

Quality and service with integrity

David Cole pays a visit to Bluestripe Remanufacturing – a company with both the know-how and engineering facilities to remanufacture even today’s electronically-controlled gearboxes

Gearboxes are in Clive Randle’s DNA, his father built them for cars at Longbridge and he himself has been involved with bus transmissions throughout his working life. As owner and MD of Bluestripe Remanufacturing, he believes in offering bus operators a quality exchange service for ailing transmissions.

On a trading estate tucked between the railway and the River Stour, Bluestripe Remanufacturing’s premises are current being refinished externally with the company’s signature blue colour and new logo, part of the rebranding exercise that the company embarked on early in 2017. The new image alongside a new website promotes the message that this is a business moving forward and follows significant investment in new technology and equipment to streamline the process for more recent generations of automatic transmission.

Moving all the remanufacturing processes for these electronically-controlled gearboxes in house was a major step for the company says Clive: “It was a huge change which required investment in a lot of training and equipment. We have spent a lot on



machinery to give us an advantage in remanufacturing both the Allison 2000 series and the associated torque converters. It supports the concept of the way I work, pursuing the quality angle using as many original equipment parts and products as possible. It is important that customers have confidence in the way we operate.”

A remanufactured Allison 2000 series transmission ready for shipment

Services

Bluestripe Remanufacturing is primarily focussed on Allison products but also undertakes work on units from Voith and ZF (and occasionally the Leyland units where it all started!). The recent upgrade significantly increases the company’s capability in respect of the Allison 2000 series with electronic control in addition to the earlier AT545 series models. A comprehensive stock of OEM parts is held for Allison products, aided by that manufacturer’s relatively limited specification variations.

Remanufactured Allison units are available from stock on a unit exchange basis, the company also offering a full exchange and fit service at customers’ premises across the UK. A skilled technician and fully equipped mobile workshop supports this process which takes around six hours on site. A trade counter at the Stourbridge workshops offers a range of components to support transmission servicing by

customers, including filters and gaskets. In addition to supplying exchange units, Bluestripe Remanufacturing will also rebuild customers’ units, retaining their original core. Remanufacturing of differentials is another service offered and some airbrake component work continues to order.

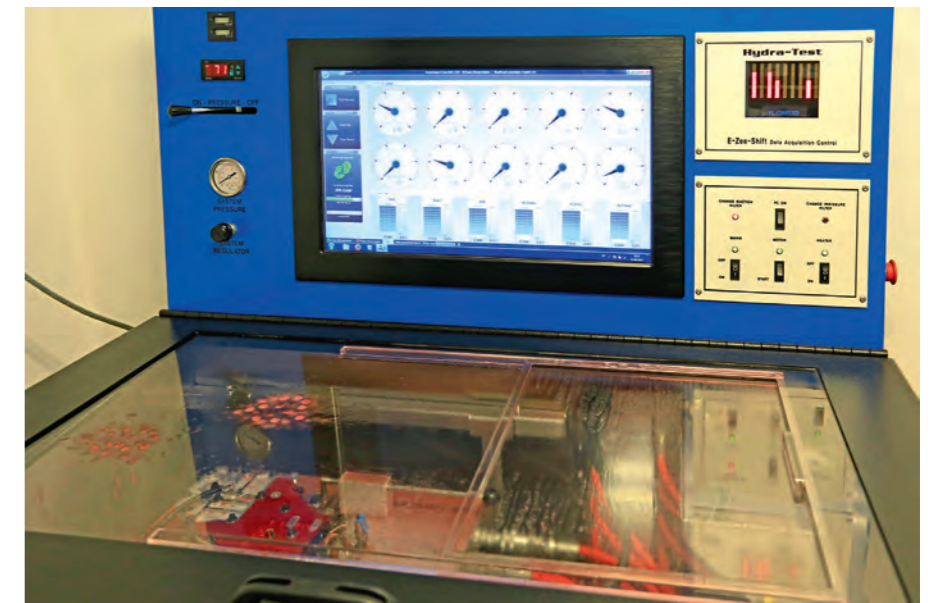
The remanufacturing process

Key to the remanufacturing process is the availability of a stock of core units from sources such as customer exchanges and end of life vehicles. These are fully dismantled and cleaned using a variety of processes, detergent, steam and ultrasonic with a limited number of components requiring manual solvent cleaning. Casings are shot blasted to remove all traces of paint and aid the inspection process. They are considered interchangeable and handled separately from the internal components which are kept together and tracked throughout the process.

After thorough inspection to identify any excessively worn or damaged components which are replaced from stock, reassembly is undertaken by the company’s skilled technicians. The units are attached to trolley based cradles which allow them to be moved to any orientation at a working height convenient to the technician. All O-rings, seals and bearings are replaced by OEM parts to maintain the units’ integrity.



The automated welding machine for torque converters



Valve block testing for an Allison 2000 series transmission in progress



The component cleaning area with a batch of material just released from the steam cleaner

Completed units undergo a full test programme to confirm their performance to the manufacturer’s specification before being painted in the new signature blue colour finish. The remanufacturing programme also includes the associated torque converter. Clive was not happy with the quality of remanufactured torque converters bought in and has invested in the equipment required to split the welded unit and then reweld it automatically to a high standard once the internal componentry has been overhauled. A pressure test follows.

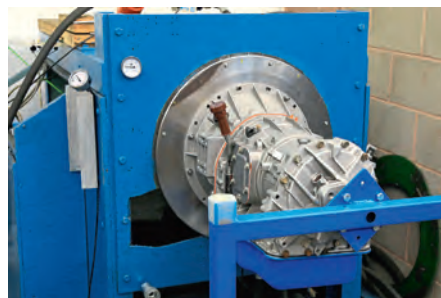
For the electronically controlled units, the valve block is similarly overhauled and proved on the test rig that has been specifically invested in for the purpose.

In support of Clive’s desire to “build a better box for a competitive price,” the company continues to look at improvements to its processes. Examples of this include the nickel plating of exposed shafts to prevent any deterioration whilst in storage and the commissioning of a replacement casting for a case component often damaged by the vehicle coming in to contact with sleeping policemen. This is a true local product, the pattern being made by PRP Patterns which occupies part of the Bluestripe Remanufacturing premises and the castings being produced in West Bromwich.

The documentation for each unit follows the components through the process such that on completion, the heritage of every item is traceable,



One of Bluestripe Remanufacturing’s vans in front of the Stourbridge premises that is currently being rebranded



On the test rigs: Allison 545 and 2000 units. The latter rig is currently being upgraded

< essential in supporting diagnosis in the unlikely event that a fault occurs. With Clive's mantra that "integrity is everything to us," and quality throughout the process, remanufactured units carry a 12-month, no-quibble warranty. Customers and potential customers are welcome to call in to the workshop and see for

themselves how this commitment translates into practice.

Going forward

With over 40 years experience in the gearbox business, Clive has no intention of stepping back. He continues to enjoy the challenge and his highly skilled team, many of

whom have been with the company for a considerable time, take pride in the quality of what they produce, making it what he describes as: "a nice environment to operate in."

He sees the future direction of bus development as a key challenge for the future, looking to what opportunities new drive train options will provide. One thing is for certain, it will mean more investment, despite the challenge of funding a small business, to ensure that the company continues to deliver a quality product with service and integrity. □



Clive Randle - 40 years in transmissions

Growing up in south Birmingham, Clive secured a traditional apprenticeship in 1976 with the Midland Red Omnibus Company at Carlyle Works in Edgbaston. After a thorough four year grounding in bus engineering, he was appointed to a role in the gearbox department where the main activities were the repair and overhaul of Leyland Pneumocyclic and Hydracyclic transmissions. Other roles followed during the 1980s as Carlyle Works moved to the private sector following

acquisition by Frontsource.

Rationalisation followed and, in 1989, Carlyle Works moved out of the gearbox business providing an opportunity for Clive to take redundancy and set up his own operation overhauling mainly the Leyland products of the day. Starting out as Bluestripe Engineering he was facilitated by the availability of 'nursery' units for new businesses from Birmingham City Council. In 1994, the company became a joint venture with the new Carlyle Bus and Coach business, moving to Smethwick then Dudley, growing through contract work from some of the bigger groups.

In 2001, Carlyle restructured and Clive continued the gearbox and air brake component business, restructuring it and relocating to Stourbridge as Bluestripe Remanufacturing. The business focus was shifted to medium and smaller operators looking for a quality personal service, particularly for the large number of earlier Dennis Darts and Optare Solos making up their fleets. Considerable renovation work has been undertaken at the Stourbridge premises alongside shifting the primary business focus back to gearboxes as the costs of original equipment replacements for air brake componentry dropped to a level that made remanufacturing hard to justify.



Clive Randle: "integrity is everything to us"



Before and after - Allison AT545 units as received and following remanufacturing. Clive notes that the external appearance of a received unit may not be an indicator of its internal condition

