

JAGUAR RACING CARS

A MONTHLY SERIES - Part 10

By Neville Barlow

XJ-S

The Jaguar XJ-S (later called the XJS) is a luxury grand tourer, manufactured, by Jaguar from 1975 to 1996. This 21 years is the longest production run of any Jaguar model. 115,413 units were produced in that time. It came in coupe, cabriolet and convertible body styles.

Originally developed by William Heynes, Jaguar's Chief Engineer and later as Vice-Chairman, used the current XJ6 platform. The XJ-S was noted for its flying buttresses. Later Malcolm Sayer applied advanced aerodynamic principles to the design but he died before the XJ-S body styling was completed for production.

Many people were disappointed by the arrival of the XJ-S because they expected it to be a replacement for the E Type. Much criticism was

made of the flying buttresses but it became obvious that they greatly contributed to the cars aero efficiency. This car was not a sports car but engineered as a long distance cruiser. During its long production time it featured engines of 3.6 litre, 4.0 litre, 5.3 litre and 6.0 litre engines. When it was finally turned into an International C class competition car, a 7.0 litre engine was developed and I have read of an 8.0 litre "Beast".



Series 1 (1975 -1981)

The XJ-S was introduced on the 10th of September 1975. Power came from the Jaguar V12 engine with a choice of manual and automatic transmission. V12 engineered cars were at the time unusual but the XJ-S compared favourably with the Ferrari and Lamborghini, when it could accelerate to 100km/h in 7.6 seconds and a top speed of 230kp/h. In 1977 the manual transmission had disappeared and the General Motors Turbo- Hydramatic 400 was fitted.

Jaguar launched the XJ-S in the wake of a fuel crisis, so the market for the 5.3 lire V12 grand tourer was limited and very few cars were sold in the early days.

Series II (1981 - 1991)

From July 1981 the XJ-S was renamed the XJ-S HE and therefore received the new High-Efficiency V12 engine which produced better fuel economy. The rather thirsty Series 1 was considered to be the major reason that

the first XJ-Ss sold so poorly. However with the Fire Ball combustion chamber designed by Swiss engineer Michael May, power was increased to 295Bhp.

There were several changes to the exterior, such as alloy wheels, chrome inserts on the bumpers and Elm inserts on the dashboard and door surrounds. In 1983 a new 3.6 litre Jaguar AJ6 straight six- engine was introduced along with a new convertible called the XJ-SC.

Between 1983 and 1987 six cylinder cars were only available with five- speed manual or four speed automatic transmission. From 1987 onwards fuel injection was offered. A V12 powered XJ-SC was introduced in 1985.

From 1988 to 1993 a special high performance XJR-S version was developed by Jaguar Sport, a 50:50 company owned by Jaguar and the TWR Group, which specialized in developing high performance Jaguar Sports Cars.

These were basically Saloon / Sports cars built from the knowledge of racing the XJ-S.

Between 1988 and 1989 326 XJR-S cars were produced with an increase in power to 318Bhp. After 1989 the engine displacement was increased to 5993cc (6.0 litres).

Power was increased to 329Bhp and a torque of 365-lb ft. Compression ratio was up to 11.0 to 1, a new forged crankshaft, new pistons and a modified exhaust system was used. Top speed was now 260km/h. A total of 787 coupes and 50 convertibles were built for the world market.



1975 Jaguar XJ-S



**Jaguar XJ-S HE
Coupe - 1982-1991**

Series III (1991 – 1996)

The XJ-S was relaunched in its final form in May 1991, under the Ford Company's management. Ford dropped the models hyphen and it became the XJS.

The car received a new 4.0 litre version of the AJ6 straight six- engine. The V12 litre engine was available from 1992 with a power output of 304Bhp.

Jaguar XJS - 4.0 - 1994-1996



Out board rear brakes replaced the more complicated in board brakes (at last) and a new automatic transmission was introduced.

The rear side windows were enlarged but the much discussed buttresses were retained. A new 2 plus 2 convertible was introduced. At the same time the car received more aerodynamic front and rear bumpers and changes to the interior instrument panel.

AJ16.

The final specifications were made in 1995 and that car was referred to as the Celebration. In 1991 substantial revisions were made to the 4.0 litre AJ6 engine, which was given the name of AJ16.

The final changes to the specifications were made in 1995 and that car was referred to as the Celebration model, to celebrate the 60th year of Jaguar.



1995 Jaguar XJS Convertible Celebration

Motor Racing

You wouldn't really expect The XJS to be a racing car. The main problem being, the cars sheer bulk. In the 1970's the way to win in saloon car races was to use the lightest cars with the biggest tyres and the most powerful engines that the regulations allowed. And of course there was the Broadspeed debacle, or rather the Leyland Cars decision to use the large XJC 5.3 litre four seaters. Jaguar was extremely adverse to being forced to go down that road again.

However in the USA, Group 44, an independent racing operation headed by Bob Tullius who had won many races with Jaguar E Types was anxious to try out the XJ-S, mainly because they were sure they could extract a lot more power out of the V12 engine. Group 44 set out to prepare a new XJ-S for TransAm racing. Along with his engineer / driver Brian Feurstenua, Tullius's first cars looked conventional enough but were very much modified. They had of course the mandatory roll cage, race suspension, wider wheels and larger brakes. The V12 engine used a dry sump, 6



Jaguar XJS - Group 44 - Trans-am



Jaguar XJS - Group 44

Webber carburetors and produced 475Bhp.

Although the first car could only finish fourth, driven by Tullius, in its first race in 1976, it won outright at its second outing. It had a top speed of 180mph (290km/h) so showed a great deal of potential.

In 1977 Group 44 made a full assault on the TransAm series, chasing points both in the USA and Canada, in their even more powerful

(500Bhp) car. Tullius won five races, half the races in his category and Champion Driver in his class. A highlight was winning outright against all comers at Mosport.

There were more successes in 1978 because Group 44 entered two cars. Better, faster and more reliable, the cars won the six hour race at Watkins Glen. They had six other category victories, spread as far as apart as Canada and Mexico City. Tullius again won the Driver Championship, but more importantly the XJ-S won the Manufacturers Championship as well.

Because of British Leyland's financial problems they were unable to support Tullius in 1979 and 1980 so the Tullius Jaguars were mothballed. John Egan had arrived as the

Jaguar CEO and thought it was time Jaguar went racing again. While the XJ-S had been in retirement, race regulations had changed and 'silhouette' cars were able to race, the rules appeared to favour the XJ-Ss. Power was now up to 550Bhp, a tubular NASCAR style was used, a lightweight skin was used and the engine was repositioned. Also a new differential and larger disc brakes were fitted.

The 1981 season did not go according to plan but the XJ-S was always on the pace. Tullius started with a second in the first race and won the next one. He failed to finish in the next two races, side-lined by electrical problems. He won again in Minnesota and second in Quebec and once again at Mosport. In round 8 at Laguna Seca he could only finish fifth and in the last round in California he had to retire. Although he won more races than anyone else, he only finished second in the Championship. This was practically the end of the XJ-S racing career in North America for Group 44.

Even as Group 44 was retiring a determined Scot was eyeing The XJS for his own racing programme. The man, Tom Walkinshaw was encouraged by new regulations in Group A for the European Touring Car Championship.

Cars could only look like the ones that sat on the showroom floor but were allowed certain modifications but within strict rules. The XJS fitted the bill by being a 4 seater (only just) had fuel injection and suitable suspension. The cars had to be a minimum weight of 1,400kilograms, and the fuel tank was to be no more than 120 litres.

Walkinshaw made his first approach to the new Jaguar CEO, John Egan in 1981. Egan refused to put any money into the project for 1982 but offered encouragement and technical support and gave him two complete XJS cars. The chief sponsor therefore turned out to be the French Oil Company, MOTUL and the cars were painted in MOTUL colours.

There was a problem. The XJS had a four speed manual gearbox but Walkinshaw wanted a five speed GETRAG.

All cars racing in Group A had to be homologated, so Jaguar cheekily put the GETRAG gearbox on the specification of their 1983 XJS saloon car. Massive preparations took place under the very watch full eye of New Zealander Allan Scott who was TWRs Chief Mechanic.

He describes in great detail in his book "TWR and JAGURS XJS" an amazing story of the ups and downs of motor racing.



Jaguar TWR - XJS - Walkinshaw



Jaguar - XJ-S - Bathurst

In the first half of the ETCC season a single XJS competed in seven of the twelve races. Each race was 500 kilometres long with races in Austria, Czechoslovakia, England, Sicily and Italy. It was typical of Walkinshaw that the car was race ready, though reliability could have been a problem. Partnered with Chuck Nicholson, Walkinshaw put the MOTUL car on the front row of the grid in the first race. They

lead until half distance, and then hit a kerb, resulting in a split oil union, which resulted in retirement. A week later, still in Italy the XJS sat on pole position, set the fastest lap, but finished only third behind the winning BMW. The first ETCC victory for TWR did not come until the Brno race circuit in Czechoslovakia and the XJS had by that time raced six times. Walkinshaw won the Belgian Zolder non championship race but a stone through the radiator while in the lead at Donnington meant retirement from what looked like a sure victory. Victory in Czechoslovakia, a second place in Austria and a win at Nurburgring, beating home a horde of BMWs, on their home track was said to be epic. A second car appeared at Spa, but both cars ended off the track and retired. Fortunately there was a six week gap in the racing which allowed TWR to re-group. In the last two races of the year, the first at Silverstone and the second at Zolder the TWR cars finished 1st and 2nd. Walkinshaw finished third in the Driver championship and Jaguar second in the Manufactures section. The XJS won four, was second three times and third once. Not bad for starters but Tom was not happy. Winning was everything.

In 1983, Jaguar and John Egan were in a position to fully support the team in an official capacity.

The season started disappointingly with stupid breakdowns. At Monza Walkinshaw and Nicholson would surely have won but a bonnet pin failed and at Vallelunga, Walkinshaw's car lost a wheel, and at Donnington, Nicholson ran out of fuel!

New drivers Martin Brundle and John Fitzpatrick appeared for the first time and duly won. Two weeks later Walkinshaw won in Sicily and in June TWR cars won at Brno, at Zeltweg in Austria and at the Salzburgring in Austria. The rest of the year was all bad. In the twelve races, Jaguar won five and BMW six. Walkinshaw again was not impressed. Only winning mattered!

1984 saw a determined effort from TWR. Jaguar was back in profit and production of cars was higher than ever. The TWR cars sported a new colour scheme, making it obvious that Jaguar were British and back racing. A new driver Hans Heyer, a German joined the group and two more cars became available.

The troubles with their Dunlop tyres seemed to be fixed and a water cooling system was incorporated for the brakes.

In 1984 Tom Walkinshaw gained the European Touring Car Drivers Championship and Jaguar won the Manufacturers Championship. In this season Jaguar won seven of the twelve races and had five second



Jaguar XJS– at Wellington

places. Along the way there was two 1-2-3 finishes. At the end of the year, the XJS had proved its ability beyond doubt always qualifying at the front of the grid and always leading in the early laps. With the ETCC won at last a happy Walkinshaw began looking for other racing series.

However one last effort was an invitation to race at the Grand Prix of Macau, a 153 km race around the streets of the Portuguese colony. The result was a 1-2 victory for the XJSs and the fleet of now seven cars were retired.

Amazingly an opportunity in 1985, came about to contest the Hardies 1000ks at Mount Panorama at Bathurst in Australia. Three XJSs lined up on the grid, two on the front row. One car retired early after being hit by a Holden Commodore, however the car driven by local driver John Goss and Armin Hahne won an amazing victory with Tom Walkinshaw an unlucky third.

It was still not the end. Two XJSs were seen in a five hour race in Fuji in Japan. These now fragile and really obsolete cars lead early but both retired. Two cars also raced at the round the streets of Wellington but both did not finish. The last appearance of all was in February 1985 at Pukekohe when Win Percy and Armin Hahne finished second.

Racing in New Zealand

Mike Hourigan and Allan Price of Wellington built up a Group A racing XJS. This was in 1977-1978 and used the V12 engine. It was timed in practice on the Wellington waterfront circuit in January at a remarkable 1 minute 39 seconds Peter Box upgraded the engine in 1988 and ran it in a couple of six hour races. As late as 2004, at the Mansfield track, there were three or four XJSs racing there, some with the 5.3 litre engine and one with the larger 7.0 litre. Two of them were replicas of the Walkinshaw TWR Group A cars.

On August 29th 2020 at the Townsville Supercar races in one of the supporting races, an XJS that had raced at the Wellington waterfront race in 1958, qualified fastest. Driven by Paul Morris it comfortably won its race.

So they are still out there, still racing and still winning.

Neville