

50  
MERLO

CAMERE  
DI COMMERCIO  
D'ITALIA  
AN HISTORIC ITALIAN COMPANY

MACHINE  
OF THE YEAR 2015

INTERAI  
Innovation Awards  
2015  
GOLD

 **MERLO**

**TURBOFARMER COMPACTS TF33.7 - TF30.9**

XG





Merlo's factories in San Defendente di Cervasca (Cuneo) cover an area of 300,000 m<sup>2</sup> (with 220,000 m<sup>2</sup> inside facilities)

1. Merlo SpA main offices
2. Final assembly lines
3. Lines for assembling components and cabs
4. Moulding of technopolymers
5. Automated storing and shipping centre
6. Machines plus attachments shipping centre
7. Final quality control
8. Technological centre
9. Steel and structural assembly lines centre
10. 3M attachments
11. CFRM (Training & Research Centre)



# The Merlo Group

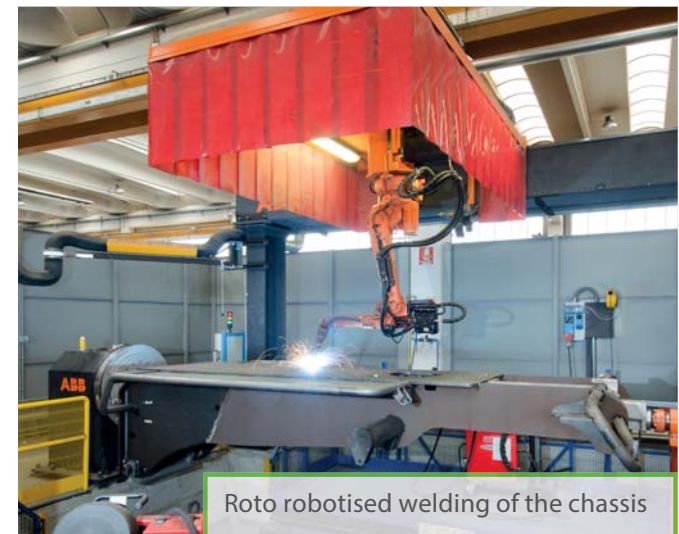
## N° 1 for technology and safety

The Merlo brand has always been synonymous with advanced technology in the telehandler field and our history, since 1964, is hallmarked by experience based on determination and passion. The development of complex products, from the idea to the result, from design to sales, means being able to propose orientations for the most competitive markets. The outcome of our efforts are compact, easy to handle telehandlers ensuring incomparable operating performance, comfort, efficiency and safety. At Agritechnica 2013, three important awards were received that clearly demonstrate the technological and innovative superiority of our products:

- Turbofarmer 42.7 Hybrid: Gold Medal for innovation at Agritechnica.
- Turbofarmer II: Machine of the year 2014 in the "handling and logistics" category.
- Multifarmer: Selected as a "milestone" in agriculture.

The new modular Medium Duty and Compact Turbofarmer range was named «Machine of the Year» 2015 at Sima 2015 in the handling and logistics sector.

- **> 1.100** employees
- Surface area of **300,000 m<sup>2</sup>** of which **220,000 m<sup>2</sup>** are indoors
- **90%** exports
- **600** dealers all over the world
- **8%** of turnover invested in R & D
- **54** robots





A bright green Merlo telehandler is positioned in a large barn filled with hay. The machine's telescopic boom is extended upwards, with its forks reaching into a stack of hay bales. The barn's interior is filled with numerous large, cylindrical hay bales stacked in rows. The telehandler has a protective cab with large windows and is equipped with large, treaded tires. The Merlo logo is visible on the boom, and the model number 'TF30.9 120' is printed on the side of the chassis. A green text box in the bottom left corner contains the text 'Merlo presents the new Compact range'.

Merlo presents  
the new Compact  
range



# New Merlo Compact range

## Maximum performance, minimum bulk

We were the first to launch a range of telehandlers dedicated to agriculture in 1996. Today, we proudly present the new Compact modular generation developed on the strength of experience acquired in 50 years of operations.

- 40 km/h → Standard on the entire range!
- Approval → Operating machine or agricultural tractor, available for standard versions as well as for the Low Profile version with 2020 mm height
- EPD → Massime performance with reduced consumption (-18% diesel)
- Engines → 75 HP Tier 4 Final and 115 HP Tier 4 Final
- Approval → FOPS-ROPS \*also for the Low Profile version
- Comfort → The largest cab in the category, standard on the entire range (even on the Low Profile versions)
- Fan Drive → Available on the entire range. Radiators always clean!
- Hydraulic → Gear pump, with electro-hydraulic joystick  
Load Sensing pump with electronic joystick



- **New cab:** the **largest** in the **category**
- **Lowered cab** version without giving up anything. The same comfort!
- **40 km/h as standard** unique in its category
- **EPD as standard -18%** consumption
- **Fan Drive** for consistently efficient radiators

\* EN ISO 3449/2008, protection level II (highest protection level provided by the norm and equivalent to the fall of a 227 kg object from 5.22 metres)

# New Merlo Compact family

## Flagship technology and performance



### Comfort

- Largest cab on the market 1010 mm
- Standard cab on silent-block
- Cab version lowered to 2020 mm
- Reverse shuttle on Joystick, duplicated on steering column

### Hydraulic system options

- Gear pump and hydraulic command joystick
- Load-sensing pump with electronic joystick and automatic accelerator

### Efficiency – Powertrain

- Engines with 75 HP (Tier 4 Final) and 115 HP (Tier 4 Final) and Merlo 2-speed hydrostatic transmission
- EPD - Eco Power Drive as standard (115 HP version)

### Innovative Merlo systems

- Tac-Lock rapid coupling of the attachments

### Lifting capacity

- Booms from 7 to 9 metres
- Capacities ranging from 3 to 3.3 tons

### Safety

- Cab compliant with FOPS/ROPS

### Towing versatility

- Tow hook
- Hydraulic connections (2 opt.)
- Trailer braking (Pneu/Hydr.)

### Versatility in the field

- Approved for use as an agricultural tractor on the entire range
- Low Profile versions

# The new Compact range

## A version for every requirement

MODEL	ENGINE		CAB		HYDRAULIC					EPD		DIMENSIONS		
	75 HP - Tier 4 Interim/Euro IIIB	115 HP - Tier 4 Final/Euro IV	Steady	Low	Gears 95 l/min	Load Sensing 125 l/min				EPD	EPD TOP	Height (mm)	Width (mm)	Length (mm)
TF 33.7 - 75 G	X		X	OPT	X		X	40	OPT	X		2120 2020*	2100	4315
TF 33.7 - 115 G		X	X	OPT	X		X	40	OPT	X		2120 2020*	2100	4315
TF 33.7 - 115		X	X	OPT		X	X	40	OPT		X	2120 2020*	2100	4315
TF 30.9 - 75 G	X		X	OPT	X		X	40	OPT	X		2120 2020*	2100	4315
TF 30.9 - 115 G		X	X	OPT	X		X	40	OPT	X		2120 2020*	2100	4315
TF 30.9 - 115		X	X	OPT		X	X	40	OPT		X	2120 2020*	2100	4315

(G) gear pump

\*version with standard cab (2120 mm) and Low Profile (2020 mm)

### Broad product offering:

- Available in **2 models** and **6 different** versions

### Comfort:

- The **largest** cab on the market
- Version with **low cab 2020 mm** from the **ground**, available with agricultural machine **approval**

### Technological Innovations:

- **EPD** as standard **-18%** consumption
- **Reverse shuttle** on joystick duplicated on the steering wheel
- **Automatic accelerator**
- **Fan drive** available

### Versatility and productivity:

- **2 engines** available with **75 HP** or **115 HP**
- **2** boom lengths **7** and **9 m**
- **2** capacities of **3** and **3.3 tons**





Fan Drive available on the entire range.  
Radiators always clean

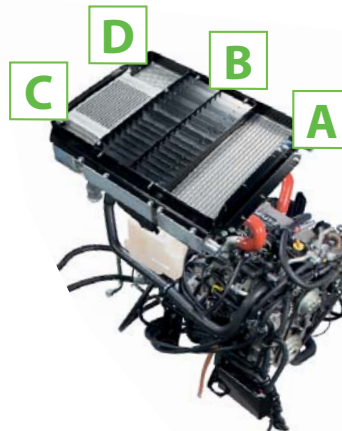


## Higher performance and lower consumption

### 40 km/h, -18% consumption, fan drive

The TF Compact range comes with two different engines: 55kW/75HP (Tier 4 Final) with 2.9 litres and 90kW/115HP (Tier 4 Final) with 3.6 litres. The two-speed hydrostatic transmission adds **40 km/h, unique in its category**. The EPD (Eco Power Drive) for electronic management of the thermal engine, helping to reduce consumption by 18%.

The EPD Top version offers "Speed Control" mode, which memorises the machine's movement speed and keeps it constant (ideal for yard handling operations), and the ECO function, which limits the rpm for further economic savings. In combination with the electronic joystick, the EPD Top system offers automatic Diesel speed control in relation to joystick movements on order to increase telescopic boom movement speed, optimise machine performance and minimise consumption. The «Fan Drive» system is available, making it possible to change the direction of the fan's rotation from sucking to blowing, in order to keep the radiant pack at maximum efficiency.

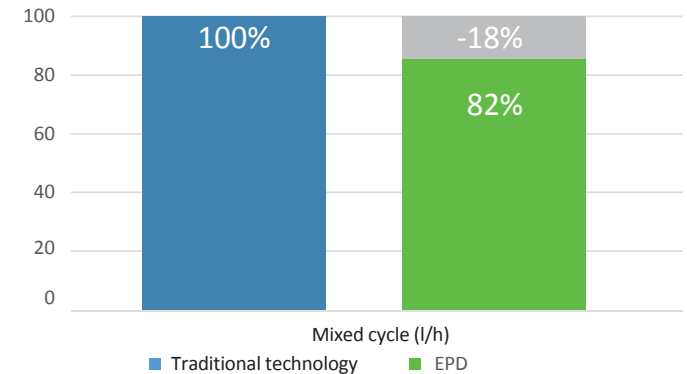


#### FAN DRIVE AND DEDICATED RADIATORS

For temperatures less than 40° the fan comes on in an inverted condition for 30'' to later return to normal use

- A. Intercooler radiator
- B. Engine radiator liquid
- C. Radiator hydraulic oil
- D. Radiator hydrostatic oil

### Reduction in consumption EPD technology



- **40 km/h.** Unique in the category
- **EPD -18%** consumption
- **Fan Drive** available to ensure the radiators are always clean
- Tier 4 Final engines **55 kW/75 HP** or **85 kW/115 HP**
- **EPD TOP version** with **electronic joystick** and **Load Sensing pump**



## Largest cab in its class

5

1. New Joystick with reverse shuttle (duplicated on steering wheel): ergonomic and user-friendly.
2. New display makes it possible to display a great deal of useful information.
3. New air conditioning system in line with automotive standards, for fast and effective heating/cooling.
4. Inching-Control: the dedicated pedal provides calibrated movements of the machine.
5. Curved windscreen: maximum visibility and safety in work at height.
6. Merlo CDC Light.
7. Drawer.

6

3

2

3

7

4

1





# New cab with record comfort

## One cab for two heights

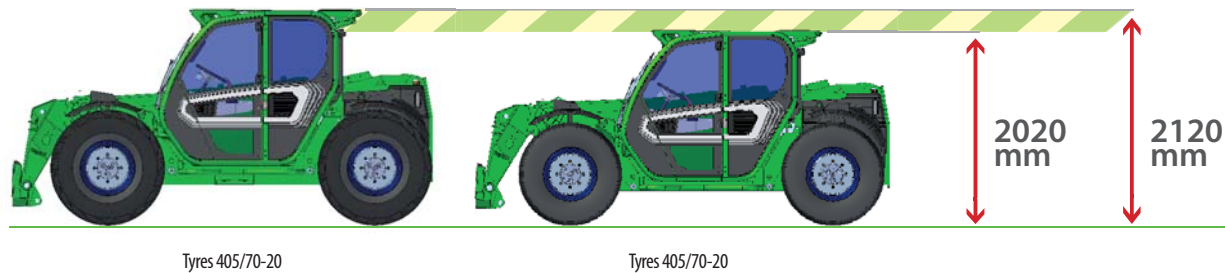
The new evolved ergonomic cab with **unparalleled comfort with its 1010 mm in width** is standard on the Compact range.

The lowered version ("Low Profile"), 2020 mm, is available as an option.

No space will be too low!

Cab height with standard cab and with lowered cab (Low Profile)

[ Pressurized cab\* ]



All the models are FOPS and ROPS approved, even in the "Low Profile" version.

New air-conditioning system. Warm-up and Cool-down times halved.

The new Merlo cab can now reach an internal temperature of 22°C with an external temperature of 43 °C and full sunlight and an internal temperature of 26°C with an external condition of -15 °C and no solar irradiation.

\*According to the ISO 10263-3 standard, models with load-sensing, not approved for pesticides.

### AIR-CONDITIONING SYSTEM



The air flow is distributed evenly inside the compartment and reaches all areas.

- The same cab for two versions:  
standard **2120** mm  
low profile **2020** mm
- **Maximum** space and comfort
- **1010 mm** wide. The **largest cab** in its **category**
- Automotive type **air conditioning** system



New Compacts, excellent  
ground clearance

340 mm  
ground  
clearance.  
405/70-20  
tyres





# New generation of Merlo planetary axles

## Durability and reliability

Our Compact telehandlers are equipped with a **new generation of planetary axles**, conceived, designed and built entirely.

The solution with planetary reducers was chosen to keep the machine's height as high as possible.

The result of experience acquired on the field, **the axles consist of a central cast iron body, planetary reducers and differential locking**. Braking is ensured by **4 dry disc brakes keyed onto the axle shafts**, allowing a remarkable reduction in friction and, consequently, consumption.

To complete the specifications offered, **the Medium Duty telehandlers are equipped with a parking disc brake which is automatically engaged when the diesel engine is switched off**, or engaged directly by the operator in the event of work on sloping surfaces.

The new axles ensure an excellent **ground clearance of 340 mm (405/70-20 tyres)**, making it possible to pass obstacles with agility.



Manual parking brake selector, automatically engaged when the engine is switched off.



### THREE STEERING MODES:



FRONT WHEEL STEERING



COORDINATED STEERING



CRAB STEERING

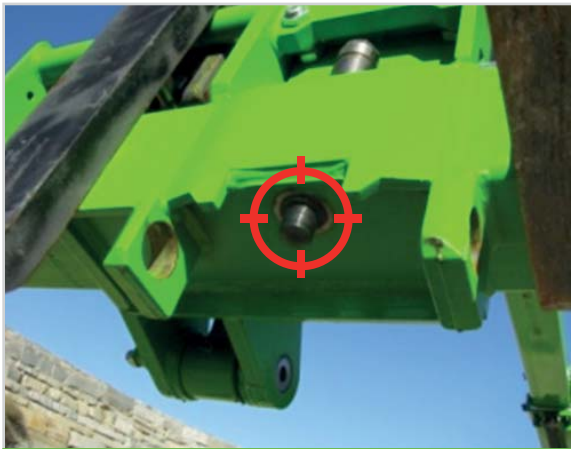
- Axles **conceived, designed and produced** in-house by Merlo
- **Compact solution** to maintain a **reduced height** in all the versions
- **340 mm** ground clearance
- **Three steering modes**
- **Dry brakes** to **reduce friction** and **consumption** and ensure **40 km/h** on the **entire range**
- **Automatic engaging** of the parking brake when the **engine is switched off**

# Merlo precision and technology

## An effective and cutting-edge boom

Merlo produces the booms mounted on its telehandlers in-house and has developed unique technologies to make them strong yet lightweight, protect handling mechanisms against accidental blows and allow users to position the load in the most precise manner possible.

- ✓ Boom sheet metal welded on the boom's neutral bending axis
- ✓ Cartridge protected handling system inside the boom, thanks to a patented solution that is easy to access if maintenance is needed
- ✓ Tac-Lock: hydraulic attachment clamping system from the cab



Tac-Lock: hydraulic attachment clamping system from the cab



Pipes, power cables and auxiliary hydraulic are all located inside the boom

- **Lighter** but **stronger** booms: robotised welding on the neutral axis, area with less strain.
- **Extension mechanism**, protected inside the boom
- Carriage equipped with **Tac-Lock hydraulic locking**
- Available both with **gear pump** and **Load Sensing pump**



# From the idea to development of multi-applicability

## More efficiency and productivity thanks to Merlo

Merlo adopts simple and effective guidelines in the evolution of the product.

From conception to development, everything is studied, designed and created in the Group's plants. This simple "rule" also applies to attachments.

Backed by years of experience, Merlo's technicians have developed a wide range of attachments, divided by type and load capacity.

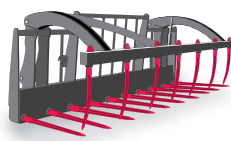
This standard makes it possible to adapt tested and interchangeable production equipment to allow for targeted uses, with the intention of facilitating work and reducing its execution times.



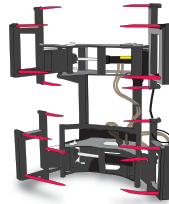
BALE FORKS



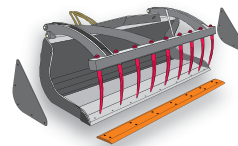
MANURE FORK WITH CLAW



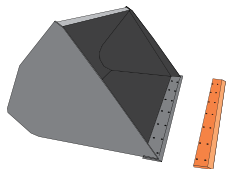
GRIPPERS FOR BALES



MULTI-PURPOSE LOADER WITH CLAW



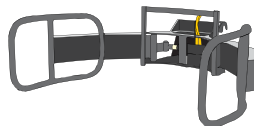
LOADERS



HOOKS/LIFTING BOOMS



GRIPPERS FOR WRAPPED BALES



PLATFORMS





## TRAINING CENTRE

The Merlo Training and Research Centre (CFRM) has made safety training and instruction in the use of the machine its mission. The CFRM provides training courses for operators of person-carrying overhead platform, forklift trucks, telehandlers, cranes, earth-moving machinery, agricultural and forestry tractors, snow ploughs and urban cleaning vehicles.

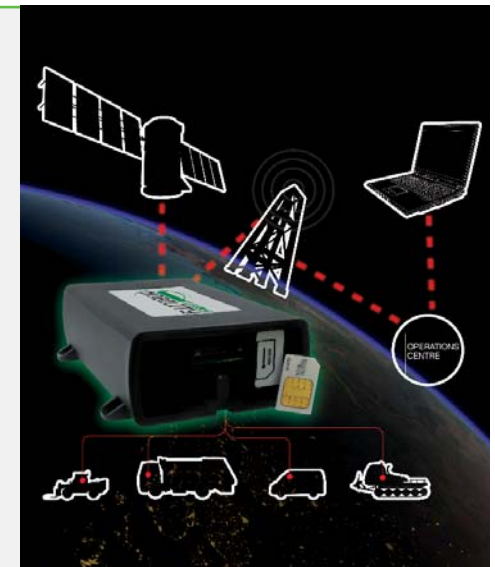


## Countries where Merlo is a market leader



## MOVIMATICA MERLO INFOMOBILITY

Is the new system, conceived and built within the Merlo Group, for managing vehicles: it enables GPS radio-localisation in real time, monitoring operation and use, receive and manage malfunction or burglar alarms and also send commands for handling events via the internet.





# THE MERLO WORLD

## In a globalised world, **the customer always comes first!**

From excellent products to excellent service. In 2008, Merlo has adapted its production process to meet the needs of the ISO 9001 quality control system. The process is perfected and improved continuously.

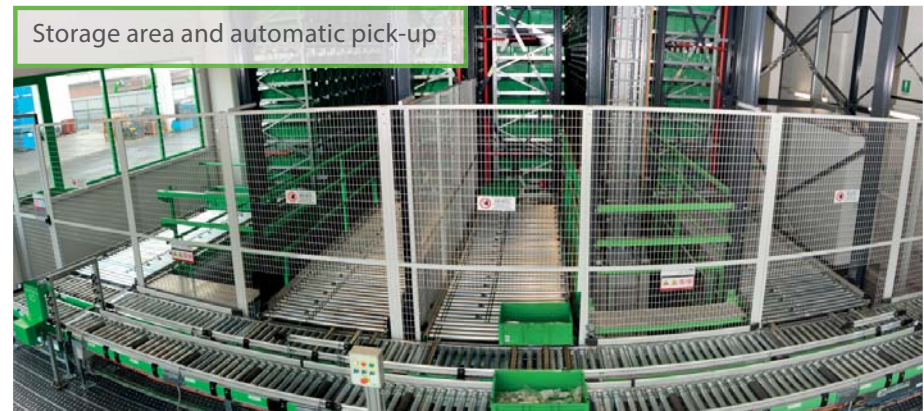
At the same time, the foundations have been laid to put the Customer first, implementing investments aimed at Services such as Financing, Training Assistance, Spare parts and Telematic Means such as remote diagnostics, thanks to the Merlo Mobility project.

Automatic spare parts warehouse	2011	2014
Storage volume	1000 m <sup>3</sup>	10.000 m <sup>3</sup>
Filling	100%	85%
Percentage of codes managed	50%	86%
Percentage of Lines managed	65%	94%
Pick-up time	90"	30"
Number of codes	8.000	17.000

### NEW PARTS CENTRE

The new spare parts warehouse covers an area of 7,000 m<sup>2</sup>, with storage capacity for of 10,000 m<sup>3</sup> for a total of 20,000 different codes. Furthermore, it can automatically manage 94% of the order lines that are processed daily, with an average withdrawal time of 30" per line.

The first fill per order line is over 99% with delivery times for urgent orders within 24 hours.



Storage area and automatic pick-up

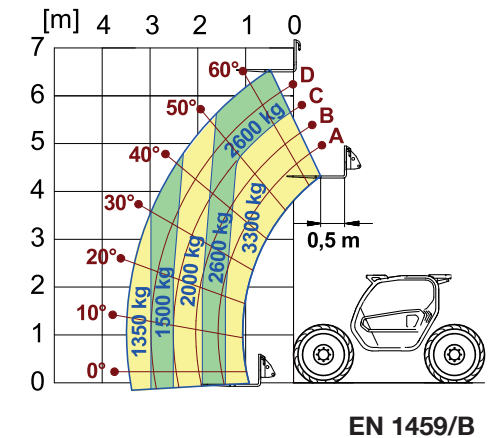


Order processing and shipment area

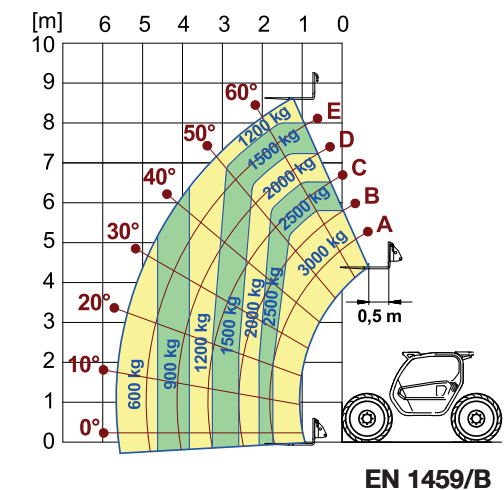
TECHNICAL INFORMATION	TF 33.7 G	TF 33.7 - 115 G	TF 33.7 - 115	TF 30.9 G	TF 30.9 - 115 G	TF 30.9 - 115
Total unladen mass, without forks (kg)	6500	6500	6500	6700	6700	6700
Maximum capacity (kg)	3300	3300	3300	3000	3000	3000
Lifting height (m)	6,6	6,6	6,6	8,6	8,6	8,6
Maximum reach (m)	3,5	3,5	3,5	5,7	5,7	5,7
Maximum operating height (m)	5,7	5,7	5,7	5,8	5,8	5,8
Maximum operating reach (m)	1,4	1,4	1,4	1,7	1,7	1,7
Capacity at maximum height (kg)	2600	2600	2600	1200	1200	1200
Capacity at maximum reach (kg)	1350	1350	1350	600	600	600
Turbo motor (displacement/cylinders)	2,9/4	3,6/4	3,6/4	2,9/4	3,6/4	3,6/4
Tier 4 Interim motor power (kW/HP)	55/75	90/115	90/115	55/75	90/115	90/115
Maximum speed (km/h)	35	40	40	35	40	40
BSS hydro-pneumatic boom suspension	○	○	○	○	○	○
Fuel tank (l)	85	85	85	85	85	85
Hydraulic gear pump (bar-l/min)(bar-l/min)	210/98	210/98	-	210/98	210/98	-
Hydraulic Load-Sensing pump (bar-l/min)	-	-	210/125	-	-	210/125
Fan Drive Pump (l/min)	36	36	36	36	36	36
Flow Sharing Distributor	-	-	●	-	-	●
Hydraulic oil tank (l)	85	85	85	85	85	85
FOPS (ISO 3449) and ROPS (ISO 3471) cab	●	●	●	●	●	●
Electrohydraulic joystick	●	●	-	●	●	-
Electronic joystick	-	-	●	-	-	●
Hydrostatic transmission	●	●	●	●	●	●
Differential lock (A-P)	○	○	○	○	○	○
Dual Control Reverse Shuttle (joystick/steering wheel)	●	●	●	●	●	●
Inching Control progress control from pedal	●	●	●	●	●	●
Permanent four-wheel drive	●	●	●	●	●	●
Four-wheel steering	●	●	●	●	●	●
Automatic parking brake (when the engine switches off)	●	●	●	●	●	●
Work headlights on cab (2 A + 2 P)	○	○	●	○	○	●
LED work headlights on cab	○	○	○	○	○	○
Change of speed	2 speeds	2 speeds	2 speeds	2 speeds	2 speeds	2 speeds
EPD Eco Power Drive	-	Standard	TOP	-	Standard	TOP
Standard tyres	405/70 20	405/70 20	405/70 20	405/70 20	405/70 20	405/70 20
Type approval as an agricultural tractor	○	○	○	○	○	○

● As standard. ○ On request.

## TF 33.7 WITH FORKS

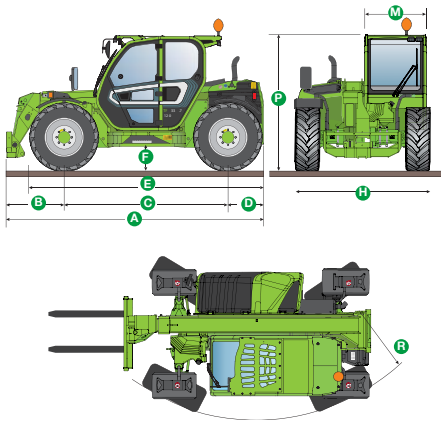


## TF 30.9 WITH FORKS





# TECHNICAL INFORMATION



DIMENSIONS TURBOFARMER COMPACTS

A (mm)	4315
B (mm)	990
C (mm)	2740
D (mm)	585
E (mm)	3910
F (mm)	340
H (mm)	2100
M (mm)	1010
P (mm)	2120/2020*
R (mm)	3930

\*version with standard cab and Low Profile

## New Compact modular models

### The advantages that make the difference

- ✓ 6 models with low cab. A complete offer for poultry farming and more!
- ✓ All models have the "Low Profile" version available
- ✓ Pressurised cab as standard\*
- ✓ Fan reverse shuttle as standard, for radiators that are always clean to ensure maximum efficiency

### From now on, you don't have to give up anything

- ✓ 40 km/h approval for agricultural tractor use, also on "Low Profile" versions
- ✓ The same comfort ("standard" and "Low Profile" versions)
- ✓ Even greater accessibility to the "Low Profile" cab

\* Cab not approved for pesticides. Load Sensing models.

## OVER 50 YEARS OF CONSTANT COMMITMENT TO WORKING TOGETHER WITH YOU

- 1964** - Establishment of the Merlo Group
- 1966** - DM and DBM: the first dumper and the first self-loading concrete mixer
- 1981** - SM: the world's first telescopic handler
- 1987** - Panoramic: the world's first telehandler with side engine
- 1991** - Roto: the world's first telehandler with rotating turret
- 1996** - Turbofarmer: the first telehandler in Europe type-approved as an agricultural tractor
- 1998** - P26: the ultra-compact telehandlers
- 2000** - Multifarmer: the first agricultural tractor with telescopic boom
- 2001** - MM: the first forestry attachment-carrier
- 2010** - Hybrid: the first diesel/electric hybrid telehandler
- 2012** - Modular: a new concept of telescopic handler
- 2013** - Three important awards at the Agritechnica in Hanover:
  - Hybrid 42.7: gold medal for technological innovation
  - Turbofarmer II range: "machine of the year 2014"
  - Multifarmer 40.9: "a milestone in agricultural machinery"
- 2015** - New modular Medium Duty and Compact Turbofarmer named "machine of the year" 2015 at Sima in Paris



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*The Telehandlers outlined in this documentation can be equipped with optional or special accessories that are not included in standard equipment but only on request.*

*In certain countries, not all models or attachments may be available because of market or regulatory restrictions.*

*Technical data and information are up-to-date at the time of printing this documentation. Merlo reserves the right to make modifications arising from natural technological evolution without any obligation on its part.*

*Your trusted Merlo Dealer will be delighted to provide you with all updates concerning our products and services.*