

LIFTING EQUIPMENT FOR REPAIR SHOPS

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Lifts are used to lift the vehicle above the floor level to the height required for ease of maintenance or repair.

Lifts can be single- or multi-plunger with a lifting capacity of 2...12 tons or more. A hydraulic single-plunger lift consists of a hydraulic cylinder 1, platforms 3, a pumping station 4 and a safety rod 2. The platform consists of a cross member and four grab beams.

Electromechanical stationary lifts can be one-, two-, four- and six-post with a lifting capacity of 1.5...14 tons or more. This group of lifts uses screw, chain, cable, cardan or lever-joint power transmissions. The lift is driven by an electric motor.

Single-post lifts have a lifting capacity of up to 3 tons, by type of installation they are stationary and mobile, by type of drive - electromechanical and electrohydraulic, by design - with a lifting platform and with a lifting "paw". Stationary two-post lifts with an electromechanical drive consist of two posts, four beams with tiebacks and a support frame.

Group electromechanical lifts with the possibility of individual movement of each rack, electric drive for lifting beams with grabbers, are called "lift-set of mobile racks." Their use is advisable for large-sized vehicles (for example, for simultaneous lifting of all parts of an articulated bus). The raising and lowering of all racks is controlled from a mobile console, ensuring their synchronous operation.

Four-post stationary platform-type floor lifts have centralized control when lifting a double-track platform. The platforms are available with one-way access with wheel stops in the working position, as well as double-sided drive-through type. The choice of a four-post platform lift is determined by the geometry of the production area.

Stationary scissor lifts are electromechanical lifts with a hydraulic power element. Special lifts, having a similar power element, can be mobile and designed for vehicles weighing up to 3 tons.

Ditch lifts are used to suspend the front or rear axle when working in ditches. Such lifts can be hydraulic, electromechanical, with one, two or four posts and replaceable lifters. Ditch lifts have a load capacity of up to 4 tons and a lifting height of up to 60 cm. The drive can be either manual or electric.

The advantages of lifts over inspection ditches include the following: more rational use of production space; high labor productivity of workers; providing free access to most components and assemblies of the vehicle; possibility of installation on the second floors of buildings.

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