

TRIUMPH'S PROTOTYPE BETA & THE REVINGTON TR BETA AND BETAS6

INTRODUCTION

RevingtonTR started as many businesses do, by growing out of a hobby. Neil Revington served his apprenticeship with the Aeronautical Quality Assurance Directorate, a division of the Ministry of Defence, responsible for the quality of design and manufacture of all military aircraft.

The skills gained there have particular value in projects like the rally TR4, where structural integrity and manufacture of the highest quality are essential to producing a motor car where reliability and longevity are assured. Being an accomplished driver also helps enormously in the development of competition cars, and Neil has many wins to his credit in Triumph TR's, particularly in 6VC, one of the works rally TR4's and his well sorted TR5.

RevingtonTR has established a reputation for continued development of the TR marque and has previously built an *Italia* for racing, a *TRS* for LeMans and restored three *works TR4 rally cars* as well as several of Triumph's prototypes including the black *Beta* which has recently emerged from a full restoration.



Information gleaned during these and dozens of other restorations means *RevingtonTR* is in a unique position to use that experience in the recreation of the *Beta* whether it be the supply of a 'turnkey' car to customers' specification or the supply of parts and expertise to enable customers to complete their own project. This demonstrates *RevingtonTR's* ability to combine the latest technology with 1950's elegant styling into a modern motoring package either for road use or competition.



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THE BETA - A BRIEF HISTORY

The Triumph Beta was a development project that paired a TR3A body with a wider chassis that eventually emerged as the TR4 Chassis. This meant the body needed wider front and rear wings to cope with the wider track of the experimental chassis. The Triumph engineers came up with this idea in the early 60's when Triumph couldn't afford the tooling for the new TR4 body shell penned by Giovanni Michelotti and saw this as a way to sell more TRs in an updated form and test the TR4 chassis. Two cars were built and became well known as the Black Beta and the Red Beta (Beta being the Triumph code name for the project) but the project was 'still born' as Leyland took over Triumph and provided the cash for the TR4 body shell tooling. Many of the parts that were intended for the TR4 production such as the 'all synchromesh' gearbox, wider rear axle, rack and pinion steering with stalk type head controls as well as the wider track chassis were incorporated into the Beta prototypes.



THE NEW REVINGTONTR BETA AND BETAS6

The new *RevingtonTR Beta* and the *BetaS6* derivative are intended to be very personal cars, the specification of which is a reflection of each customer's requirements. The *Beta* uses a standard length TR4 chassis with a 4 cylinder engine whilst the *BetaS6* uses a TR4 chassis lengthened by 150mm (6") as used on our *TRS* to accommodate the ubiquitous Triumph fuel injected 6 cylinder engine.

As part of the recreation, the TR4 chassis is strengthened and powder coated, usually black. The location points for the front suspension, steering, rear spring hangers and dampers are all reinforced where appropriate in a manner developed by Triumph on the works TR4 rally cars.

The *Beta* inner body shell is standard TR3A whilst that of the *BetaS6* has the front inner wings extended to correspond to the lengthened chassis. The extra length is inserted behind the front wheels thus allowing plenty of room for the 6-cylinder engine.

The original Triumph *Beta* body shell modifications were very simple being restricted to 4 new wings that were each 50mm (2") wider to accommodate the 100mm (4") wider chassis. The doors were left standard which results in a rather odd body line where the front wings meet the doors. This has been corrected in the *RevingtonTR* panel

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set which includes new door skins, wider at the front, and sills to match which provide a continuous flowing panel line to the back of the door. The *RevingtonTR Beta* panel set consists of 4 fibreglass wings and 2 fibreglass door skins plus two steel sills. The *BetaS6* body panel set is the same as the *Beta* set except that the two front wings are longer and a longer bonnet is provided too.

All these panels can be made in aluminium at extra cost if desired. The result is a body shell lighter than the steel original.

The *Beta* engine is derived from the TR3-4A unit and the *BetaS6* is derived from the TR5-6 type unit but typically both will produce higher power output; the axle will be a standard TR4 axle casing.

The following specification details are only suggestions; the final specification being a matter of customer personal choice, cost and practicality.

The result will never be an original prototype *Beta* but will stand in its own right as a magnificent personalised machine.

SUSPENSION & STEERING

The basic suspension components are those originally used by Triumph. In order that the car meets modern handling expectations, *RevingtonTR's* "fast road" kit is used, developed over many years from experience gained in long distance rallying where comfort is paramount, as well as hill climbing and circuit racing. The kit may include front and rear anti-roll bars, up-rated front and rear springs and dampers. The suspension further benefits from *SuperPro* polyurethane bushes fitted all round resulting in improved location of all suspension components. Steering is by means of rack and pinion. The result is a light and responsive feedback through the steering wheel, allowing the driver to genuinely feel the contact between the car and the road.

BRAKES

Braking can be by traditional disc and drum combination or upgraded to dual circuit servo assisted disc brakes all round.

This car would not be the first TR to benefit from 4 wheel disc brakes, as the factory experimented with them at Le Mans in the late fifties and early sixties. However, *RevingtonTR* can further improve the concept by using 4-pot calipers on the front, with calipers that incorporate a self-adjusting hand brake mechanism on the rear. Brakes can be further improved still with the use of slotted discs.

ENGINE

The engine in the *Beta* is an original TR four-cylinder block with options including 87mm pistons and liners, resulting in a capacity of 2188cc. A fast road big valve, 9.5:1 compression ratio, head is fitted together with, a lightened and balanced steel flywheel and geared starter. Twin 1¾" SU Carburettors are standard together with a fast road camshaft, alternator conversion and electric cooling fan. An up-rated engine with 89mm pistons and liners giving 2.3 litre capacity; aluminium flywheel and an aluminium cylinder head, fitted with a range of high performance cams, is also available at extra cost. As an alternative to SU carburettors, Weber carburettors or

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Electronic Fuel Injection with a fully Electronic Engine Management System is available. The result is easy starting, performance across the whole power band and truly easy maintenance particularly with the latter option which has no carburettors to tune and no points to check, as the ignition system has no distributor. The resulting power is in the order of 135 - 150BHP at the wheels, making for interesting performance in a car of this size and weight. The engine in the *BetaS6* is an original TR5-6 type six-cylinder block with 2498cc capacity. A fast road big valve, 9.5:1 compression ratio, head is fitted together with, a lightened and balanced steel flywheel and geared starter. Mechanical fuel injection is standard together with a fast road camshaft, alternator and electric cooling fan. An up-rated engine with up to 2600cc capacity, aluminium flywheel fitted with a range of high performance cams, is also available at extra cost. As an alternative to mechanical fuel injection Electronic Fuel Injection a fully mappable Electronic Engine Management System is available. The result is easy starting, performance across the whole power band and truly easy maintenance particularly with the latter option which has no Metering unit to tune and no points to check, as the ignition system has no distributor. The resulting power is in the order of 140 - 200BHP at the wheels, making for interesting performance in a car of this size and weight.

TRANSMISSION

A four speed Triumph gearbox with overdrive on 2nd, 3rd and 4th gears is fitted, as per the original specification. A five speed gearbox can be fitted if required. The rear axle is to original specification, though a limited slip differential can be fitted at additional cost. Power is transmitted to the road via 195/65/15 tyres fitted to 5-1/2" alloy wheels or wire wheels as required.

INTERIOR AND WEATHER EQUIPMENT

Prospective owners of a new *Beta* or *BetaS6* are invited to our premises if practical to choose the specification and colour of the interior and exterior. Vinyl front seats of a period bucket "rally" style are fitted, and the car is fully carpeted in a colour to suit your requirements. The dash board is standard TR3A with full sports instrumentation. All dials are either black or cream faced with chrome bezels. Demist and heating is by way of a Clayton heater with a two-speed fan. Leather front seats or a full leather interior are available at extra cost. The car can be supplied as a permanently open car with aero screens fitted or with a full windscreen, sidescreens hood and tonneau.

PROJECT TIMESCALES

These cars by their very nature are hand built to order. The time taken from placement of your order to completion of your vehicle is in the region of nine months. During that time we encourage you to visit and see the progress being made on your specific car.

PRICE AND COMMERCIAL TERMS

The *Revington TR Beta* and *BetaS6* are the subject of many specification choices therefore a price will be given at the time of enquiry which will remain valid for one month. Delivery is ex our works in Middlezoy, Somerset, England TA7 0PD

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Terms are 25% deposit with order, and two further payments of 25% payable at two to three monthly intervals depending on the length of the project with the final payment of 25% to be made prior to collection. All prices and payments are to be made in GB Pounds Sterling and subject to VAT at the prevailing rate where appropriate.

VEHICLE REGISTRATION

The *Revington TR Beta and BetaS6* are normally based on a donor TR2-3B and as such are classed as a re-bodied vehicle by the registration authorities in the United Kingdom. As such when registered in the UK the vehicle will carry the registration number of the Donor vehicle. Registration in any other county is the responsibility of the customer.

If you would like further information about the *Beta and BetaS6* or would like to arrange to visit us and test drive similar vehicles, please speak to Neil Revington by phone on +44 (0)1823 698437, by email neil@revingtontr.com or via our web site at **www.revingtontr.com**



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