Journal of the kit car élite







21 Gloucester Rd., TROWBRIDGE Wilts. BA14 OAA

Tel. 0225 769980

Only a week late this time, I must be getting better.

Many thanks for all the articles, please keep up the good work.

Fon't forget the Stonleigh Show this year on the May Bank

Holiday Weekend. 6th & 7th May 1990.

Keith Bharp has kindly booked the Club Area for us.

We will be in the same place as last year.

I think perhaps you all ought to know that I have got a For Sale ticket stuck to my Hustler. I think that after six years I am due for a change, not only that out I don't have the time to keep it in the condition to which it is accustomed, so sadly it has got to go. Also the money will help to clear my overdraft which will definitely cheer up the Bank Manager.

I have put a price of £1500 on the car which means I will probably still be driving it this time next year. But if anyone is interested or knows of anyone who is looking for a Hustler please give me a ring.

I am quite prepared to keep the Club and the Newsletter running but if anyone feels they would like to take the Club on, and I am sure there must be someone, please get in touch.

N ext Newsletter 1st week in July.

Articles by the last week in june

Also subs please, the Bank account is beginning to look a little bare. £5.00 per annum

I usually send out about 50 Newsletters each time, and we have up to the first week in april about 17 fully paid up Club Members.

Best regards,

Theod.

48 Meadow Way, Walton Stone Staffs ST15 0JP Tel:- 0785 817866

13/2/90

Postbag

Dear Editor

The Trials and Tribulations of Using "Older Technology" Parts

Well for only the second time in four and a half years the Hustler is of the road due to manufacture's mechanical failure. But I suspect really that it is just down to old age.

I was merrily driving down one of the delightful dual carriage ways in the local vicinity (fortunately!!) and glancing at the flooded fields! when, and anyone who has owned a BL "Fluid Ride" car may possibly have had the same feeling, I had this sinking feeling and a listing to port! (due to the water in the fields??!!)

On stopping the car and going to the rear of it to see what could have happened I spied the tell-tale trail (try saying that after a couple of pints) of <u>the</u> green fluid that told me the Hydrolastic fluid on the nearside was leaking away rapidly!

I managed to limp home 'cause I'd had the forethought to fit bump stops to the body to prevent the suspension bottoming and enabling the car driven at no more than 10 mph (quote from manufacturer!).

Unfortunately since their original conception I have fitted different wheels which have got a different offset to the original and together with the wheelarches now fitted meant that the rear radius arms where resting on the bump stops but the tyres were also just catching the inside of the wheel arch. So consequently when I'd travelled the half mile or so to get home there was a strong smell of burning rubber and a somewhat "shiny" outer sidewalls where the wheelarch had been rubbing on both tyres!

Once back to base it was out with the jack and up with the car and under car one did crawl to see - nothing at all obvious!

On moving the rear most wheel up and down on the suspension the rushing in and out of air could be heard but still nothing to see!

There was nothing for it but to strip it all down to see what had the hole in it. After taking of part of the tow bar the petrol tank and taken out the radius arm I was then able to remove the displacer unit after first undoing the union connecting the rubber hose to the metal pipe. When removed it was easy to see why there was nothing visible when the displacer was in situ cause there was a big hole in the rubber hose as close as you cold get to where the hose connects to the top of the displacer, and that all fits snugly into the subframe.

Without further ado I set to to put in a replacement unit that I happen to have due to the purchase of a part built 1100 based 4 wheeler wooden Hustler which I have converted back to run on Mini mechanicals.

So with the new unit in, everything was put back together, new Hydrolastic fluid pumped back into the system (at cost of £14.50 a gallon!!), trimmed and back on the road within 3 days. I day to get over the shock and to muster up enough enthusiasm to start the repair. I day to strip down and I day putting it all back together again.

So far everything seems OK.

The pitfalls of using "second hand" bits??

Keep Hustlerin'

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HUSTLER FORCE 5 - PART 3

Those of you who have kept up with the sage so far will remember that by we now have a complete rolling chassis with steering, engine and suspension fitted. The only panel so far in place is the floor plan and no controls, radiator or fancy bits such as wiper, heater etc are fitted.

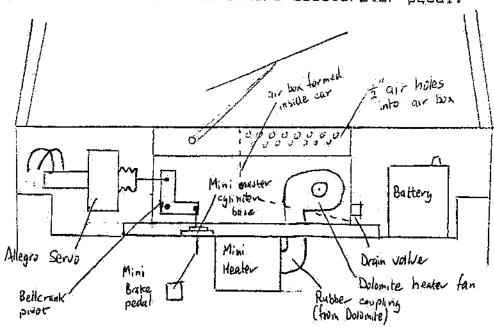
Let us start with an apology. I stated previously that I had to modify slightly the 10mm compression fittings that I used to lengthen the suspension pipes. Well I am now puzzled as I recently had to move a pipe and fit a new joint which went on perfectly straight from the shop. Either my memory fails me or some makes fit better than others.

Now for the radiator. The front under-body moulding fitted round the engine with no problem. It needed cutting slightly to clear the two engine stays which were attached to the diagonals on the frame. The radiator mounted onto two brackets I made for the bottom with the top mounting lugs fitting through the glass fibre at the top. It is a tight fit by the alternator and the fan mounting needed shortening slightly. All the hoses fit as on the Allegro even down to the original metal tube that runs under the bottom of the radiator. No problem really after I stopped the fan hitting the matrix!

The heater I have is a bit of a hybrid. The basic unit in the car is from a Mini. There was no chance of fitting the Allegro unit or the one from a Capri that I had lying around. To get air to it I have used the area to the left of where the windscreen wiper fits by drilling a series of 1/2 inch holes through the top into the area behind where the glove box comes. This area is then boxed off with a sloping bottom arranged to lose any water that gets in into the left hand battery box through a one way drain. In the engine bay I have fitted a fan unit off a Triumph Dolomite that sucks the air from this box and blows it down into the Mini unit via the large rubber elbow tube that was fitted to the Triumph. With the two speed Triumph motor and the Mini single speed you end up with quite a powerful 3 speed arrangement. I have arranged the demisters under the dash as suggested by an anonymous author in Hustler no 17. The original intention was to bleed off fresh air from the Triumph unit to feed air vents but up to now this has defeated me. The controls are from a Viva.

I had an interesting time with the brakes. I have heard of a lot of problems from people trying to alter systems so I decided to keep to the standard Allegro as closely as possible which meant I wanted to use the original master cylinder/servo unit. There is no way that either this or the pedal box will fit in their original places. Because I knew it would fit and I had one lying around I decided that I had to use a Mini pedal box. This led to a slight problem in that

the motion from the pedal is vertical and the Allegro requires it to be horizontal. As all problems are really opportunities, or so I keep being told, this in the end was used to advantage. The only place I could get the master cylinder/servo in was to fasten it cross ways across the car with the vacuum unit sitting in the right hand battery To connect the push rods I have used a bellcrank arrangement connected at one end to the master cylinder and at the other to the pedal. To seal the hole in the bulkhead where the rod comes up I cut the flange end off a Mini master cylinder and bolted it to the pedal box in its normal position. The mushroom shaped push rod end was then cut off and the shaft threaded. Treating another one just the same the two could be joined using an internally threaded tube. This leaves an adjustable rod with two forked ends one fastened to the belicrank and the other to the pedal. I am really quite proud of the result. There is still room for the clutch master cylinder except that I haven't got one as mine is an automatic. The arrangement would not of course work with left hand drive as the clutch would get in the way. To finish off I have used a Mini accelerator pedal.



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My previous experience with plastic cars has taught me that one of the most difficult areas to sort out is the earthing of the various bits hung on the dashboard. To avoid this I have cut out most of the facia area and replaced it with a sheet of textured coated aluminium that was originally part of some sort of electronics rack. This then had the appropriate holes cut out and was painted. One earth connection to this allows all the gauges etc to pick up their connection from it. As the panel is screwed in place it can be easily removed for access to the wiring. Without this feature getting round the back of the dashboard to change bulbs etc is as difficult on the Hustler as it is on most cars. I have tried for two years to work out how to change the bulb which used to illuminate the heater controls on our VW Scinceco.

Malcolm Asquith

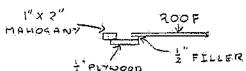
Dear Trevor,

At last, I am able to announce that my Hustler is now on the road. It has been great fun to drive about and does attract quite a few stares from passers by. The biggest problem I have found with it is the amount of interior noise. However, I have been able to reduce this to a more reasonable level.

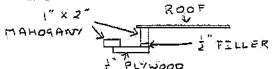
The bigest generator of noise was the windows. I found the simplest solution to this was to tighten up the window channels as the width allocated for the glass was much too wide. Now the most noise is generated from wood coming into contact with wood. At least it will give me something to do while sorting out the source of each of these noises.

On to more interesting things. There have been a few alterations to the basic design on my Hustler, some of which have been detailed in a previous newsletter. So, on to some more of these.

Being of above average height, I found problems when sitting in the back of the Hustler when I first put the roof section on. I decided to do something about this and decided to use two lengths of 1" by 2" mahogany to increase the height of the roof. The way the roof is fixed on for the standard car is as follows:

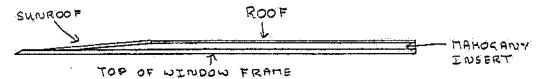


What I did was to introduce the piece of mahogany between the roof section and the $\frac{1}{2}$ " marine ply filler. This gave the following:-



Where the front part of the roof is attached to the ash roll-bar, a 1" by 2" mahogany piece was insetted between these two. At the back a piece of $\frac{1}{2}$ " plywood was used to cover the hole resulting from the increase in height.

The front part of the roof can be used as a surroof, which is what I have, done (for the moment). Bringin g this down to meet the top of the windscreen was one of the more difficult aspects of the job and I overcame this by having it at an angle from the back to the front so that it ended up level with the top of the windscreen. A side view of this is as follows:-



Overall, I have been pleased with the alteration to the roof, but I have reserved judgement on whether to retain the sunroof. I will see how much it leaks first.

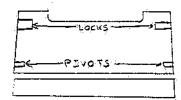
A further area I have changed is the bonnet. From experience with working on a variety of motor cars, I have found removing the bonnet for major work something of a pain. So, taking this into account, I have built a forward hinging bonnet with the pivots being easily removed to allow the bonnet to be taken off in a few seconds. Akey is required so that not anyone can remove it!

When I investigated how to do this, I found I could not place the pivots for the bonnet right at the front due to the headlights being in the way. This meant I had to cut the bonnet into two pieces, the cut being above the front bulkhead. The front most piece is screwed down and cannot easily be removed,

What I chose for the pivots for the bonnet were locks originally intended for windows. These consist of an outer part that is fixed to the underside of the bonnet, with a cylinderical centre that extends beyond the casing when fully depressed. After inserting a key and twisting, the centre piece retracts into the casing, allowing the bonnet to be removed.

To keep the bonnet down, I used two mortice door locks embedded in a piece of mahogany that is screwed and glued onto the underside of the bonnet. This is operated using a key in a lock on the top of the bonnet, which when rotated either extends into or retracts from the corresponding hole in the fixed bonnet surround.

The bonnet looks like this :-



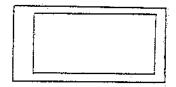
The only problem that I have encountered is that the bonnet nearly touches the radiator as it is opened. This is a side mounted 1300 radiator, which could be replaced by a Mini item if this causes a problem. It may not be possible to use a front mounted radiator with this particulative bonnet design.

Remaining in the engine bay, there is no provision in the original plans for any sort of ineer wing. Therefore I have made my own.

Each side requires a slightly different design of inner wing. On the offside a full wing is desired, but on the nearside it is necessary to have a flow of air out of the radiator.

For the offside ineer wing I used a ½" thich piece of marine plywood to go from the front bulkhead to the subframe towers. The top of this does not meet with the flat wooden engine surround, so a second piece of plywood is fixed to this one with a 1" square piece of mahogany and this second piece screwed to the engine surround. This has not been glued in so that it can be removed to improve access to the engine and suspension if necessary.

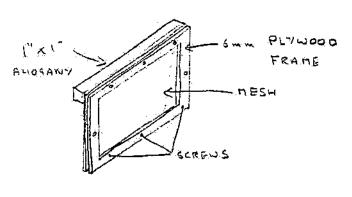
This design could not be used for the nearside as a flow of air was required. To achieve this, two pieces of 6mm plywood were used with the centre cut out to form a frame:-

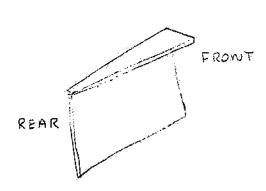


Between these two pieces some mesh was sandwiched, so that air was allowed through but stones and the like could not get through to the radiator and damage it. The mesh was a piece of aluminium mesh that was originally destined to fill holes in metal cars so that body filler could then be applied. As this is rather flexible, possibly allowing large stones to break through, a second piece of mesh was used to re-inforce it. This was a much thicker, but coarser piece.

The resultant assembly was fixed to the horizontal engine surround using a 1" square piece of mahogany and looks quite reasonable.

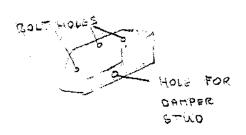
The resultant inner wings look like this :-

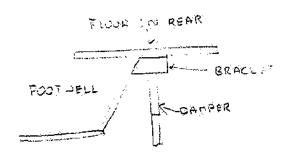




Moving on, The next area of change was in the shock absorber mountings at the rear. Here a bracket was made up for each damper that fits in the angle between the top of the wheel arch and the footwell. This bracket is fixed to the body by three bolts and the damper then fixes to this in the same way it would have in the original Mini. The bracket is essentially a rectangle that has had one end modified to be at an angle and then either the back or the front is filled in to stop dirt etc. from collecting around the nut.

It looks something like this :-





That is basically all I can think of at the moment. Anyone wishing to have a look at the car when they may see it at a show are welcombe to do so, but I may not get to that many this year. I certainly hope to get to Stoneleigh and Hustler At Home, so I hope to see you there.

Yours sincerely,

Lance A. W thenbey

Lance A. Wittenberg

(₽

12, Artington Walk,
Gindford,
Surrey. 942 5EA.
21st February 90.

Dear Travor,

Thanks for News little 25. I bok forward to the arrival of the tome amongst the regular diet of junk mail for catalogues, life appurance and the latest would appure the Digest's positively best chance to win the world and a quick response bonus.

To, you want some drived to publish do you, will have you are, PART THE SECOND of my bid for the longest ever Huster bidd up. Sharp eyed reades will recall that a year or so ago I'd managed to create Guidfords most eleberate a heelkardu.

Since then the total front subframe to bid, chansol painted and nearly restored all of I few really, apart from an initial attempt to make the floor moulding fit and knocking up a pair of angle iron bracked for the I fant subframe rounds, I that it this really wont do so 90 is going to be the year it all somes together. I will may be.

Thinking whead a little, the one thing I have plinty of time for I divided to tackle the how to mount the extering I rack problem. First call now the Uniperst counter for Marina! Il Botto as recommended in the back of words. Surprise, surprise "we don't varry em mate" but ever hilpful, a skim though the microfilm exceeded no sintable alternature "and we don't I stock any of them wither mate." Swond call, yes you guessed, the breaken yard and all of three Marinas' to choose from. Will I souldn't see how the Marina bott would be suitable and the painful realisation that removal of said botts would take until bed time was enough for one day. At this point the ingineer of the show, the wife

took up the touch and called - as a small local factor. The bloke there suggested as hand clamps comming to have get away with it on a " Com replica" Yes really , implified deleted and so on ! Monimpresend, my faster in law I was called in and less a properthe did and we've still get 8 pet or so of 1/16 hardened still red left over I suggest that I'll do for the next to thuster bind upon. Mar anybody we traily mid Morina is Bolts on a GRP min based Hunter?

By I the way does any today witholly know white heit builds are going to have to sit I contability know white heit purpose of DNAC let you keep the abl plate the answer is no, that what about a plate's? I have to what that the prospect of his ing to sit my old It sines lump with hardned value what and so on for had free running and the "core" is a bit downting, supporting it win possible. I Achiel sum the clube admin I and ing meaning expens core of the owner club Secretory phase. one final thought for non, is the ter building michanics, ungineering or societies? Intersting philosophical Volucious and also I care of the long suffering Sicretory place.

Mork Jackon (alias burnwed of Guildford)

is In my case Huster building is mostly photography.

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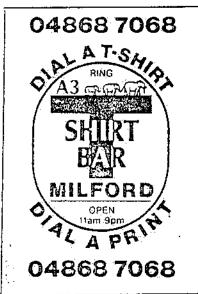
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