



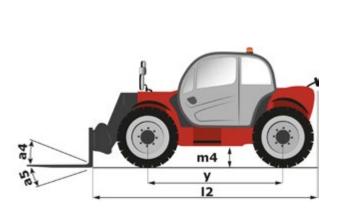


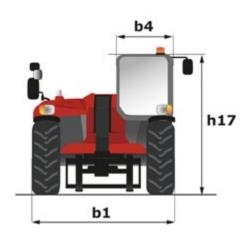
Lifting	
Max. capacity	9000 kg
Max. lifting height	6,84 m
Max. outreach	3,72 m
Boom movements speeds (unladen)	
Lifting / Lowering	9.2 / 7.8 secs
Extension / Retraction	6.6 / 6.1 secs
Engine	
Туре	John Deer Stage 3A
Cubic capacity	4-4500 cm3
Power	137 HP / 102 kW
Max. torque	545 Nm - 1500 rpm
Injection	Direct
Cooling	Water
Hydraulics	
Pump	Load Sensing 180 I/min - 270 bar
Electrical	
Battery	12V - 105Ah - 850A
Alternator	12V - 120A
Starter	12V - 3 KW
Transmission	
Туре	Hydrostatic
Reversing shift	Electrohydraulic control
Parking brake	Automatic negative parking brake
Service brake	Hydraulic
Number of gears (forward/reverse)	2/2
Front & Rear axles	DANA / front rigid - rear oscillating
Drive Wheels	Permanent 4 wheel drive
Tyres	445/65 R22.5
optional	Michelin 18 R 22,5 XF 1E TL
Max. travel speed (may vary according to applicable regulations)	30 kph
Steering mode	4 wheel steer - 3 steering modes
Gradeabilty (laden)	48%
Laden drawbar pull	10905 daN

Braking & Steering		
Туре	Mining Fail-Safe Braking System	
Service brake	Hydraulic power brake	
Туре	Dual acting master cylinder with independent lines to multi-disk brakes in oil bath on front & rear axles.	
Control	Foot-operated for front & rear axles	
Parking/Emergency brake		
Туре	Spring applied hydraulic release (SAHR) on front & rear axles.	
Control	Electro-hydraulic. Cabin manual hydraulic lever. automatic application on engine shut-down.	
Slope holding performance	25%	
Operator test & warning	Daily service & park brake test switch procedure Warning: Low brake pressure, residual service brake pressure, loss of cabin driver presence.	
Standards/Guidelines	Based on ISO 3450:2011	
Emergency steering	Based on ISO 5010:1992	
Control systems & Warning		
Stability	Longitudinal stability limiter with movement cut out	
Critical functions monitoring & engine shut down	Manitou Guardian Angel mining system - level 1 engine-steering-hydraulic-speed-tip over	
Pre-Start Warning Horn	5s	
General protections - Fire prevention & co	ontrol	
Cabin	ROPS ISO:3471 - FOPS ISO: 3449 Level 1 and 2	
Body	Boom cylinder rod, lights & cabin guards - metallic self cleaning engine pre-filter	
Electricals		
Fuse board & main harness	Ultimate Fuse Board protection system	
Wiring and other electrical components	Ultimate Wiring protection system (standard in Australia MDG15, option other country)	
*Exhaust  *in accordance with EPA CTM 022 1995, EPA CTM 030 1997, UNI EN 126719:2013, UNI EN 13284-1:2003, including variable engine rpm cycles to simulate real working environment.	MANITOU Safe Exhaust System - purifier & diluter reduce exposure to toxic gas: -85% (volume) -50% (mass) -60% (temperature)	
Fire prevention & control		
Extinguisher(s)	2x 9Kg Powder	
Prevention	Engine Compartment Fire Prevention System (standard in Australia MDG15, option other country)	

Ergonomics, access, visibility	
LED Lights & Cameras	360° Visibility Safety System
Work lights	LED 10000 lux (1 x front / 1 x rear) LED 4000 lux (2 x boom)
Cameras	Blind spots on right hand side and rear
Other	Fwd/rev directionnal lights, rear light on when rev
Markings, Signs, Labelling	Warning & danger, controls & pre-op, refelctive hi-visibility, access & maintenance point
Isolation points & miscellaneous	
Emergency stops	Cabin x1 - External x2
Isolation	Dual pole battery + starter isolators + jump start receptacle. Fuel isolation valve (inside engine bay)
Miscellaneous	Radiator safety cap Belts & pulleys safety guards Wheel chocks x2 Boom cylinder lock Loose wheel nut indicators
Capacities	
Hydraulic oil	151 l
Fuel	150 l
Noise and vibration	
Noise at driving position (LpA)	79,7 dB
Environmental noise (LwA)	103 dB
Vibration to whole hand/arm	<2.5 m/s2
Vibration on driver's body	<0.5 m/s2
Weight	13 160 kg Unladen (with forks)

a4		12 °
а5		125°
m4	(mm)	410
12	(mm)	5270
у	(mm)	2870
b1	(mm)	2470
b4	(mm)	930
h17	(mm)	2470
Wa1	(mm)	5590







OPTIONAL EQUIPMENT

Fail safe braking and steering

**Emergency steering** 

Control systems & warnings

Stability control: RCL Rated Capacity Limiter (3B6)

External overload light tower indicator for RCL (Green, Yellow, Red)

Guardian angel mining system - Level 2

Bi-axial spirit level indicator (standard in Australia, option for other countries)

Tyre pressure & temperature monitoring

**General protection** 

Hydraulic hose sleeve burst protection sleeving (external hoses exposed to personnel)

Cabin guard: roof

Guard: A/C condensor

Elevated breathers

Side bumper - Protector bar

Steel mudguards

Ultimate wiring protection system

Tyre: Michelin 18 R 22,5 XF 1E TL

#### Fire prevention & control

Engine Compartment Fire Prevention System (standard in Australia, option for other countries)

Exhaust line / Muffler Insulation Blanket (standard in Australia MDG15, option other country)

Fire suppression system - Manual & automatic activation

Cabin extinguisher

#### Ergonomics access visibility

Seat Tractor-Back shape + Autoretracting Seat Belt 75mm wide

Air conditioning

#### Isolation points & miscellaneous

Battery, Starter isolation points + Jump Start Receptacle In External Weatherproof Enclosure

Fast fill dry break point - Fuel

Fast fill dry break point - Hydraulic oil

Central Greasing System

Auxiliary hydraulic-Electric quick multi-coupling plate system

Easy Connect System - Attachment hydraulic hoses

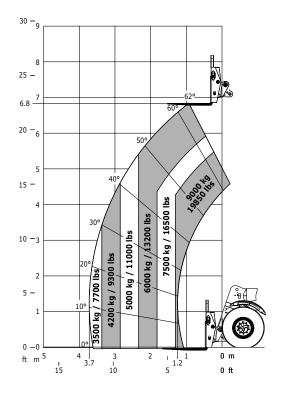
Hydraulic locking of attachment on T.S.

#### Predisposition

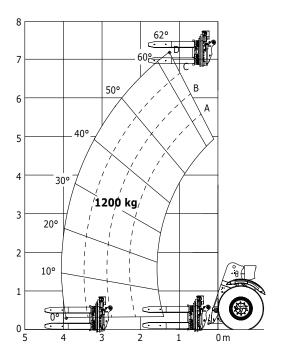
Platform predisposition

Tyre handler predisposition

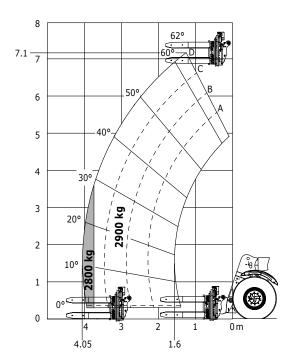
# Machine on tyres with forks (Norm EN1459-B) (Norm AS1418.19 Australia)



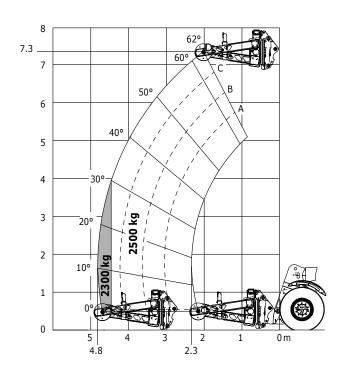
#### Machine on tyres with TH33 (Norm EN1459-B)



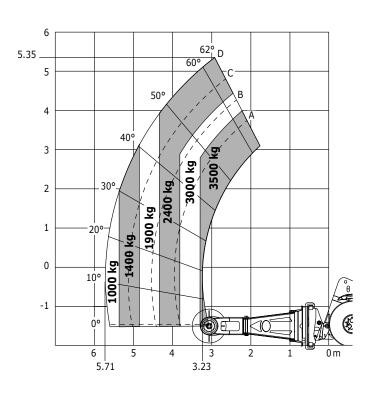
#### Machine on tyres with TH35 (Norm EN1459-B)



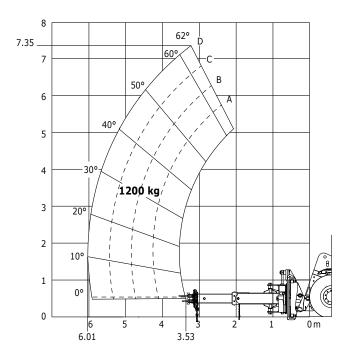
### Machine on tyres with TH49 (Norm EN1459-B)



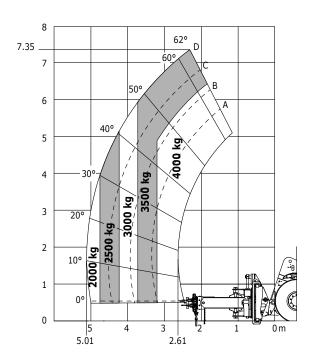
### Machine on tyres with TH51 (Norm EN1459-B)



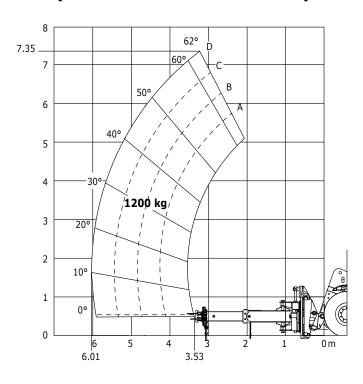
### Machine on tyres with CH4-1,2 tons (Norm EN1459-B)



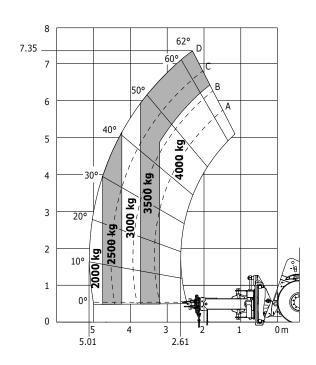
### Machine on tyres with CH4-4 tons (Norm EN1459-B)



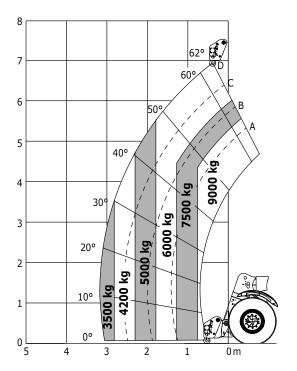
#### Machine on tyres with CH4-1,2 tons (Norm AS1418.19 Australia)



#### Machine on tyres with CH4-4 tons (Norm AS1418.19 Australia)

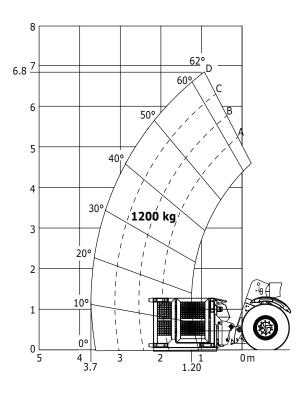


# Machine on tyres with PC90 (Norm EN1459-B) (Norm AS1418.19 Australia)



# Machine with Mining Platform (Access version)

-Foam filled tyres mandatory-







#### Head office

B.P. 10249 - 430 rue de l'Aubinière - 44158 Ancenis Cedex - France Tel.: 00 33 (0)2 40 09 10 11 - Fax: 00 33 (0)2 40 09 10 97 mining@manitou-group.com

This brochure describes versions and configuration options for Manitou products which may be fitted with different equipment. The equipment described in this brochure may be standard, optional or not available depending on version. Manitou reserves the right to change the specifications shown and described at any time and without prior warning. The manufacturer is not liable for the specifications given. For more information, contact your Manitou dealer. Non-contractual document. Product descriptions may differ from actual products. List of specifications is not comprehensive. The logos and visual identity of the company are the property of Manitou and may not be used without authorisation. All rights reserved. The photos and diagrams contained in this brochure are provided for information only.

MANITOU BF SA - Limited company with board of directors - Share capital: 39,547,824 euros - 857 802 508 RCS Nantes