

ROTO 3816 - XG



The supremacy of ideas.

ROTO

38.16 S

38.16



EXCLUSIVE TECHNOLOGY



Cab

- Conforms to ISO 3449 (FOPS) and ISO 3471 (ROPS) standards.
- "5 in 1" electro-proportional joystick control.

Boom

- Three section boom sliding upon antifriction wear pads.
- Hydro-mechanical extension mechanism and electric cables are all carried within the boom fabrications for protection against damage and for ease of maintenance.

Fork carriage

- Tac-Lock hydraulic quick locking/unlocking of attachments controlled from the cab.
- Double-acting attachment service, complete with quick attachment couplings, fitted to the boom jib end.

Forks

- Standard floating forks; 1200 mm long, section 130 x 50 mm,
- Fork spacing manually adjustable from 450 mm to 1050 mm.

Stabilisers

- Four hydraulically actuated fold-out type stabilisers; width when retracted is within the overall width of the machine.

Steering

- Four steer/drive wheels, with automatic resynchronisation of the steering in case of misalignment and in-cab selection of three steering modes.

Engine

- 4 cylinder, water cooled, direct-injection Euro 2 Deutz turbo diesel engine producing 74.9 kW (102 HP) at 2400 rpm (97/68/CE).

Transmission

- Electronically managed hydrostatic transmission.
- Continuous and automatic speed adjustment from zero to maximum speed simply by use of the accelerator pedal.
- Two-speed mechanical range gearbox.
- Finger-Touch direction reverse without removing hands from steering wheel.
- Full-time four wheel drive.

- Drop-portal axles give exceptional ground clearance.

Suspension (Roto 38.16 S)

- Hydropneumatic type on both axles.

Braking system

- Hydraulic service disc brakes for all four wheels, mounted on differential half shafts.
- Fail-safe spring actuated, hydraulically disengaged, park brake mounted upon principal transmission drive shaft.

Hydraulic circuit

- Load-Sensing hydraulic system with variable displacement piston pump.
- Maximum flow share rate: 108 l/min.
- Maximum system pressure: 210 bar.

Electrical system

- 12 volt system. 100 Ah battery and 90 A alternator.
- Road lighting and rotating beacon.

Liquid capacities

- Hydraulic circuit: 120 l
- Diesel tank: 150 l
- Hydrostatic system: 12 l
- Engine oil: 8.5 l
- Engine coolant: 12 l

Tyres

- 405/ 70-20.

Principal options

- 18-19.5 16PR tyres.
- Rear axle differential lock.
- Manual battery isolator.
- Air conditioning.
- Windscreen wiper on the roof window.
- Four working lights on the cab (two front lights and two rear).
- Sun visors for front and top screens.

The electro-mechanical joystick allows the driver to operate the principal boom service and the turret without using multiple levers!



Suspension (on Roto 38.16 S) and stabiliser controls are grouped in the side panel console – easy to access by the driver's right hand.



The cab's glass area permits an exceptional panoramic view!



CHARACTERISTICS AND PERFORMANCE

Hydropneumatic suspension - Another unique Merlo feature

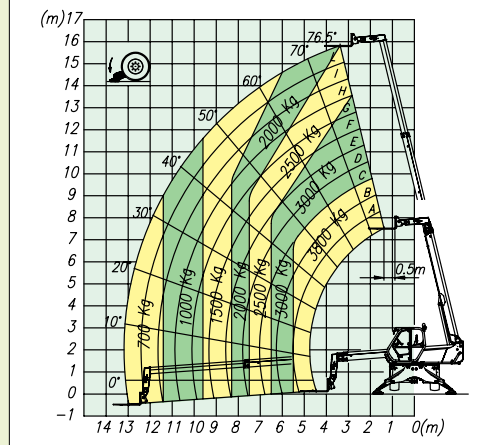
The adjustable hydropneumatic suspension offer a new level of operator comfort, reducing whole body vibration and stabilising the machine to achieve a higher maximum travel speed.

Three operating modes are designed to cope with the foreseen operating conditions.

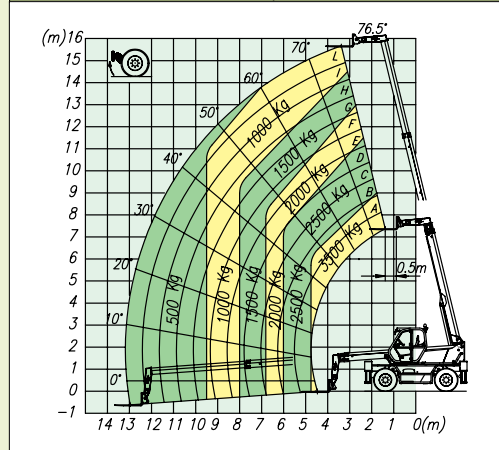
- Automatic mode – “intelligent” and automatic adjustment allows the suspension to respond to ground conditions, making it ideal for rough terrain operation and high speed road travel.
- Manual operation mode allows the driver to vary the settings of the individual suspension units, adjusting the inclination of the machine by up to $\pm 9^\circ$ ($\pm 16\%$) laterally and $\pm 5^\circ$ ($\pm 9\%$) longitudinally.
- Finally, all the suspension units can be locked in a chosen position, providing maximum stability for working use on tyres.

ROTO		38.16 S	38.16
Weight			
Operating weight (with forks)	kg	12080	11730
Performance			
Maximum lift capacity	kg	3800	3800
Maximum lift height	m	15.7	15.7
Maximum forward reach	m	13	13
Lift height with maximum capacity	m	9.8	9.8
Forward reach with max capacity	m	5.5	5.5
Capacity to full lift height	kg	2500	2500
Capacity at max forward reach	kg	700	700
Rotation	degrees	415°	415°
Engine (Euro 2)		4 cylinder turbo	
Power at 2400 rpm (97/68/CE)		74.9 kW (102 HP)	
Speed			
1 st speed	kph	16	7
2 nd speed	kph	40	25

With forks on stabilisers - Rotation through 415°

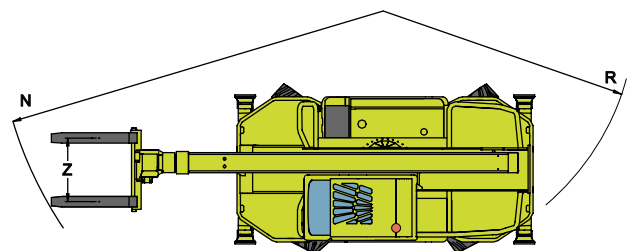
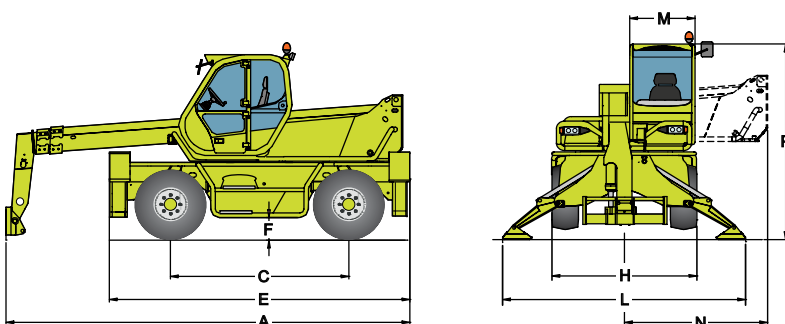


With forks on tyres - Front



Dimensions		38.16 S - 38.16
A	mm	6240
C	mm	2760
E	mm	4645
F	mm	350 ⁽¹⁾
H	mm	2240
L	mm	3750
M	mm	995 ⁽²⁾
N	mm	2220
P	mm	2850
R	mm	3920
S	mm	6000
Z	mm	850

⁽¹⁾ ± 65 mm on Roto 38.16 S. Value at suspension mid-point.
⁽²⁾ Internal cab width.





Help is always nearby

Day after day, choosing a Merlo product brings the advantages of the most advanced technology and the practicality of safe and comfortable equipment, of which the very best can be expected.

Merlo Service ensures a close and continuing bond with the customer, provided by a worldwide network of more than 500 Service Centres guaranteeing experienced and trained technical assistance close at hand.

Building professionalism

Evidently, carelessness and a lack of respect for the basic principles of safety are often the causes of accidents with lifting equipment, often through the lack of an adequate training scheme. The close link between training and safety is a part of everyone's experience and must be continually updated as part of our professional development, a role for which the new Merlo Research and Training Centre is admirably suited.



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