

THE ALLARD REGISTER
&
SPORTS CAR ASSOCIATION

THE BULLETIN.

May/June, 1972

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Hon. Secretary: R. W. May, 8, Paget Close, Horsham, Sussex. RH13 6HD.
(Telephone: Horsham 61372)

The Mid-summer weekend is arranged for Saturday/Sunday, 24th/25th June at the Rothley Court Hotel, Rothley, near Leicester (Telephone Rothley 2618).

In a letter from Member Ken Wilks he writes:-

.. "I have great plans for my P.1. Saloon, and hope to modify it as follows:-

ENGINE	- 283 cu.in. CHEVY V8.
GEARBOX	- 3.8 Jag. with overdrive.
BACK AXLE	- Mark IX Jag. with 3.54-1 ratio (limited slip).
BRAKES	{ - " " " 12" discs at front. (- Mark II 11 $\frac{3}{8}$ " at rear.
FRONT SUSPENSION	- J2X ALLARD.
REAR SUSPENSION	- P.1. with slight mods.
WHEELS	- Mark II Jag. with 6 $\frac{1}{2}$ " rims.
TYRES	- EV70 - 15" (a la XJ6 Jag.)

Overall gearing = 142 M.P.H. in overdrive top x 5000 r.p.m. GOOD HEAVENS!"

Many thanks for your letter, Ken. Your mods. sound terrific. ED.

THE ALLARD J.2. by C.J. Harper.

The J.2 Chassis has been designed and built particularly for competition use, but wherever possible, standard parts, or special parts to standard dimensions have been used in order to facilitate replacements and keep maintenance on a level with the other models in the Allard range.

For this reason, also because some chassis have special engine installation or are in other ways modified to suit individual requirements, it is thought that the following notes in conjunction with the standard Instruction Book will be sufficient to guide the owner during servicing and maintenance operations.

LUBRICATION The lubrication points are shown on the diagram, with the intervals and method of use itemized.

The arduan engine is not fitted with a dipstick, the sump contents being electrically recorded on the dashboard gauge when the appropriate button is pressed.

COOLING The cooling system is pressurised at 4 lbs. per sq. in., one of the advantages of which is the assurance that water cannot be lost through the overflow pipe under violent braking. The cap should be removed slowly if the engine is very hot, otherwise the pressure may cause the heated water to gush upwards.

The fan is fitted for touring work, and some advantage may be gained by removing the blades for racing, as the air drag at maximum revolutions is considerable.

PETROL SYSTEM On those models fitted with the large tank, the capacity is 36 imperial gallons, or 20 imperial gallons when the smaller tank is fitted.

There are two separate pipe lines to the engine, one feeding the mechanical pump, the other the electric one, which is wired to a separate switch for optional use. A petrol reserve warning light is fitted which lights up when approximately 2 gallons of petrol remain. The light is coloured green, and is situated on the dashboard.

REAR AXLE The rear axle is of De Dion type, the principle of which is the reduction of unsprung weight to the minimum by installing the brake assemblies on the differential unit housing, and mounting the whole assembly rigidly to the chassis, only the wheels and supporting tube being unsprung.

The drive is transmitted to each wheel by exposed shafts with splined universal couplings, to allow for wheel movement, with a bar (Panhard rod) attached at one end to the chassis and the other to the axle tube, to keep the wheels in alignment.

The Ford torque tube is retained for additional rigidity, and for ease of assembly and replacement the standard universal joint behind the gearbox is used, with a Ford drive shaft and splined pinion coupling. The differential gears, housings and internal bearings are Ford, only the outer bearings and oil seals being of Allard manufacture.

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Rear Axle (continued) The wheel hubs incorporate Ford bearings and oil seals, the inner bearings and seals only being Allard.

The Steering Box This is of the Marles cam and double roller type 461, and except for periodical lubrication requires little attention.

The worm, or cam, rotates between two ball-races, adjustment for which is provided by shims under the bottom-end cover. Owing to the design of the cam, a certain amount of free play exists in full lock, and this movement should not be confused with wear in the mechanism.

End thrust on the rocker shaft is taken by a hardened adjusting screw, and correct mesh with the cam is maintained by shims situated between the rocker thrust-washer and the inside flange of the bearing bush carrying the drop-arm shaft.

If play develops in the steering box after long service, the procedure is as follows:-

Jack up both front wheels, turn the steering on half-lock and hold firmly. Have an assistant shake the front wheel violently from side to side. Any play in the cam bearings will now be apparent (below the steering wheel) by the up and down movement of the steering shaft relative to the outer column.

Adjustment of cam bearings. Remove the end cover and detach one shim. Replace cover and tighten up the four set bolts. Try an up and down movement again and if still present, adjust as necessary by removing one or more shim.

Make certain that the cam is quite free after completing this adjustment. The steering wheel should be spun from lock to lock once or twice, and if any tight spots are noticed, at least one shim must be put back.

Adjustment of Rocker Shaft With the front wheels still jacked up, turn the steering to extreme lock then back one-eighth turn. Hold the top of the drop-arm and check for end play in the rocker shaft. This play may be removed by slackening the lock-nut and tightening the adjusting screw until all play is removed. Do not over-tighten, and remember to do up the lock-nut.

If excessive play still exists in the steering box after these two adjustments have been made, the mesh between cam and rocker may require adjusting.

Adjustment of Cam and Roller Mesh With the wheels in the straight ahead position, gently shake them to the extent of the free movement, and if this exceeds approximately 1/32" rotary movement measured on the top of the drop arm, the mesh requires adjusting. Remove the drop arm.

Undo all clamps and fittings so that the steering box may be turned sufficiently for the side cover and rocker shaft to be removed from underneath. Withdraw the shaft complete with two thrust-washers and shims. Make sure both thrust-washers come out on the shaft, otherwise damage is likely to occur when re-assembling. Remove one or more shims dependent on the amount of play and refit. Bolt side cover tightly and check for free rotation of the rocker shaft. Refit all clamps and fittings, and refill with oil.

After all or any adjustments, turn the steering wheel through its full travel and check for freedom of operation in all positions. Do not forget to refill the steering box with oil.

This article is reproduced from the Bulletin of the "Allard Drivers of America" Club which, unfortunately, is now no longer in existence. ED.

CASTROL NEWS, by E.S.Young.

"SPEED COSTS MONEY - how fast do you want to go?" is an old saying in American motor racing, but European Grand Prix speed costs more and more every year, as a Ford motorsport feature recently pointed out. A two-car team in Formula 1 can cost £300,000 over a season - so just imagine what it's costing the Marlboro-BRM team with SIX cars! The first prototype of a new Grand Prix car leaves no change over of £25,000, and subsequent replicas cost around £7,000. To that you have to add £7,000 for a Ford engine and £530 for a Hewland gearbox if you're talking about a car like Jackie Stewart's title-winning Tyrrell. The prototype costs so much because it involves all the original drawing office work, and the making of jigs, moulds, special castings, and testing and development so that the "replicars" will come out near as damn it perfect.

It costs around £1,250 per team per race in engine bills covering routine overhauls on two engines for each driver over the weekend if you reckon that they

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run practice on one engine and fit a demon-tweak job for the race. A team with two cars would buy six of the £7,000 Fords, and spend £18,750 on maintenance during the season.

Those fat racing tyres cost £35 a throw and in a year the Tyrrell team would use over 200! The specially-designed mag wheels costs £120 a corner, and if the weather looks dicey you've got to think about three full sets of wheels for each car - 4 with dry tyres, 4 with "intermediates", and 4 with wets. Or more than £1,500 in wheels and tyres!

Air travel eats up a big slice of the expense money and teams reckon to spend up to £30,000 a season jetting back and forth to races. Jackie Stewart worked out last season when he was running the Tyrrell in Europe and the Castrol-backed Lola in CanAm sports car racing that he was flying more hours than the trans-Atlantic pilot - and THEN going to work when he arrived!

PIT STOP from Champion Spark Plug Company.

DOWN TO THE WIRE

How often should ignition system wiring be replaced?

While there is a difference of opinion on this question, wiring manufacturers offer the following recommendations: to be on the safe side, spark plug wiring should be replaced every two major tune-ups or at 24,000 miles.

One way to check for defective wiring involves the use of a jumper wire with a clip on each end and a screw driver, says Champion Spark Plug Company.

Here's how it works: fasten one clip to a good engine ground. Then clip the other end to the screw driver shank which serves as a probe. Start the engine and remove one cable from a spark plug. With the engine running, probe around the coil high tension lead and its boot.

If you observe sparks jumping from the coil boot or lead, the cable and boot need replacement.

With the engine still running, probe around the disconnected plug cable and boot, looking for sparks. If sparks are present, replace the cable and boot.

Reconnect the cable and check the others in the same way.

However, if one or more cables are found defective, it will save further time and trouble to replace them all at once, since one worn cable usually means the others will soon go bad.

FOR SALE

Air Commodore Parsons must dispose of the following spares before the Autumn:-

Allard wheel brace, Speedo, radiator grille, large radiator, six bladed fan, relined brake shoes, wheels, 650 x 16 tyres, brake back plates, drums, front and rear hubs and bearings, manifolds, cylinder heads, pair Servais Allard straight through silencers, drop arms, track rods and ends, new steering box and column, exhaust pipes, Allard electric horns, oil pressure gauge, various De Dion items, Scintilla V8 mag, tele shock absorbers, reconditioned brake M/cylinder and water pumps, and many other Allard parts.

Please write or phone: A/Cde. B.W.Parsons, C.B.E.,D.F.C.,A.F.C.,R.A.F., at 10, Bradenham Beeches, Naphill, High Wycombe, Bucks. Phone High Wycombe 26200.Ext204.

We extend a warm welcome to the following new members:-

F. W. Savage	of Missouri, U.S.A.	L type No. 520.
A/Cde. B.W.Parsons	" Buckinghamshire, England.	P.2 Saloon.
K. E. Wilks	" Middlesex, England.	P.1. 2270.
P. M. Schoonmaker	" New York State, U.S.A.	J2X 3056.