

HUSTLER

Journal of the kit car élite

no. 17



Club membership Nos . 1-100 subs due for April Please. Still only £4.00.

Articles for Newsletter No. 18 by the last week in March
Next Newsletter April 88.



TAKE-AWAYS

T.B. & I.E. Faithfull

30 GEORGE STREET, WARMINSTER, WILTS., BA12 8QB Tel: (0985) 218826

Happy New Year to everyone. Also thankyou for the articles for this Newsletter, please keep up the good work.

Re: Martin Polley's article further on in this newsletter. Footman James Insurance were the insurers for the recent Bristol Sportscar Show which Keith Sharp, John Brazier and I attended at the end of November. Their rep was very keen to advertise Kit Car insurance, he even gave me an advertising 'Blurb' to include in this Newsletter. A couple of days after the Show I received Martin Polley's article. So, needless to say I hav'nt used the Advert, What I have done is write to Footman James for their comments in the light of Martin's experience. When I receive a reply I will Keep you all informed.

The Stonleigh Show this year will be held on Sunday May 1st & Monday may 2nd. I will book us a club spot and I look forward to seeing as many of you as possible. If the weather is good it must be counted as the biggest show of the year.

NATIONAL KITCARS & SPECIALS SHOW 1988

This year because of the diary changes, the National Kitcars and Specials Show is to be held on Sunday 1 May and Monday 2 May.

The show will be in the same format as in previous years, with the exception of the introduction of 4 Wheel Drive and a Sports Car trade and manufacturers hall.

The price for camping/caravanning this year is as follows:-

Kitcar owner, DRIVING a kitcar, admitted in FREE, but camping will be charged at £3.00 for the weekend.

Passengers will be charged £8.00 inclusive of camping, admission for two days.

The above prices are inclusive of V.A.T.

For those of you who wish to arrive on 30 April, the warden will be there to allocate sites, and there shall also be evening entertainment in the Rank Village Restaurant.

The Rank Village Hostel accomodation, must be pre-booked, and made directly through John Illesley on 0203 555100 ext. 293, during normal working hours.

Unless we hear to the contrary, we shall allocate your Club the same site as last year, but should you wish to change your site, please inform Carolyn .

Competitions will be organised as in previous years, and the application forms will be sent to you early in the New Year, plus any other relevant information.

48, Meadow Way,
Walton,
STONE,
Staffordshire,
ST15 0JP.
October & December '87

Dear Trevor,

Heavy Clutch

Because the engine is from a Maxi and the clutch master cylinder and pedal box is from the donor 1300, too disengage the clutch needed a lot of foot pressure. When driving in heavy traffic fatigue sets in rather rapeedol!

An idea I'd been mulling over was reinforced by someone I talked to at one of the shows in '87. That was to fit a servo between the master cylinder and slave cylinder. This I've done and what a difference. Heavy traffic is now no longer a problem. The servo came of a defunked Singer Gazzelle.

The only problem is that on initial start up the clutch only becomes 'light' when the vacuum has built up in the unit and if when the engine has just been turned off and the clutch pedal is depressed it can give a disconcerting kick back, and also it is even heavier when the engine is not running as there are now 3 cylinders in the line. I think I can put up with that little disadvantage because the advantage is a much lighter clutch.

'Q' Reg.

A colleague at work, who is building a Rickman Ranger, gave me an interesting snippet of information concerning re-reg'ing.

If the donor vehicle's MOT has expired you've got 6 months to notify your local DLVC from the date of expiry that you intend using the original number (IF possible!!) and to send them the particulars and get an inspection booked. As long as the paperwork and appointment is booked within 6 months there is a chance of keeping the donor reg BUT NO GUARANTEE. If you don't mind having a 'Q' reg then OK but bear in mind that a Q reg is not transfereable (not easily anyway, I have heard of a possible 'way' of doing it) so, theoretically, a 'Q' reg is NOT transferable.

**The 1st Southwest Kit
and Sportscar Show
Bristol**

For a first show, personally, I think it was very good. A few well known cars were missing thou'.

There were three of us on the HOC stand. All 6 wheelers and two of those were wooden. No not the wheels the cars! A couple of more feet of space would have made things a little more comfortable and not so cramped. To get to our 'plot' in the hall meant us having to drive up a man made ramp to get up to the first floor. When I arrived first thing Saturday morning the ramp was covered in frost and I had to go up in reverse with two kind gentlemen giving me a helpful push. Rather hairy!

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As with most of the kit car shows I've been to, Sunday is the busier day but Saturday was, in this case anyway, the day for serious enquiries. Sunday was a 'let's go and see what there is to see' day. Even so both days were busy.

We meet a very enthusiastic American gentleman on the Saturday who appeared to be quite keen on building a wooden 6. He joined the club there and then ordered all the back copies of the N/L. He also phoned WT on the Sunday to find out more info (perhaps a bit of Commission coming our way if there's a sale? who knows? (That's not what I go to these shows for!!))

Thanks to Jonh Brazier for putting me up on the Saturday night, and if anyone is thinking of going to Bingley Hall I can offer you a nice comfy floor (we've just had a new carpet fitted at last) or alternatively there's always the garden loungers. Either way bring a sleeping bag.

I've just purchased January's copy of 'kit car' magazine and in the 'postbag' section on page 11 there is a very interesting letter all about plywood entitled 'Not Many People Know That'. I wish I'd seen the article myself before purchasing my 9 sheets of 8' x 4'

Can't reproduce the contents of the letter as there's too much of it but if anybody's building a wooden Hustler and hasn't bought the wood yet it's well worth a read.

Hope everone had a super Cristmas. Looking forward to warmer weather and the first show of the New Year at Bingley Hall

See some of you there maybe

Keep Hustlin'



KSSS

(Keith Sharp - Stone - Staffs!!!!)

PRESS RELEASE

On Monday, 30 November, at a banquet in London's Guildhall, a specially built six wheel Hustler designed by William Towns was presented by H.R.H. The Prince Edward to Mr. Peter Millwood.

Mr. Millwood is a severely disabled young man, confined to a wheelchair, but he will now be able to travel in his wheelchair in some style. He chose the Hustler for its unique adaptability and low floor level.

SPEEDOMETER RE-CALIBRATION.

Having chosen a speedometer from a donor car that had 13" wheels and having decided to use 12" wheels with low profile tyres coupled up to a Mini gearbox on an Allegro engine. I was asking for trouble with the speedometer reading.

After some thought and a little research I soon found that my problems were not too difficult to resolve.

You first need to find out how many times the speedo-cable turns per mile (T.P.M.) This can be found by disconnecting the cable from the speedo and with the car in neutral gear count the number of turns of the inner shaft for say 10 turns of the wheel (use a pointer on the cable). It is also necessary to find the distance moved during those 10 turns and hence distance per rev. Mark the wheel and floor and measure and then divide by 10. Yes, some of you are saying that the car cannot be moved. Jack-up one driving wheel and turn it and double the number of cable turns to take into account the differential. You then need to measure the rolling radius of a wheel by correctly inflating the tyre and with the car normally loaded measuring the distance from the wheel centre to the ground. The simple calculation for distance moved per wheel revolution is :-

$$\begin{aligned} \text{Distance in inches / rev.} &= 2 \times \pi \times \text{rolling radius inches} \\ \text{now there are } 63360 \text{ inches in a mile} \\ \text{so if we divide } &\frac{63360 \text{ ins / mile}}{2 \times \pi \times \text{rolling radius ins / rev.}} = \frac{10084}{\text{rolling radius (ins)}} \end{aligned}$$

we therefore get the number of wheel revs/mile
i.e. the T.P.M. of the wheels

$$\begin{aligned} \text{We now need to find the number of T.P.M. for the speedo cable} \\ \text{T.P.M. for cable} &= \text{T.P.M. for wheel} \times \frac{\text{cable turns}}{\text{wheel turns}} \end{aligned}$$

This Y.P.M. for the speedo cable and hence speedometer is the figure that we need to look for on the speedometer. It is the calibration number found on the face of the instrument usually either just below the mileage drum window or at the very bottom of the face after the part number eg. SNT-3328/12/901 on Smiths and Jaeger instruments (Mini's tend to be about 1,000 Y.P.M.). The figure you obtain from your experimentation and calculation according to Smith's should be within 32 Y.P.M. of the stated figure.

If not read on. — Note I could not find my Y.P.M. on the dial so I found a short length of speedo cable fitted it to a hand-drill and turned the handle and counted the cable turns to register 1 mile on the dial (reasonable accurate if you have a 1/10th mile dial).

PUTTING THE SPEED CORRECT

Compare the instrument Y.P.M. figure. (Y.P.M. inst.) with the vehicle cable Y.P.M. figure. (Y.P.M. cable).

$$\therefore \text{Speedo Error} = \frac{\text{Y.P.M. cable} \times 100}{\text{Y.P.M. inst.}}$$

Now you need to take the back off the speedo. locate the drag cup that is connected to the indicator needle. Carefully turn the drag cup until the needle indicates the speed that corresponds to the error figure above, and hold it in that position.

Now for the error to be zero you need to move the needle to read 100 whilst still holding the drag cup. (It might be useful to mark the rim of the cup with a felt tip pen first). You can obviously divide both the error and the 100 by 2 or more if the speedo calibrated scale does not go high enough. Road tests using a following car or the fact that

there are 16 marker posts per mile alongside all recently constructed Motorways can be used to verify this.

NOTE. If you drive at a constant indicated 60 m.p.h. and time a 1 mile run you can calculate your true speed using the formula

$$\text{Speed (true)} = \frac{\text{Time (true)}}{\text{Time (measured)}} \times \text{Speed (measured)}$$

Assuming we took 65 seconds for the mile

$$\text{Speed (true)} = \frac{60}{65} \times 60$$

$$\therefore \text{Speed true} = \underline{55.38 \text{ m.p.h.}}$$

So by rotating the drag cup until the needle shows 60 m.p.h. and moving the needle to show 55.38 m.p.h. it should now read correctly.

What follows is the worked example that I carried out to get my speed setting correct.

$$10 \text{ wheel revs} = 12 \text{ cable revs}$$

$$\text{wheel rolling radius} = 10 \text{ ins.}$$

$$\text{existing speedo calibration} = 900 \text{ Y.P.M.}$$

$$\therefore \text{wheel revs/mile} = \frac{10084}{10} = \underline{\underline{1008.4 \text{ revs/mile}}}$$

$$\text{Y.P.M. for speedo cable} = 1008.4 \times \frac{12}{10} = \underline{\underline{1210 \text{ Y.P.M. cable}}}$$

$$\text{SPEEDO ERROR} = \frac{1210}{900} \times \frac{100}{1} = 134.4$$

\therefore The speedo will read 134.4 m.p.h. at a road speed of 100 m.p.h

• With needle at 134.4 m.p.h.
Hold drag cup and move needle to 100 m.p.h.

or with needle at 67.2 m.p.h.
Hold drag cup and move needle to 50 m.p.h.

MILEOMETER

This is not quite as easy to put right. The speedo cable drives a worm gear which rotates a pinion with an eccentric on its other end. This pinion eccentric is fitted with a pawl which pushes around a toothed gear on the end of the numerals shaft. One complete revolution of this toothed gear representing $\frac{1}{10}$ mile.

If your error is small you maybe able to put it right by just changing the toothed gear. If like me your error is large you might need to change the worm, pinion and toothed gear. This tends to be very messy and involves knocking out rivets and replacing them. It might be easier to make a visit to the local Scrap Yard and search for a speedo with something nearer to your required R.P.M setting.

John E. Brazier

John E. BRAZIER

Trevor,

More drive for the next N/L.

Had a funny experience the other day which may be of some interest to other members, (stop yawning at the back please!)

Our runabout car is an 1100 Allegro - pause while laughter subsides - and recently I parked it on our sloping drive, nose down, as usual. Next morning the tarmac was all pretty colours and there are a number of things that make tarmac pretty colours but the obvious ones are petrol and oil, so it had got to be one or the other or both.

Thinking expensive thoughts, like - new petrol tank, I got in the car and set off for work - muttering. However, the car didn't come with me. Would it start? Would it hell as like.

After checking various things - convinced that I had got petrol problems, (remember the pretty - coloured tarmac?) I traced the problem to the points not opening. Funny how you can do 150 odd miles, trouble-free, one day and the next day the gap between the points is as big as an atoms armpit.

Re-set points. Start engine. Out of every orifice came this horrible black froth. Stop engine (quickly!) Black froth continued to ooze out of the dipstick hole, so I took the stick out, wiped it and put it back. When I took it out again, the oil (Black froth?) level was about 3 inches above the maximum.

Do I own a money maker? I thought. A car that makes oil instead of burning it. All I have to do is refine this stuff and I could

Make a fortune! Come on - don't be silly. Check fuel gauge, and sure enough, it had gone down considerably. Now it all became clear. During the night, someone had siphoned a gallon of petrol out of the tank and tipped it into the engine! No, I wasn't convinced either.

The only thing I could think of was the fuel pump. Some time ago, a colleague had a Cortina that kept gaining oil and when he took the pump apart found holes in the diaphragm which allowed fuel into the sump.

Allegro fuel pumps are "untakeapartable" so a replacement cost me £10 odd, plus an oil and filter change, all for the sake of a hole in a diaphragm. Still, I suppose there are worse things that can happen when you get a hole in a diaphragm. Anybody want to buy $2\frac{1}{2}$ gallons of black "petrol", ideal for cleaning mucky components etc.

The point of all this (yes there is a point) is that if you have a Hustler with a mechanical fuel pump, a sloping drive, and rising oil level, check the fuel pump!

Seriously though, I suppose it could have been nasty with all that petrol in the sump getting aerated by being thrashed about by the crankshaft and we all know what happens to petrol/air mixtures when a spark is introduced.....

On the Hustler front I have done lots of odds and ends (the sort of things that take two or three days work and no-one can see what you've done) and I hope to have it ready for Stoneliagh in April (he said with fingers crossed). Hope to see old friends there (and new ones?)

Martin Guinan.

41, Gordon Road,
Dovercourt,
Harwich,
Essex.
30 November 1987.

Dear Trevor,

I have just been flicking through my old newsletters when I came across a piece by Keith Sharp about how most 'plastic' Hustlers are not so well finished as wooden examples. There is a perfectly simple explanation for this, and that is that builders of wooden Hustlers have very few quality constraints within which to work, while us builders of plastic Hustlers can only make our finished cars as good as the kits from which they were built. Perhaps that is just a diplomatic way of expressing my own opinion, i.e. that Hustler kits are not of quite such high quality as some on the market, but are a hell of a lot better than some, especially in the styling department. There have been some quite awful kits on the market over the years, for example the Cygnet Monaco, Mumford Musketeer, Kingfisher Countess (later to appear as Le Chat), Delkit Camino, BJS Mistral, and now the Nyvrem. There are probably numerous others, but these were just a few that sprang to mind. Now that I have finished moaning, I can start writing about something interesting. The last car mentioned above brings me nicely on to the next subject, a show at which it was exhibited.

The Earl's Court Motorfair was quite impressive. All the major manufacturers were there (except Interstyl), but for me, the most interesting part was upstairs, where most of the kitcar manufacturers were situated. At Motorfair '85, the kitcar manufacturers could be counted on one hand. This year I needed both hands! As in '85, Dutton, Marcos and Caterham were present, while this year's kitcar contingent also included Pilgrim GRP (Bulldog and Cobra), Handmade Cars (Allora), Spydorsport (Silverstone), several Cobra replica manufacturers, all of whose products oozed chrome from every orifice. Transformer Cars (the HF2000, two of which were displayed, one a standard road car, the other a full Group 4 rally car, sporting wide arches and a spotlight pod, the whole being decked out in Alitalia livery - absolutely stunning), GTD (GTD40 and Lola T70 replicas) and last and most definitely least, the Nyvrem. In conclusion, very nice, but I would rather have the Stoneleigh show any day of the week.

Now onto something of interest to precisely no-one - my car. It was finally finished sometime in July. It passed the MOT with flying colours, so, after phoning round for quotes and insuring the car with the Norwich Union (of which a moan in a moment), we duly informed our local vehicle licensing centre (or so we thought) in Ipswich - "Sorry mate, we could've done it for you a couple of years ago, but you'll have to try Chelmsford now." Thanks, pal. Chelmsford - "We're very busy you know - we might be able to help you in about a month's time." And you have a nice day too. About a month later, while we were away on holiday, the chap from Chelmsford arrived, was let into the garage by my Grandfather, took a cursory glance at the engine and chassis numbers, accepted a cup of tea, made a pleasant comment about the Hustler (makes a change!) and was on his way, leaving my Grandfather a bit puzzled

about why we had to wait all that time for a five minute inspection. Maybe they were waiting for a large enough number of jobs in our area to bother to make the 50 mile trip. Ipswich is only 25 miles away - they might have been able to get here the next day... oh, well that's bureaucracy for you.

Now onto my next moan ("Does he ever stop" - several people - answer, no, at least not when it concerns money), which concerns insurance. Now, before anyone says anything, I am not criticising the Norwich Union, they were very good over a recent claim, I just want to point out something that appears rather odd. It is as follows: I am 17 years old, a first time driver, and therefore no No Claims Bonus, and no penalties; my insurance, fully comprehensive, cost £767 (my highest quote was over £1500 - the firm to steer clear of for young drivers being Footman, James & Co.), whilst an accidental damage, third party, fire & theft policy (the only difference between this and fully comprehensive seeming to be the part concerning personal injury to driver and passengers) for someone of similar age for a Caterham Super 7 1700 super sprint, with Osborne's costs £585! (Or at least it did a couple of years ago.) Now I may be a candidate for the failed pole-vaulter award (for grabbing the wrong end of the stick), but this seems to be a huge difference, especially considering the performance of the latter car compared with mine (i.e. the 7 does 0-60 in approx. 6 seconds, with a top speed of 110 mph, while I am not sure if my car, with its 1100 engine, will even reach 60 mph!) even taking into consideration the personal injury thing. Sorry to carry on at such length, and I am sure someone will write in and point out what a wally I am.

My tailgate shattered a few weeks ago, and I noticed that the number of rattles was about halved, so that when the radio was turned up it was almost acceptable. So presumably, the cheapo metal tailgate struts caused most of the rattling. When the new tailgate arrives, I will have to investigate the possibility of using gas rams. Therefore a couple of queries: has anyone tried them, and where can I get a pair cheap?

I seem to have been going on a bit, so I will sign off after this short but cautionary tale. My father and I were looking for a filler cap and neck in the scrapyard (sorry, vehicle dismantler's) when we came across a nice example on an Alfasud (no cap, of course, but you cannot expect everything), so Dad started to cut it with the hacksaw, it being plastic, so there were no worries about sparks. To saw through the last part, he had to apply a certain amount of downward pressure, the result being that when the pipe parted, the pipe went down, filled with petrol from the tank, sprang back up and delivered Dad about a half-gallon of dirty petrol full in the face. I am sure you can appreciate what the result would have been had he been smoking a fag...moral of the story, then - do'nt smoke, at least do'nt smoke when cutting through bendy fuel filler pipes!

Yours sincerely,

Martin Polley.

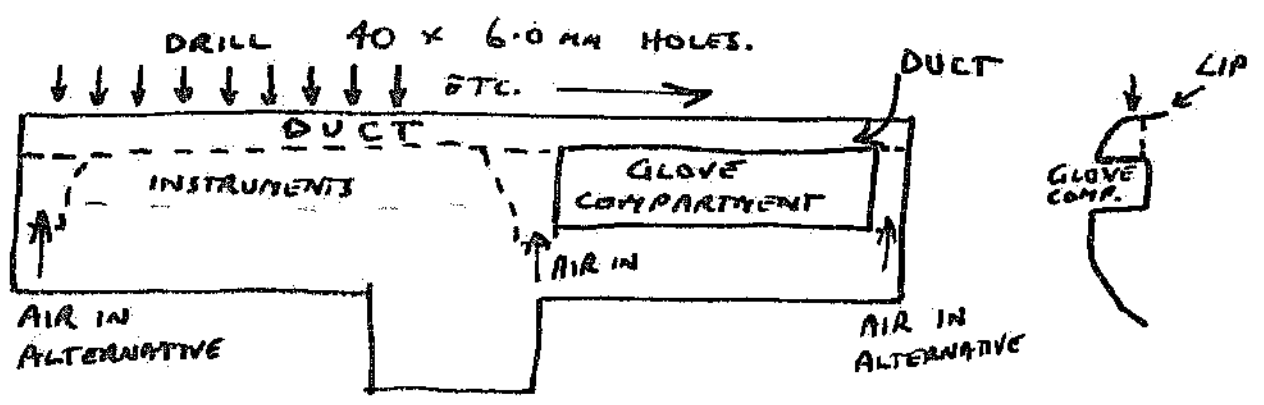
221 Galmington Road,
Taunton,
Somerset.
TA1 4ST
Telephone 0883-337460

DEAR TREVOR,

ALL HUSTLER KIT BUILDERS WILL BE AWARE THAT THE METHOD OF DE-MISTING SUCH A LARGE AREA OF GLASS ADVOCATED BY THE USE OF DONOR PARTS IS LESS THAN SATISFACTORY.

A NEATER AND MORE EFFECTIVE METHOD IS TO DRILL HOLES IN A NEAT LINE ACCROSS THE FULL WIDTH OF THE TOP OF THE DASHBOARD PANEL THEN MAKE A BOX SECTION DUCT BELOW THIS AND BEHIND THE DASH ITSELF USING THIN PLY OR AS I USED, BROKEN OR SCRATCHED PLASTIC BATH PANELS SECURED BY FIBREGLASS MATTING & RESIN OR P.38 FILLER.

THE AIR ENTRY DUCT(S) CAN BE POSITIONED TO CHOICE DURING ASSEMBLY.



DASHBOARD VIEWED FROM BEHIND.

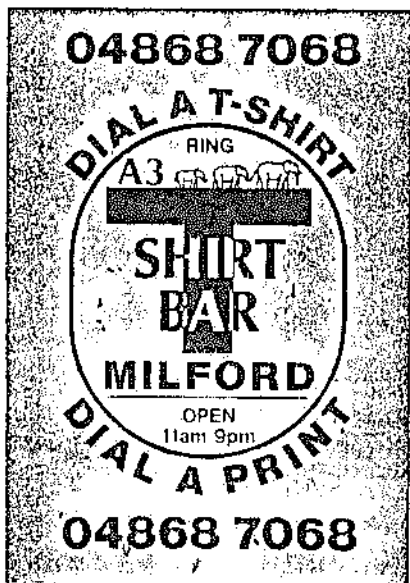
REMEMBER TO KEEP CLEAR OF THE LIP AS THIS IS WHERE IT IS FASTENED IN ON ASSEMBLY!

1 **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						13½	14	14½	15	15½	16	16½	17	17½	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'

Club Badges as on the right.

Cloth, Black & White.

£1.20 each.

Club Keyrings as on the

left. 30. pence each.

Prices made payable to Hustler Owners Club.

Send to:

Trevor Faithfull
30 George Street.
WARRINSTER
Wilts.

