SPECIALISED MAINTENANCE AND REPAIR OF AUTOMATIC TRANSMISSIONS FOR PASSENGER CARS

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In the current environment of road transport development, there is a rapid increase in the number of passenger cars equipped with automatic transmissions (AT). This is especially true for B-class cars - city vehicles that are actively used both by private individuals and in the commercial sector (taxis, car rentals, company vehicles, etc.). Reliability and ease of operation in dense urban traffic makes automatic transmissions an attractive alternative to manual transmissions. However, the complexity of the design and sensitivity to operating conditions lead to increased requirements for maintenance and repair of such units.

Amid the overall growth in demand for automatic transmissions, service stations are increasingly facing the need for highly specialised services. Universal approaches to transmission repair are becoming ineffective due to the variety of designs (hydromechanical transmissions, variators, robotic transmissions) and the need for accurate diagnostics of both electronic and hydraulic components.

In this regard, the task of designing and organising a specialised service adapted specifically to the peculiarities of B-class automatic transmissions arises. Such service should take into account the technological complexity of the units, the need for zoning the space for individual repair stages, specific equipment requirements, as well as safety and environmental standards.

High-precision specialised equipment is required to ensure the quality of repair work. It is also important to provide a visual and digital system for monitoring the condition of parts (video endoscopes, laser meters) to reduce the subjective influence of the human factor.

The use of specialised service during automatic transmission repair can reduce the average service time by 20-25% due to process optimisation, improve the quality of diagnostics and reduce the number of repeat visits, reduce the volume of consumables due to accurate defects, and increase the profitability and competitiveness of service stations.

In addition, the introduction of such a service allows us to gradually expand the range of services for automatic transmissions of other classes (C, D, SUVs), while remaining a highly specialised centre with high-quality technical equipment. The development of a specialised service for the repair of automatic transmissions of B-class passenger cars is a relevant and promising area of car service development. This approach helps to improve the efficiency, reliability and safety of the repair process, meets modern requirements for environmental friendliness and workplace comfort, and contributes to customer confidence and the overall development of the industry.