



The Allard Register

No. 44

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FREE

The Allard Dragster

-David Hooper

In the UK straight line sprinting, as it was known at the time, had been around for many years. However up to the early 60's, the distances had usually been half mile or one kilometre rather than the quarter mile. Events were usually held on airfield runways, plus a few were on seaside promenade roads, Brighton



The Allard Dragster as it sits today in the Beaulieu Motor Museum

(Sussex) being the major event of over one kilometre.

Sydney was a regular competitor at Brighton over the years, holding the unlimited sports car record for some years in a Cadillac-powered J2; and just being beaten into second place in the Steyr single-seater some years earlier. Over the years the distance has been reduced to a half mile, and currently is quarter of a mile. The Allard marque continues to shine at this venue with Jim Tiller in his now legendary orange J2 setting FTD in 2004 and just missing out in 2005.

Sydney had been quite an avid reader of American 'Hot Rod' magazines and was no doubt spurred on by articles of multi-engine dragsters. Thus, the twin-engine Steyr sprint car was evolved. Least said about this project probably the better. However contrary to Tom Lush's book, it did in fact complete one lap of the Silverstone club circuit - running on all sixteen cylinders. Quite an impressive sound!

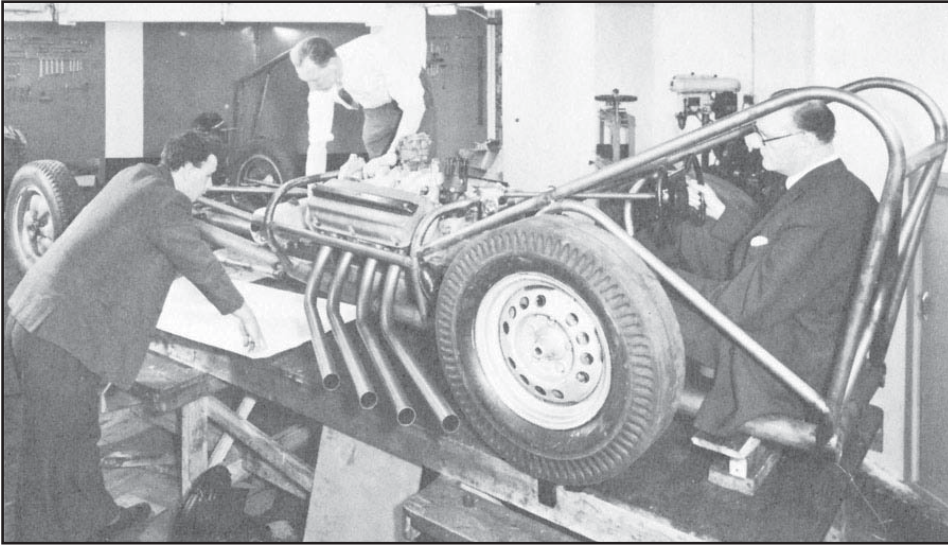
Once the impracticalities of developing the twin-engine Steyr car were realized, the decision to build an American style dragster was made. Using a 5.7 cubic inch Chrysler engine, the layout for the dragster would be 'slingshot' design using a 6-71 GMC supercharger driven off the nose of

the crankshaft, along with manifolds, 'pop off' valve and Hilborn fuel injection. A Scheiffer aluminium flywheel, along with clutch, were obtained from Dean Moon. Moon had previously supplied us with a set of M&H slicks which were intended for the twin engine Steyr car.

In simplistic terms the build of the dragster was:

1. Chassis was 3 inch diameter steel tube with 1.5 inch diameter bracing and roll tubes.
2. Front axle was Ford in origin, located with single radius rods and transverse leaf spring.
3. The rear axle used an Allard quickchange unit with a 3.54:1 crown wheel and pinion, Ford side cases narrowed with fully floating rear hubs and with special larger diameter axle shafts. The axle assembly was bolted directly onto the chassis.
4. A standard Ford Pilot gearbox was fitted merely

The Allard Dragster, *continued*



The first British dragster nearing completion. from L to R, David Hooper, John Hume, and Sydney in the cockpit

to act as a means of disengaging the drive. In the long-term there was a thought to make this into a two-speed gearbox, however this was dependent on the cars performance.

5. Brakes were rear 12 inch diameter by 1.75 inch wide, and front 9 inch diameter discs with Girling aluminium calipers.
6. Rear wheels were 16 inch diameter steel being widened to suit the M&H slicks. The front being Lotus 15 inch diameter magnesium alloy rims with Dunlop racing covers.
7. A certain amount of work was done to the engine, however initially no special parts were used except possibly a modified cam (I cannot remember exact

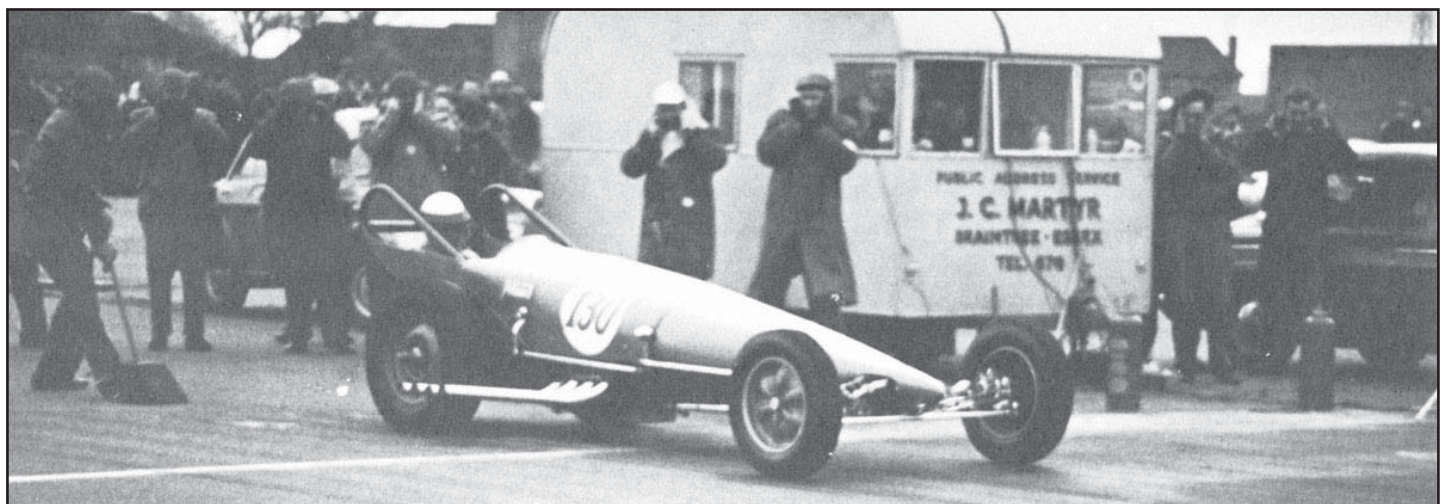
run the car at the Brighton Speed Trials, we had to follow the UK RAC Competition rules that decreed front brakes, full bodywork, and rear suspension. The use of the parachute was, if I remember correctly, accepted on the grounds of safety, and they waived the requirement for rear suspension for straight line sprint events.”

The initial tests were at North Weald aerodrome, and apart from a few minor adjustments no problems were experienced. The sound off the line was most impressive, and clearly events running 1/4 mile ‘drag’ races would have good spectator appeal. The UK Press (The Sunday Telegraph, or The Times) had already given the car substantial publicity. This included a

details)

8. A Scintilla magneto replaced the standard Chrysler distributor and a coolant header tank was fitted directly onto the cylinder heads. Eight stub exhausts replaced the standard manifolds. The engine was never bench tested but was estimated to be producing 500 BHP. Fuel was methanol with an addition of 10-15% nitro.
9. Supplementary braking parachute was a Irving aircraft type drogue chute.
10. Body - Aluminium with easy access to engine.

Because it was the intention to



The dragster at full revs, getting ready to make a run. Cover your ears!!

photograph of the nearly-completed dragster with Sydney seated in the car along with John Hume and myself.

Following further tests at North Weald, including several runs over one kilometre and with a top speed of 160-170 mph, the parachute was found to work well. Thus Sydney decided he would run at that year's Brighton Speed Trials. On the day of the Speed Trials, and after one practice run the magneto failed. Having no spare, this was not one of the days to be remembered.

The following year we were back at North Weald with the Chrysler engine firing on all eight cylinders, and with a gear ratio now more suited for a quarter mile. Over a number of runs a best time of 10.8 seconds was achieved. At this stage - no matter what revs were used off the line - we were unable to spin the rear slicks. Also the clutch was beginning to show signs of slipping. When the clutch was examined it was found to be severely overheated. Of more concern, the aluminium flywheel had started to develop signs of surface cracks. The damage to the flywheel demonstrated the sense in fitting a substantial protective guard around the clutch and flywheel area.

We had discussions with Automotive Products UK clutch manufacturers, and they supplied us with a multi-plate sintered iron-faced clutch assembly which had been originally designed for the V16 or H16 BRM. The clutch discs were approximately 8 inch diameter. They were not the current 'paddle' design, but were complete discs - four in all. A new flywheel was made, this time out of steel. However it still retained the starter gear ring, because we still started the engine using its original starter motor via an external battery. Sourcing a steel billet of sufficient diameter was a problem. However once obtained it was rough machined, stress relieved, and then X-rayed before final machining. The clutch stood up to a whole season without any problems, although the discs had started to show signs of buckling.

In 1962 Sydney just failed to get best time of the day over the kilometre course at Brighton, coming a close second to Chris Summers in a Chevrolet powered rear-engine Cooper, recording a time of 21.69 seconds. In 1963 Mickey Thompson and Dante Duce came to the UK. Thompson put on an awesome dem-

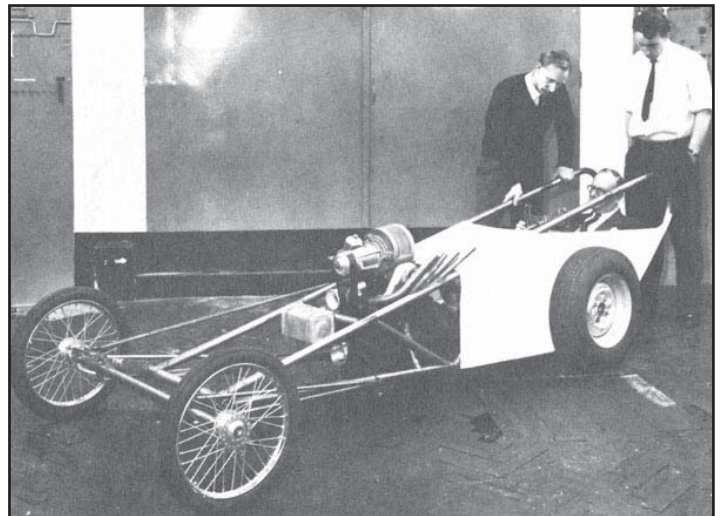
onstration over a quarter mile at Brighton. Sydney, along with Mickey Thompson and Dante Duce put on a number of demonstration runs at a number of UK airfield sites which attracted large crowds, although Dante Duce did manage to destroy Mooneyes in an off-line excursion.

We in the UK saw, for the first time, a car time in the region of 8.5 seconds recorded by the Mickey Thompson. At this time the UK fastest times were being recorded by the motorcycles, with George Brown on his Shorrock Supercharged 1000cc Vincent leading the times below 10 seconds.

With growing interest in drag racing the British Drag Racing Association was formed with Sydney Allard as President. In 1964 the first UK Drag Festival was run with a galaxy of US stars including Don Garlits who produced an 8.28 second 1/4 mile with a terminal velocity of 191 mph.

The Chrysler Allard dragster achieved its best quarter mile time of 10.48 seconds - slow by modern standards. However it did help lay the foundations for Drag Racing in the UK. Today the car is displayed at Beaulieu Motor Museum, sadly without engine or supercharger.

-Photos courtesy of David Hooper & The Inside Story, by Tom Lush



In addition to the Dragster, Sydney also created a smaller kit dragster called the Dragon. The Dragon was powered by a Shorrock-supercharged Ford 1600 cc engine. It set a British record of 11.26 sec at 129 mph for the quarter mile. Production numbers of the 'Dragon' have not been confirmed.

Another Look at The Steyr

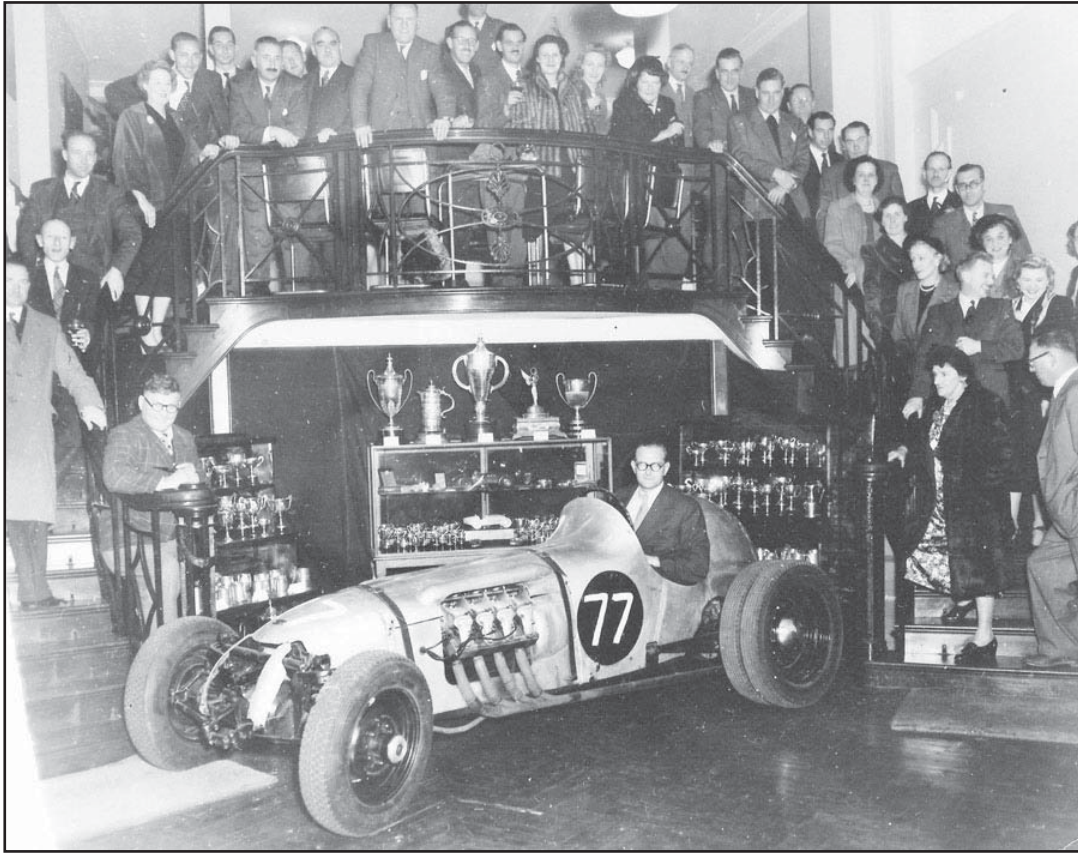
I was interested to read Dave Hooper's account of his days driving the Steyr-Allard that Sydney Allard drove to win the 1949 British Hillclimb Championship. Dave and I were apprentices together at the Allard Motor Company, although he was three years ahead of me.

My earliest job I had on the car

was at the Allard Service Station in Upper Richmond Road, London when I had to change the clutch. In those days the car was owned by Mr Pinkerton, and I worked on it several times afterwards until he sold it.

Its background is interesting. In or around 1935, Hitler told the German Motor Industry to build a vehicle that could be put to any task and be driven anywhere on earth. The result was the Steyr air-cooled V8. The unit stood between 4ft – 5ft, measured 3.5 litres, had a compression ratio of 4.5:1 (the Rolls-Royce Silver Ghost is lower than that) and developed 45 BHP! It ran coil ignition, a single carburettor, twin cooling fans atop the engine, and above the fans sat two oil coolers. The whole unit was housed inside very extensive air ducting.

This unit was fitted to military personnel carriers, mobile generators, pumps, mobile searchlights, fire trucks, field guns, mobile kitchens and so on. The unit



At Head Office Clapham at the back of the showrooms. The stairs go to the offices on the first floor & the space underneath behind the cabinet of cups leads to Sydney's race shop, S1 as it was known. Sydney is in the car as it was modified for four wheel drive (which wasn't a success).

-Alan Tiley
was very under-stressed and could be reliably driven flat out all day. In the desert there were no water problems and the engine would run on camel's p... if necessary. Not really but you know what I mean.

A batch of these engines were captured from a German supply ship on it's way to Rom-

mel in the North African campaign in WWII. They were shipped back to Britain where they were stripped and analysed. At the end of hostilities all captured stock was sold off and Sydney came by the engines.

He immediately saw the potential of the engines and stripped them down to modify one for hillclimbing. During the winter of 1946, he and three other guys, Tom Lush, Jim Macallum, and Bobby Arthur got to work. They stripped the heads. It was like eight motorcycle barrels and heads mounted on a common crankcase. The inlet valve became the outlet valve and an Ariel 500cc motor cycle inlet was fitted. The coil ignition was thrown away and a Scintilla magneto was fitted. The single carburettor was thrown away and replaced by eight Amal 29 touring carburettors. The compression ratio increased to 17.5:1 for the engine to run on methanol.

The chassis featured Allard siderails set apart

the width of Sydney's hips. He sat on a drivers seat in between them and filled up the space left with the chassis frame and the Ford running gear. Tyre technology wasn't what it is today so he welded two Ford 18" van wheels together and ran four rear wheels. Plenty of traction, and bags of torque from a camshaft and crankcase that was unaltered. First time out was at Prescott where it recorded fastest time of the day and set a new hill record.

Because of the enormous torque he was sometimes able to start in second gear and still out-drag Dennis Poore, Raymond Mays & Ken Wharton in their super-charged racers. The only hill climb venue in Britain was Shelsley Walsh where the blown cars came into their own on the faster, longer hill.

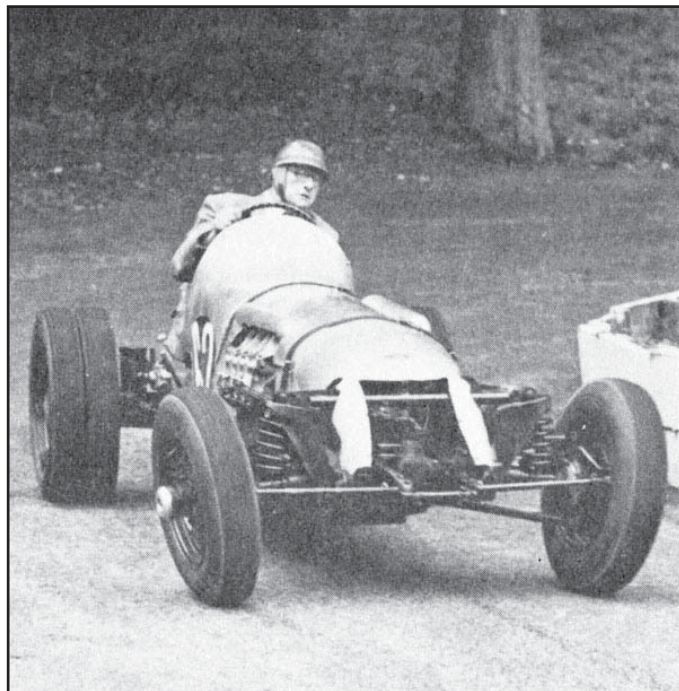
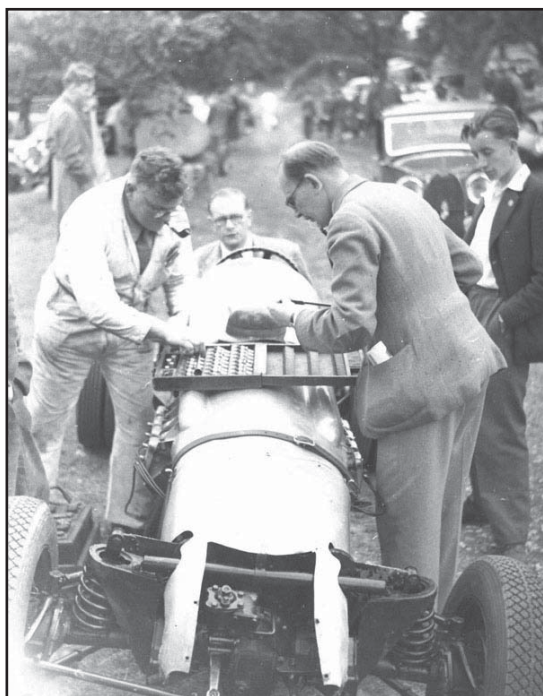
After winning the Championship the car couldn't be developed anymore and it passed into private hands. As often happens the new owners 'improve' the car, but in real terms the car deteriorates.

After many years Sydney bought the car back with the idea of creating an Allard museum, it was during this time that Dave used the car. Sadly, Sydney died and I eventually bought the car from the Allard estate and planned to put it back to the specification it was in

when it won the championship. Oh boy, what did I let myself in for, the car was in ahelluva mess. It was on four wheels (not six) when I bought it, with all sorts of things that shouldn't be there. One day my phone rang and it was Michael Ware, the curator of the National Motor Museum. He had a call from a lady who had "two very strange looking wheels in her empty garage that had four tyres on them." Michael knew I had the Steyr-Allard, put two and two together, and called me. Thank God he did, I collected the tyres and took that lovely lady the largest bouquet of flowers I could find.

I made a point of never competing with the car as there was no way I could do the car justice after seeing the way Sydney drove it. I have a picture of Sydney driving the car at Rest and Be Thankful completely off the ground with 12 inches of daylight under ALL the wheels. I did dozens of demonstration runs in the car, but nothing in anger.

I arranged with the Bugatti Owners Club to take it to their summer meeting with Tony Dron driving it. Tom Lush & Bobby Arthur (two of the original three) came along to look after the car. When I drove into the paddock it stopped the meeting as everyone remembered it and wanted to photograph it.



Left Picture: At Prescott With Sydney & the almost complete 4WD Steyr-Allard. Also pictured are Gil Jepson (R) and on the left is Jim Maccullum (L). Right Picture: Sydney & the 4WD racing up the hill at Prescott.

How to turn a P1 into a K2



John working the scratch made body of his P1-K2 Conversion

When I found the chassis and running gear, it had no body as it had been taken off and was left with doors, boot lid, and a petrol tank - which was leaking. But it had the original log book which proved that it was a P1 Allard.

Fortunately for me, there was a K2 Allard in for repair in my workshop. I offered the man who owned the K2 to repair his car for nothing if I could copy it for my car. This he agreed.

The only way I can demonstrate how this was achieved, is in picture form (see some of the attached photographs).

The frame was built in steel tube with a steel bulkhead and floor over the petrol tank. When this was completed, I set about making the wings in aluminium, bolting them to the steel frame. These had to be removed again in order to cover the framing-in of the aluminium skin. Once this was achieved I refitted the wings again to align the car, and also built the bonnet. Then I patterned up for the windscreen which was made of brass. Once I had done this, I had to work out how the irons so the soft top could operate in order for the hood (top) to fold down into the back of the car. The method I came up with was that of a pram hood. In the boot area I had to incorporate a slot to house the spare wheel.

The wings, bonnet, boot lid, doors and pram irons were dismantled, and the chassis - along with the skinned body and these parts - was taken to the painters. These parts were all painted separately as the photographs show.

Meanwhile, the bumpers which I made together with the windscreen went for chroming. The front grill was made of aluminium T-section, and that went away for polishing.

After these parts came back from painting I set about putting the wings back together with piping, between the body and the wings. The seats were away being trimmed, and the floor carpet was being made to pattern along with the boot area covering. The petrol tank was made of lead-coated steel, and now all the joints had to be soldered together and tested for any leaks. (all Allards tanks were made of lead-coated steel).

I completed this car from chassis up in a total of 18 months, much to my wife's pleasure so that she could see me again (she used to ring me up and ask if she should send my bed to the workshop), as I had to work on this after doing my normal day's work and at weekends

I have made several types of cars for the Americans, some of which you know. I built two J2 Allards for Dean Butler. Ironically the first car I built was an Allard (which you know about from my previous correspondence) and building many types of cars over the 50 year period of my working life. The last car that I built before I retired was for Anthony Martinis, who had an Allard P-type chassis, and I constructed and extended a J2X body onto the that chassis. He is based in Sacramento, California,

-John Pitney

Ed Note: This car is for sale, additional pictures & details can found online at www.AllardRegister.org



John at the wheel of his beautifully finished 'replica' K2

How Times Have Changed, A Look at Modern Dragsters...

David Hoopers story gives us a great insight into the early world of British Drag Racing, and the Hemi powered dragster that Sydney built. Hemi-powered Top Fuel dragsters have come a long way over the past forty years, as the following data attests:

- One Top Fuel dragster's 500-inch hemi makes more horsepower than the first 8 Rows at the Daytona 500.
- Under full throttle, a dragster engine consumes 1.5 gallons of nitro per second. The same rate of fuel consumption as a fully loaded 747, but with 4 times the energy volume.
- A stock hemi will not produce enough power to drive the dragster's supercharger.
- Dual magnetos apply 44 amps to each spark plug. This is the output of an arc welder in each cylinder.
- At stoichiometric (exact) 1.7:1 air/fuel mixture (for nitro), the flame front of nitromethane measures 7050 degrees F.
- Nitromethane burns yellow. The spectacular white flame seen above the stacks at night is raw burning hydrogen, dissociated from atmospheric water vapor by the searing exhaust gases.
- Spark plug electrodes are totally consumed during a pass. After 1/2 way, the engine is Dieseling from compression - plus the glow of exhaust valves at 1400 degrees F. The engine can only be shut down by cutting the fuel flow.
- If spark momentarily fails early in the run, un-burned nitro builds up in those cylinders and then explodes with a force that can blow cylinder heads off the block in pieces or split the block in half.
- To exceed 300 mph in 4.5 seconds, dragsters must accelerate at an average of over 4G's. But in reaching 200 mph well before 1/2 track, launch acceleration is closer to 8G's.
- If all the equipment is paid off, the crew worked for free, if NOTHING BLOWS UP. Each run costs \$1000.00 per second.
- Dragsters reach over 300 miles per hour before you have completed reading this sentence.
- Top Fuel Engines turn ONLY 540 revolutions from light to light!
- The redline is actually quite high at 9500 rpm
- The current Top Fuel dragster elapsed time record is 4.437 seconds for the quarter mile (2005 - Tony Schumacher) at a top speed of 336.15mph.

Putting it all in perspective:

You are driving an average Lingenfelter powered "twin-turbo" Corvette. Over a mile up the road, a Top Fuel dragster is staged and ready to launch down a quarter mile strip as you pass. You have the advantage of a flying start. You run the 'Vette hard up through the gears and blast across the starting line and past the dragster at an honest 200 mph. At this moment, the dragster launches and starts after you. You keep your foot hard down, but you hear an incredibly brutal whine that sears your eardrums. Within seconds the dragster catches and passes you. He beats you to the finish line, a quarter mile away from where you passed him.

This phenomenal machine has spotted you 200 mph and not only caught, but nearly blasted you off the road when he passed you within a mere 1320 feet.

Chrysler first designed and built the hemi for the street in 1951.

The Allard Register

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Allard News

Cars For Sale

Note: More information and pictures of these cars can be found on our web site, www.AllardRegister.org

P1 #1931

All original P1, imported into the US in 1980. Features a Ford engine. Needs some work, but in overall good condition. Color: Red (original paint). Price: US \$25,000. Located in San Clemente, CA USA. Contact Dennis Blietz at dwblietz@sbcglobal.net

K2 Replica

Hand built K2 'Replica' based on a P1 chassis. Features an aluminum body and Ford Flathead engine with Offenhauser heads. Built by noted Allard body man, John Pitney. Color: Maroon. Price: 25,000 BSP. Located in Berkshire, UK. Contact John & Joyce Pitney at joyce.pitney1@btinternet.com

PLEASE NOTE

1. We appreciate the fine submissions from members of the Allard Register. Just a reminder - our publishing an issue depends heavily upon our having interesting, original Allard-related stories, articles, and photos. We depend on you to provide us with those items.

2. Allard-focused articles and photos are always welcomed. Please direct submissions to the Publisher, Chuck Warnes. MS Word submissions by disk or E-mail are appreciated. Due to space limitations, we may have to do some editing.

-Jim and Chuck



The AllardRegister.org web site needs your help! If you've been to our web site lately, you'll notice that we are missing pictures on a number of Allard models. If you own a *K1*, *JR*, *Palm Beach MkII*, *Safari*, *M2X Coupe*, *Clipper*, *Allardette (Anglia)*, or any Pre-War Car - we'd love to get pictures.

Also if you have any original Allard brochures, we would be grateful if we could borrow them for a short time. We would like to scan them to post on the web site.

If you can help, please contact Colin at 559-709-9611 or cwarnes@sbcglobal.net Thank you!

Allard Register Via Email

If you aren't already receiving The Allard Register via email, please send us your email address. *This information will be kept confidential.* The electronic 'Register' features color pictures and additional content. International subscribers are encourage to subscribe to help save shipping. Please email cwarnes@sbcglobal.net

New Members

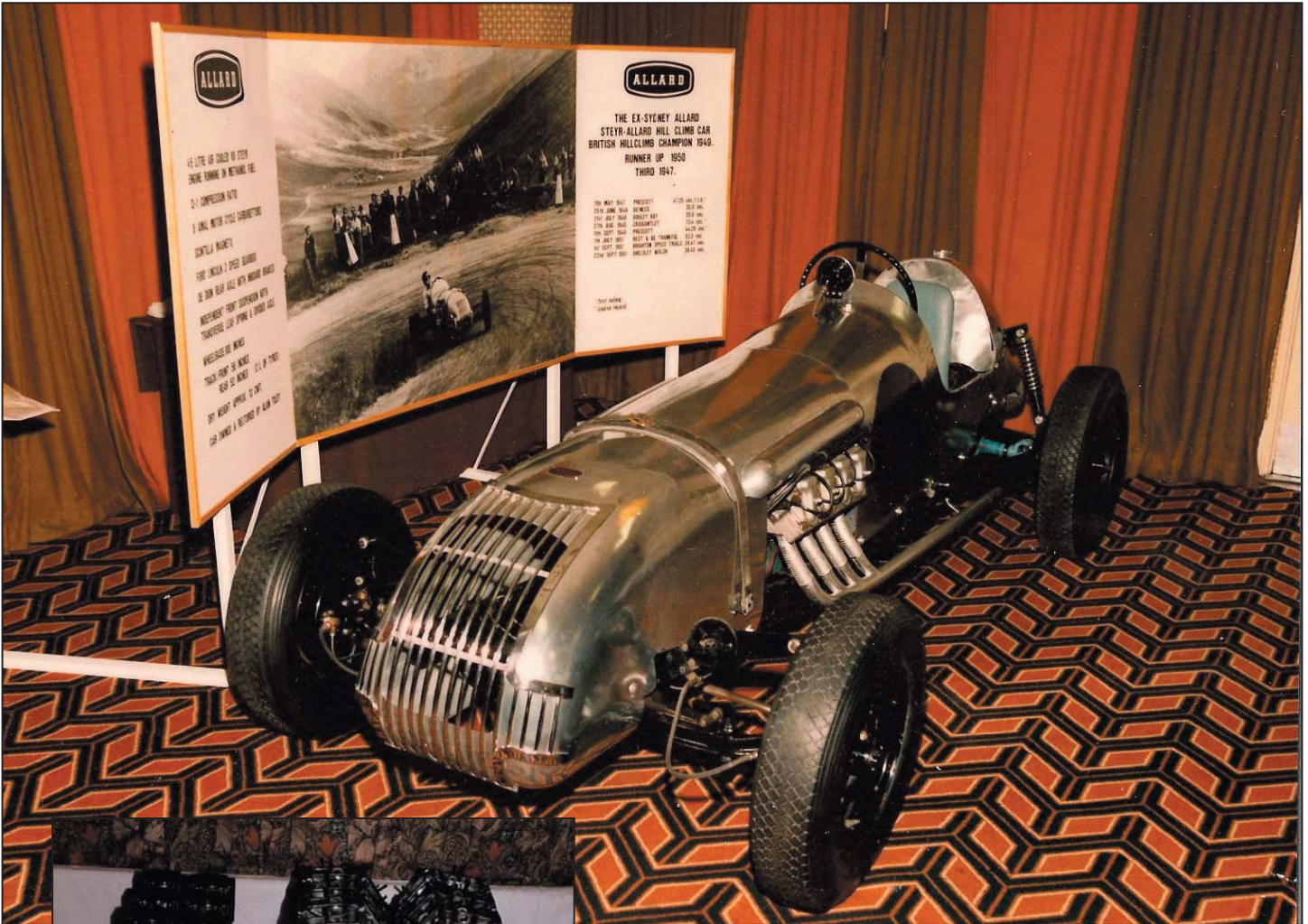
A warm welcome to new Allard Register Members: Jack Goffette (Lynwood, WN), Kevin Blount (Portland, OR), Bert & Joyce Allard (Texhoma, OK), Mel Herman (Conwy, UK), Kip Smith (Gloversboro, NY), and Mike Marix (Palm Desert, CA).



"Frankly my dear, I don't give a damn."



The Allard Register



ALLARD

42 LITRE HP DODGE V8 FIVE
SPEED TOPPING IN MICHIGAN 1942

2 1/2 COMPRESSION RATIO

1 1/2 INCH WATER PUMP SUPERCHARGER

CONTROL VALVE

FIVE INCHES 7 SPEED GEARBOX

DE PORN REAR AXLE WITH WINDUP DRUMS

INDEPENDENT FRONT SUSPENSION WITH
THROTTLED LAY SPRING & SHOCK AXLE

WHEELS AND WHEELS

TRUCK FRONT END WHEELS C.I. 19 1940

REAR END WHEELS C.I. 19 1940

DRY WEIGHT APPROX 1200 LBS

ONE FINISH & RETURNED BY KEN TAYLOR

ALLARD

THE EX-SYDNEY ALLARD
STEYR-ALLARD HILL CLIMB CAR
BRITISH HILLCLIMB CHAMPION 1949.

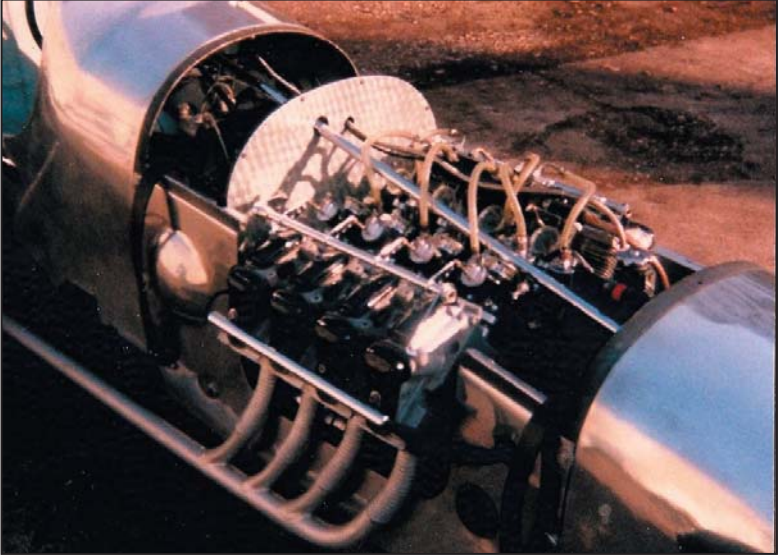
RUNNER UP 1950
THIRD 1947.

1949	WALL	PROBETT	42.70	44.11	44.11
1950	JONES	DE WITZ	38.00	38.00	38.00
1951	JONES	DE WITZ	38.00	38.00	38.00
1952	JONES	DE WITZ	38.00	38.00	38.00
1953	JONES	DE WITZ	38.00	38.00	38.00
1954	JONES	DE WITZ	38.00	38.00	38.00
1955	JONES	DE WITZ	38.00	38.00	38.00
1956	JONES	DE WITZ	38.00	38.00	38.00
1957	JONES	DE WITZ	38.00	38.00	38.00
1958	JONES	DE WITZ	38.00	38.00	38.00
1959	JONES	DE WITZ	38.00	38.00	38.00
1960	JONES	DE WITZ	38.00	38.00	38.00

Soon after restoration at the Allard Owners Club meeting in 1981



Celia Tiley was not amused with her husbands use of the dinner table...



The Steyr engine, as installed.

The Pitney K2 Replica, In Progress...



Cardboard templates in place, note reference K2 in the background



Steel skeleton in place, note cardboard templates



Front fenders installed without headlight ports cut



Fenders removed with hood in place



Almost finished!



Ready for paint



The Allard Register

The Pitney K2 Replica, Complete!

