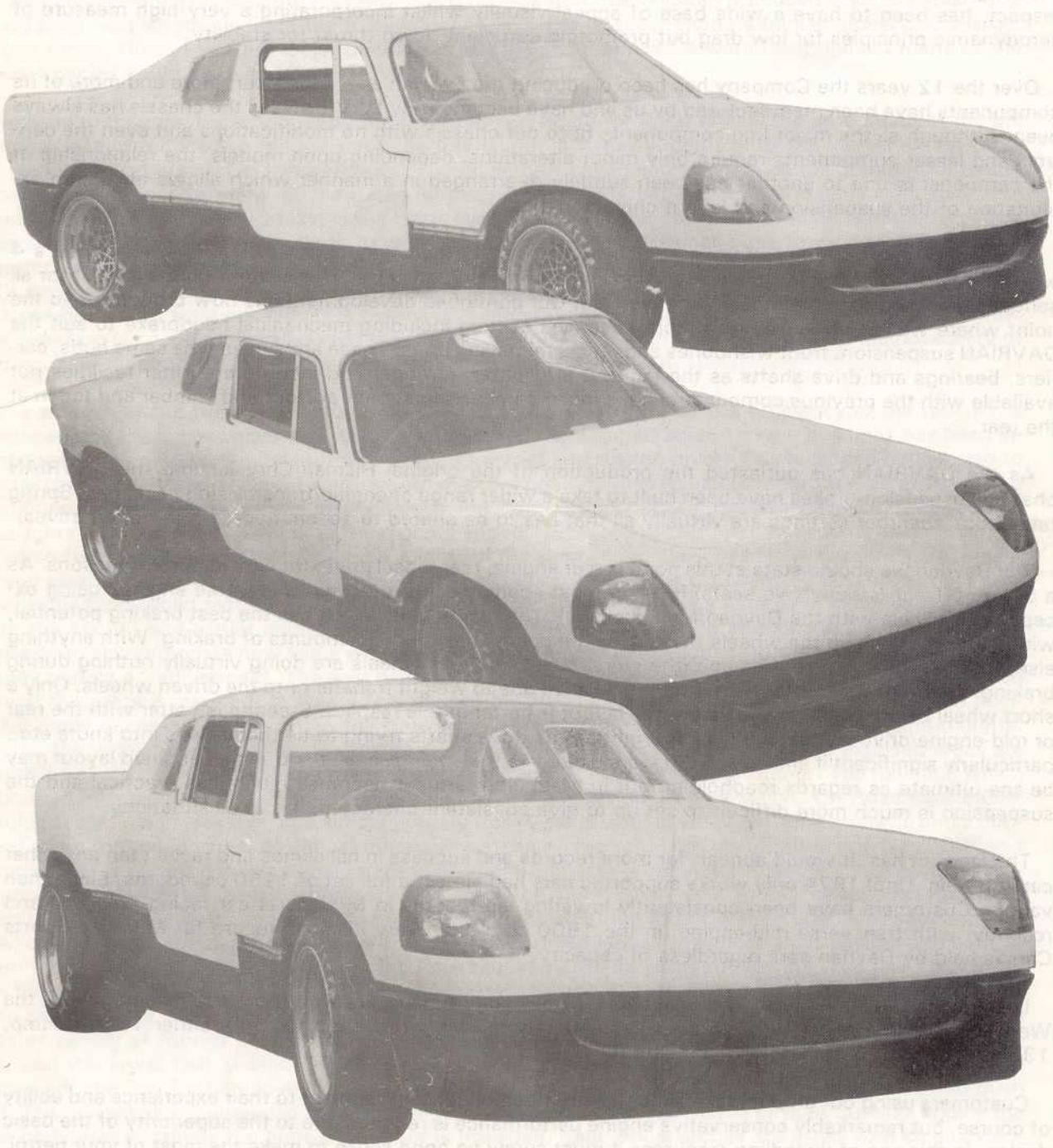
DAVRIAN SPORTS CAR



INTO THE 80's WITH THE MK VIII

Originally conceived to take Imp components in their entirety as the best way to produce a real sports car with far superior characteristics than appeared to be available from the larger manufacturers. Many other concerns had a similar idea but for various reasons they have come and gone.

At Davrian we consider the underlying principles in the construction of our chassis have left competitors way behind. Appearance may well be a matter of taste but performance in terms of roadholding, braking and stability can be demonstrated. This the Company and its Customers do in most forms of Motorsport every weekend. In terms of performance this company puts strength and durability high in its priorities. We are also proud of the fact that the accessibility and ease of maintenance is probably superior to any other comparable vehicle.

Changes in fashion are exploited by many manufacturers to promote sales. Our objective, in this respect, has been to have a wide base of appeal visually whilst incorporating a very high measure of aerodynamic principles for low drag but promoting sufficient down thrust for stability.

Over the 12 years the Company has been producing the Davrian as a sports car, more and more of its components have been manufactured by us and have become truly DAVRIAN, as the chassis has always been. Although all the major Imp components fit to our chassis with no modifications and even the controls and lesser components require only minor alterations, depending upon models, the relationship of the components one to another has been subtlely re-arranged in a manner which allows maximum exploitation of the suspension and layout characteristics.

In order to promote our performance objectives even further, way back in 1970 we developed a 4 wheel disc brake system for Imp suspension long before anybody else. This system is now a must for all serious competitors in the Imps and derivatives. Our continued development has now brought us to the point where we are able to offer a more advanced system including mechanical handbrake to suit the DAVRIAN suspension, front wishbones and rear semi trailing arms. These arms utilise the same hubs, carriers, bearings and drive shafts as the Imp but are lighter, stronger and incorporate other facilities not available with the previous components i.e. simpler camber adjustment at front and camber and toe-in at the rear.

As the DAVRIAN has outlasted the production of the original Hillman/Chrysler Imp the DAVRIAN chassis/suspension/brakes have been built to take a wider range of engine/transmission packages. Spring rate shock absorber settings are virtually all that has to be altered to accommodate these alternatives.

The Davrian we should state at this point is rear engine, rear wheel drive, for very important reasons. As a Sports GT car (strictly two seats) it is the most economical layout, mid-transverse engines being excepted, (available with the Davrian/Mini package). The rear engine layout has the best braking potential, with the engine behind the wheels the 4 tyres are doing almost equal amounts of braking. With anything else, front wheel drive/front engine (the worst case), the rear wheels are doing virtually nothing during braking. Traction is far better than front wheel drive due to weight transfer onto the driven wheels. Only a short wheel base mid-engine or transverse layout is better in this respect. Steering is better with the rear or mid-engine/drive layout as one is not fighting the drive shafts trying to tie themselves into knots etc., particularly significant if limited slip diffs. are used. In a true racing sense the true mid-engined layout may be the ultimate as regards roadholding but in roadgoing terms it becomes much less practical and the suspension is much more difficult to set up to give consistent characteristics in all situations.

The Davrian has, it would appear, far more records and success in hill climbs and races than any other car in Britain. Until 1974 only works supported cars had almost a full set of 1150 cc records. Since then various Customers have been consistently lowering lap records in Modsports car racing 1150 cc and recently, with transverse mid-engine, in the 1500 cc class. Every hillclimb record for Modified Sports Cars is held by Davrian cars regardless of capacity.

Last year in the first year of Works supported Rallying, Davrian Cars won the 1300 cc category of the Welsh Stages Championship (5th overall) frequently finishing in the top ten with either 1000 cc Imp, 1300 cc and 1600 cc Ford engined cars.

Customers using our products are almost guaranteed of success, subject to their experience and ability of course, but remarkably conservative engine performance is required due to the superiority of the basic design. In this age of dwindling resources it must surely be good sense to make the most of your petrol. Even a family man has the need of a second car on many occasions, so why not one that has 100 mph performance and 60 mpg economy with an Imp Sport 875 cc engine (63 mpg at 70 mph has been achieved). Regardless of engine installations we can say that a Davrian will safely out-corner any car that is available in Britain today. With Davrian brakes it will out-brake anything. It will not corrode. It is stonger and easier to repair than any of its competitors. Its accessibility and simple mechanical maintenance has to be experienced to be believed.

Be ahead of everyone Have a DAVRIAN

For performance, anything else will surely be a waste

MARK VIII FEATURES & MODEL DIFFERENCES

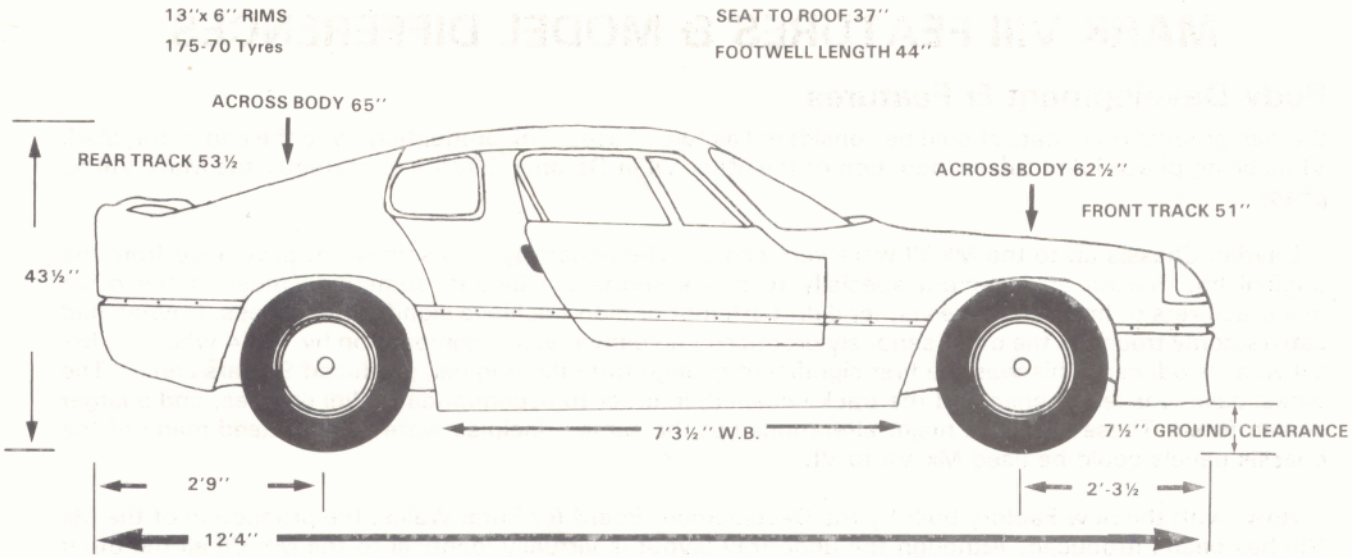
Body Development & Features

Davrian production to date should be considered as two phases. The production up to the end of the Mark VI as being phase I and the introduction of the Mark VII in October 1974 and currently the Mark VIII as phase II.

Davrian Chassis up to the Mk VI were very similar. The undertray was somewhat developed from the original Imp Saloon arrangement specially to suit a sports car layout, something most of the other manufacturers of Imp derivatives either didn't attempt or didn't achieve significant success. Davrian had satisfactorily trounced the other seriously produced Imp derivatives in competition by 1974 when the Mk VII was introduced. This was the first significant change from the original, produced 9 years earlier. The wheel base was lengthened and the track widened, in order to accommodate Mini engines, and a larger screen fitted. These were the major alterations but the same principles were used; indeed many of the chassis panels could be used Mk VII to VI.

Now, with the new Factory built by the Development Board for Rural Wales, the production of the Mk VIII has been introduced. Although the undertray layout is virtually identical to the Mk VII all the other panels have been uprated in some respect. The objectives have been to enhance the standard of all the panels and incorporate many of the detail features found to be beneficial as a result of our rally programme. Most significant, visually, is the black lower portion of the car. The waistline is in the form of a rebate which allows all the panels to have an upper and lower component; the lower part of the car is therefore in self finish black as standard. The upper bodywork of the car is self/finish in a choice of colours with exception of the boot and bonnet which are generally black or white self finish. One of the other features developed from our rally programme is the inner wheel arches incorporated into the under tray. The panelling is now double skinned at the top of the wheel arches in order to eliminate the possibility of crazing from flying stones. A bonus is, of course, increased strength.

The air dam at the front now incorporates our integral radiator duct. The efficiency of the radiator is enhanced and the impact resistance is further improved. Behind the radiator a new bulkhead has been incorporated providing additional stiffness to the foremost suspension pivot. This bulkhead serves also to restrain the spare wheel and duct warm air out over the bonnet. The top half of the front, due to its revised configuration, is easier to replace after damage and incorporates better returns etc. The front has square headlights which are fully legal with the recommended 7½" ground clearance thus doing away with the expense and complicatin of the pop-up headlights of the earlier cars. Black headlight surrounds are provided and clear fairings are available. The front bodywork accommodates 8" wide, 13" diameter rims with low profile tyres when required for racing. The cockpit of the Mk VIII has a number of significant changes from the Mk VII and earlier cars. Headroom has been increased and the interior moulding re-arranged primarily to accommodate new seats which can be either bolted to the floor or to shallow runners allowing approximately 4" adjustment. The seat back bulkhead has been revised allowing oddments to be carried behind the seats if required. In reality this revised bulkhead incorporates what was previously an additional panel necessary when fitting the transverse Mini engine and its special Davrian engine mounts. Almost the whole interior of the car, therefore, is of double skinned construction and exposed areas are mostly black gel coated fibreglass providing a truly durable, low maintenance interior. The roll-cage which is bonded into the roof and sides is designed to give the least obstructed vision. On Road cars a GRP moulded roof lining hides the cage almost entirely from view providing yet again more strength and a double skinned roof which must be almost unique as a standard feature. The Dash/Scuttle is in black GRP and incorporates a centre console. A separate instrument Binnacle is provided to allow for a variety of instrumentation layouts. Seats upholstered in black brushed nylon and Ambla have been designed specifically to make optimum use of the interior. Other seats may fit but we are unable to supply them. The roll over cage, which is now standard on all chassis regardless of specification, is designed to compliment the structure and allow it to meet the F.I.A requirements for competition cars. The rear body work has been revised slightly such that it has greater depth; the rear detachable spoilers have been done away with as no longer being necessary and the tail light recesses made larger in order to accommodate a greater variety of fittings if required. The rear panelling is completely detachable for engine installation etc. and the lower half in black is separate complete with its inner wheel arches. The extra depth of bodywork enables Ford engines to be accommodated with twin 40 carbs. on BDA, twin cam and push rod. The current single overhead cam Ford engine is not recommended. In the case of the Mini engine the rear bodywork becomes the boot and a floor is provided. Rear wheel arches are fitted with small extensions to accommodate 10" wide wheels for racing - 8" wide wheels fit without modification. Doors are hinged on an easily adjusted hinge pin with nylon bushes that are easily replaced in service; disc latch door catches are fitted; polished aluminium window frames have glass or perspex drops depending upon usage of the chassis. Interior door panels incorporate door pockets on road cars. Concealed and recessed locks, handles and catches are used where applicable. All windscreens are laminated and bonded-in for a flush fit. Rear screen is curved perspex set in a glazing rubber.



Davrian Undertray and Chassis

The main strength of the Davrian comes from its original concept of bonding a highly contoured interior moulding to a very comprehensive one piece undertray. The resulting basic structure with very large foam filled sills and numerous bulkheads has demonstrated its strength on many occasions. The introduction, with the Mk VIII, of full roll over cages, double skinned roof and wheel arches, additional ducting and bulkhead in the front has taken this concept very much further. The 4 shock absorber mountings are attached to the chassis to suit the suspension height required. Numerous bolts and large washers in shear are used on all engine and suspension mountings. The special DAVRIAN rear suspension pivots are similarly attached and both the shock absorber mountings and rear suspension pivots can subsequently be adjusted should the chassis be used for different purposes or to merely alter its characteristics. Only the front suspension pivots and rack mounting now need to be attached by a Customer buying a chassis without suspension. The necessary holes are marked on the undertray for these items (Imp Mk 2 rack and front suspension pivots for all suspension arms). From the foregoing it should be understood that all Chassis take either the Imp Suspension and steering or the Davrian suspension which is geometrically interchangeable. It really is a very simple installation and should not confuse anybody who does all his own maintenance. An Imp work-shop manual is a realistic reference for this assembly. Steering and Suspension, suitably prepared, can be assembled on to the chassis in a day. A Triumph 1300 or 2000 steering column universal joint is required to fit between the steering rack and the Imp column to lower it. Alternatively the Triumph column, with its switches and column lock, can be used.

Engine Options, Mountings and Drive Shafts

If a Ford Engine is to be fitted then a Volkswagen Gearbox with constant velocity jointed drive shafts is required. The type 3 Volkswagen Gearbox is from the Variant and Fastback 1969 onwards. The type 1 gearbox from the Beetle 1302 and 1303 is also suitable and is probably preferable for Rally Cars as it has a slightly lower final drive. Davrians require constant velocity shafts from the Volkswagen and the Imp Drive Shafts to convert. This is done on exchange basis for customers and is free of charge provided the components are supplied (applicable to basic units only). With the Mini Engined chassis the drive shafts must similarly be supplied. With the Mini Engined Car only the engine and gearbox from the Mini together with the drive shafts, as referred to above, are utilised. None of the suspension, steering or subframes are used. Davrian provide the engine mounting plates but, due to the variation in the gearbox linkages available, there is a charge of £38 for adaptors to the various linkages which, for the most part, pass under gearbox. The gearbox is higher in the chassis than the undertray so the linkage passing under the gearbox does not impair the ground clearance. It must also be born in mind that the Davrian is designed to run on 13" wheels so there is considerable ground clearance relative to a Mini saloon. 13" wheels will also affect the gearing so choice of final drive ratio should be considered especially when being used for competition. Although all the Mini and 1100 Engines and Gearboxes can be used the Maxi and bigger Leyland transverse units cannot. With any of the Ford Engines the Hewland Engine Gear Box adaptor should be used. A suitable adaptor can also be supplied to fit Imp and Chrysler BI engines to VW boxes - especially recommended for Rallying as the Imp Box will not take the shock loading of the large diameter 13" wheels.

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