





WHEEL BALANCES AND MOUNTINGS

RAISING HEAVY VEHICLES

Good car lifts are convenience and safety that do not have to cost a lot - so choose?

For delivery vehicles, the popular solutions are 2-column lifts with a higher lifting capacityand a greater range of arms work as in the case of passenger cars. The most commonly sold 2-column hoist from our offer is the **Nortec PD5000** hoist. It is an electrohydraulic lift with mechanical synchronization and height locking equipped with 3-part arms with a range of **1800 mm**. The offer also includes a lift that complies with the requirements of the VW Group with a lifting capacity of 5.5 tonnes. Selection of the lift model

The 2-column is dictated primarily by economic considerations, but also by limited space. Due to the popularization of off-road vehicles with a significant own weight, it is more and more often that lifts with a higher lifting capacity are used. We also noticed that in authorized services lifts

2-column cranes with a lifting capacity of 5 or 5.5 tons become the standard. A more expensive solution is a scissor lift

or a 4-column lift. They require more space,

Nortec PN500N

on the other hand, enabling a wider range of service activities, such as testing the suspension geometry. An additional advantage of the scissors lift is the recovered space after it is completely assembled in the moat. We noticed that both types of lifts are more and more willingly chosen in versions with extended platforms, ie 5–6 m. As one of the few, we have in our warehouse offer 4–column and scissor lifts with such parameters. The bestseller of this assortment is the





(Photo Managing director **Beata Broczkowska**)

lifting capacity 5 tons and platforms with a length of 5600 mm

as standard equipped with hydraulic jerk, recesses for turntables, expansion plates and axle jack.

The advantages of this lift are certainly ease with which the vehicle is introduced to the work station, but also additional equipment: a hoist, necessary for work requiring the release of the axle, support of moving parts of the vehicle during their dismantling or typical maintenance work; a sling for checking the suspension; recesses for turntables and expansion plates for testing and adjusting the

suspension geometry. His alternative in the 4-column version is the electro-hydraulic lift **Nortec P0450G3** with a lifting capacity of 4.5 tons and a platform length of 5200 mm

with selections for turntables and expansion plates as standard and optional axle hoist.

More and more often, due to the very attractive price / performance ratio of the lift, customers choose 4column lifts with lifting capacities 8

and 12 tons. These are respectively **Nortec P0800F** and Nortec P01200F, which are popular mainly in authorized service trucks and lorries.



(Foto. **P0450G3**)

An interesting proposition for servicing heavy goods vehicles is a mobile column lifter that allows work also outdoors, provided that a sufficiently durable substrate is provided. In relation with

with the above, as well as due to the lack of preparation of the assembly environment, this is often the chosen solution. The lift is available in electrohydraulic or electromechanical versions and can consist of **4**, **6**, **8 or more columns. In** our warehouse offer, we have electro-hydraulic mobile Maxima column lifts with battery or wired **supply. The standard adjustable fork spacing,** independent or paired column control, parameter control on the LCD display.

TECHNICAL DATA ML4030W:

Capacity: 7,5 t/column

♦ Maximum lifting Height: 1700 mm

♦ Power supply: 24v 2 bateries

(full load)

CURRENT PROMOTION 25% DISCOUNT

ON MAXIMA ML4030



PANTOGRAPHIC MULTI-PADING LIFT

NORTEC HDY2500 has a unique hydraulic perpendicular lifting system and advanced precision control of the device to ensure perfect synchronization of hydraulic cylinders and smooth lifting and descent of the lift. The NORTEC lift is designed for assembly, repair, maintenance, oil change, washing and other servicing of commercial vehicles, such as public transport vehicles, coaches and lorries, etc.

FREEDOM TO CARE FOR VEHICLES

The platform construction of the **NORTEC HDY2500** enables the mechanic to: work freely under the lift; ease of use with a compact control panel and self-diagnosis system; increased safety and independent mechanical interlock with built-in overload mechanism

The absence of hanging elements, crossmembers and the foundation frame and four independent brackets guarantee the mechanic an optimal working space under and around the hoist. Each lifting platform is equipped with two cylinders, one at each end. The lift is also equipped with an independent electric układ sterowania, hydrauliczny zespół napędowy czy urządzenie awaryjnego opuszczania w przypadku np. awarii zasilania. Ramię nośne typu "Y" znacznie

increases rigidity of the platform and simplifies the external structure of the lift.

MULTIFUNCTIONAL AND MULTIPURPOSE AND VERY EFFECTIVE

NORTEC HDY2500 is not only suitable for many types of vehicles, but also works

in various workshop conditions. If you already have a workshop and want to renovate it then the best solution will be to equip it

in the platform lift **NORTEC**, which for proper operation requires only the preparation of the right substrate or already existing will meet such requirements. Electronic and hydraulic control systems managed from the control box

with LCD display significantly simplify everyday use. **The HDY2500** lift ensures smooth lifting and lowering of the vehicle, even when the load on the platforms is not proportionally distributed. In addition, if you need to operate vehicles with trailers, it is possible to mount two lifts one behind the other, giving the possibility of servicing vehicles over 24 meters in length!





DISPLAY LCD



CONTROL BOX

GUARANTEE OF SAFETY:

The lift has a mechanical lock for pneumatic releasing height. It is equipped with limit switches of the maximum height and locks preventing the vehicle from rolling off the platforms after lifting.

In the event of a power failure, the lift can be lowered by turning the lower adjustment knob. In addition, the lift is equipped with protection against overvoltage and thermal overload of the motor.



CONDUCTING THE WORKSHOP - IMPORTANT ASPECTS

It does not matter if we are just starting to start our small workshop or if we are the owner of a large service - without a lift or moving it. But what do you do when you do not have too much space? What devices to use to offer vulcanization services, do not spoil the customer's wheels? How to properly wash the oil and which devices will help us in this?

We talked about this with Coframa's Commercial Director, **Mr. Lucjan Krakus.**

According to the survey carried out on the warsztat.pl portal, the vast majority of car workshops belong to the "small" category. It usually involves with an extremely limited space for a lift, which is essential for a mechanic at work. What solution can you offer?

In the picture below, we see the use of PN3000A.

The Nortec brand is not just lifts - it's a whole range of professional workshop equipment. Which of them are particularly useful

There are many factors that favor the opening of small workshops. First of all, funding for the opening of the first activity, where the mechanic purchases the basic workshop equipment for a certain amount: a compressor, a lift, balancer, tester and a tool trolley. This type of workshops are opened in home garages with rooms. Here, in fact, the customer

should choose a jack so that it takes up little space and is versatile. Our flagship hoist is the two-column Nortec **PD4000N**. It has long arms, thanks to which it is suitable for small cars like

and light commercial vehicles. While

in the absence of space and general use, we see an increasing interest in high-lift scissor sub-carriers. Ideally suited for vulcanization as well as major works. Thanks to their small dimensions, they do not take up practically any place after folding. It is a range of NORTEC lifts. Professional series **PN3000A, PN3000C, PN3000D**.



in really any workshop, what is the obligatory equipment and (at one and the same time) the most popular among your customers?

As sales shows us, the most popular equipment in the workshop and the first one that is bought is a lift, without it we will not do anything. In the offer, the manufacturer Nortec has a whole range of lifts: from the simplest, two-column type **Nortec PD4000N** to dedicated lifts, eg for vans **(PN5000)** with a lifting capacity of up to 5 tons. Next you can replace the scissor lift or 4-kolumnowe.

After purchasing a lift, which is the beginning of an adventure with a workshop, the customer buys geometry setting equipment. Here, I especially recommend the **NORTEC GEOMASTER 2D** device,



WHEEL BALANCER NORTECWB600.

which is manufactured in an Italian factory in Bologna and is characterized by high accuracy of measurement and at a very affordable price. Our tire handling equipment is very popular. The manufacturer NORTEC has a whole range of devices of this type: from the simplest balancing machines **WB220** to machines that support / facilitate the work of the mechanic. It is worth to say, for example, about a laser pointing to the place where the weight is attached with an additional measuring arm, thanks to which all measurements are introduced automatically. These features have a **WB600** and **W060** machine in which an interesting addition is LED light, through which we see the center of the rim and we can see with the naked eye various damage or losses.

Where do the large differences in individual workshops come from if we are talking about even a seasonal tire exchange? Is part of the blame on the side of not very professional equipment, which can, for example, destroy the customer's rims? So what equipment should you choose to ensure the highest quality of service?

The subject is quite well known to me, because I often meet with different prices of tire replacement. Sometimes the differences reach even 100% - where does it come from? A large workshop, specialized in tire replacement, does not only replace, but also repair or support TPMS sensors. Professional machines can also cost a lot. In the Norteca offer we have such machines as the MO420, MO405 tire changer or balancers with the higher options: WO41, WB300, WB600 or W060. Large workshops have additionally qualified staff, which is also not cheap to maintain. They can not count on subsidies too much. In other words, fixed costs are guite high and the cost of the service (in my opinion) must be well estimated. Small single or double workshops have much cheaper machines, often from co-financing. Fixed costs, obviously, are much lower, the location of such points is different (usually they are located somewhere off the beaten track). Then such a workshop can tempt you with a much lower price. However, if the workshop wants to exist longer than the proverbial "minimum from subsidies", then it also has to invest to develop. Then it becomes a medium or large point and (analogously) the prices of services must increase. Are the services performed badly? In my opinion, it depends a lot on who does it.

In our offer you will also find dozens of products related to one from the most basic service activities - oil change. What would you especially recommend to the workshop?

In fact, our company started its adventure in automotive from oil equipment. At one time, however, they were very simple sets: a pump, a **Nortec 55014PRO** type flow meter and actually, these types of devices are selling to this day. The basic equipment should be distinguished with suckers (Nortec 99294I) or zlewarki (Nortec 2065I). Today, these "big" customers are more demanding and want to have full management of the oil system. Nortec offers tailor-made solutions. I have a lot of experience in designing and performing the entire technological sequence of managing new or used oils. We make them mainly for MZK, PKS, large transport companies or authorized stations of car manufacturers or agricultural machinery. Such a system is closed and the mechanic, to get any amount of oil, must enter the order number, his ID number. Each oil collection is recorded on the computer and everyone can at any time see the consumption of liquids. Our specialized department is able to write a program for managing oils in such a way that it works with the system located in a given service or station. This is very helpful and significantly facilitates the control and accounting of oils between mechanics, warehouse, customer service and invoices.

Does the client "end the adventure" with your company when you buy the equipment or does it need additional training and consulting? Are you also involved in the installation of, for example, an ordered lift? How does the whole process look like?

The purchase of devices is just the beginning of cooperation with us;)

Thanks to our very good advice and very high quality of equipment, customers who have contact with our company always come back for more devices. Please remember that the car workshop, in order to exist on the market not a year or two, must constantly invest. Some owners look for additional services, but for this they need newer (or simply other) devices. A customer who once bought a lift, today buys a balancer, a tester tomorrow and a device for geometry next year. It should be mentioned that this is also due to our service, which (if necessary) will assemble the purchased equipment or conduct training. Our 4 service teams are available to customers throughout the 7-day week. Customers just appreciate it!



(Photo Commercial Director **Lucjan Krakus**)

WASTE OIL DRAINER

Used oil is no longer a problem for which it is difficult to develop a place. In our offer you can also find waste oil drainer.

Nowadays, it is important to care for cleanliness, ecology and ease of work, it is essential to maintain such rules even in the simplest activities such as changing engine oil. Our zacharko-wysysarki have been designed in such a way as to make the mechanic's work as easy as possible. Thanks to the use of torsion wheels, these tools are mobile, have capacious tanks capable of holding several to several dozen cycles of exchanged used oil. The tanks are emptied by hypertension. Each model is equipped

in a set of probes that allow the exchange of used oil, even when access is difficult, through the socket of the oil level ruler. The ZW9065 Zleink is equipped with a drain chamber located on the pantograph with a capacity of 65 liters, it allows for oil change without lifting the vehicle! The bathtub has been designed in a way that allows it to be lowered to the level of the floor, thanks to which the aforementioned operation is possible.

WASTE OIL DRAINER MODEL: 10900

- ◆ POWER PRESSURE (7-8 bar)
- ◆ WITH 6 PROSETS (FLEXIBLE AND METAL)
- ◆ REFLOW LEVEL INDICATOR
- ◆ DRAINING EMPTYING (max. 1 bar)
- ◆ CAPACITY OF THE CONTROL TANK: 8L
- ◆ CAPACITY OF THE SINK MINE: 18L
- ◆ CAPACITY OF THE TANK: 90L





WASTE OIL DRAINER MODEL: ZW9065

- ◆ POWER PRESSURE (7–8 bar)
- ♦ WITH 6 PROSETS (FLEXIBLE AND METAL)
- ◆ REFLOW LEVEL INDICATOR
- ◆ DRAINING EMPTYING (max. 1 bar)
- ◆ CAPACITY OF THE DRAIN BATH: 65L
- ♦ CAPACITY OF THE TANK: 90L

MONITORING WITH DISTRIBUTION INSTALLATION IN EVERY SIZE

In each car workshop it is necessary to manage the expense of consumable fluids

for obvious economic reasons, but also ecological and logistic, and the distribution installation combined

with monitoring is the right tool for control in all these aspects. In reality, however, such installations are performed mainly in plants where specific procedures for accounting for used materials are already implemented and are required to be followed. For this reason, our most frequent customer are bus depots and authorized services with the only difference that in the depots the most important element turns out to be practicality and solidity of performance and in authorized service stations, additional minimalism and aesthetics.

The main element of liquid management is **INSTALLATION**. In the case of oil distribution, it is usually made of copper pipes or rubber hoses. Other materials used are pipes

polypropylene for washer fluid and radiator fluids or special elastic hoses for AdBlue transfer. In terms of cost, this is one of the most important elements of the valuation. Sometimes, the user,

in the search for savings, he independently selects, arranges and connects the wires, but the end result is opposite to the intended – when the system is started, it turns out that the installation does not meet strict requirements and needs to be improved. Experienced and responsible representatives of the Coframa company always advise installation by professional technicians.

DISTRIBUTION from tanks to the place of issue is carried out using pneumatically or electrically powered pumps usually installed in a warehouse with tanks. The number of pumps depends on the type and quantity of liquids as well as the investor's assumptions related to the monitoring of the issue. Most pneumatic pumps are proposed for most media because of their negligible failure rate, safety and high work culture (Figure 1). The AdBlue distribution is carried out using electrically powered pumps, mainly for economic reasons, but also for reasons related to the specificity of a

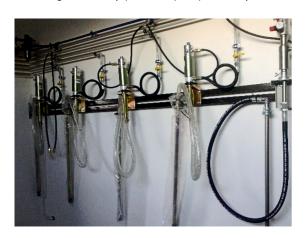




Fig.1

fluid with specific corrosive properties. **MONITORING** allows you to control the dispensing of given amounts of liquid by authorized persons. The system works under the supervision of a PC with software installed in a unit or server version depending on the license ordered. The central unit in the basic version can supervise the issue of up to 8 defined fluids, where the number of stations will be a multiple of them. Authorized people can spend a certain amount of medium from any position using the access code, magnetic card or chip. Fluid dispensing is controlled by electrovalves and measured with flowmeters. Information about the operation performed is recorded in the database. The program

allows you to view and search registered operations and performs the list according to the needs of the user (Figure 2). Selected operations can be printed or generated to a file. The system informs about the state of the level of liquids in tanks and counts the quantities of liquids dispensed in the adopted time frame.

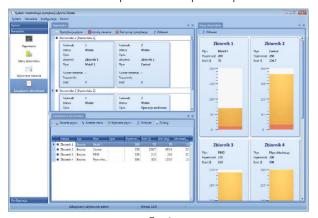




Fig.2

Fig.2

 $For many \, customers \, INTEGRATION \, is \, key \, with \, their \, storage \, system. \, monitoring \, in the interest of the storage \, system \, and \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, and \, system \, are the storage \, system \, are the storage \, system \, and \, system \, are the storage \, system \, are the storage \, system \, and \, system \, are the storage \, system \, are the storage \, system \, and \, system \, are the storage \, system$

in the Coframa company, it gives the opportunity as long as the programs have open access or their producer will enable it

in the desired range.

Another important problem related to the circulation of liquids in a car workshop is the management of used oil. It is not a medium requiring monitoring, but also here a number of solutions are used to facilitate its distribution and control. The oil removed from vehicles is usually directly poured into channel baths or sucked off using vacuum devices. Collected oil is transferred to the used oil tank using a pneumatic pump installed in the duct or at the distribution station (Figure 3). The recommended double-shell tanks are standard equipped with leakage sensors and optionally also with level sensors and continuous status check with a shut-off valve in case of overfilling.

Widely understood monitoring is also aesthetics. In bus depots with a larger space, free-standing solutions, including oil cabinets, are used (Fig. 4). Minimalism prevails at authorized stations and car workshops, hence oil bars are most often mounted (fig. 5) or directly on the walls with reel shutters (Fig. 6)



Rys. 4



Rys. 5



Rys. 6

BENEFITS OF COFRAMA MONITORING

- professionalism and maximum adaptation to the specific needs of the client
- competitive offer that gives a positive answer in most inquiries from public tenders
- cooperation with warehouse programs installed at the client's
- wireless communication, any user identification, barcodes and more.
- corresponding optional equipment in the form of suckers, bathtubs, pallets, tanks, etc.

TYRE CHANGER AND WHEEL BALANCING

Another important step when it comes to workshop equipment are tire changers and balancing machines. For this purpose, special purpose machines are used to facilitate work with heavy wheels. Which fitting and balancer should you choose?

The Nortec **MC605** is one of these mounters, it has been designed and intended for mounting and dismantling tubeless tires. I service wheels without problems in trucks, buses and construction machines. The advantage of this fitting is the pressure plate and the claw placed on the rotating head (with two speeds of rotation) allowing for a guick change of the working tool. Specially profiled plate zbozak allows for efficient disassembly and assembly without the risk of damage to the rim / tire. The **MC605** is also equipped with a mobile platform for quick and precise wheel alignment, a 4-jaw self-centering handle and a mobile wired control unit. The whole is powered by a safe voltage (24V) which eliminates the risk of electric shock to the operator. There is also a larger version **MC705** for agricultural machines.



TYRE CHANGER NORTEC MC605



WHEEL BALANCER NORTEC WC2130

The **Nortec WC2130** balancing machine has been created

for International Road Transport. It is used primarily for balancing **truck wheels**. Of course, the service of delivery vehicles and passenger vehicles is not excluded. Its unquestionable advantage is the pneumatically lifted elevator facilitating the placement of a heavy wheel on the balancing roller. **WC2130** is equipped with automatic wheel braking, automatic START / STOP

with active protective hood. The balancer has an autodiagnostic program that allows easy detection of defects, auto-calibration and change of units per inch and ounces. The set includes a number of cones and a flange enabling the balancing of wheels with different diameters and rim construction.



AIR CONDITIONING - LAND WINTER IN THE SUMMER

Spring has visited us extremely fast, and the summer is fast approaching so it would be worth to take care of the maintenance of air conditioning in vehicles. Everyone remembers to change the engine oil in the car, unfortunately this is not the case in the case of air conditioning in vehicles, it is often overlooked and neglected, and also has oil that is consumed ...

Today it is difficult to imagine a car without air conditioning. Gentle, wet winters and hot summers often force you to use this device throughout the year. It not only helps to cool the interior, but also is responsible for the clarity of the glass, removing it a pair of it. Everything provided that the air conditioning is working. For that to be the case, regular service is required. The main symptom of a failure in the air conditioning system is the lack of cooling, ie the lack of cold air into the car's cabin. Other, very common symptoms are steamy windows and unpleasant odor coming out

from ventilation system openings. It is more difficult to notice such symptoms as increased noise levels or increased fuel consumption, especially in well-muffled premium cars.

Inefficient cooling of the air is usually caused by the lack of refrigerant or too little in the system. In the case of insufficient quantity, some air
conditioning systems simply stop working – the
compressor will not turn on. The windows start to
evaporate because the air conditioning is not activated
and does not dry out the air that is sucked in from the
outside into the cabin. This causes moisture to
accumulate inside the vehicle. For the same reason
unpleasant odors appear in the cabin, although in this
case it may also be caused by contamination of the
entire ventilation system. Noise and increased fuel
consumption may be a sign of problems with the
operation of the air-conditioning compressor,
expansion valve or non-functioning condenser fan.



ECK NEXT is a new model designed for different types of refrigerants. Future–proof and top–quality components make **ECK NEXT** a fully automated highend service station for recovering, recycling and charging R134a or HFO1234yf refrigerants after selecting the right equipment. The air conditioning station is very easy to use with a 5 "touch screen"

with the Polish menu. Thanks to modular functions, the device can be configured to meet the most specific needs. Optionally, by means of a gas analyzer, it detects various components of the refrigerant and provides a percentage of them. What's more, this innovative solution offers the benefits of an external analyzer (it does not contaminate the airconditioning station). The hybrid kit and Wi-Fi module complements the optional key points of this machine. Specially designed by The Ecotechnics C.A.R. (Compressor Assisted Recharge) allows fast and

accurate gas charging even at high temperatures. Advanced technology based on an innovative electromagnetic valve system, allows **ECK NEXT** to use 20% less energy than previous models. The futuristic look was created by an expert designer in the motorcycle industry. The machine's functionality has been developed based on the experience of countless workshops organized by Ecotechnics over the years. As a result, the machine is easy to service: The time it takes to dismantle the control panel is less than 30 minutes and less than 2 minutes to remove the plastic covers that give access to all internal components of the device. **ECK NEXT** ensures excellent maneuverability through a considerable axial distance between two wheels.

CONTROL PANEL



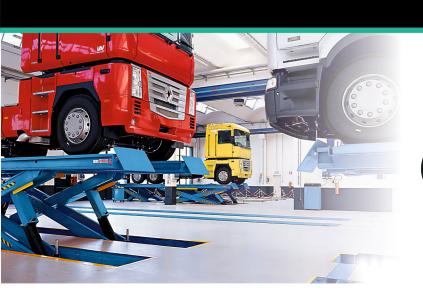




ECK NEXT

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