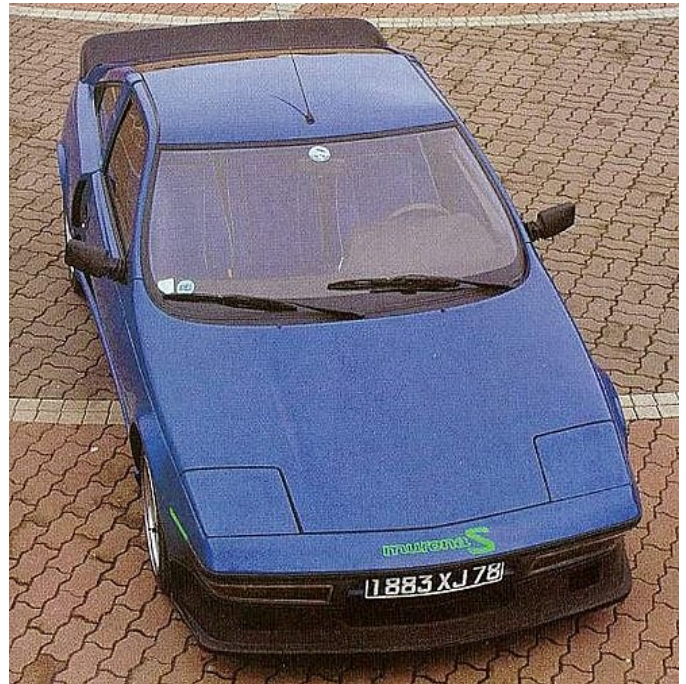


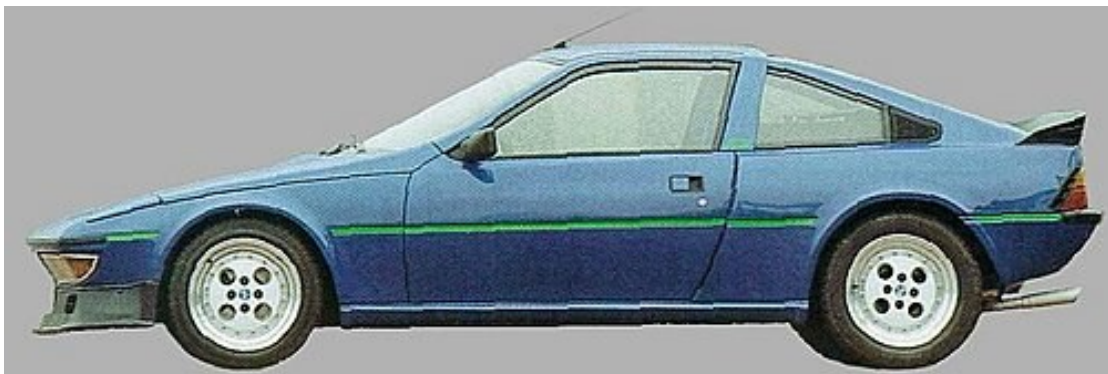
MATRA Murena 'Specials' 1980-today.



Murena 4S:

In answer to criticisms of insufficient power, Matra developed an updated Murena 4S model ("4S"=*quatre soupapes*, four valves). Based upon the standard 2.2S, the Murena 4S sported a 16 Valve head which upped maximum power to a healthier 180bhp @ 6000rpm and 212Nm/ 156lb.ft @ 5600rpm, with 85%+ of its torque available from 2500rpm. The gearbox remained unmodified, and apparently had no trouble handling the extra power, and in testing, the 4S model

proved impressively reliable. On account of the extra power, Matra developed the body aerodynamics further for greater stability and reduced lift at high speed. The changes included wider wheel arches and deeper spoilers front and rear, as already discussed, and an aluminium Targa-top for showroom sales purposes. Performance increased notably, and in testing the Murena 4S could



reach 230kph or over 142mph, and accelerated to 100kph in 7.2 seconds (60mph under 6.9 sec), and a standing kilometre in 27.7sec. Other literature claims that it could reach



100mph in around 21 seconds, although there is no other reliable material backing this up. The performance benchmark used by Matra engineers was the Porsche 924 Turbo, whose performance they wanted to match, with the opportunity for further ramping up of power. When researching possible options, Matra consulted with the Division of Engine Advanced Studies (DMEA) specifying the aim to achieve good engine performance with reasonable terms of tax and tariff, which is important in France. It also had to be clean enough to meet the toughest present and pending emission standards.

Talbot-Matra Murena 4S: Blue velvet interior and green piping



4S engine: 175.5 bhp @ 6.000rpm with 85% Torque at 2500rpm

From this study a 16-valve dual overhead cam head with fuel injection was identified. At the beginning of September 1981 a complete engine with 4 into 1 exhaust was tuned and ready to go, and delivered to the testing department for trials. Two 4S prototypes were prepared to take a 4S motor, one for wind tunnel testing.

Despite the tests being very convincing, and good results achieved, the management of Peugeot would not give its approval for marketing the project. It seems the engine originally ran carburetors, but a final attempt at getting Peugeot to approve the 4S for production with fuel injection also proved fruitless. Both cars are now owned by two private collectors, both former employees of Matra. One of them is in blue and is now fitted with the 2.2S engine, while the other is yellow and still has the 180 bhp motor. The yellow (and black) car is called "Martin" after the name of the engineer who designed the engine, and the blue/ green was painted in these colours to honour the very successful Matra driver Pescarolo.

Because the 2.2 engine was used as the basis for the Peugeot 505 Turbo, some aftermarket fitments of these engines have occurred. They are relatively easy to do as the fitting is the same, except for turbocharger, but the 505 is only a sohc 8-valve engine, with power outputs ranging from 142 to 160bhp – not quite the same. Other mechanical changes for the 4S saw its rear disc brakes moved in from the hubs to the inboard end of the driveshafts. The widened rear quarter panel included a vertical

air cooling slot just behind the doors for the rear brakes and engine-feed. There were also new wider alloy wheel, but no mention is made of any suspension upgrades.

Other ideas for the Murena:

Matra did not give up on the idea of a faster Murena, but again Peugeot would not play ball: a version powered by the 2.9-litre PRV V6 engine (Tagora, Volvo 760, Peugeot 604) was similarly vetoed.

Other ideas outside the factory have included aftermarket options for engine upgrades mostly using the later Peugeot 1.9 engine in both 8 and 16 valve guise (as used in the 205 GTI range). Since this engine

has similar mount-points and even weighs the same as the old 1.6 unit, it is a fairly easy change. Power is up to 120-130HP (with 16valves and two twin-choke Webers it gives about 150-170HP), which makes the car a lot quicker, better matching its looks.

Here are some comments posted about a couple of Murenas converted using Peugeot 1.9 power plants. The first is a Murena 1.6 converted by its owner, a mechanical engineer called Lawrence Hatfield, to which he has fitted a Peugeot 205 1.9 GTI engine in. The engine had a fast road camshaft, twin Weber 45 DCOEs and a modified cylinder head.

Car 2 is a Murena 1.6 converted by Will Falconer. The car has a standard Peugeot 205 1.9 GTI engine, but with twin Dell'Orto carburetors. "Firstly, I would recommend the conversion. Both cars went very well. I have driven a few Caterham 7s and the performance of car 1 was not far off. Car 2 had a bit less torque but was still very impressive. The acceleration of the cars was good and the performance matched the handling and look of the Murena well.

Car 2 was very neatly converted - nice and tidy. The engines seemed to be mounted at about the same height with car 1's maybe slightly further forward.

Handling compared well with the original Murena 1.6 and I was hard pushed to find any differences, the balance stays pretty much the same. I would say that car 2 seemed very slightly lighter at the back than my 1.6 on fast corners.

The gearshift on both cars was very good; car 1 was quite notchy but not difficult.

Lawrence had redesigned the shift mechanism with less links and more rose-joints. The only problem I found was that the throttle was extremely stiff on car 2, but I'm sure that could be sorted out by rerouting the cable or removing/replacing one of the return springs.

I think if you're considering a conversion, getting the extra work done on the engine is worth it. Acceleration from any revs (particularly lower revs) was brilliant; the car could be balanced, slid and controlled on the throttle in corners. The exhaust note of both cars was very nice."

Other conversions on the Murena have been built in Europe, including this interesting looking Alfa Romeo 164 V6 powered car with standard or Quattro-valvole engine, build by Carjoy, a Dutch Murena-specialist.

The prototype Murena Chapron Chimera, released by the famous coachbuilding company Henri Chapron (which does the presidential Citroen convertibles for example) in conjunction with Matra, is another mysterious Murena with a great lack of

Chapron



their 4-valve heads to fit the all alloy 2-litre Douvrin short-block, or even an all new block.

Fortunately, this time, their development work was not entirely in vain as it is said it was used as the basis for the engine mounted in the front of the Lotus Sunbeam-Talbot. And yet this raises further questions. The Lotus Sunbeam motor is all alloy and measures 95.20x76.20mm to give 2170cc. The 2.2 Lotus Esprit measures 95.30x

Carjoy



information about its background and makeup. It was presented at the 1982 Auto Show of Paris and had a lift-off roof and more luxurious appointments plus a new rear spoiler...

Murena 4WD

Before the Murena ceased production at the end of 1983, the company had been working on a further evolution of the 4S engine. This was apparently a 2,000cc Formula 2 version for the Racing Division of Chrysler (ROC). The implication is that the engine was a development of the 2156cc Chrysler-Simca motor, but for Formula 2, and in 2-litre guise, one is inclined to wonder if Matra developed

76.20mm to give 2174cc, the Vauxhall 2.3 (often claimed to be the basis for the 2.2 Lotus engine) at 97.5x76.2 giving 2279cc while the 2.2 Renault R21 Douvrin engine measures 88.00x89.00 mm, giving 2165cc. As we have seen, the cast iron Simca engine is 2156cc at 91.7x81.6mm... so what Matra developed for Chrysler Europe racing remains a 'state secret' at this stage. However, the Lotus Sunbeam was said to have about 152bhp, weighs 960kg, and achieved 0:60mph in 6.8 to 7.4 seconds and 0:100mph in 19.8 sec, plus a 121mph top speed. This gives us a fair indication of what the Murena S may have achieved in testing - with another 10% extra weight and taller gearing, but 20% extra bhp; perhaps as



Left: Murena 4WD

Below: MS630

mentioned above, 0:100mph in 21 seconds and 142 top speed.

Matra also developed their own car using a development of the above 16-valve S racing engine. It was a 4wd car called the Murena 4WD fitted out in Grp-4 rally guise. From a motorsport point of view, the Murena ROC engine was unsuccessful because it lacked sufficient numbers built for international Group-B approval (200 copies minimum), despite some success in the Grp-4 class of the 1981 World Rally Championship. Its major event for public exposure was the 1981 Monte Carlo - run in Grp-4, with Jean-Pierre Beltoise at the wheel and singer Veronique Jannot as co-driver. The car succumbed to mechanical failure. Several examples were also prepared by a Polytechnic institute that had developed some special aftermarket conversions for the Murena; their cars were equipped with permanent four-wheel drive and dominated the European and French Rallycross championship through to the end of 1986. Sadly, little else has been published on these cars.



Murena V12

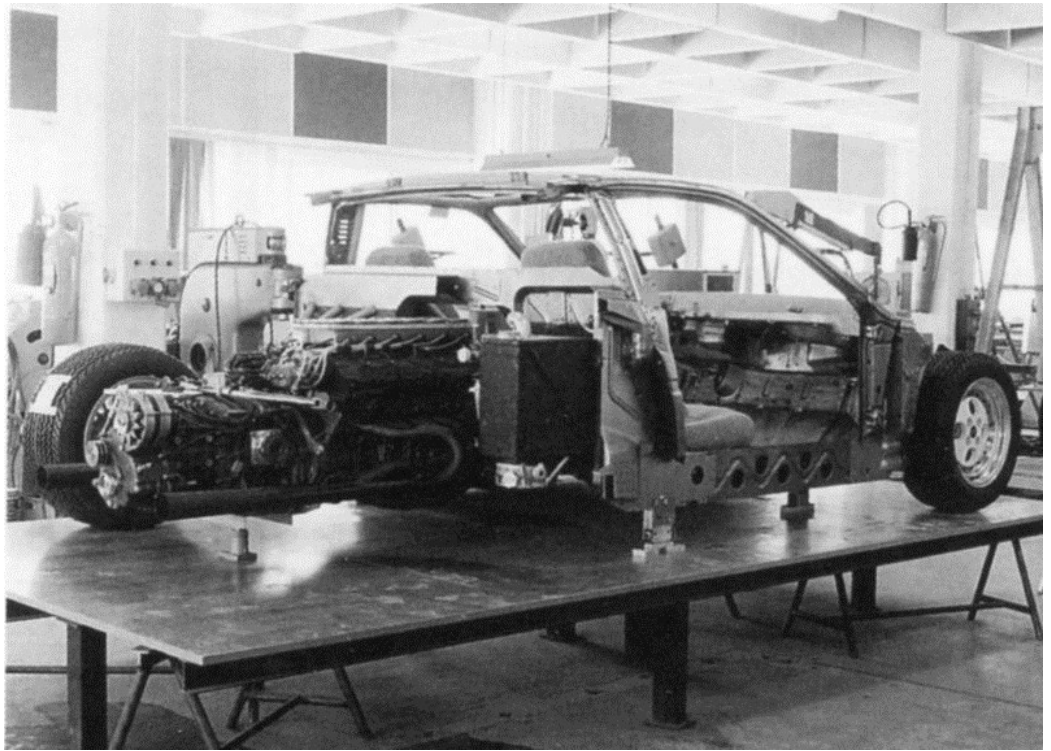
A 'promising' V12 designed by André Legan was also passed over by the management after not progressing far beyond the drawing board. Matra engineers got as far as these photos show, but it did not reach the road and was finally broken up. The car was called

the MS V12 Prototype Murena 81, and was powered by a 3-litre MS81 model Formula 1 V12, producing 510bhp with an 11,000rpm red-line. The motor was mounted longitudinally with a tube frame structure affixed off the rear firewall, behind the passengers. Apparently the back half of a

sports-racing MS630 formed the basis of its lower rear structure.

The rear of the car was fitted with inboard racing brakes, ZF transaxle, battery moved to near the engine, purpose built suspension, and wide alloy wheels and tyres. The structure from the firewall forward was essentially Murena, with mods including suspension and brakes.

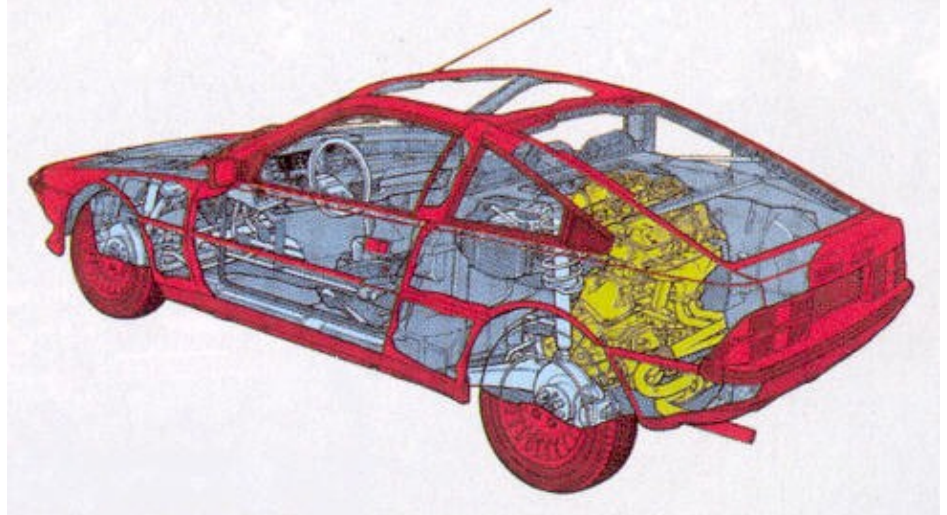
Legan presented the prototype mock-up as a double study with the right side representing a prototype road car, and the left side a study for a prototype competition sportscar.



Among the changes:

- Reinforced chassis structure
- Chassis at the rear modified to take part M630 structure
- Reinforcing cross for rear bulkhead
- Triangulated upper supports
- Flat bottom floor pan or undertray
- Dual fans and cowls
- Larger radiator
- Four new ventilated disc brakes with 4-piston callipers
- Front tyres Pirelli P7 225/40/VR 15
- Rear tyres Pirelli P7 285/40/VR AR 15
- Front track widened to 1455mm (+45 mm over standard)
- Rear track 'narrowed' to 1465mm (or-61mm) *¹

*¹ Actual outside to outside of tyres is greater overall, but centreline to centreline is less due to the greater width of the tyres.



Basis of all Murenas

SAIER-M1



Saier of Germany existed as a small car manufacturer between 1981 and 1997. During this time there were a variety of vehicles produced, such as replicas of the Countach, 356 Speedster, TDS MG, Mercedes SSK, Ford GT40, Buggies, Hot Rods etc ... and a few BMW M1 replicas built on Murena rolling chassis. However, not many Saier M1s were built as BMW took Saier to task, threatening them with legal action if they did not remove the obvious references to BMW. The typical BMW grill was removed, the front hood/ bonnet got air intakes, and the rear got rounded tail lights like a Ferrari. The tailgate was also redesigned.

Door handles were changed to recessed units using Murena parts, and although the interior was never like an M1, this was revamped over the original Murena design. From the Murena, the car had original running gear with the 118 bhp 2.2 engine as its base model, but the 140bhp S engine was an obvious option. Sports mufflers were

added that were said to release another 10bhp, and wider rims and tyres were fitted; 225/VR15 on 9" rims and 285/VR15 on 11" rims rear. Top speed was in the order of 200 to 220kph. Later Saier offered a similar looking car based on the Pontiac Fiero.



Rear and Interior Views of Saier



Left; what private people like doing to their cars these days; a Modified 2.2