Triumph Stag History

Envisioned as a luxury sports car, the Triumph Stag was designed to compete directly with the Mercedes-Benz SL class models. All Stags were four-seater convertible coupés, but for structural rigidity – and to meet new American rollover standards at the time – the Stag required a B-pillar "roll bar" hoop connected to the windscreen frame by a T-bar. A removable hardtop was a popular factory option for the early Stags, and was later supplied as a standard fitment.

The car started as a styling experiment cut and shaped from a 1963-4 Triumph 2000 pre-production saloon, which had also been styled by Michelotti, and loaned to him by Harry Webster, Director of Engineering at Triumph from the early to late 1960s. Their agreement was that if Webster liked the design, Triumph could use the prototype as the basis of a new Triumph model. Harry Webster, who was a long time friend of Giovanni Michelotti, who he called "Micho", absolutely loved the design and spirited the prototype back to England. The end result, a two door drop head (convertible) had little in common with the styling of its progenitor 2000, but retained the suspension and drive line. Triumph liked the Michelotti design so much that they propagated the styling lines of the Stag into the new T2000/T2500 saloon and estate model lines of the 1970s.

Engineering

It has been alleged that internal politics meant that Triumph intended, but were unable, to use the proven but old technology Buick designed all aluminium Rover V8. The no-fit story is probably a myth as Rover, also owned by British Leyland, simply could not supply the numbers of V8 engines to match the anticipated production of the Stag. "Brand loyalty" between Triumph and Rover was high as they were former rivals. Triumph engineers preferred their new design as it was lighter using aluminium cylinder heads and the superior overhead cam design.

Harry Webster had also already started development and testing of a new unique, all Triumph designed overhead cam (OHC) 2.5 litre fuel injected (PI) V8 to be used in the Stag, large saloons and estate cars. The vision was to allow Triumph to compete in the V8 marketplace. Under the direction of Harry Webster's replacement, Spen King in 1968, the new Triumph OHC 2.5 PI V8 was enlarged to 2997 cc (3.0 litre) to increase torque and the troublesome fuel injection dropped in favour of dual Zenith-Stromberg 175 CDSE carburettors to meet emission standards in one of the target markets the USA.

The Triumph Slant-4 engine shared the same basic design as the Triumph V8, consisting of a single overhead cam cast iron block with aluminium heads. However the cylinder heads of the two engines do not share the same footprint on their respective engine blocks. This same engine manufactured by StanPart was initially used in the Saab 99. Using a gear driven water pump, the Slant 4 could be easily installed in a front wheel drive car. This same water pump design was used in the Stag V8.

As in the Triumph 2000 model line, monocoque construction was employed, as was fully independent suspension—MacPherson struts in front, semi-trailing arms at the rear. Braking was by front disc and rear drum brakes, while steering was power-assisted rack and pinion.

Production figures

The car was launched one year late in 1970, to a warm welcome at the various international auto shows, which soon turned sour after delivery to the market with reports of engine problems. Some of these were due to the perennial problem of poor build quality, endemic to the British motor industry of the time, while others were related to design problems in the engine. These included:

- long simplex roller link chains combined with inadequate engine maintenance and factory specified 7,500-mile (12,070 km) oil change intervals. The chains could last less than 25,000 miles (40,200 km) resulting in expensive damage when they failed;
- inadequately sized main bearings in the early OHC 2.5 litre V8 design with short lives, changed in the 3.0 litre design;
- aluminium head warpage due to poor castings, head gaskets which restricted coolant flow, leading to overheating;
- water pump failures relating to poor drive gear hardening, prematurely wearing out the gear and stopping the water pump.
- In some cases, overheating was caused by clogged waterways in the cylinder block which were found to be filled with casting sand left over from manufacture.

British Leyland never provided sufficient budget to correct the few design issues of the Triumph 3.0 litre OHC V8. Many owners adopted a popular conversion of the car fitting a Rover V8, Ford Essex V6, Buick 231 V6, or Triumph 6-cylinder engine but now such conversions fetch lower prices than a genuine Stag V8-engined car.

However, renovators over the years did iron out the V8 problems, rather than Triumph engineers.

- Cooling Problems:
  - A larger radiator.
  - Annual coolant flushing.
  - A high dose of modern anti-freeze to overcome the overheating problems.
  - Modern fully synthetic engine oil clearly assisted in cooling the cylinder heads – fully synthetic oils can cope with far higher temperatures and not degrade.
- Lubrication:
  - Appropriate fully synthetic oils to give superior lubrication and keep the engine interior clean.
- Improved metal finishes:
  - Hardened crankshafts.
  - Hardened metals on other components.
- Ignition System:
  - Superior electronic ignition systems.
- Modern rubbers:
  - Modern rubbers used on radiator hoses, heater hoses, fan belts and the likes are technically superior and more reliable than those installed in the 1970s.

This all adds up to an engine that now runs very well. If these glitches had been eliminated by Triumph, the engine could have been used in many other models and not only the Stag.

Mk1 & Mk2 Variants

Perhaps thanks to such a reputation for its unreliable engine, only 25,877 cars were produced between 1970 and 1977. Of this number, 6,780 were export models, of which only 2,871 went to the United States. Several variants were produced, noted only in changes of the production numbering sequences, and these have become unofficially designated as “Early” Mk I 1970, the Mk I (1971–1972/3), Mk II (1973)

and “Late” Mk II (1974–1977). The addition of twin coachlines is an indication of a Mk II variant.

Whilst official Triumph parts manuals may differentiate variants by commission plate ranges, it is common (from owner’s observations) that minor parts for the old variant may turn up in early productions of the new variant.[4] For example Mk2 cars have been known to have Mk1 wiring looms or door latches. Triumph either took the opportunity of clearing out the parts bin or quality control was not their best attribute.

Most cars were fitted with a Borg-Warner 3-speed automatic transmission. The other choice was a derivative of the ancient Triumph TR2 gearbox which had been modified and improved over the years for use in the TR4/A/IRS/TR5/250/6. The first gear ratio was raised and needle roller bearings were used in place of the bronze bushings on the layshaft. Early models could be ordered with an A-type Laycock overdrive unit and later ones frequently came with a J-type Laycock unit. The overdrive option is highly desirable as the engine RPM is excessive without it.

Other than the choice of transmissions there were very few factory installed options. On early cars buyers could choose to have the car fitted with just the soft-top, just the hard-top (with the hood storage compartment empty) or with both. Later cars were supplied with both roofs. Three wheel styles were offered. The standard fitments were steel wheels with Rostyle ‘tin-plate’ trims. 5-spoke alloy wheels were an option, as were a set of traditional steel spoke wheels with ‘knock-off’ hubcaps. The latter were more commonly found on Stags sold in North America.

Electric windows, power steering and power assisted brakes were standard. Options included air conditioning, a luggage rack, uprated Koni shock absorbers, floor mats and Lucas Square Eight fog lamps, and a range of aftermarket products, most of which were dealer installed as optional accessories could also be fitted. Rather unusually for a 4-seat touring car, the accessory list included a sump protector plate. This was probably included as a slightly ‘gimmicky’ tribute to Triumph’s rallying successes.

Classic status

The Triumph Stag has sizeable club and owner support and a number of specialist suppliers. About 9,000 Stags are believed to survive in the United Kingdom. The car’s popularity is due to its performance, comparative rarity and its Michelotti styling. The problems associated with the car over the years have been solved by those enthusiast clubs supporting the Stag, elevating this classic to its intended place in popularity envisioned by its designers.