



www.antonovplc.com

TRANSMISSION TEST AND DEVELOPMENT

Antonov provide transmission assembly and testing services along with vehicle installation and calibration. Coupled with a comprehensive design and analysis capability, Antonov offers a complete transmission engineering service through from concept to production for all types of conventional, hybrid and pure electric vehicle applications.

PROTOTYPE PROCUREMENT AND ASSEMBLY

Our individual build rooms have dedicated clean areas and wash facilities. As well as prototype assembly, Antonov can support low volume production builds at our Midlands facility. This includes a full procurement service, ranging from supplier selection, supplier management and purchasing, to secure parts storage and control of inventory.

TRANSMISSION TEST CAPABILITY

Antonov's purpose built test cells house various transmission and subsystem test rigs, each with full instrumentation capabilities including high speed data acquisition and analysis. Antonov can conduct the following rig and vehicle based tests:

- Transmission functional testing.
- Friction drag loss and efficiency measurements.
- Spin rig development.
- In-vehicle transmission calibration and testing.

HYDRAULICS DEVELOPMENT

Antonov can support hydraulic system development using our dedicated hydraulic flow bench. Testing the full system or sub-system level of the pump, manifold and control systems to optimise pressure, flow and efficiency. We also have significant experience in the optimisation of transmission lubrication and cooling systems to achieve the desired performance whilst minimising oil churning and clutch drag losses.

TRANSMISSION VEHICLE INTEGRATION

Antonov has extensive experience of installing prototype transmissions into existing donor vehicles using our full workshop facilities. We can support transmission installations in multiple vehicles at any one time.

TRANSMISSION BENCHMARKING

Antonov conducts teardown analysis and benchmarking of all types of production transmissions, providing detailed reports including:

- Transmission functionality, performance, efficiency and assembly methods.
- Reverse engineering of the hydraulic circuit and control strategy.
- Metallurgical analysis of key components.
- Full durability analysis of the transmission using RomaxDesigner and finite element methods.

www.antonovplc.com

ANTONOV EXPERIENCE

Antonov has 20 years of experience in the design, analysis and development of geared products for the automotive industry. As well as a wealth of technical capability brought to the company by the transmission industry's leading engineers, Antonov has well developed business and project management processes to ensure that projects are delivered to the highest quality, within budget and on time. Complementing Antonov's technical excellence, these processes and capabilities enable us to be a complete service supplier within the transmission sector.

PROJECT MANAGEMENT

With a proven track record in delivering projects on time and to budget, the Antonov project management team ensure that from project initiation to final delivery, the key elements and project structure are formulated and adhered to. Throughout the work flow, key milestones are defined and internal and external reviews are performed as required to ensure optimal delivery with minimal risk.

PROTOTYPE MANUFACTURE AND ASSEMBLY

Antonov offers a full prototype manufacture, assembly and test service. We are able to procure all BOM items through identification and management of suppliers to ensure quality and timescales are met. Procured parts are inspected before assembly in our dedicated facilities by our skilled and experienced technicians.

VOLUME PRODUCTION COSTING

It is essential that the full cost implications for volume production are evaluated early in the design process. Correct early design and process decisions ensure development programs run to budget and timescale and unit cost targets are achieved. Antonov offer a full volume production costing service to our clients.

SUPPLIER QUALITY AUDIT

Ensuring the quality and consistency of parts from external suppliers is time consuming when resources could be utilised more efficiently elsewhere in your business. Antonov can both audit and select suppliers that are able to provide the greatest robustness and continuity of supply.

SECURE CONFIDENTIAL WORKSPACE

Antonov has a dedicated transmission design, assembly and test facility based in the Midlands. Client programs are afforded the strictest confidence and dedicated project offices are available if required.

OEM INDEPENDENCE

Antonov is able to offer a range of consultancy and product services that are fully independent. We offer the perfect combination of a proven creative and technical pedigree through our fully engineered transmission products, whilst providing a service tailored to the individual requirements of each client.

For more information contact:

Antonov Plc
Simon Roberts
Chief Commercial Officer
Tel: +44 (0)1926 455 800
Email: sroberts@antonovplc.com

**Antonov Automotive Technologies
Chongqing Ltd.**
Dr. Yun Kang
Chief Representative China
Tel: +86 (0)23 6773 4948
Email: ykang@antonovplc.com