

# The Beast is Released.

*A performance E-type is driven by passion.*

By Stew Jones

Jim Roberge, MIT Electrical Engineering Professor, purchased a 1973 Silver V12 E-type roadster in 1985. For ten years he was satisfied attending an occasional concours and motoring about the countryside, until 1995 when he attended a JCNA slalom race unaware of the possible

consequences. There he ran a 50.41 and started heading down the one-way path of performance addiction. Jim began attending autocrosses of every sanction and he enrolled in a three-day Skip Barber program, which left him yearning for some time on the track with his own car.

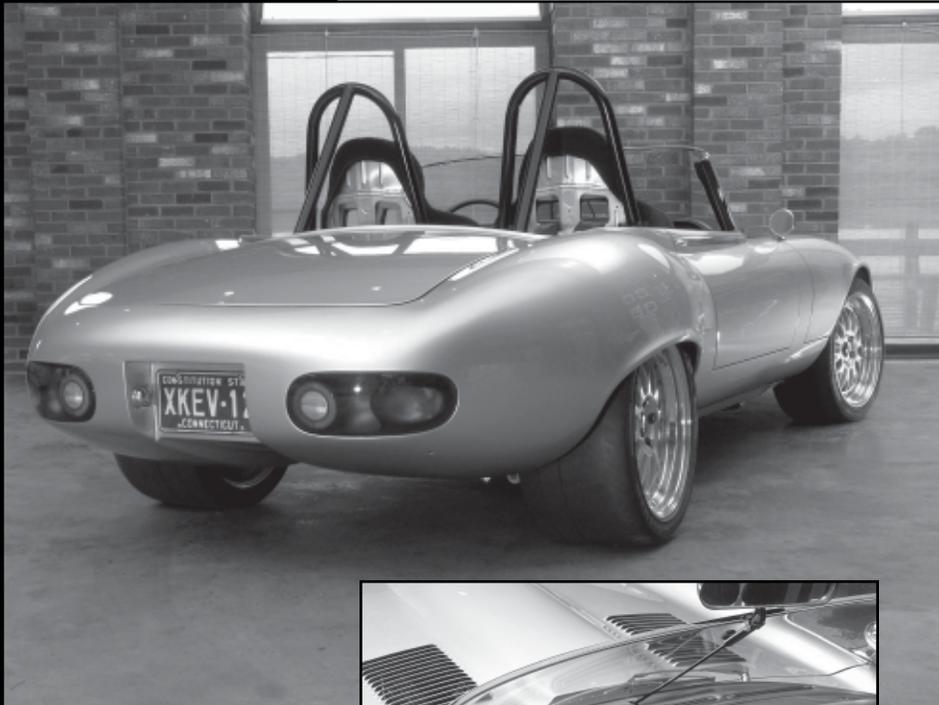
Every year he increased the performance of his car, achieving four class championships, culminating in 2002 when he ran 40.62 in the JCNA modified class – 1.5 seconds from the fastest national time. Wanting more performance, but not willing to modify his near stock E-type, he decided to build a dedicated performance car. Starting with a V12 E-type, Roberge

commissioned Stew Jones Restoration to create a race worthy streetable Jaguar that retained the classic E-type lines and minimal noticeable modifications. He wanted the Jaguar to be streetable and look almost like his existing silver roadster to maintain his non-chalant “Professor Roberge” look. The parameters continued to grow as the car was being developed, until it eventually became known as “The Beast.”

As originally manufactured, V12 E-type monocoque and frame rails had adequate structural rigidity. But with

increased horsepower, much larger brakes, reduced suspension compliance and tires capable of much larger force transfer, the original chassis would become a Flexible Flyer unable to maintain correct suspension geometry. Roberge did not

The expanded rear quarters allow a 50% larger tire width with little intrusion into the original lines. Tail light lenses were selected to fit the contour of the body and the rear brake duct exhaust exits above the license plate.

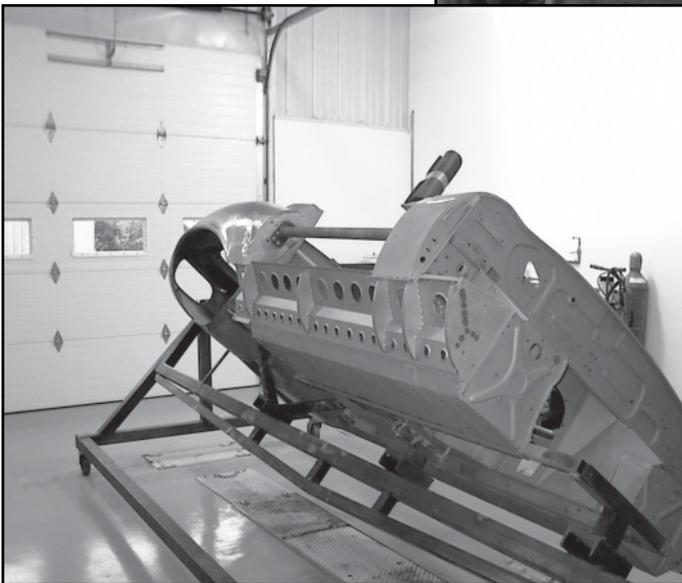
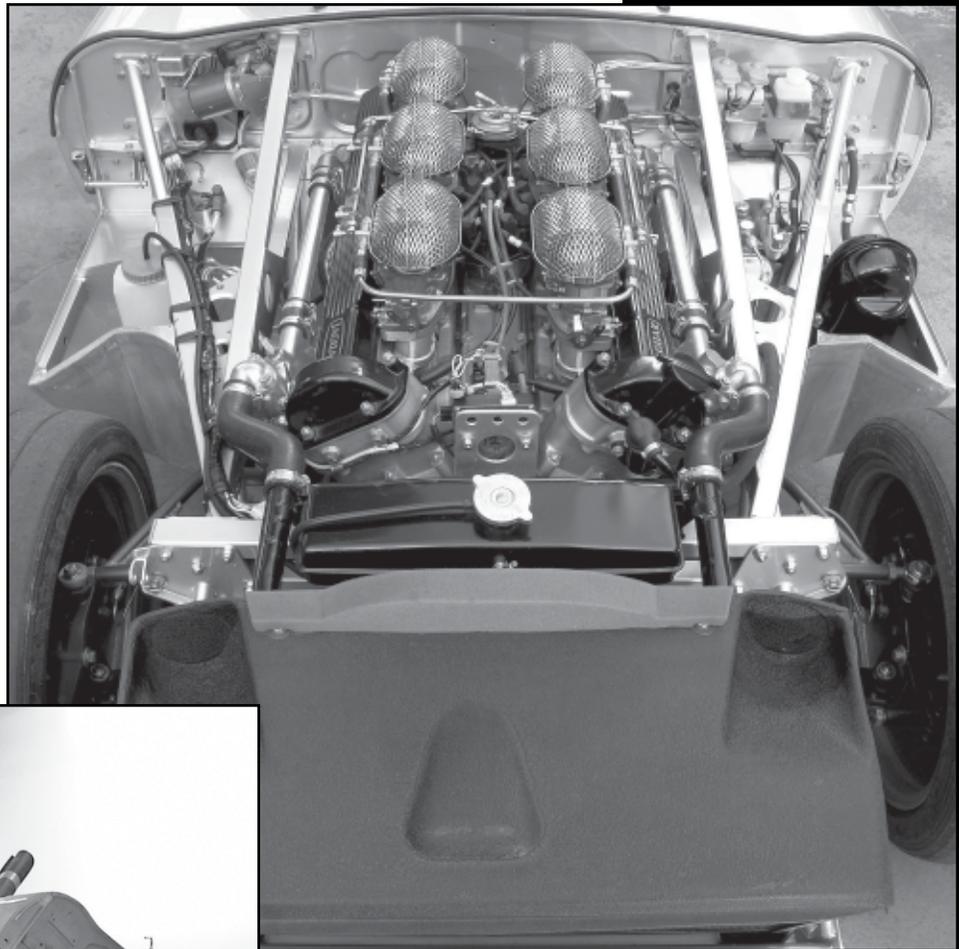


The original dash, steering wheel and cubby were retained, while custom seats and 5 point belts were used.



want the car to be a coupe or have a full roll cage, either of which could have helped stiffen the center section of the monocoque. To establish sufficient structural rigidity for the increased capabilities of the components, a major chassis rework was required. The body is all steel with the exception of aluminum bonnet inner panels and deck lid. It weighs in at 2,760 lbs. with a full tank of petrol and its roll hoops. Careful attention to front end weight netted the elusive 50/50 weight distribution.

In keeping with the theme of minimal modification, the



increased structure necessary in the rocker panels and cowl are completely hidden. An unobtrusive tube frame transmission tunnel became a major chassis component tying the cowl to the much reinforced rear suspension

The engine bay looks much like an original with the exception of the Webers, headers and a few additional frame tubes.

The interior rocker panel area uses a rectangular tube section with lighten trusses. A steel crosstube ties the upper frame rail trusses to the transmission tunnel and rocker panels

frame. The frame-rail assembly was trussed from the picture frame to the cowl edge of the bulkhead, where the stresses are received by a tubular cowl reinforcement and fed into both the transmission tunnel and the rocker panels. The frame rails, picture frame and all the new rails were trussed, gusseted and brazed into a single assembly. The additional trusses and gesseting were done with original specification Jaguar tubing to maintain the look of the original frame construction.

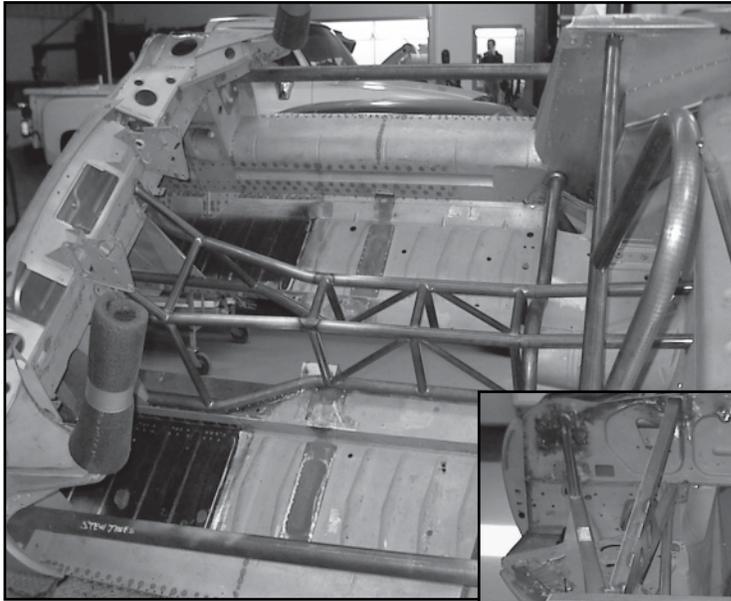
The bonnet and rear quarters were extensively modified to allow the use of oversize wheels and tires without sacrificing the beauty of the E-type. Custom seats are located low in the monocoque with detachable roll hoops high enough to protect Roberge's 6'4" frame.

The car has a dyno tested 600 hp, 575 ft/lb, 7.3L (450ci) V12 E-type engine. The engine has an 84mm crank, 96mm pistons, oversized valves, .501 valve lift and 11.6:1 compression ratio. Carburetion is six 44mm dual throat Webers and the exhaust uses

stainless steel headers with 1.75" primaries and 2" secondaries running through twin dual pipe mufflers. An aluminum flywheel with a streetable triple disc carbon-carbon clutch feeds through a modified Getrag 5-speed into a 3.78 Detroit locker with hardened output shafts.

The suspension uses heavy-duty sway bars front and rear, heim-jointed traction bars, performance torsion bars and rear springs. The front brakes are six piston calipers with 13" discs and the rear brakes are ventilated Porsche discs with 4 piston calipers. Front brake ducts use the original type ducts but feed the air to the brakes rather than the passenger compartment. The rear brake ducts use the original underbody scoops aided by exit plenums located above the rear discs and ducting through the former license light area. Also used is an aluminum radiator, two 14" electric fans, a lightweight alternator, a gel battery mounted behind the passenger seat and a low profile fuel cell. The wheels are 18"x11" BBS in the rear running 305 Hoosier Autocross tires and 18"x10" BBS running 275 Hoosiers in the front. A second set of wheels with street tires and removable roll hoops make this a low profile streetable E-type. The lights, wipers, exhaust and ride height are also consistent with street use.

While the car has an exceptionally high standard of fit and finish, its greatest beauty is in its function.



A steel tube transmission tunnel frame is unobtrusive under a sheet metal skin.

Added frame-rail trusses transmit forces from the upper and lower frame rails to the upper section of the bulkhead. The under engine tie bar and the upper frame rail cross tube become substantial frame members. The entire framerail system is trussed, gusseted and brazed into a single unit with the exception of the upper picture frame cross tube assembly.

Suspension frame reinforcement and roll hoop bracing are hidden in the boot. Larger capacity inner fender wells, a low profile fuel cell and brake exhaust ducts are all evident when the boot lid is raised.

