Technical sheet:

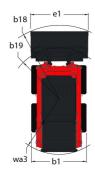
1650R



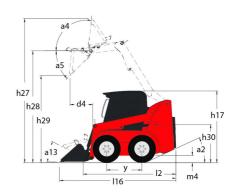


Capacities		Metric	Imperial
Rated Operating Capacity		748 kg	1649 lb
Rated Operating Capacity with Optional Counterweight		816.50 kg	1800 lb
Unladen weight		2796 kg	6164 lb
Weight and dimensions		2770 kg	0104 lb
Overall Operating Height - Fully Raised	h27	3876 mm	153 in
Height to Hinge Pin – Fully Raised	h28	3022.60 mm	119 in
Overall Height to top of ROPS	h17	1948 mm	77 in
Dump angle at full height	a5	38 °	38 °
Dump height	h29	2380 mm	94 in
Overall length with bucket	l16	3101 mm	122 in
Dump reach - Full height	r6	579 mm	23 in
Rollback at ground	a13	28 °	28 °
Seat to ground height	h30	904 mm	36 in
Wheelbase	у	988 mm	39 in
Overall width less bucket	b1	1544 mm	61 in
Bucket Width	e1	1562 mm	61 in
Ground clearance	m4	160 mm	6 in
Overall length - Less Bucket	12	2385 mm	94 in
Departure angle	a2	21 °	21 °
Clearance Radius - Front with Bucket	b18	1869 mm	74 in
Clearance Circle - Front without Bucket	b19	1153 mm	45 in
Clearance Circle - Rear	wa1	1466 mm	58 in
Performances			
Travel Speed with Two-Speed Option - Maximum		19.50 km/h	12 mph
Travel speed (unladen)		12.60 km/h	8 mph
Wheels			
Standard tires		10.00x16.5 HD	10.00x16.5 HD
Engine			
Engine brand		Yanmar	Yanmar
Engine model		4TNV88C-KMS	4TNV88C-KMS
Gross Power		52 kW	52 kW
Net Power		51 kW	51 kW
Max. torque / Engine rotation		241 Nm / 2500 rpm	178 ft/lbs / 2500 rpm
Power source		Diesel	Diesel
I.C. Engine power rating		69.73 Hp	69.73 Hp
Battery voltage		12 V	12 V
Alternator		100 kW	100 kW
Starter		3 kW	3 kW
Hydraulics			
Standard flow - Auxiliary hydraulics		71.40 l/min	19 US gpm
Auxiliary Hydraulic Pressure		207 bar	3002 PSI
High-Flow Auxiliary Hydraulics - Option		114 l/min	30 US gpm
High-Flow Auxiliary Hydraulics Pressure – Option		200 bar	2901 PSI
Tank capacities			
Fuel tank		62.50 I	17 US gal
Reservoir Capacity Hydraulics		41.60 I	11 US gal
Displacement		3.30 l	0.87 US gal
Noise and vibration			
Noise to environment (LwA)		101 dB	101 dB
Noise at driving position (LpA)		85 dB	85 dB
Whole-Body Vibration (ISO 2631-1)		0.90 m/s²	0.90 m/s²
Vibration to whole hand/arm		< 1.77 m/s²	< 1.77 m/s ²

1650R - Dimensional drawing







Equipment

Integral Access Plate (removable) Lifting function Auxiliary Hydraulics Auxiliary Hydraulic	_	
All-Tach® Attachment Mounting System Standard Auxiliary Hydraulics Optional Power.A-Tach® Attachment Mounting System Optional Lighting Standard Work Lights - Front and Rear Standard Motorization/Power Standard Engine Auto-Shutdown System Standard Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station Air conditioning with manual adjustment Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl TBar Controls Optional Heating Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Suspension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard	Integral Access Plate (removable)	Standard
Auxiliary Hydraulics Optional High-Flow Auxiliary Hydraulics Optional Power-A-Tach® Attachment Mounting System Optional Work Lights - Front and Rear Standard Montzation/Power Standard Engine Auto-Shutdown System Standard Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station Optional Air conditioning with manual adjustment Optional Beleance With Controls Optional Gell Tear Controls Optional Hearting Optional Hearting <td>Lifting function</td> <td></td>	Lifting function	
High-Flow Auxiliary Hydraulics Optional	All-Tach® Attachment Mounting System	Standard
Power A Tach® Attachment Mounting System Optional Lighting Standard Work Lights - Front and Rear Standard Motobization/Power Engine Auto-Shutdown System Standard Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station Understand the Cook of	Auxiliary Hydraulics	Standard
Lighting Standard Work Lights - Front and Rear Standard Motorization/Power Standard Engine Auto-Shutdown System Standard Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl TBar Controls Optional Heating Optional Heating Optional Hey Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Secondary functions Counterweight Optional Fill Instrumentation <t< td=""><td>High-Flow Auxiliary Hydraulics</td><td>Optional</td></t<>	High-Flow Auxiliary Hydraulics	Optional
Work Lights - Front and Rear Standard Motorization/Power Common Standard Engine Auto-Shutdown System Standard Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station Optional Air conditioning with manual adjustment Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl TBar Controls Optional Heating Optional Heating Optional Heating Optional Hey Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Standard Full Instrumentation<	Power-A-Tach® Attachment Mounting System	Optional
Motorization/Power Standard Engine Auto-Shutdown System Standard Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl TBar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Ofter options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Standard Full Instrumentation Standard Hydraglide* Ride Control 3 Optional Security	Lighting	
Engine Auto-Shutdown System Standard Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station U Air conditioning with manual adjustment Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl T-Bar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Suspension Seat - Mechanical Optional Other options Optional Whydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Standard Counterweight Optional Fill Il Instrumentation Standard Hydraglide* Ride Control 3 Optional Security <td>Work Lights - Front and Rear</td> <td>Standard</td>	Work Lights - Front and Rear	Standard
Engine Block Heater Optional Swing-Out Cooler Standard Two-Speed Drive Optional Operator station Optional Air conditioning with manual adjustment Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl Tear Controls Optional Heating Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Standard Counterweight Optional Full Instrumentation Standard Hydraglide** Ride Control 3 Optional Security	Motorization/Power	
Swing-Out Cooler Standard Two-Speed Drive Optional Operator station University Air conditioning with manual adjustment Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl T-Bar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other Options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Optional Counterweight Optional Full Instrumentation Standard Hydraglide* Ride Control 3 Optional Security Anti-Vandalism Protection Standard <td>Engine Auto-Shutdown System</td> <td>Standard</td>	Engine Auto-Shutdown System	Standard
Two-Speed Drive Optional Operator station Optional Air conditioning with manual adjustment Optional Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl T-Bar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Horn Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Selectable Self-Leveling Hydraulic Lift Action 4 Standard Secondary functions Optional Counterweight Optional Full Instrumentation Standard Hydraglide** Ride Control 3 Optional Security Anti-Vandalism Protection Standard Brack-Up Alarm Optional Brack-Up Alarm Optional	Engine Block Heater	Optional
Operator station Optional Air conditioning with manual adjustment Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl FBar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Standard Full Instrumentation Standard Hydraglide** Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc** Safety System Standard	Swing-Out Cooler	Standard
Air conditioning with manual adjustment Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl TBar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Suspension Seat - Mechanical Optional Hydrostatic Drive - Servo Secondary functions Counterweight Full Instrumentation Hydraglide** Ride Control 3 Security Rake Control (Auto / Manual) Brake Control (Auto / Manual) Brake Control (Auto / Manual) Foot and Hand Throttles 2 Standard Optional Optional Optional Optional Optional Optional Standard Standard Optional	Two-Speed Drive	Optional
Air suspension seat Optional Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl T-Bar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Security Optional Full Instrumentation Standard Hydraglide** Ride Control 3 Standard Security Optional Security Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc** Safety System Standard Lift Arm Support Device Standard	Operator station	
Cab Enclosure Optional Foot and Hand Throttles 2 Standard Gehl T-Bar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Supension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Optional Counteweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Optional Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Air conditioning with manual adjustment	Optional
Foot and Hand Throttles 2 Standard Gehl TBar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Optional Counterweight Optional Full Instrumentation Standard Hydraglide** Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc** Safety System Standard Lift Arm Support Device Standard	Air suspension seat	Optional
Gehl T-Bar Controls Optional Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Optional Full Instrumentation Standard Hydraglide** Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc** Safety System Standard Lift Arm Support Device Standard	Cab Enclosure	Optional
Hand/Foot Controls Optional Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options U Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Optional Full Instrumentation Standard Hydraglide** Ride Control 3 Optional Security Optional Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc** Safety System Standard Lift Arm Support Device Standard	Foot and Hand Throttles 2	Standard
Heating Optional High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options U Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions U Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Gehl T-Bar Controls	Optional
High-Back Adjustable Seat Standard Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Hand/Foot Controls	Optional
Hom Standard Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Uther options Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Heating	Optional
Joystick controls Optional ROPS/FOPS Level II Overhead Guard Standard Sound Reduction Material Standard Suspension Seat - Mechanical Optional Uther options Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	High-Back Adjustable Seat	Standard
ROPS/FOPS Level II Overhead Guard Sound Reduction Material Suspension Seat - Mechanical Other options Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Counterweight Counterweight Full Instrumentation Full Instrumentation Security Anti-Vandalism Protection Brake Control (Auto / Manual) Brake Control (Auto / Manual) Full Autor Manual Full Manual	Hom	Standard
Sound Reduction Material Standard Suspension Seat - Mechanical Optional Other options Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Joystick controls	Optional
Suspension Seat - Mechanical Optional Other options Standard Hydrostatic Drive - Servo Standard Selectable Self-Leveling Hydraulic Lift Action 4 Optional Secondary functions U Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	ROPS/FOPS Level II Overhead Guard	Standard
Other options Image: Property of the Control of t	Sound Reduction Material	Standard
Hydrostatic Drive - Servo Selectable Self-Leveling Hydraulic Lift Action 4 Selectable Self-Leveling Hydraulic Lift Action 4 Secondary functions Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Security Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Hydraloc™ Safety System Lift Arm Support Device Standard	Suspension Seat - Mechanical	Optional
Selectable Self-Leveling Hydraulic Lift Action 4 Secondary functions Counterweight Optional Full Instrumentation Standard Hydraglide** Ride Control 3 Security Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Hydraloc** Safety System Lift Arm Support Device Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard	Other options	
Secondary functions Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Hydrostatic Drive - Servo	Standard
Counterweight Optional Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Selectable Self-Leveling Hydraulic Lift Action 4	Optional
Full Instrumentation Standard Hydraglide™ Ride Control 3 Optional Security Standard Anti-Vandalism Protection Standard Back-Up Alarm Optional Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Secondary functions	
Hydraglide™ Ride Control 3 Security Anti-Vandalism Protection Back-Up Alarm Brake Control (Auto / Manual) Hydraloc™ Safety System Lift Arm Support Device Optional Standard Lift Arm Support Device Optional Standard Standard Standard Standard	Counterweight	Optional
SecurityStandardAnti-Vandalism ProtectionStandardBack-Up AlarmOptionalBrake Control (Auto / Manual)StandardHydraloc™ Safety SystemStandardLift Arm Support DeviceStandard	Full Instrumentation	Standard
Anti-Vandalism ProtectionStandardBack-Up AlarmOptionalBrake Control (Auto / Manual)StandardHydraloc" Safety SystemStandardLift Arm Support DeviceStandard	Hydraglide™ Ride Control 3	Optional
Back-Up AlarmOptionalBrake Control (Auto / Manual)StandardHydraloc™ Safety SystemStandardLift Arm Support DeviceStandard	Security	
Brake Control (Auto / Manual) Standard Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Anti-Vandalism Protection	Standard
Hydraloc™ Safety System Standard Lift Arm Support Device Standard	Back-Up Alarm	Optional
Lift Arm Support Device Standard	Brake Control (Auto / Manual)	Standard
· · · · · · · · · · · · · · · · · · ·	Hydraloc™ Safety System	Standard
Operator Restraint Bar Standard	Lift Arm Support Device	Standard
	Operator Restraint Bar	Standard





Head Office

B.P. 249 - 430 rue de l'Aubinière 44150 Ancenis Cedex - France Tel: +33 (0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97 www.manitou.com



This publication provides a description of the configuration versions and options for Manitou products, which may differ for equipment. The equipment presented in this brochure may be part of a series, as an option, or it may not be available, depending on the versions. Manitou reserves the right, at any time and without notice, to amend the specifications described and represented. The specifications provided do not bind the manufacturer. For more details, please contact your Manitou agent. This is not a contractually binding document. The presentation of the products is not contractually binding. List of specifications non-exhaustive. The logos as well as the visual identity of the company are owned by Manitou and cannot be used without authorisation. All rights reserved. The photos and diagrams contained in this brochure are only provided for consultation and information purposes.

MANITOU BF SA - Limited company with board of directors - Share capital: 39,668,399 euros - 857 802 508 RCS Nantes