



NEW HOLLAND

RG170.B



NET POWER (SAE J1349)	178 TO 205 HP (131 TO 151 KW)
BASE OPERATING WEIGHT	15,517 KG
MAXIMUM OPERATING WEIGHT	17,642 KG



BUILT AROUND YOU

RG170.B

The global strength of New Holland is in the technology, efficiency and high quality standard of its machines. The local solutions that New Holland brings to the segments in which it operates consolidate the excellence of the brand on the global construction market.

The RG170.B grader is a machine that excels through high technology and efficiency, with high-precision hydraulic controls, frame articulation in front of the cab, *Roll Away* moldboard with involute profile and intelligent, electronically controlled transmission.

Its *design* is functional and modern. The cab and the rear hood have rounded lines and bold styling. A combination of harmony and strength that also provides easy access for routine maintenance.

The RG170.B is built to international quality standards, recognized for its high productivity and comes with the solid New Holland warranty.



POWERTRAIN

New Holland designed the drivetrain of the RG170.B grader to overcome the most severe demands because earthmoving requires robust machines, high power and excellent traction. This perfectly integrated combination provides high strength, greater durability and, most importantly, greater work capacity.

New Holland equips the grader with a Tier III emissions certified, 6.7 L engine, with a triple power curve and *aftercooler*. This engine provides better performance and has reduced operating costs due to the precision of the electronic injection management system.

The high-tech New Holland 6.7 L electronic engine includes indicator lights for diagnostics which allow the operator or maintenance technician to detect faults through codes shown on the panel or by connecting a laptop to the on-board computer.



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POWERSHIFT TRANSMISSION



The RG170.B grader features an automatic *Powershift* transmission which is electronically controlled and coupled to the engine via a torque converter system equipped with *Lock-Up*. The *Lock-Up* allows the torque converter to be locked, transforming the transmission into a *Direct Drive* system.

In this way, the RG170.B grader combines the advantages of the torque converter, ideal for operations that require high traction forces, such as cutting on hard surfaces and heavy duty ripping, with the advantages of direct coupling, ideal for operations which require constant speed and fixed displacement control, such as precision leveling and finishing operations.

All of this in a single machine. The operation of the *Lock-Up* is performed by a simple flick of a switch located on the side console.

The gearbox has two modes of operation. The automatic mode applies the most appropriate gear for the activity the machine is performing, taking acceleration, travel speed and stress into account. This mode also automatically changes gear according to the variation of these parameters. As a result, the operator can concentrate more on the job, without worrying about shifting gears.

If the operator prefers, the transmission control can be set to manual mode via a switch on the side console. In this case, gear selection is made using a "bump" lever, without the use of channels for gears or direction. Operation is very simple and the machine obeys the operator's commands.

ELECTRONIC CONTROL UNIT (ECU)

AN ELECTRONIC PROCESSOR TO ENSURE PRECISION DURING OPERATION.

The ECU electronic processor manages all information during operation of the transmission with greater precision in all phases, providing the assembly with optimized operation and ensuring higher productivity, service life and operator comfort.

The ECU ensures the integrity of the equipment, preventing incorrect or abusive operations, such as engaging gears or reversing direction at inappropriate speeds.

The transmission also has a fault diagnostics system which allows any problems occurring with the assembly to be viewed on the panel or by connecting a *laptop*. Long lasting, mechanically simplified and providing ease of maintenance, this transmission offers high reliability and unmatched performance.

GO HOME

This device automatically detects faults which may hinder or prevent proper functioning of the ECU. The *Go Home* allows only one gear to be engaged in each direction, within the appropriate speed limit for that gear. This device is used to prevent the machine from stopping in an inappropriate place, allowing it to be transported to the workshop.

AXLES

The axles of the RG170.B grader were made to ensure robustness and greater ability to transfer power to the ground. The front axle is a welded steel construction with high strength cast parts, offering an ample and constant ground clearance of 580 mm throughout its length, due to its straight-line geometry. The wheel lean, at 15.3°, to the right or to the left, and the oscillation of 20° to each side allows irregularities on the ground to be followed.

The rear axle is made in cast iron, and the tandem structure is built using a welded box profile in steel plates. Both were designed to withstand the most severe conditions. The rear axle is equipped with the *Diff Lock* system, activated by a switch on the operator console. The oscillation of the tandem is 20° to each side.



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BRAKES

The RG170.B brake system includes two circuits, one for each tandem. The multi-disc brakes in oil bath are self-adjusting and have a long service life.

The service brakes are hydraulic servo-assisted and feature two nitrogen accumulators, one for each circuit. These accumulators allow the operator to stop the machine in the event of a hydraulic system failure or shutdown of the diesel engine.

STEERING/ARTICULATION

Hydrostatic orbitrol steering, powered by gear pump. The front wheel steering angle is 42°, to both sides, and the frame articulation is 25° to the right or left, giving a turning radius of 7,250 mm.

This reduced turning radius allows the operator to perform work in confined areas with greater ease and perform operations on hairpin bends in less time. An auxiliary handle on the steering wheel provides greater agility when maneuvering the machine.

HYDRAULIC SYSTEM

The hydraulic system is *Load and Flow Sensing*. Accordingly, the pump only supplies a flow when the operator actuates one of the control levers. When there is no hydraulic demand, the pump consumes minimum power from the engine and the hydraulic system operates cooler, thus reducing fuel consumption.

The RG170.B grader also comes equipped with a closed-center hydraulic distributor, with nine circuit sections, located in a protected location below the operator platform. This allows new accessories to be installed without needing to add hydraulic sections to the distributor.



ELECTRICAL SYSTEM

The 24-volt electrical system is powered by two maintenance free 12-volt batteries connected in series, with a total capacity of 100 Ah, in an easily accessible location. The RG170.B features a set of headlights, rear lights and lights over the blade, providing perfect illumination of the work site.



OPERATOR COMPARTMENT

CAB OPTIONS

Enclosed or open, the cabs are mounted on the rear frame, making it easier for the operator to perform reverse maneuvers and directly check how much the frame is being articulated. This provides total safety during operations.

ROPS/FOPS ENCLOSED CAB

The high-profile enclosed cab has 6.76 m² of glazed area. Its *design*, including all the flat surfaces and the lowering of the rear hood, ensures greater visibility, allowing better visual control in reverse operations, with the *ripper*, as well as in forward operations, with the blade or scarifier.

- safety glass
- master switch inside the compartment
- front windshield wiper with washer
- internal light
- one internal and two external rear-view mirrors
- pre-wired for radio and speakers
- 12-volt electrical outlet
- access from both sides
- internal ventilation system with baffles in the ceiling for better cooling
- cup holders
- adjustable steering column
- optional: air conditioning, heater, rear windshield wiper and rear sunshade curtain



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ROPS/FOPS OPEN CAB

This type of cab offers more protection and comfort compared to the canopy since it protects the operator from the dust of machines in front and from a small amount of rainfall.

- front and rear glass
- front windshield wiper and washer
- fan
- one internal and two external rear-view mirrors
- internal light
- master switch inside the compartment
- access from both sides
- ceiling fan
- adjustable steering column



MAXIMUM COMFORT FOR THE OPERATOR

The RG170.B grader has various features to improve operator comfort: adjustable seat with armrest and headrest and elastic suspension, adjustable for the weight of the operator.

The work position of the steering console is fully adjustable for operators of any stature. The steering wheel features an auxiliary handle – optional – for maneuvering with one hand only, while the other hand takes care of the attachment. Shorter travel levers allow all attachments to be controlled easily and productively.

CONTROLS, MONITOR AND PANEL

The ergonomics found on RG170.B grader include all controls and keys positioned within reach of the operator. The *Electronic Data Monitor* (EDM) monitors all vital functions of the equipment, allowing the operator to obtain reliable information on the operation of the machine.

The side panel features analog LCD, easy to read displays, including fuel level and engine and transmission oil pressures and temperatures.



ACCESSORIES

MORE OPTIONS FOR MORE VERSATILITY

The RG170.B grader offers a range of options to facilitate operations and increase productivity: moldboard and front dozer blade float, rear hook, reinforced blade edges, blade extension, front push block, spare wheel bracket, in addition to other items that are already well-known and established in the market.

ROLL AWAY MOLDBOARD WITH INVOLUTE PROFILE

The moldboard on the RG170.B has a *Roll Away* involute profile which causes material to roll over. This makes the job easier and reduces stress on the machine, generating higher productivity and lower fuel consumption.

As standard, the grader includes hydraulically actuated blade side shift and pitch angle, indispensable items in a number of different operations. The saddle locking system, which operates via a solenoid valve controlled hydraulic cylinder, can be actuated by a switch located on the panel.

ROBUST CONSTRUCTION

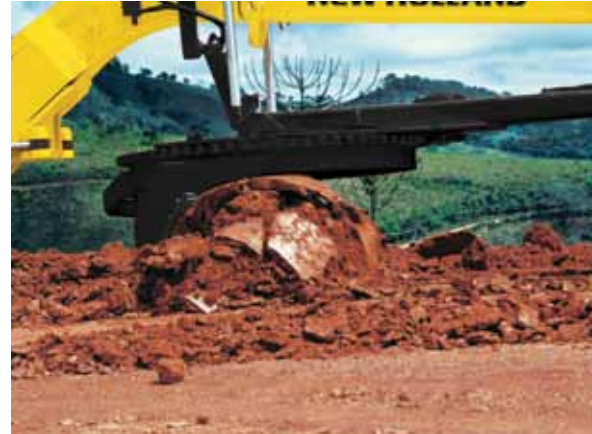
The blade is made of high abrasion resistant steel and has long-life boron steel knives and edges. The blade circle is supported on guides with replaceable phenolic resin inserts which do not require lubrication. Its external teeth prevent damage to the rotating pinion in the event of operation with inadequate clearance adjustment, due to maintenance errors. The blade can perform a 360 ° turn without restriction, thus providing more work alternatives.

REAR RIPPER

The RG170.B grader features a rear-mounted parallelogram *ripper* which increases breaking power on hard compacted surfaces.

INTERCHANGEABLE FRONT DOZER BLADE

This blade, using parallelogram kinetics, is fully interchangeable with the front scarifier which ensures versatility of machine applications.



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SIMPLIFIED MAINTENANCE

The new hinged hood on the RG170.B provides ample access for routine maintenance such as checking the oil level and replacing oil and air filters. It is easy to read the hydraulic oil level via the optical display. The fuel tank nozzle is easily accessible and allows fueling from the ground.

CUSTOMER SERVICE ASSISTANCE, TECHNICAL GUIDANCE AND PARTNERSHIP

New Holland provides an exclusive department to take care of technical assistance and guidance for the network and customers: the Customer Support Department. This department provides dealers with all the support and training they need to provide quality services to every owner of a New Holland machine.

Fully computerized and interconnected with the dealer network, the Customer Support Department provides real time technical data, service bulletins and *on-line* processing of machine warranties which ensures speed and accuracy in all business relationships with the dealer network and customers.

Before launching a product on the market, the engineers and technicians at New Holland take to the field to train and guide the entire technical assistance staff of its dealers. It is only after this step that the equipment is made available for sale.

Additionally, every time a machine or part undergoes any kind of modification or evolution, the Customer Support Department immediately provides this information to the technicians and mechanics at the dealers and, in many cases, even directly to customers, thus keeping the whole team constantly updated.



RG170.B



ENGINE

Gross power (hp) (SAE J1995) at 2,200 rpm	193/ 205/ 220 hp
Net power (hp) (SAE J1349) at 2,200 rpm	178/ 190/ 205 hp
Brand	New Holland
Model	6.7 L Tier III
Number of cylinders	6 (inline)
Bore and stroke (mm)	104 x 132
Displacement (liters)	6.7
Maximum speed (rpm)	2,200
Maximum torque (Nm) (SAE J1995)	830/880/930 Nm @ 1,500 rpm
Net torque (Nm) (SAE J1349)	743/788/832 Nm @ 1,500 rpm
Fan	Hydraulic
Type	Diesel, 4-stroke, direct injection and turbocharged

Electronic diagnostics for this engine is available on the panel 4 valves per cylinder – 2 intake and 2 exhaust



OPERATING WEIGHT (kg)

Fully fueled machine, equipped with ROPS/FOPS enclosed cab and including the weight of the operator.

Base machine weight	15,587
Front axle	4,448
Rear axle	11,167
Maximum weight	17,642
Front axle	5,044
Rear axle	12,436



ELECTRICAL SYSTEM

Voltage (V)	24
Number of batteries	2 x 12V
Total battery capacity (Ah)	100
Alternator	80 A
Starter motor / power	Delco / 4 kW



TANDEMS

Welded box construction	
Plate thickness (internal/external)	19 mm
Oscillation (to each side)	20°
Drive-chain pitch	50.8 mm
Tandem axle spacing	1,572 mm
Interchangeable axles and gears on tapered roller bearings.	



TRANSMISSION

Powershift, with torque converter equipped with *Lock-up*. Electronically controlled with six forward and three reverse speeds. Protection against direction reversal, speeding and downshifting. Electronic monitoring of faults and auxiliary travel system in case of failure (*Go Home*).

Gear	Speed (km/h)	
	Forward	Reverse
1	5.4	5.5
2	8.1	13.1
3	12.4	30.3
4	19.2	
5	28.7	
6	44.1	



FRONT AXLE

High strength welded steel construction, bearing mounted.	
Wheel lean (to right and left)	15.3°
Axle oscillation angle (to each side)	20.0°
Ground clearance	580 mm



REAR AXLE

Cast iron housing for heavy duty applications. Heat-treated steel axles with tapered roller bearings.	
Ground clearance	380 mm
Differential	Features electro-hydraulic <i>Diff Lock</i> activated by switch on the operator console.

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MAINFRAME

Welded closed-box construction.

Front

Dimensions 254 x 298 mm

Weight per linear meter 153.3 kg/m

Rear (each side)

Dimensions 121 x 299 mm

Weight per linear meter 78.3 kg/m



CIRCLE

Single-piece, T-section construction.

Outside diameter (mm) 1,752

Rotation (continuous) 360°

Supports (in phenolic resin, adjustable and replaceable) 4

Support area (cm²) 2,845

Gearbox in oil bath, hydraulically driven.



CENTER BLADE

Exclusive *Roll Away* involute profile, with replaceable knives and cutting edges.

Hydraulically operated side shift and pitch angle control.

Available sizes

(length x height x thickness) 3,658 x 622 x 22 (OPT)
3,962 x 671 x 22 (STD)
4,267 x 671 x 22 (OPT)

Maximum lift above ground 444 mm

Maximum bank cutting angle

(both sides) 90°

Blade pitch angle 40° forward
5° back

Blade penetration 711 mm

Blade side shift

Left 533 mm

Right 686 mm

Maximum side reach outside wheels,

with circle shift and saddle turned in the last position

Right 2,065 mm

Left 1,868 mm

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

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



HYDRAULIC SYSTEM

Fully hydraulic *load and flow sensing* controls. Closed-center circuits.

Blade lift cylinders mounted on the saddle. Saddle locking system via hydraulic cylinder, solenoid valve controlled, actuated by a switch located on the side panel.

Relief and check valves for all controls.

Pump Variable displacement axial piston



ATTACHMENTS

Hydraulic pump flow at 2,200 rpm 186 l

Maximum system pressure 214 kg/cm²



STEERING

Type Hydrostatic

Pump Gear

Number of cylinders 2

Rotation angle 42°

Secondary steering integrated into the steering system

Articulation

Articulation angle (to right and left) 25°

Number of cylinders 2

Turning radius (measured outside the tires) 7,250 mm



BRAKES

Service

Multi-disk in oil bath on the four rear wheels, self-adjusting, with two circuits (one for each side of the axle) and nitrogen accumulators, allowing the operator to stop the machine in the event of a pressure drop in the hydraulic brake system or shutdown of the diesel engine.

Pump Gear

Pump flow at 2,200 rpm 42 l/min

Maximum pressure 45 kg/cm²

Parking

Independent, disk brake coupled to the transmission output shaft which operates on the four rear wheels, and protective device that prevents movement of the machine with the parking brake applied. Manually operated.



WHEELS (TIRES AND RIMS)

9" – 1-piece Rim/14x24 Tire – 12-ply – G2 – tubeless

10" – 3-piece Rim/14x24 Tire – 12-ply – G2 – tubeless (STD)

13" – 1-piece Rim/17.5x25 Tire – 12-ply – L2 – tubeless

14" – 3-piece Rim/17.5x25 Tire – 12-ply – L2 – tubeless

14" – 3-piece Rim/17.5x25 Tire – 16-ply – L3 – tubeless

17" – 3-piece Rim/20.5x25 Tire – 12-ply – L3 – tubeless

17" – 3-piece Rim/20.5x25 Tire – 16-ply – L3 – tubeless

9" – 1-piece Rim/14x24 Tire – 12-ply – L2 – RADIAL XGLA2

10" – 3-piece Rim/14x24 Tire – 12-ply – L2 – RADIAL XGLA2

9" – 1-piece Rim with valve

13" – 1-piece Rim with valve

10" – 3-piece Rim with valve

14" – 3-piece Rim with valve

17" – 3-piece Rim with valve

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REFILL CAPACITIES

Fuel tank	341 l	Engine cooling system	40 l
Hydraulic system			
Total	180 l		
Reservoir	95 l		
Diesel engine oil with filter	21 l		
Differential	44 l		
Tandem housings (each)	60 l		
Circle gearbox	2.8 l		
Transmission with filter	25 l		



ACCESSORIES

Front Scarifier

Parallelogram, front mounted	
Maximum cutting width	1,168 mm
Maximum penetration	318 mm
Number of teeth	5 or 11
Teeth spacing	
5 teeth	229 mm
11 teeth	115 mm
Maximum lift above ground	527 mm
Weight	570 kg (with 5 teeth)
Machine length	
with scarifier	9,449 mm

Ripper/Rear Scarifier

Type	Parallelogram, rear mounted
Maximum cutting width	2,195 mm
Ground penetration	
Ripper teeth	437 mm
Scarifier teeth	252 mm
Number of teeth	
Ripper	3 or 5
Scarifier	5 or 9
Weight	
Ripper with 3 teeth and scarifier with 5 teeth	985 kg
Maximum lift above ground	
Ripper teeth	518 mm
Scarifier teeth	703 mm
Machine length with ripper	9,550 mm



FRONT DOZER BLADE

Parallelogram, front mounted, interchangeable with front scarifier.

Dimensions	
Width	2,762 mm
Height	953 mm
Lift above ground	622 mm
Ground penetration	165 mm
Machine length with the blade retracted	9,423 mm
Weight	1,165 kg

STANDARD EQUIPMENT

High profile open ROPS/FOPS cab containing

- Vinyl seat with mechanical suspension
- 2" safety belt
- Hand throttle
- Throttle pedal
- Master switch
- Adjustable steering column
- Access ladder on both sides
- Front windshield wiper
- Dome light
- Internal and external rear-view mirrors
- 12-volt outlet

(* Item available in closed cabs only)

The closed cabs also feature a cup holder and are pre-wired for a radio and speakers. The deluxe closed cabs also feature front lower and rear wipers, a hook to hang a coat and a rear curtain.

All the ROPS/FOPS cabs are certified according to the SAE J1040 (ROPS) and SAE J231 (FOPS) standards.

Instruments

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

LED indicators on the central panel

- Steering and alert
- High beam
- Engine oil pressure
- Transmission oil pressure
- Brake accumulator charge pressure
- Engine water temperature
- Transmission oil temperature
- Hydraulic oil temperature
- Engine air filter restriction
- Transmission filter restriction
- Hydraulic filter restriction
- Battery charge
- Parking brake applied
- Differential applied (only for DANA rear axle)

Side panel gauges

- Fuel gauge
- Engine oil pressure gauge
- Transmission oil pressure gauge
- Engine water temperature gauge
- Transmission oil temperature gauge

Drawbar / Circle *standard*

50A Alternator

12V Batteries – 750 CCA

Horn

Hydraulic gear pump (*hydraulic attachments*)

Hydraulic controls for blade lift, circle turn, circle side shift, wheel lean, blade side shift and pitch angle, frame articulation and front and rear accessories

Hydrostatic steering

EDM (*Electronic Data Monitor*) for monitoring vital machine functions

Super Max Trac rear axle

Air filter with cyclonic dust ejector

Parking brake with warning light

Service brake in oil bath (self-adjusting)

Work lights mounted on the cab (2 rear)

Headlights (2) with direction lights

Work lights over the center blade (2)

Brake light

Turn signals

12-foot blade

Windshield wipers

5-position saddle

Transmission monitoring system

Basic toolbox

Hydraulic cylinder block valves

9" – 1-piece rim

14x24 12-ply – G2 – tubeless tires

New Holland 6.7L Tier III Engine

OPTIONAL EQUIPMENT

■ Cab

Open ROPS cab

Enclosed low-profile cab with fixed front window

Enclosed low-profile cab with opening front window

Enclosed high-profile cab with fixed front window

Enclosed high-profile cab with opening front window

■ Others

Heater for enclosed cab

Air conditioning for enclosed cab

Sound insulation for enclosed cab

Fire extinguisher

Lower windshield wipers

Rear windshield wiper

■ Drawbar

Drawbar / Circle – *Heavy Duty*

■ Rear axle

100% electro-hydraulic differential lock

Tandem lock

■ Front attachment

Front dozer blade

Push block

Front scarifier with 5 teeth

6 additional teeth for the front scarifier

Front pull hook

Front dozer blade float solenoid

Front dozer blade skid brackets

Front counterweight

■ Blade

13' blade

14' blade

Right blade extension – 1'

Left blade extension – 1'

Heavy Duty blade edge – extra

■ Rear attachment

Light ripper with 5 teeth

Rear pull hook

Bracket for lifting the machine

■ Work lights

2 headlights at the top of the cab

2 work lights behind the moldboard

2 front attachment work lights

■ Lock/float/anti-shock – moldboard and circle

Blade lift cylinder block valve

Moldboard float solenoid (incorporates the block valve)

Anti-shock solenoid with 2 accumulators for the moldboard

Anti-shock solenoid with 3 accumulators for the moldboard and circle

■ Seat/Safety belt

Vinyl seat with mechanical suspension – high quality

Fabric seat with mechanical suspension

Fabric seat with pneumatic mechanical suspension

3" safety belt

■ Other optional equipment

USA rotating beacon

Deluxe toolbox

Toolbox with bracket, fixed on the rear frame

Slow moving vehicle symbol

Electric tire inflation pump

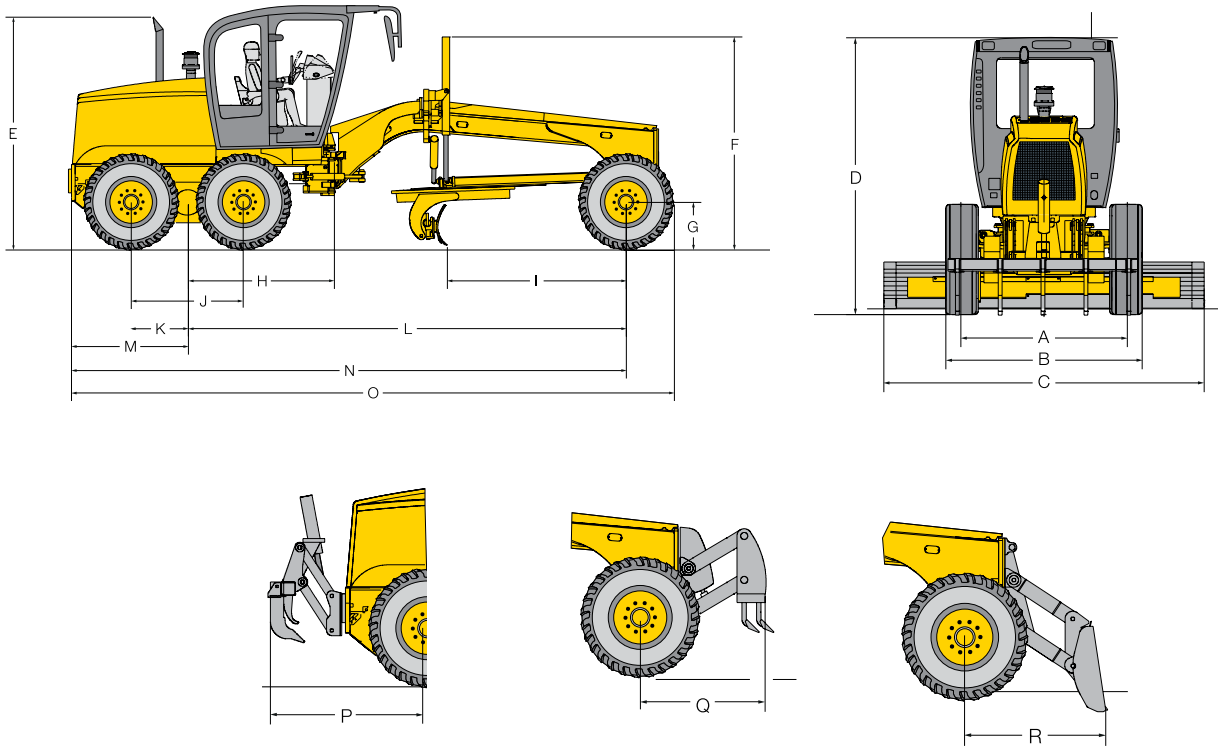
Support for spare wheel

Axial piston hydraulic pump

Note: Standard and optional equipment may vary according to the place of sale of the machine.
See your dealer for more information.

SPECIFICATIONS

RG170.B



		mm
A	Wheel gauge	2,106
B	Width over tires	2,499
C	Blade width	3,658
D	Height to top of cab	
	High-profile cab	3,340
	Low-profile cab	3,140
E	Height to top of exhaust	3,323
F	Height to top of blade lift cylinder	3,047
G	Radius of tire	610
H	Distance between the tandem center and the articulation joint	1,958
I	Blade base	2,562
J	Tandem axle spacing	1,572
K	Distance between the tandem center and wheel	786
L	Wheelbase	6,219
M	Distance between the tandem center and the rear of the machine	1,649
N	Distance between the front axle and the rear of the machine	7,868
O	Total length	8,534
P	Distance between rear wheels and ripper	2,028
Q	Distance between front wheels and scarifier	1,520
R	Distance between front wheels and front dozer blade	1,626
	Turning radius (outside the tires)	7,250

* Measures based on the standard configuration with 14x24 – 12-ply tire.

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-R17-101 - 09/2012

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