black at the cost of £5.00 each. Please ring Coventry 614408.



I also thought other owners might like to fit Hydraulic struts to their bonnets. This can be done but in order to avoid pulling out the flimsy hinges the struts have to operate in such a way that when they are under compression the bonnet is being pushed towards the hinges, not away from them. The bonnet mouldings will also need bracing (1/2" square mould steel tubing works fine). You will need to find a mounting point that gives correct leverage ratio. As there are so many different struts to choose from some trial and error is required. I used a point four inches forward of the rearmost edge of the bonnet moulding and found the other mounting point by fastening the strut to its right angled mounting bracket and clamping it along the chassis rail until a satisfactory balance point was found. I know the description sounds confusing but I hope the drawing will clarify it for you.



Bill Brown. COVENTRY.

## AQUAPLAST

Steve Kennedy thinks he has solved the problem of chafing of the displacer tubes where they pass through the frame of the car. He solved this with two 3½ x 3½ sheets of AQUAPLAST. It is a thermoplastic which means it can be heated up in an oven ( 140° ) while still being only warm to the touch. At this temperature it is very pliable and can be fitted around the tubes, hopefully preventing the rubbing. Unfortunately, although this AQUAPLAST is very cheap, it can only be purchased in large sheets costing about £30 per sheet. ( The firm that sells AQUAPLAST is only about 45 minutes drive from Aldershot, and I am Quite willing to purchase a sheet if there are enough members who are interested in having some.)

TREVOR.

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## I DID'NT KNOW THAT , DID YOU?

I have learnt that Wolfrace have gone bust, but rumour has it that someone has bought the company and renamed it 'Carflow' (which is Wolfrace reversed and without the 'e' ).

Also, John Brown Wheels are purported to have likewise gone bust.

Barry GIBBS. Long Crendon.

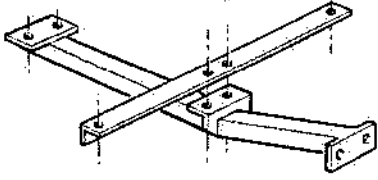
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## REMOVALS

Transport of Kits anywhere in the country. Many as return load. CHEAP.

Phone Roy BURDETT. LEEDS 662833. Roy is a Hustler owner so you know he will take great care of your expensive Kit.

**GAYMER TOWBARS**  
(Mobile fitting service)



TELEPHONE:  
(02357) 68173  
S. WIGGINS

8, LETCOMBE WALK,  
GROVE, WANTAGE, OXON.  
OX12 0BY

## JOHN'S JOTTINGS

### Stiffening the Body Panels

First let us establish the correct terms. Rigidity and stiffness are the same thing and are concerned with how much something (the panel, in this case) will flex when a force is applied - the force being less than would cause it to break. Strength on the other hand is concerned with the limit of how much force can be applied before the panel breaks.

The GRP panels of the Hustler are cosmetic, not structural, so strength is of no concern. However, the ease with which they bend when one leans against them is definitely undesirable from an aesthetic point of view.

There are many ways of stiffening the panels to avoid this flexing (more accurately, to reduce the flexing until it isn't noticeable - it can never be completely eliminated). More layers of glassfibre and resin could be applied to the rough side, resulting in a thicker panel. Unfortunately, a great deal of extra weight would result (doubling or trebling) without a dramatic improvement in stiffness.

A good solution is to provide thickness without weight. The classical way to achieve this is an "egg-box" or "honeycomb" structure separating two thin skins. These days there is an even simpler way: structural foam, which is inherently stiff when laid a couple of inches thick. An aerosol can of one-part air-curing polyurethane foam can be bought for about £8 to £9. This seems expensive for its 750ml size, but it is supposed to produce quite a large volume of foam: about 20 litres.

The aim then is to build up the panels to a couple of inches in thickness. The rough inner surface gives the foam a good key, and the foam has good adhesion anyway: it is supplied to builders for gap-filling, particularly between door or window frames and the surrounding brickwork.

Unfortunately my first attempt has been a disaster. I used a can of Mangers foam costing £8, and tried out the method on the panel beneath the rear screen. The first problem was the nature of the foam, which emerges from the nozzle as an extremely sticky sausage, which defies all attempts to spread it into a continuous mass.

My answer was to fix flat plates temporarily across the back of the panel and fill the resulting cavity, so that the foam ended up about three inches thick. This turned out to be a big mistake. Firstly, at this thickness the foam doesn't set promptly, and it took two days to set all through. Secondly, and most important when the setting is delayed like this, the unset foam continues to expand, pushing against that which has, and causing pressure to build up against the flat GRP panel. The result is a badly bulging panel. Luckily it suffered no permanent damage, and after I hacked out all the foam it returned to its proper shape.

My conclusion is that it would probably be better to use the two-part liquid mix type of polyurethane foam such as that used for buoyancy tanks in ski boats and runabouts. Hopefully one can swish the mixed liquid around in the hollow panel to get an even coverage before it foams up. Perhaps one could then get the right thickness and a prompt and even setting. I will report on the next attempt.

A more involved method, but less risky, is to mould in longitudinal ribs using glassfibre mat and resin, over a hollow cardboard tube as a former. Such tubes about 2" diameter are stocked in print shops like Athena for carrying prints and posters.

John Hother. Hove, Sussex

## FORCE FOUR MATTERS

Further to my previous notes of the protracted construction of my Force 4 Hustler, other owners may like to learn of the latest items that have occupied my time recently!

1. Headlights. After much thought I finally used a pair of Fiat 127 headlights plus a pair of Halfords' spotlights. The Fiat light's fitting caused much head-scratching since I found that with the original plastic-metal adjusters that are used, the whole light assembly was too far forward on the Hustler and would (a) have looked awful and (b) would have prevented the use of the metal mesh that Hustlers supply to fit in front of the lights. Eventually I cut off the adjusters and the raised lip of the light's backplate and, after carefully cutting away a roughly oval section of the glassfibre mounting (in order that the rear of the headlights could pass partly through the bodywork), I fitted the lamps by means of flush-mounted log bolts with twin nuts as adjusters. It appears that this is successful. For the spotlights, again a roughly oval section was cut out (a pair of dividers is most helpful in deciding the shape of the cut-out section) then a metal platform was securely pop-riveted behind and below the spotlights and the spotlight base-fitting (i.e. adjustable nut/bolt assembly) was bolted to this, thus allowing for adjustment of beam direction. I have also used a relay as suggested by other members.

2. Petrol tank. Again, after head-scratching I decided against my original ideas and fitted a Fiat 127 tank inside the rear subframe. (I would have preferred using an Austin 1300 tank but I just couldn't get the tank off a scrapped car due to inaccessability of two of the mounting bolts). The main disadvantages of the Fiat tank are that it has to be mounted diagonally and the filler pipework has to be cut and brazed to get round the framework of the Force 4. I have used some neoprene-type hose plus suitable clips in order to achieve the correct clearances and it seems to be O.K. The tank fitting requires some strong metal strips - I have used 1 inch x 1/8. inch which are securely bolted to the tank and subframe and whole assembly appears firm. The petrol pipework to the engine pump is standard plastic petrol line but I have fitted it inside a metal tube where it runs along the under side of the car since I do not like the idea of plastic fuel hose being exposed.

3. Doors. I do know that at least one other club member is experiencing considerable problems with the fit of his doors. In my case I fortunately found them to be true after the two halves had been bonded together by Bennetts. However although the door catches worked before the bonding, they now do not and this is causing dismay since it is very difficult to work on the linkage now that the two halves are joined. As regards the hanging of the doors, after ruining one pair of hinges through redrilling



CONT

due to misalignments, I have got the drivers door to hang satisfactorily by firstly packing the door at the bottom and catch side until the correct clearances were achieved. Before that I had fitted the two door hinges to the door, having made the holes slightly larger so that adjustment could be made later on. Then the door was placed into position - still with the packing in position - and a small hole was drilled into the hinges - using the existing hinges mounting holes that the factory pre-drill into the body frame. After removing the door, re-drilling the holes to the correct dia. the door was refitted, nuts/bolts tighten up and adjustments made until the door now swings satisfactorily. Note - I have used countersunk bolts with allen key heads as I found the normal screw headed bolts difficult to really tighten-up firmly in my first door hanging attempt.

4. Rear window supports. Again this caused much head-scratching (at this rate I'll soon be bald!) until I finally discovered that the framework was out of true to the tune of some 4-5mm one side to the other. Hustlers took back the original screen and supplied a smaller one, which now fits.

The supports needed to be shortened by an inch or so and the mounting brackets supplied I found were no use and new ones are being made-up.

5. Wiring. This has finally been sorted-out but, to be on the safe side, I am having the assembly checked by a car wiring specialist - wiring fire is awfully easy to start! Where extra wiring has had to be added to the loom (i.e. Halfords rear fog lights @ £6.99p) I found the standard terminal block most useful - they should be securely screwed or bolted to the bodywork or chassis though

Advice required

Would some kind member supply me with the name and price of a good, efficient rear screen demisting assembly - some I have seen either appear to be made of thick aluminium strip or are far too small.

Useful name/address. My Mini double handbrake cable was u/s, it was sent to SPEEDY CABLES. 10-12 Gaskin Street, London. N1 2SA and was returned, repaired within 36 hours. Price was £13.23 of which £2.50 was postage. - They also repair instruments.

Barry GIBBS. Long Crendon.

HUSTLER AT HOME

Mr and Mrs Towns have very kindly invited all Club members to Park Farm once again for the annual Hustler get together. Please use this notice in the Newsletter as your invitation to attend.

The date; 13th & 14th July 1985

The venue; Park Farm. Compton Verney, Wellesbourne. Warwick.

All Club members and families are cordially invited to attend.

Camping is available from the Friday evening, the 12th July.

If you bring a small boat you may use it on the lake. You may also swim from the landing stage but please be extremely vigilant with the children.

Also if you go for a walk over the farm please close all gates behind you. We don't want the sheep to escape!

I will light the Bar B Q about 6.30pm in the Dutch Barn. Please bring your food over and help yourself to some Bar B Q space.

If any among you are budding musicians please bring an instrument along and we can have a musical Soiree.

Sunday morning at about 11am we will have a cavalcade to a local hostelry for some liquid refreshment. It would be appreciated if Hustler drivers would give a lift to those who have not been able to bring their cars.

~~We will return to~~ the farm after lunch for a lazy Sunday afternoon.

It has been suggested that if you have any unwanted car spares, that you bring them along. They might be just what someone else is looking for.

One thing that is most important, is that you give me some indication, a postcard or a phone call will do, as to how many to expect for (a) the Bar B Q on Saturday and (b) the Pub run on Sunday. As soon as you can.

One last request. I want everyone to say a special prayer every night for the next fourteen days, FOR GOOD WEATHER.

Looking forward to seeing as many of you as possible.

TREVOR.

### Springs 'n things

Two products for Minis are in the news this month. Both are suspension items, and the first will be of particular interest to 'dry' Mini owners (the cars, not the drivers . . .) who find that their machine's ride is, by modern standards, hard and choppy. This problem can become acute if the car has been lightened, or even more perniciously, when Mini-based suspension is used as the basis for a kit car.

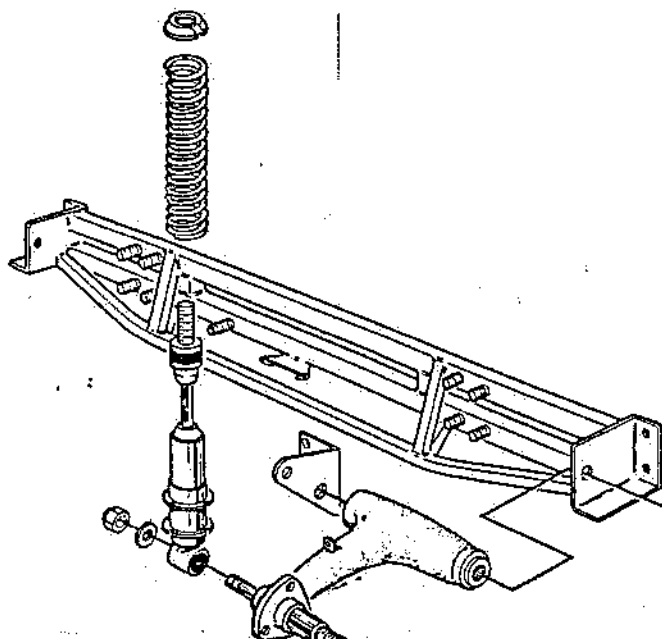
The problem is that the Mini's ingenious rubber cone suspension does not allow changes in spring rates as easily as does a more conventional system based on steel springs. Not only that, but the rubber also deteriorates with age, becoming hard and brittle. For racing purposes, changes to the rubber cone's "spring rate" can be affected by drilling holes in the rubber, or by reprofiling the concave section. Both approaches leave a lot to be desired, especially in terms of durability, for normal road use.

Phoenix Automotive, Northwick Business Centre, Blockley, Nr. Moreton-in-Marsh, Glos. GL56 9RF, may have the answer. They offer brand new rubber cones which are some 8 percent softer than standard and have revised progression rates. Compared to the price of a single standard cone, about £30, the

Phoenix Automotive items, available as sets only, seem very reasonable. The prices are: front set £52.00, rear set £48.00, and car set £98.00.

An altogether different approach is adopted by Speedex Autospares Ltd., 153/154 West Wilts Trading Estate, Westbury, Wiltshire BA13 4JN. The Speedex frame does away with the heavy, rust-prone Mini rear sub-frame, and replaces the rubber suspension cones with conventional coil springs over tubular shock absorbers. The Speedex rear suspension beam has a racing pedigree; the racing version formed the basis of the sophisticated Midas rear suspension.

Among the advantages of this system is the provision for easily adjustable ride-height, and for adjustable shock absorbers. The beam is available in two versions; the road version is adjustable for toe-in, and costs £68.50, while the racing version is adjustable for camber as well, and has provision for mounting an anti-roll bar. This version costs £90.00. Shock absorbers to suit are available at £34.50 each, or £38.90 each for the gas-pressurized versions. Springs are £10.50 each.



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### CLASSIC COMPONENT CARS FOR SALE

Recently I have had quite a few requests for details of any Hustler cars for sale( I think the word must have got round about how well you all build them). But I have had to disappoint enquirers because I just don't know of any. If you know of a Hustler for sale near you, please let me know. If any of you wish to sell your car, maybe to finance a new Hustler project, please be realistic about a price. I know it is heartbreaking when you think about how much you have spent to build it but if you ask silly money you just won't sell it.

Trevor.

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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

Telephone. Aldershot (0252) 310191.

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

DO IT NOW

Newsletter No.8 first week  
in October

In reply to many club members who have enquired about T shirts etc. The company below has a copy of the club emblem on their machine. All you have to do is give him a telephone call with your requirements and he will do the rest. Any colour you want, any style you like. I have included a size and price guide to give you some idea of the cost.

I **SIZES** Chest or bust size in inches, 2" size steps

1. Inches	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
2. Ladies' Bust						10	12	14	16	18	20	22	24	26	28
3. Men's Collar						13	14	14 1/2	15	15 1/2	16	16 1/2	17	17 1/2	18
4. Children's Ages	2	4	6	8	10										

A. LOOK AT THE PRICE GUIDE

Item	Price Guide	
	From	Average
T Shirts	1.95	4.95
Sweatshirts	4.95	8.95
Sports Shirts	6.95	12.95
Men's Shirts	6.95	10.95
Ladies' Blouses	6.95	10.95
Overalls	19.95	24.95
Jogsuits	19.95	24.95
Tracksuits	24.95	29.95



The address for those who wish to visit the shop is:

3 New Road, MILFORD, Surrey.

On the A3 next to the 'White Lion Pub'

FOR SALE

Tilt Frame & Tilt for Hellcat 4. offers.

Pair Cobra low backed vinyl covered Bucket Seats  
very good condition £20 each including Subframes.

contact Dan Keene.

Bristol (0272) 834747.