



NEW HOLLAND

RG140.B



NET HORSEPOWER (SAE J1349) 40 to 160 hp (104 to 118 kW)

BASIC OPERATING WEIGHT 14.605 kg

MAXIMUM OPERATING WEIGHT 16.395 kg



RG140.B

The strength of New Holland globally is in the high technology level, efficiency, and quality standards of their machines. The local solutions that New Holland introduces to the segments in which it operates consolidate the excellence of its brand in the global construction market.

The RG140.B grader is a machine whose high levels of technology and efficiency set it apart, with very accurate hydraulic controls, chassis articulation in front of the cab, 'roll-away' central blade with an involute curve, and electronically controlled smart transmission.

Its design is modern and functional. The cab and rear hood have rounded lines and a bold style that combine harmony and solidity, providing easy access for routine maintenance.

The RG140.B is a product that meets international quality standards, is acknowledged to be very productive, and has the global strength of New Holland behind it.



POWER

New Holland has designed the RG140.B grader's power train to withstand the most severe strain, because earthmoving activities require machines that are sturdy and very powerful, and have a high tensile load capacity. This assembly is completely built-in, offers great resistance, increased durability and, especially, a large work capacity.

New Holland offers a 6.7 L engine, with dual power band, Tier III pollutant emission certification, and intercooler. This engine performs better and costs less to run because of the accuracy of the electronic injection management system.

The high level of technology in electronic engines includes indicator lights for their diagnosis. These enable the operator or maintenance technician to detect faults by means of codes displayed on the panel, or by connecting a laptop to the on-board computer.



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POWERSHIFT TRANSMISSION

The RG140.B grader has electronically-controlled automatic Powershift transmission, connected to the engine by a torque converter system that is equipped with Lock-Up. The Lock-Up enables torque converter locking, which transforms the transmission into a direct drive system.

This means that the RG140.B grader has all the benefits of the torque converter, which is ideal for operations that require high tractive force, such as cutting hard ground and heavy ripping, with the benefits of direct drive, which is ideal for operations that require constant speed and fixed movement control, such as finishing and precision leveling operations. All this in a single product.

The gearbox has two modes of operation. Automatic mode selects the most suitable gear for the activity that the machine is performing, taking into account acceleration, ground speed, and effort. This mode also automatically changes gear as these parameters change. This enables the operator to concentrate better on his work, without worrying about gear changes.

If the operator prefers, he can set the transmission control lever to manual mode using a switch on the side console. In this case, gears are selected by means of a “bump type” lever, without the use of grooves for gear or direction. It is very simple to operate and the machine obeys the operator's commands.

TRANSMISSION CONTROL UNIT (TCU) ELECTRONIC PROCESSOR TO INCREASE OPERATION ACCURACY

The electronic TCU processor manages all information while the transmission is operating, with greater accuracy at all stages of operation. This optimizes the operation of the assembly and ensures greater productivity, service life, and operator comfort.

The TCU ensures the integrity of the equipment by preventing faulty and incorrect operations, such as the engagement of unsuitable gears or direction changes in inappropriate gears.

The transmission also has a fault diagnosis system that indicates on the panel or on a connected laptop any problems that occur with the assembly. Extremely durable, mechanically simple, and easy to maintain, this transmission offers great reliability and unmatched performance.

GO HOME

This device automatically detects any faults that could limit or prevent the correct operation of the TCU. The Go Home feature allows the engagement of just one gear in each direction and within the suitable speed limit for that gear. This device is important as it prevents the machine becoming stuck in an unsuitable place, enabling its transportation to the workshop.

AXLES

The RG140.B grader's axles have been built for sturdiness and maximum capacity for transferring power to the ground. The front axle is manufactured in a welded steel frame, with high resistance cast iron parts, offering a wide and constant free span of 580 mm along its whole length, due to its straightness. The 12° lateral tilt of the wheels to the right or the left, and the 15° oscillation to each side enable uneven ground to be monitored.

The rear axle is made of cast iron, and the tandem frame is constructed with a rectangular section welded to steel plates. Both have been designed to withstand the most severe strain. It is fitted with a Super Max Trac limited slip differential system, with torque transfer and automatic locking. The tandem oscillation is 20° on each side.



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BRAKES

The RG140.B braking system has two circuits, one for each tandem. The brakes are multi-disk, in oil bath, self-adjusting, and have a long service life.

The foot brake is hydraulically servo-assisted and has two nitrogen accumulators, one for each circuit. These accumulators allow the operator to brake the machine if a fault occurs in the hydraulic system or if the diesel engine stops.

STEERING / ARTICULATION

Gear pump-powered, hydrostatic, orbitrol steering. The steering angle of the front wheels is 42° for both sides and the chassis pivot is 25° to the right or left, which gives a turning radius of 7250 mm.

This small turning radius enables the operator to work in restricted areas more easily and perform operations on winding bends in less time. An auxiliary handle on the steering wheel enables greater agility in maneuvers.

HYDRAULIC SYSTEM

The hydraulic system is load and flow sensing. The pump therefore only provides flow when the operator activates one of the control levers. When there is no hydraulic demand, the pump consumes minimal engine power and the hydraulics run at cooler temperatures, reducing fuel consumption.

The RG140.B grader also comes equipped with a closed center hydraulic distributor, with nine circuit sections, situated in a protected location below the operator platform. This enables new accessories to be mounted without the need to add hydraulic sections to the distributor.



ELECTRICAL SYSTEM

The electrical system is 24 volt and powered by two maintenance-free batteries, of 12 volts each, connected in series, with a total capacity of 100 Ah and situated in an easily accessible place. The RG140.B has a set of front, rear, and blade lights that enable the perfect lighting of the workplace.



OPERATOR CAB

CAB OPTIONS

Enclosed or open, the cab is mounted on the rear chassis. This makes it easier for the operator to perform maneuvers when reversing and check directly how much the chassis is articulated. This means complete safety when working.

ROPS/FOPS ENCLOSED CAB

The enclosed cab is high and has 6.76 m² of glass area. Its design, with all the flat faces and the lowered rear hood, ensures greater visibility. This enables better visual monitoring of work at the rear, using the ripper, and at the front, using the blade or scarifier.

- safety glass
- general switch inside the cab
- front windshield wiper with washer
- internal light
- internal rear-view mirror and two side mirrors
- radio slot, with speaker
- 12 volt electrical socket
- access from both sides
- internal ventilation system with roof baffles for increased cooling
- cup holder
- adjustable steering column
- optional: air conditioning, heater, rear windshield wiper, and rear shade curtain



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T ROPS/FOPS OPEN CAB

This type of cab offers much more protection and comfort than the canopy, because it protects the operator from dust raised by machines in front, as well as small amounts of rain.

- front and rear windshields
- front windshield wiper with washer
- fan
- internal rear-view mirror and two side mirrors
- internal light
- general switch inside the cab
- access from both sides
- ceiling fan
- adjustable steering column



TOTAL OPERATOR COMFORT

The RG140.B grader offers several items for operator comfort: adjustable seat with armrest and headrest, and elastic suspension that can be adjusted to the operator's weight.

The steering console can be fully adjusted to the working position of operators of any stature. The steering wheel has an optional auxiliary handle for steering with just one hand, while the other hand controls the implement. Levers with shorter strokes make controlling all implements easier and more productive.

CONTROLS, MONITOR, AND PANEL

The RG140.B grader has been ergonomically designed, with all the controls and buttons positioned within the operator's reach. The electronic data monitor (EDM) monitors all of the equipment's vital functions, and provides the operator with reliable information on how the machine is running.

The side panel has easy-to-read analog LCD screens, displaying the fuel level, and the engine and transmission oil temperature and pressure.



ACCESSORIES

MORE OPTIONS FOR MORE VERSATILITY

The RG140.B grader offers a series of options to make work easier and increase productivity: front and central blade float, rear hook, reinforced blade corners, blade extension, front push plate, spare wheel bracket, and other items that are already well-known and established on the market.

ROLL-AWAY CENTRAL BLADE WITH INVOLUTE CURVE

The RG140.B's central blade has an involute curve that causes material to roll away, making work easier and reducing the effort required by the machine. This increases productivity and reduces fuel consumption.

As standard equipment, the grader has hydraulically-activated articulation blade movement and tilt, which are indispensable for various types of work. The support lock system, which is operated by a hydraulic cylinder controlled by a solenoid valve, can be activated using a switch located on the panel.

STURDY CONSTRUCTION

The blade is made of highly abrasion-resistant steel, and its teeth and corners are made of boron steel, which has a longer service life. The blade circle is supported on guides with replaceable phenolic resin inserts, which dispense lubrication. Its outer teeth prevent damage to the swivel pinion when poor maintenance has led to the machine being operated with the play set inappropriately. The blade can swivel unrestricted through 360°, which provides many more work alternatives.

REAR RIPPER

The RG140.B grader has a parallelogram rear, which makes it better at breaking up hard, compacted soils.

INTERCHANGEABLE FRONT BLADE

This blade, with a parallelogram mechanism, is fully interchangeable with the front scarifier, which ensures that the machine is versatile in terms of applications.



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SIMPLIFIED MAINTENANCE

The RG140.B's new tilting hood gives ample access for routine maintenance, such as checking the oil level and replacing the oil and air filters. It is easy to check the hydraulic oil level through the sight glass. The filler neck for the fuel reservoir is easy to access, enabling filling from the ground.

ADVICE, TECHNICAL GUIDANCE, AND CUSTOMER SERVICE PARTNERSHIP

New Holland has a department dedicated to guidance and technical advice for its network of customers: the Customer Support Department. It offers its dealers all the support and training necessary to provide every owner of a New Holland machine with a high quality service.

Fully computerized and interlinked with the network of dealers, the Customer Support Department provides real-time technical data, service bulletins, and machine warranty processing. This streamlines and ensures the accuracy of all commercial relationships with the network of dealers and their customers.

Before launching a product on the market, New Holland's engineers and technicians enter the field to train and give guidance to the entire team providing technical assistance for their dealers. The product is only made available for sale after this stage.

Additionally, every time that a product or part undergoes some form of modification or development, the Customer Support Department immediately passes on the relevant knowledge to dealers' technicians and mechanics or, in many cases, even directly to the customers. This keeps the whole team continually updated.



RG140.B



ENGINE

Gross horsepower (hp) (SAE J1995) at 2200 rpm	150/173 hp
Net horsepower (hp) (SAE J1349) at 2200 rpm	140/160 hp
Brand	New Holland
Model	6.7L Tier III
Number of Cylinders	6 (em linha)
Bore and stroke (mm)	104 x 132
Engine displacement (liters)	6,7
Maximum engine speed (rpm)	2.200 rpm
Gross maximum torque (Nm) (SAE J1995)	659/ 758 @ 1.500 rpm
Net maximum torque (Nm) (SAE J1349)	591/ 678 @ 1.500 rpm
Fan	Hidráulico
Hydraulic Type	Diesel, 4 stroke, direct injection, turbocharged



OPERATING WEIGHT (KG)

Machine fully loaded, with operator, fitted with enclosed ROPS/FOPS cab.

Weight: basic machine	14,605
Front Axle	4496
Rear Axle	10,109
Maximum weight	16,395
Front Axle	4854
Rear Axle	11,541



ELECTRICAL SYSTEM

Voltage (V)	24
Number of batteries	2 X 12V
Total capacity of batteries (Ah)	100
Alternator	80 A
Starter / power	Delco / 4.0 kW



TRANSMISSION

Powershift, with torque converter, fitted with Lock-up. Electronic control with 6 forward and 3 reverse gears. Protection against direction reversal, excessive speed and reduction gears. Electronic monitoring of faults and an auxiliary motion system in the event of failure (Go Home).

	Gear Speed (km/h)	Velocidades (km/h)
	Forward	Ré
1st	5,0	5,3
2nd	7,7	12,5
3srd	11,8	28,6
4th	18,2	
5th	27,2	
6th	41,5	



TANDEMS

Frame in welded rectangular section	
Plate thickness (internal/external)	19 mm
Oscillation (on each side)	20°
Drive chain pitch angle	50.8 mm
Spacing between tandem axles	1572 mm
Interchangeable shafts and gears, mounted on tapered roller bearings.	



FRONT AXLE

Frame in housing enclosed with welded high resistance steel plates, mounted with bearings.	
Wheel tilt (right and left)	15.3°
Axle oscillation angle (to each side)	20°
Distance clearance from ground	580 mm



REAR AXLE

Cast iron housing for harsh working conditions.	
Heat-treated steel axles, mounted with tapered rollers.	
Clearance from the ground	374 mm
Differential	Super Max Trac with automatic torque transfer

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CHASSIS

Manufactured in an enclosed, welded housing.

Front

Cross section 254 x 298 mm

Weight per running meter 153.3 kg/m

Rear (each side)

Cross section 121 x 299 mm

Weight per running meter 78.3 kg/m



CIRCLE

Built from a single piece of T-section

Outer diameter (mm) 1752

Rotation (continuous) 360°

Brackets (in phenolic resin, replaceable and adjustable) 4

Support area (cm²) 2845

Hydraulic-driven slew reducer in oil bath.



CENTRAL BLADE

Unique roll-away involute curve, with replaceable teeth and cutting edge.

Hydraulically-operated side movement and angle control.

Available dimensions

(length x height x width) 3658 x 622 x 22 (STD)

3962 x 671 x 22 (OPT)

4267 x 671 x 22 (OPT)

Maximum ground elevation 444 mm

Maximum slope angle (both sides) 90°

Blade tilt angle 40° forward

5° backward Cutting depth 711 mm

Blade lateral movement

Left 533 mm

Right 686 mm

Maximum lateral range outside of the tires with circle movement and support turned into final position

Right 1912 mm

Left: 1715 mm

Note 1: For blade reach with the machine articulated at 25°, add 684 mm to any dimension.

Note 2: Machines with tires and blades in STD configuration.



HYDRAULIC SYSTEM

Fully hydraulic load and flow sense controls. Closed center circuits.

Blade-lifting cylinders mounted on the support. System for locking the support with a hydraulic cylinder, controlled by a solenoid valve that is activated with a switch located on the side panel. Relief and check valves for all controls.

Pump type Variable flow axial piston



IMPLEMENTS

Hydraulic pump Flow at 2200 rpm 191.5 L /min.

Maximum system pressure 214 kg/cm²



STEERING

Type Hydrostatic Pump

Gears Number of cylinders 2

Wheel-steer angle 42°

Additional Steering integrated into the steering system

Articulation

Articulation angle (right and left) 25°

Number of cylinders 2

Turning radius (measured by outside of tires) 7,250 mm



BRAKES

Foot brake

Multi-disk in oil bath, located in 4 wheel hubs, self-adjusting, with two circuits (one for each side of the axle) and nitrogen accumulators, which allow the operator to brake the machine if the pressure drops in the brake hydraulic system or the diesel engine stops working.

Pump type Gear

Pump flow at 2200 rpm 45 L/min

Maximum pressure 45 kg/cm²

Braking area (4 wheels) 14,328 cm²

Parking brake

Independent, disk-type coupled to the transmission output shaft, which affects all four rear wheels, and a protective device that prevents the machine from moving with the parking brake applied.

Manually applied.



WHEELS (TIRES AND RIMS)

Rim 9" - one piece/Tire14x24 - 12L - G2-airless (STD)

Rim 10" - 3 piece/Tire14x24 - 12L - G2-airless

Rim 13" - one piece/Tire17.5x25 - 12L - L2 - airless

Rim 14" - 3 piece/Tire17.5x25 - 12L - L2 - airless

Rim 14" - 3 piece/Tire17.5x25 - 16L - L3 - airless

Rim 9" - one piece/Tire14x24 - 12L - L2 - RADIAL XGLA2

Rim 10" - 3 piece/Tire14x24 - 12L - L2 - RADIAL XGLA2

Rim 9" - one piece with valve

Rim 13" - one piece with valve

Rim 10" - 3 piece with valve

Rim 14" - 3 piece with valve

Rim 17" - 3 piece with valve

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FILL CAPACITIES

Fuel reservoir	341 ℓ
Engine cooling system	40 ℓ
Hydraulic system	
Total	180 ℓ
Reservoir	90 ℓ
Diesel engine oil with filter	18.5 ℓ
Differential	40 ℓ
Tandem tank (each)	60 ℓ
Circle slew reducer	2.8 ℓ
Transmission with filter	21 ℓ



ACCESSORIES

Front scarifier

Parallelogram, front mounted	
Maximum cutting width	1168 mm
Maximum penetration	318 mm
Number of teeth	5 or 11
Spacing between teeth	
5 teeth	229 mm
11 teeth	115 mm
Maximum distance from ground	527 mm
Weight	570 kg (w/ 5 teeth)
Length of machine with scarifier 9	449 mm

Rear ripper

Type	Parallelogram, rear-mounted
Weight	625 kg
Number of teeth	5
Maximum Penetration	350 mm
Maximum cutting width	2185 mm
Length of machine with ripper retracted	9550 mm



FRONT BLADE

Parallelogram, front-mounted, interchangeable with front scarifier.

Dimensions	
Width	2762 mm
Height	953 mm
Elevation from ground	622 mm
Ground penetration	165 mm
Length of machine with blade retracted	9423 mm
Weight	1165 kg

EQUIPMENT STANDARD

High open ROPS/FOPS cab containing

Vinyl seat with mechanical suspension
2" seat belt
Hand throttle
Foot throttle
General switch
Adjustable steering column
Access ladder on both sides
Front windshield wiper
Dome light
Internal rear-view mirror and side mirrors
2 volt socket (*)
(*) Only available with enclosed cabs
Enclosed cabs also have a cup holder and a radio slot with speakers. Deluxe enclosed cabs also have lower front wipers, a rear wiper, a coat hanger, and a rear curtain.
All ROPS/FOPS cabs are certified compliant with the SAE J1040 standard (ROPS) and the SAE J231 standard (FOPS).

Instruments

Hourmeter, tachometer and speedometer
Gear indicator and transmission fault diagnostic display

LED indicators on the central panel

Steering and warning

Full beam

Engine oil pressure
Transmission oil pressure
Brake accumulator charge pressure
Engine water temperature
Transmission oil temperature
Hydraulic oil temperature
Engine air filter clogged
Transmission filter clogged
Hydraulic filter clogged
Battery charge
Parking brake applied
Differential applied (for rear Dana axle only)

Side panel gauges

Fuel gauge
Engine oil pressure gauge
Transmission oil pressure gauge
Engine water temperature gauge
Transmission oil temperature gauge
Drawbar / standard circle
50 A alternator

12V battery – 750 CCA
 Horn
 Axial piston hydraulic pump (hydraulic implements).
 Hydraulic controls for lifting the blade, rotating the circle, moving the circle laterally, tilting the wheels, tilting and laterally moving the blade, articulating the chassis, and operating the front and rear accessories
 Hydrostatic steering
 EDM (electronic data monitor) for monitoring the machine's vital functions
 Super Max Trac rear axle
 Air filter with cyclonic dust ejector
 Parking brake with warning light
 Foot brake in oil bath

Cab-mounted work lights (2 rear) Headlights (2) with direction indicators
 Work lights on the central blade (2) Brake light
 Direction indicators 12 foot blade Windshield wipers 5 position support
 Transmission monitoring system
 Basic toolbox
 Hydraulic cylinder lockout valves
 Rim 9" – one piece
 Tires 14x24 12L – G2 – airless
 New Holland 6.7L Tier III engine

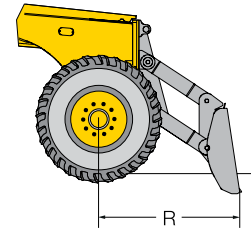
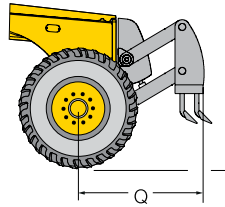
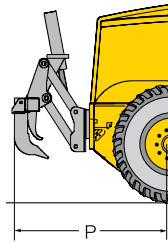
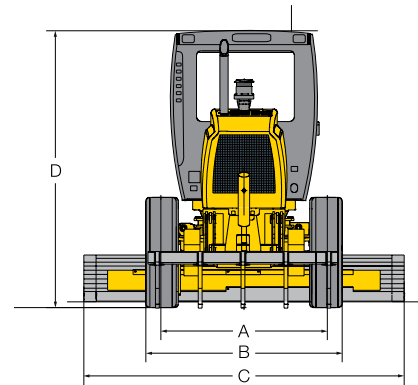
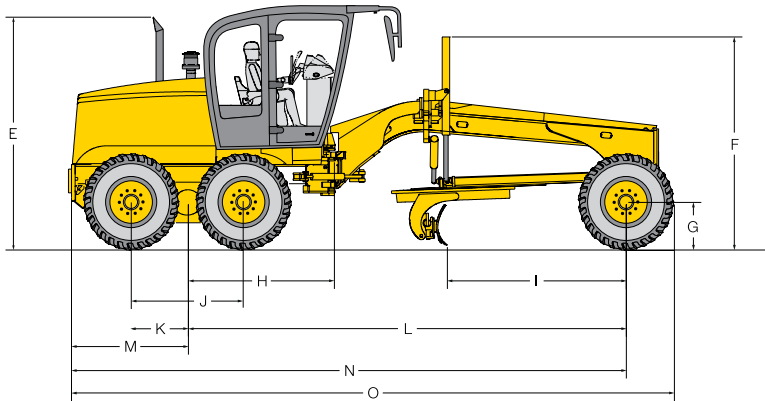
OPTIONAL EQUIPMENT

- **Cab**
 - Open ROPS cab
 - Low enclosed cab with fixed windshield Low enclosed cab with movable windshield High enclosed cab with fixed windshield High enclosed cab with movable windshield
- **Others**
 - Heater for enclosed cab
 - Air conditioning for enclosed cab Soundproofing for enclosed cab Fire extinguisher
 - Lower windshield wipers
 - Rear windshield wiper
- **Drawbar**
 - Drawbar / Heavy duty circle
- **Rear axle**
 - Electrohydraulic 100% differential lock
 - Tandem lock
- **Front implement**
 - Front blade
 - Push plate
 - 5 tooth front scarifier
 - 6 additional teeth for front scarifier
 - Front tow hook
 - Front blade float electrovalve
 - Front blade slip shoe
 - Front counterweight
- **Blade**
 - 13' blade
 - 14' blade
 - Right-hand blade extension – 1'
 - Left-hand blade extension – 1'
 - Heavy duty blade corner – additional
- **Rear implement**
 - Light 5 tooth rear ripper
 - Rear tow hook
 - Support for lifting the machine
- **Work lights**
 - 2 headlights on top of the cab
 - 2 work lights behind the central blade
- 2 work lights for the front implement
- **Lock/float/anti-shock – central blade and circle**
 - Central blade lift cylinder lockout valve Central blade float electrovalve (incorporates the lockout valve)
 - Anti-shock electrovalve with 2 accumulators for the central blade
 - Anti-shock electrovalve with 3 accumulators for the central blade and circle
- **Seat / Seat belt**
 - Vinyl seat with mechanical suspension – extra quality
 - Fabric seat with mechanical suspension
 - Fabric seat with pneumatic-mechanical suspension
 - Seat belt – 3"
- **Other options**
 - USA beacon
 - De luxe toolbox
 - Supported box with no tools, secured to rear chassis
 - Slow moving vehicle symbol
 - Electric tire pump
 - Spare tire bracket
 - Axial piston hydraulic pump

Note: The standard and optional equipment may vary, depending on where the machine is being sold. See your dealer for more information.

SPECIFICATIONS

RG140.B



		mm
T	Track	2,106
B	Width on outside of tires	2,499
C	Blade width	3,658
D	Height to top of cab	
	High profile cab	3,340
	Low profile cab	3,140
T	Height to top of blade lift cylinder	3,323
F	Height to top of blade lift cylinder	3,047
G	Tire static radius	610
H	Distance between tandem axle and chassis articulation pin	1,958
I	Distance between front axle and blade	2,562
J	Distance between tandem axles	1,572
K	Distance between tandem axle and blade	786
L	Distance between axles	6,219
M	Distance between tandem axle and rear of equipment	1,649
N	Distance between front wheel axle and rear of equipment	7,868
O	Total Length	8,534
P	Distance between rear tires and ripper	2,028
Q	Distance between front tires and scarifier	1,520
R	Distance between front tires and front blade	1,626
	Turning radius (outside of tires)*	7,250

* Measurements based on the default configuration, with tire 14 x 24 – 12 ply.

PARTS AND SERVICE

The New Holland dealer network is, in itself, the best guarantee of continued productivity for the machines it delivers to its customers.

New Holland service technicians are fully equipped to resolve all maintenance and repair issues, with each and every service point providing the high standards they are obliged to observe under New Holland's stringent quality guidelines.

The New Holland global parts network ensures fast, reliable, replacement parts for less downtime, increased productivity and, of course, profitable operation for its customers.



AT YOUR OWN DEALERSHIP

The information contained in this brochure is intended to be of general nature only. The NEW HOLLAND KOBELCO CONSTRUCTION MACHINERY S.p.A. company may at any time and from time to time, for technical or other necessary reasons, modify any of the details or specifications of the product described in this brochure. Illustrations do not necessarily show products in standard conditions. The dimensions, weights and capacities shown herein, as well as any conversion data used, are approximate only and are subject to variations within normal manufacturing techniques.

NC-R14-IO1 - 09/2013

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