

THE ALLARD REGISTER

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THE BULLETIN

July/August, 1978

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MEMBERS' MEET - Sunday afternoon, approx. 2.30 p.m., 17th September at Banham Motor Museum. Situated 4 miles east of the A.11 between Thetford and Norwich on B.1113, 7 miles north of Diss.

The cars come from the collection of Lord Cranworth and amongst them is a K type Allard.

Adjoining the motor museum is the Banham Zoo. Both are open from 10.30 a.m. to 6 p.m.

We have received a copy of the regulations and entry form for the European Historic Grand Prix to be held at the Zolder Racing circuit in Belgium on 5th/6th August. It is being organized by the Belgian Racing Automobile Vintage Organisation and the Auto Club, and is for cars manufactured before 31st December, 1961. For further particulars, write B.R.A.V.O., 4, Rue Saint-Vincent, 4020 Liege, Belgium.

Extracts from Members' letters:-

"Many thanks for your reminder about my dues. I do enjoy the Bulletin and membership in the Register." Roy G. Anderson, California, U.S.A.

"I wish you and all fellow members a good motoring year in '78. My very best regards." Tor Hultberg, Laholm, Sweden.

"I continue to enjoy reading your Allard Register publication." Bolling R. Powell, Jr., Virginia, U.S.A.

"I find your publication excellent, and congratulate you on maintaining such a high standard of quality." Bob Wilmer, St. Heliers, Auckland, New Zealand.

Very many thanks, fellow Members, and your kind remarks are much appreciated. ED.

ALLARD SERVICE BULLETIN. Subject. Reference. Applies to:
Front Axles. Tracking. All models.

Please note that owing to wheel manufacturers' permissible tolerance of $\frac{1}{8}$ " runout, it is necessary, when checking or adjusting track of front wheels to roll car forward and check at 3 equally spaced places on wheels. The three results must be added together and divided by 3 to obtain average or effective track. This procedure must be repeated after re-adjustment should re-adjustment be necessary.

AN ALLARD SPECIAL: This article is based on one which appeared in "The Motor Clubman" which is no longer published, and has been amended by founder member Mr. Les Davies.

Enthusiast Mr. Les Davies, who lives in Sussex, England, owns a unique special bodied car which he built on a J2X Allard chassis. It is called the Clark-Davies Special, and is one of a long line of specials created by him. The design is based on the well-proved J2X Allard ladder frame in the usual box section channel steel, and is braced by six fish plates, and stressed at intervals by cruciforms. The most striking feature of the car is the general appearance of brute force, for the huge Chrysler engine overflows around the front engine bay, with manifolds, fuel pipes and ignition systems running in every direction. In Mr. Davies' own words, he is a lover of big, brutal cars; cars which develop the tremendous torque that can only be provided by this type of big V8 motor.

To cope with the startling performance, the suspension matches the frame for ruggedness and strength. At the front, it has the J2X Allard type swing axle and forward facing radius arms. Armstrong telescopic dampers from a haulage truck, together with short coil springs, supply the damping. The rear suspension is De Dion, and in this case, the radius arms have a very long action, pivoting in a ball joint under the gearbox casing. Lateral location is dependent on a Panhard rod. The drive shafts have the usual Hardy-Spicer universal couplings and are the splined type - the shafts are in 100 ton steel. Springing again employs separate dampers and coil springs, although the rear telescopics are smaller in diameter than the front. The differential which is flanked by the inboard rear brakes, is a proprietary Ford V8 casing, fitted with a special David Brown crown wheel and pinion.

Sixteen-inch wire wheels are fitted all round, with 600 front and 650 rear Dunlop

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racing tyres. The wheels at the front are Allard and at the rear Jaguar C type, both pairs being mounted on centre-lock hubs. Braking area is fantastic, with huge Alfin drums mounted outboard at the front and inboard at the rear. The brakes are hydraulic and have twin leading shoes front and twin trailing at the rear, operated through a single master cylinder. The constructor estimates that with the designed 50/50 weight distribution, the main braking effort will be on the front wheels, and this is the ideal arrangement in view of the anticipated performance of the car. Incidentally, there are limit straps on all the axles.

The worm and peg steering layout is set slightly off-centre in order to give a more comfortable seating position, and the long column is capped by a woodrim steering wheel. The Marles steering box nestles neatly alongside the engine, with the column reaching back through the bulkhead to the cockpit where the driving position gives the 'straight arm' position.

Viewed from behind, the bodywork is neat with the 18 gallon fuel tank in the rear compartment behind the seats. Up front, an Allard 3 gallon radiator is mounted between the nose channels. The engine, which has a weight of approximately 580 lbs. is attached to the gearbox casing by means of a special bell housing adaptor which was made up in alloy. The gearbox, taken from a Ford V8 tipper truck, has been fitted with specially cut close ratio gears - no synchromesh. It is interesting to compare its weight of approximately 100 lbs with that of the Firepower engine. It has four forward speeds, and the remote control linkage has been modified to give a cable operated safety catch for reverse. It is estimated that the 'box will take up to 400 ft/lb of torque without failure. The big V8 engine has been repositioned in the Allard frame, and all the original mountings have been revised. The engine was fitted with a double-choke Carter carburettor with an inlet manifold that would give any self-respecting plumber a nightmare! This has been scrapped and replaced by a special manifold to accept 4 double-choke Stromberg carburettors. However, now satisfied that carburation problems were settled, Mr. Davies decided to tune the engine!

Before dealing with the steps member Les Davies took to increase the power output, we should advise our members that the completed road car develops around 350 b.h.p. per ton power-to-weight ratio with a total dry weight of 21 cwts. approx..

The Firepower engine had the hydraulic tappets fitted to big American V8s, and these were converted to solid; the adjustment is now achieved by shims inserted under the cam followers. The valve diameter of $1\frac{3}{4}$ " was not altered, but the springs were increased by distance pieces. The compression ratio was raised to 9 to 1 by special solid skirt pistons with chromed rings, and these are in fact similar to the type fitted to many of the American hot-rods and dragsters. In order to achieve the greatest increase in the torque at the lower end of the rev range (rather than sheer top end power) the valve timing was left untouched, for this has already a 30 degrees overlap. The torque curve apparently now reaches its peak at about 2,900 r.p.m. The crankshaft was also left untouched.

The impressive looking exhaust systems were specially made up to give two sets of twin pipes emerging from each pair of the banks of four cylinders, passing into four Servais silencers emerging on either side immediately before the rear wheels. To hear the Chrysler engine warming up is something to be experienced, but to have one's ear-drums blasted by a quick throttle opening to clear the plugs is really shattering.

Ignition naturally presented something of a problem since no coil would be satisfactory for a high efficiency unit of this type and therefore a Scintilla Vertex magneto has been fitted, and the electrical leads are neatly clipped to the heads on either side.

The petrol feed to the four enormous Strombergs is taken care of by a double S.U. electric and one mechanical pump, and petrol reaches the carburettors via a special ring main piping which links the float chambers.

The working pressure of the oil pump was increased to a steady 70-80 lbs by strengthening the valve spring, and the SAE 30 lubricant circulates through a Tecalmit oil filter (which can be manually operated to remove sludge) to an ex-BMW $\frac{1}{2}$ gallon oil cooler in front of the radiator. The total oil capacity is just over 2 gallons.

The cooling system, with a capacity of just on four gallons, was modified extensively. The Allard radiator was lowered six inches in the frame, and the top centre pipe was blanked off and replaced by two take-offs on either side. The Chrysler thermostat was also modified to suit the new conditions, and the fan, although left in its original position, was replaced by an electric one with shorter blades in order to accommodate the lower radiator and the correspondingly lower bonnet line.

The dynamo, replaced by a Lucas unit, was taken from the centre of the V and mounted low down on the right-hand side of the block, by a special bracket. It is still driven off the fan belt however. The tachometer drive is taken from the rear of the dynamo, and reads to a calibrated 8,000 r.p.m.

The general appearance of the engine bay corresponds to that of the whole car, having an air of neat and functional efficiency. This is borne out by the very neat throttle linkages, and rods of which all run in self-aligning bearings.

The body is of aluminium, and the bonnet is a one-piece section in 16 gauge fully

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annealed aluminium which is hinged at the nose to open forwards.

The cockpit is well laid out with twin bucket seats in red leather. Under the seats are two hinged panels which cover twin 12 volt heavy duty batteries. The dashboard has the usual instruments and switches which are conveniently placed. The windscreen has a polished alloy frame and stainless steel bracing struts, but there is no hood or side-screens.

Performance is electrifying and with a 3.5 to 1 crown wheel and pinion, gives a maximum speed of 150 m.p.h. With a 2.9 to 1 rear end ratio, the car could, on paper, top the 170 mark. However, with the lower of the two rear axle ratios, there is a third gear maximum of 115 m.p.h. at 6,000 rpm

To sum up, Les Davies is to be congratulated on producing such a very fine machine. He could not, however, give any idea on the number of man-hours his project has taken except that it took nearly 4 years of his spare time, and as to the cost, this must have been very considerable. As one can expect from the hands (and brain) of such a highly qualified engineer, this car is outstanding in every way.

----- TWENTY-FIVE YEARS AGO

Following on Allard's victory in the 1952 Monte Carlo Rally, the late Sydney Allard with his navigator Tom Lush (our President) entered the 1953 event and finished 9th overall out of an entry of over 300 cars. Writing in the 'Allard Year Book 1954' Sydney wrote as follows:-

'This year's Rally formed a complete contrast to our experiences of last year and we found that the journey from Glasgow to Monte Carlo was little more than a long distance tour.

The easy conditions however were due only to a freakish change in the weather, as a week before, and again after the Rally, the St.Fleur-Valence section was completely blocked by snow drifts. Even in England the wide-spread fog that blanketed the Midlands on the Tuesday night had lifted sufficiently to allow a fairly easy journey to Dover, via the first control at Llandrindod Wells. The Channel crossing was without incident although the disembarkation from the 'Lord Warden' rather savoured of a Grand Prix massed start. From Boulogne to Lille was easy going, as the five hours which are allowed for the sea crossing give ample time for 'Tuning' and eating before entering the Control! After Lille we ran into the fog that was to stay with us all through the Low Countries and although our passage through foggy Brussels in the rush hour (6 p.m.) was simplified by a police escort we had to keep a careful check on our running time.

After leaving Amsterdam we had to change a water pump which took 45 minutes so we had to make very good use of the long straight Dutch roads. We had made up our time by Antwerp and thereafter had no difficulty except for a foggy section after Le Puy, where the absence of snow banks on the maze of secondary roads between Yssingeaux and Andance called for continual map reading, whereas last year there was no question of which way to go!

After our arrival we went up to the Col de Braus, and again on Saturday but no amount of practise could offset the chance of error in the visual sighting of six control lines combined with a possible discrepancy in the six sets of watches and our error of four seconds behind the winner put us in ninth place. The Acceleration-Braking test in which we put up the best time had no bearing on the results except to decide ties, and therefore did not help in obtaining a higher placing.

The rally is always enjoyable but it is to be hoped that next year's event, if it does prove impossible to find a route severe enough to decide the winner, will be concluded with a more positive form of elimination test

----- 1953 ALLARD SUCCESSES

Tulip Rally - Two Class Winners. Enniskerry Hill-Climb: F.T.D. & Record.
Stockholm, Rading Meeting: Winner. Finland Grand Prix: 1st & 2nd. Lap Record.
Margate Rally - Winner (Corporation Cup). Cambridge Club Speed Trial: F.T.D.
Shelsley Walsh Hill Climb: Sports Car Record.
Eire, Cairncastle Hill-Climb: F.T.D. & Record.
Rhodesia, Salisbury Mashonaland Trial: Winner.
Rio de Janeiro Gaveaa Circuit: Fastest Sports Car.
Helsinki Rally, Monte Carlo Jyvaskylassa: Winner.
Gosport Sprint Meeting: F.T.D. U/Supercharged.

Our Hon. Secretary has regulations and entry forms for the following:-

TRANSPORT RALLIES - 1) Yeovil Car Club, 12/13th August; 2) Horsham Lions Club, 28th August; 3) Transport Trust, Knebworth, Herts. 2/3rd September.
Huddersfield Conservative Assn., Concours d'Elegance, 28th August.

Welcome to new members will be in the next issue.