



How Magnus Karlsson of Boras Motors in Sweden transformed this tired and rusty BT7...

...into this outwardly unassuming Austin-Healey capable of holding its own with modern sports cars.



STEALTH SUPERCAR TRANSFORMATION



What Arne Nilsson wanted was an Austin-Healey with a totally original appearance, but the performance capability of a modern sports car.

As documented here, Magnus Karlsson, owner of Boras Motor Corporation AB in Sweden (www.concourshealeys.com), was able to create the car that Arne had dreamed of.

When Arne acquired this Austin-Healey 3000 BT7, he learned from British Motor Industry Heritage Trust that it had

been built September 16-19, 1960 at Abingdon, painted Colorado Red with a grey interior, and shipped to New York.

Imported into Sweden in the early 1990s, the car had been acquired by a friend of his, who had a cosmetic restoration done in Poland, and subsequently sold it to Arne. Arne stored it for awhile, then decided to turn it over to Boras Motor Corporation, a restoration specialist with an international reputation for the quality of its work.

The restoration work commenced in October 2007. The first steps were to disassemble the car completely and then rebuild the semi-monocoque chassis exactly as original, but with a few subtle rein-

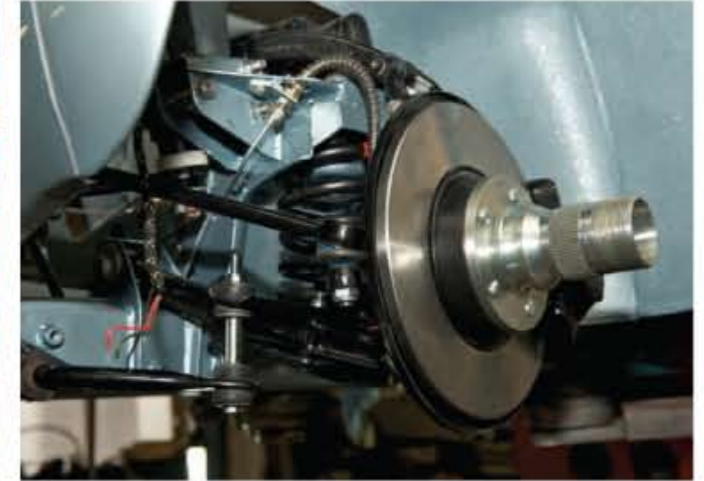
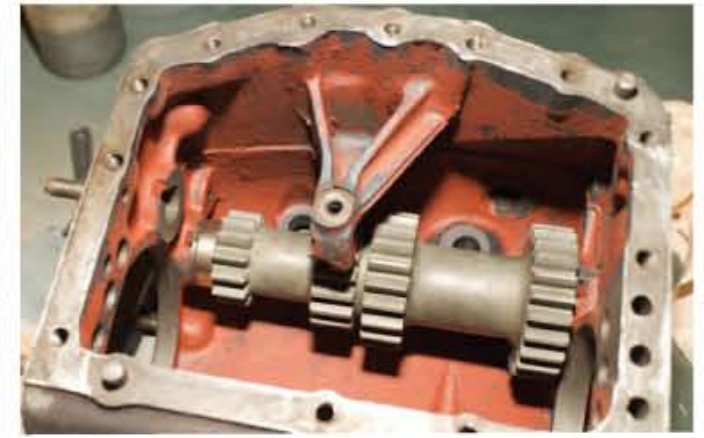


forcements. The frame was separated from the bulkheads and put into a frame jig where it was repaired and realigned, making the frame better than brand new. To make finishing work easier, the frame was mounted on a rotating frame rack.

Because the BT7 came with fiberglass front and rear fenders, and because Arne wanted a high performance car, he purchased new fenders, doors, bonnet, and bootlid in aluminum from A Head 4 Healeys in England (represented by Gary Dexter and Keith Bates in the picture at upper left above). All the body and chassis metal work was done by metal mas-

ter craftsman Hasse Syrén (three pictures above). This was certainly not an easy task, considering the quality of the currently available body panels. Every single part had to be extensively reshaped in order to fit, with many trial fittings and reshaping necessary before all of the seams were perfectly matched and all the openings exactly even all around.

Once all the metalwork had been completed, the car was ground and sanded smooth, then primed, and finally masked and painted in the Healey Blue, or Ice Blue Metallic, color that Arne had selected for the car.



The real magic was applied in rebuilding the mechanical parts of the car – the powertrain, brakes, and suspension. Being a great sports car enthusiast, Arne wanted a quality car true to the original, but as fast as possible. Arne and Magnus opted to build an engine and transmission that would be very near racing specs, but still reliable and roadworthy for use on long tours.

To this end, Magnus purchased a full-race aluminum head, 300-degree race/rally cam shaft, roller rockers with a higher lift ratio, bucket cam followers, vernier cam gear, competition cam chain tensioner, competition cam chain, forged Omega pistons, tufrided crank shaft with eight flywheel bolts, high-tensile studs for connecting rods, head, and main bearings, aluminum flywheel, competition crank damper, uprated clutch, alu-

minum oil sump, tubular exhaust manifold, and side-exit muffler.

The block was bored to fit the forged pistons and pockets were milled in order to clear the high-lift exhaust valves. The head was skimmed to achieve a static 11:1 compression ratio. The crank was ground, tufrided, and straightened and the block was center-bored. All moving parts were expertly and thoroughly balanced by accomplished mechanic Lars Tornblad and the engine was trial assembled to check all tolerances.

The Mkl carbs were replaced with a rally-style triple-carburetor set-up with custom-made linkage and three 2-inch HD8 carbs.

The gearbox housing was bored out in order to accept a thicker layshaft to handle the additional torque of the highly

tuned engine. A straight-cut Sebring gearset was bought in, together with new-original-stock (NOS) selector hubs, selector forks, and selector rods. The result of this work was an almost-new gearbox, but with ratios very suitable for the power and high-speed use of the special engine. The overdrive was carefully rebuilt and adjusted, so it would work quickly and reliably (Magnus is testing the release pressure in the overdrive in the picture at lower right on the opposite page).

The drive shaft was rebuilt using high-quality Hardy Spicer universal joints and fully balanced. The rear axle was fully rebuilt, retaining the original 3.9:1 ratio.

The front end was modified through the use of fully adjustable front shock absorber mountings. Wheel alignment was

set to 1 degree negative camber to improve cornering, and a heavy-duty 7/8-inch anti-roll bar was fitted. Carbon-impregnated bushings used for lower wishbone attachments and polyurethane bushings used for the top trunnion. Competition springs were fitted at the rear and the original front and rear shock absorbers were retained, but fully rebuilt and uprated to competition specifications.

The front brakes were modified through installation of metric-type 16 Girling calipers and BJ8 brake discs. The drum brakes were retained at the rear, but completely restored and rebuilt.

A high-ratio steering column and box was acquired and the steering column was modified to be collapsible for safety. the steering box was converted to use a modern oil seal.



In all other respects, the car was restored carefully following the Restoration Guidelines published by the American Concours Registry committee, who are doing a great job in helping to preserve the correct appearance of all Healeys.

As many as possible of the original metal parts were retained, and cleaned, stripped, and refinished in chrome, anodized, cadmium-plated, or zinc-plated finish as appropriate. A new steel brake pipe set was made to exact original standards for the car by Doug Reid, AKA Mr. Finespanner, who had also supplied the correct metallic green engine paint.

A correct original-style battery was secured from Classic Battery company and Roger Moment made exact reproduction Lucas battery helmets for the correct original appearance. A new wiring harness was installed together with many NOS Lucas parts. The instruments were expertly restored by Andy's Healey team in Switzerland.

Because of its visibility, particular attention was paid to restoring the interior to exact original specifications. All interior panels were custom-made for the car and dressed in correct original pattern leathercloth. The seats were upholstered in blue leather



with white piping. As-original floor covering and carpeting was used throughout the interior of the car.

When the interior was finished, there was no visible clue that within this car lurks the soul of a full race car that would have been competitive at Sebring in 1960, and can hold its own on any modern vintage sports car tour.

Featured Healey

Externally, the car was fitted with carefully balanced painted 72-spoke wire wheels, shod with Michelin XAS 180x15 radials, a slight allowance to the power and handling lurking underneath the skin.

All this sums up to a car in concours condition with only a few give-aways to its highly tuned state. The slightly wider wheels, three two-inch cars, tubular exhaust and side-exit muffler are really the only visible differences from an all-original car.

The car is really dream-like to drive with a smooth, even exhaust note due to the carefully balanced and assembled engine. You can feel the lightness of the body when all the estimated 190/200 horsepower is let loose. The roadholding really is exquisite, thanks to the suspension modifications.

In total, Arne has a beautiful classic car, built to look just right, but with the capabilities in performance and handling to take on modern sports cars.

Bottom right: Arne Nilsson (in the red jacket), his nephew, Magnus Nilsson, and his brother Olle, are obviously pleased with the results of over two years of work.

