









Technological Line

HERKULES TRUCK SYSTEM™

UNDERFRAME REPAIR



HERKULES RAM-TRUCK cat. no. 8800

System for carrying out post-accident and operational repairs of damaged underframes of commercial vehicles. A set of devices, the basis for which is a grate permanently embedded in the workshop floor, allows for effective, ergonomic and safe straightening. The basic set includes horizontal presses, bolts, ejectors, C-clamp set as well as fixing and supporting accessories. Each set is equipped with chains and tow books



CAB REPAIR



HERKULES CAB-TRUCK cat. no. 8500

A system for carrying out post-accident repairs of commercial vehicle cabins. A set of devices, the basis for which is a grate embedded permanently in the workshop floor, allows for effective, ergonomic and safe straightening of both the floor of the cabin and its upper part. The basic set includes the fixing system of the repaired cabin, towers and supplementary equipment. Each set is equipped with chains and pull handles.



AXLE, UNDERFRAME AND WHEEL ALIGNMENT - MEASUREMENT



HERKULES TRUCK-EXAM cat. no. 8900

The device is designed to check and measure all necessary parameters of the chassis, axles and frames of commercial vehicles. It can be used both at post-accident repair stations, during mechanical repairs and diagnostic testing. In the basic version it functions as a device for measuring and adjusting wheel and axle alignment. After retrofitting the frame shape accessories, its use expands to the detection of frame curvature.

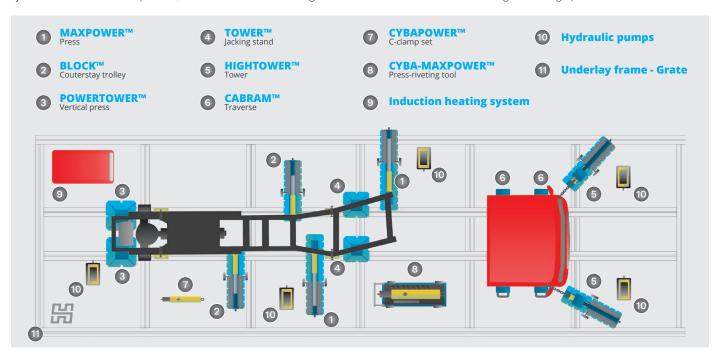


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HERKULES TRUCK SYSTEM™

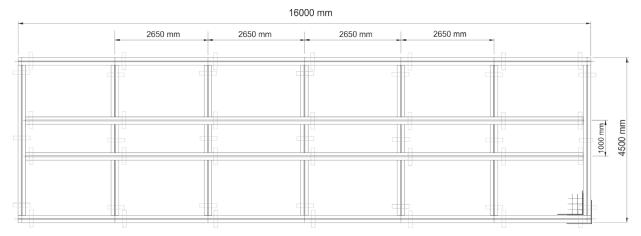
HERKULES TRUCK SYSTEM™ UTILITY VEHICLES REPAIR STATION

The vehicle repair system for utility vehicles cooperates with a supporting grate embedded in the floor. Basic elements of the HERKULES TRUCK system such as: horizontal presses, vertical towers and blocking assemblies are fixed in the slots of the grate during operation.



UNDERLAY FRAME - GRATE cat. no. 8855

The optimum dimensions of the grate intended for ergonomic repairs of all types of utility vehicles are 16 m x 4.5 m. It is possible to use HERKULES TRUCK system devices for grates of other dimensions, but this requires consultation with the manufacturer or the manufacturing of a special version of the devices.



The fixing system uses slots in the grate. This allows effective, reliable and fast fixing of individual work components anywhere in the station.





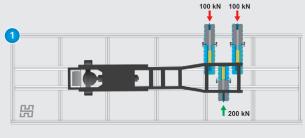
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Technology

HERKULES TRUCK™

THE PROCESS OF STRAIGHTENING OF VEHICLE'S SUPPORT FRAME IS DIVIDED INTO THREE STAGES:

1. Straightening the lateral curvature, **2.** Straightening the sprain, **3.** Straightening the diagonal curvature. This process is repeated to achieve the expected results.



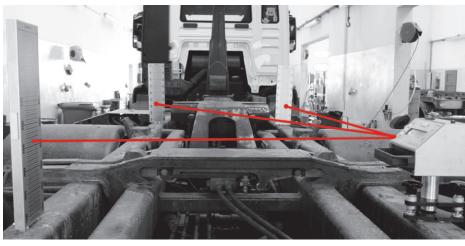


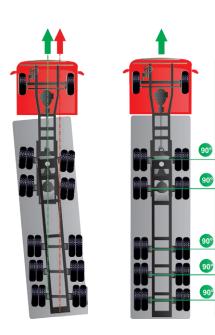


The purpose of straightening the vehicle support frame is to restore the original shape and mechanical parameters it had before damage. One of the most important properties of the frame which one should pay attention to is perpendicularity of installing fixed axles to the central axis of the support frame. Owing to that it will be possible to easily set the alignment of all axles and wheels so that the vehicle will move properly.

TORSION MEASUREMENT

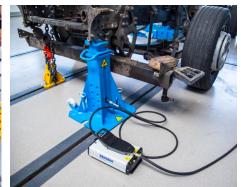
In the final stage of straightening it is necessary to use measuring devices, which will allow easy detection of the curvature of the frame axis and its individual components. The shape of the frame has a direct impact on the alignment of wheels and axels.











System of utility vehicle frames repair

HERKULES RAM-TRUCK™



The repair system for utility vehicle frames HERKULES RAMTRACK $^{\rm IM}$ is based on a support grate embedded in the garage floor.

It is necessary to apply induction heating during the straightening process. It protects the material against breaking its structure and makes restoring the original shape easier.



Roll holder mounting of the vehicle frame during repair.



CYBAPOWER ™ is a type "C"

after straightening.

press used, among other things, for removing excess material

An additional trolley for work on inspection pit.

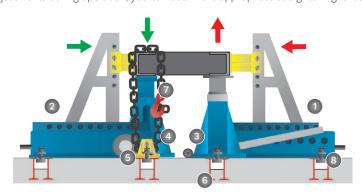


POWERTOWER ™ and MAXPOWER ™ are rectifying presses (vertical and horizontal) intended for frame repairs.



STRAIGHTENING FORCES

Hydraulic presses are equipped with high-quality elements of power hydraulics with very high parameters. Thanks to the appropriate assembly technology and adjustments during operation, you can obtain the appropriate straightening forces.



- **MAXPOWER™** Press
- 2 BLOCK™ Couterstay trolley
- **POWERTOWER™**Vertical press
- 4 TOWER™ Jacking stand
- Uchwyt rolkowy
 Roll holder
- **1** Łańcuch z hakiem
- 8 Kotwa mocująca

6 Underlay frame - Grate





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Utility vehicle frames repair system

HERKULES RAM-TRUCK™

SYSTEM EQUIPMENT

Strength devices are powered by pneumatic-hydraulic converters. The repair system can be additionally equipped with a set for disassembly of bolts and sleeves, a set for straightening the sides and a fixing and repair system for SUV, delivery, off-road and passenger cars. The repair system can be additionally supported by measuring instruments for frame shape and cabin testing and the geometry of the suspension system.



Vertical press

POWERTOWER™



Jacking stand **TOWER™**



Press MAXPOWER™



Couterstay trolley **BLOCK™**



200kN spreader **KIT 200™**



100 kN press

SMARTPOWER™



240 kN press

CYBAPOWER™



For SUV, off-road, delivery **HERKULES MOBILE™**

MAXpoweR[™]ALU 240 kN



MAXpoweR™ ALU 240 kN is the new lightweight horizontal press for repairs of damaged underframes of commercial vehicles.



Press, riveter CYBA-MAXPOWER™ 400 kN

The press-riveter is intended for frame repairs at break and buckling points. It can perfectly be used as a "cold riveter".



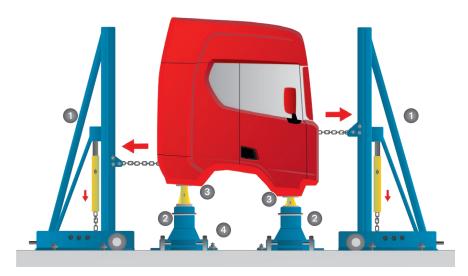
Utility vehicle cab repair system

HERKULES CAB-TRUCK™

HERKULES CAB-TRUCK ™ is a complete system for conducting post-accident repairs of utility vehicle cabins. Repair equipment is fastened to the supporting grate embedded in the service floor. The system allows you to repair both the floor board of the cabin as well as the upper area.



The cab is attached to the floor system using specialized sets of handles. The handles are selected depending on the chosen configuration. The set also contains universal mounting brackets.



























COMPLEMENTARY DEVICES AND TOOLS

When repairing cabs, it is necessary to use tools for panel repairs such as welding machines and solder guns. For the construction of cabins of modern utility vehicles similar steel alloys as in the case of passenger cars are used. Using analogous repair technologies becomes indispensable and profitable at the same time. For more information refer to our basic catalogue. The cab is attached to the floor system using specialized sets of handles. Handles are selected depending on the chosen configuration. The set also contains universal mounting brackets.



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TRUCK-EXAM WHEEL ALIGNMENT TESTER TM





TRUCK-EXAM is an electronic-laser device fo rmeasuring the alignment of the utility vehicle suspension system. Vertical angles are measured electronically and the measurement signal is obtained from high-quality miniature inclinometers. The measuring heads in the latest version are also equipped with miniature gyroscopes allowing for wheel torsion measurements. Horizontal angles are measured using an optical method with semi-conductor lasers.

TRUCK-REPORT™

TRUCK-REPORT ™ is a computer program designed for cooperation with all types of EXAM ™ devices. The TRUCK-REPORT ™ application facilitates measurement and cataloging customers, measurements and repairs made as well as printing protocols.





TRUCK-EXAM ™ device system trolley can be equipped with a handle for a laptop computer, on which TRUCKREPORT™ measurement program is installed.











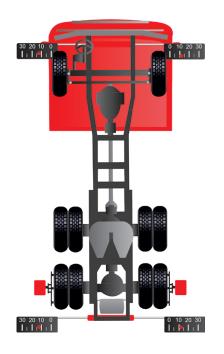


Wheel and axle alignment

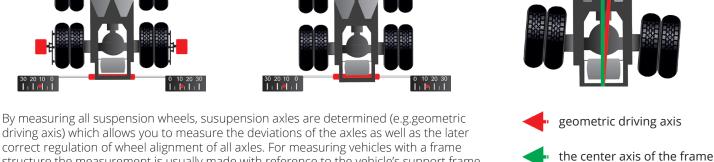
TRUCK EXAM™

Alignment has a direct impact both on the safety of moving vehicles and the economy of driving. This is no different in the case of utility vehicles and the possible economic aspect is highly significant, as it concerns the cost of tires, fuel consumption and suspension components. It is often a more complicated matter in the case of these vehicles, as they have multiple axles.

structure the measurement is usually made with reference to the vehicle's support frame.







MAGNETIC CLAMPS

runout



TRUCK-EXAM ™ is equipped with runout magnetic clamps, which makes it possible to shorten the measurement to a minimum. The device can be equipped with accessories facilitating the installation of symmetry rulers.

GYROSCOPE MEASUREMENT OF TURNING ANGLES

electronic-microprocessor



TRUCK-EXAM ™ is equipped with an electronic, automatic system measuring horizontal angles. Accuracy and repeatability of results are ensured by top class angle sensors and micro gyro systems. Horizontal angles are laser-measured.

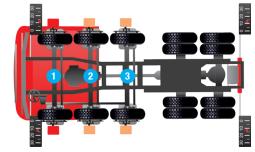
Wheel, axle and frame alignment

TRUCK EXAM™



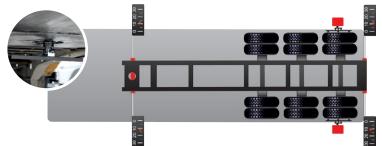
MEASURING VEHICLES WITH MULTIPLE TORSION AXLES

In order to measure wheel alignment of the suspension of vehicles with multiple torsion axles, you must use as many turntables and clamps as the number of torsion wheels measured. Turntables are necessary for the correct measurement of turning angles and kingpin angles.



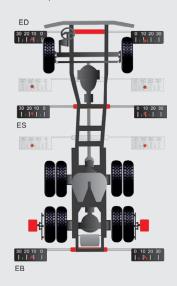
TRAILER AND SEMI-TRAILER MEASUREMENT

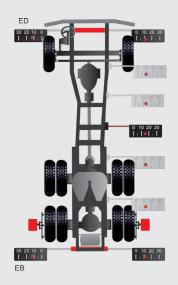
The basic set of each TRUCK-EXAM ™ set includes adapters for mounting symmetry rulers on the trailer and semi-trailer chassis. These vehicles are measured relative to their fastening point to the towing vehicle.



FRAME ALIGNMENT MEASUREMENT

TRUCK-EXAM $^{\text{M}}$ can be equipped with a set of accessories for measuring the frame geometry of utility vehicles. Measurements can also be made with a special device set called RAM-EXAM $^{\text{M}}$, which is a specialized tool used independently of the devices for wheel and axle alignment. It is an excellent complementary equipment for vehicle frames repair stations and can be used for diagnostics.

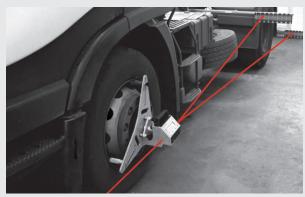








FRAME AXIALITY MEASUREMENT



FRAME MEASUREMENT SET



AN INVESTMENT IN THE FUTURE



The moment of investment planning is the best moment to choose post-accident repair lines



Carrying out of the design of repair and measurement of frames, cabins, semi-trailers and trailers



Installation of the supporting grate and constant investment supervision



Delivery of repair and measurement devices as well as staff induction and training

TECHNOLOGICAL LINE

HERKULES TRUCK SYSTEM™

The utility vehicle market is very interesting not only because of the number of vehicles moving around our country, but also the position of Poland as one of the leading carriers of goods in Europe. Investing in the HERKULES TRUCK SYSTEM ™ technological line provides comprehensive management solutions for post-accident and operating repairs and diagnostics of utility vehicles. Thanks to 25 years of experience in the organization of workshops and production of devices, we have solved problems regarding service planning for vehicles above 3.5t, mainly related to organization, technical conditions, technology and construction.







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