



# SUPER COMPACT

## Telescopic Handler



**MERLO**





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# Merlo: Technological leader in operating machines

Merlo is an important family-run industrial group founded in Cuneo in 1964 that designs, produces and markets its own products under the "Merlo" and "Treemme" brands.

People and the territory are at the centre of the project; the Merlo Group is committed to respecting the environment and making the work of the operator (and everyone who is passionately dedicated to constantly improving the efficiency and performance of our products) more functional, safe and comfortable.

The product portfolio consists of a complete range of telescopic handlers, both fixed and rotating, DBM self-loading concrete mixers, and Cingo multi-purpose tracked transporters.

All products in the Merlo range are characterised by innovation, technology and reliability, which have always been distinctive features of the Group and have gained market confidence.



## SUPER COMPACT TELESCOPIC HANDLERS RANGE

# Maximum performance, minimum encumbrance

Merlo has always offered telescopic handlers able to meet every customer's need. The compact telescopic handlers range has been designed bearing this in mind: small-size lifts, with high-profile performance in the total comfort of the largest cab in its category.

MERLO compact telescopic handlers are recognised worldwide as all-purpose machines, offering models that can be used both in agriculture, construction and industrial sectors, without neglecting more specific contexts such as recycling and mines.

The compact telescopic handlers range is made up of three models that differ in terms of equipment and dimensions.

The P27.6 is the reference model in the compact segment: with a width of 1.86 metres and a height of 1.96 metres, this telescopic handler offers unparalleled manoeuvrability and accessibility, lifting up to 2,700 kg and reaching lifting heights of 5.9 metres.

#### TELESCOPIC BOOM:

Height of 6 metres with load-bearing capacity of 2,700 kg. Exclusive design that ensures lightness, precision and sturdiness. Unified implement-holder carriage equipped with hydraulic Tac-lock locking system, controllable from the cab.

#### POWERTRAIN:

Hydrostatic transmission with permanent four-wheel drive, 75 HP Kohler engine and maximum speed of 40 km/h. Exclusive position of the side and longitudinal engine.

#### CAB:

Level II FOPS and ROPS certified, designed to maintain the maximum level of ergonomics and ensure high protection for the operator. The 1010 mm width and the wide glass surface ensure unparalleled comfort and full visibility.



#### STEERING WHEEL:

Four-wheel steering and three types of steering. The steering range is minimised in order to maximise machine manoeuvrability.

#### HYDRAULIC SYSTEM:

Downsized hydraulic system to minimize maneuvering times. Hydraulic gear pump with fixed displacement which ensures 94 l/m flow rate and 210 bar pressure.

#### USER INTERFACE:

Cab display to view all operating parameters. Single-lever ergonomic joystick for hydraulic controls.





## SAFETY

### Not just feelings

The Merlo cab is certified according to standards ISO 3449 FOPS Level 2 and ISO 3471 ROPS, to ensure top-range safety levels for the operator. The FOPS protection grill is outside the glass roof to improve roominess and safeguard the integrity of the structure and windscreen. All models of the compact telescopic handlers range are equipped with built-in Merlo safety system that monitors and manages safety-related parameters in real time, allowing the operator to work in complete peace of mind.

Machine safety is enhanced by an automatic management of the parking brake that brakes the machine if the engine switches off, so as to avoid unintentional movements. Moreover, to ensure the maximum protection of operator and mechanical parts in case of impacts and accidents, an exclusive steel belt made of a metal section bar with 55 mm diameter is positioned outside the frame.



The Merlo designers have devised a sturdy, compact and lightweight telescopic boom, today a benchmark for design, load capacity and speed when carrying out work. The steel is of the high-resistance type and the welds are along the neutral bending axis, offering a rectilinear boom in any extension or loading condition. By inserting the hydraulic hoses inside the boom, the external shape is clean and free of grips that cause possible damage. These features preserve the components and extend the life of the boom.



# PERFORMANCE

## Everything at your fingertips

To ensure maximum precision in movement and high torque to the wheels, the telescopic handlers in the compact range are equipped with the latest generation hydrostatic transmission characterised by permanent four-wheel drive. This solution also makes it possible to ensure extreme precision in movement with millimetric management of machine movements and load positioning while maintaining an excellent braking capacity upon the release of the accelerator control.

Finally, the two-speed hydrostatic transmission (a single ratio for the P27.6 models) guarantees a maximum speed of movements of 40km/h and is driven by combustion engines which powers 75 HP, installed on the right side of the frame with longitudinal arrangement to maximize accessibility to the components in the event of scheduled or extraordinary maintenance. The axles, designed and developed internally by the Merlo Group, are designed to offer tailor-made dimensions. They are equipped with epicyclic gear reducers so as to guarantee a lower centre of gravity to increase machine stability and ensure great reliability and excellent traction qualities.

### HYDRAULIC SYSTEM

The range of compact telescopic handlers includes several features on hydraulic attachments dedicated to the specific needs of each model:

- Fixed displacement hydraulic pump
- Maximum working pressure is 210 bar with the aim of limiting component wear and reducing hydraulic oil overheating.
- The hydraulic system can deliver an oil flow rate of up to 98 l/min.
- Optimal simultaneous control of all movements







## COMFORT

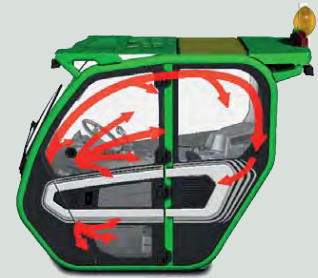
### The best work station

The exclusive cab, fitted with vibration-damping silent-blocks on the frame, has been developed to guarantee our customers a record level of comfort, with a width of 1010 mm and a large glass surface of 4.3 sq.m ensuring the best roominess in its class. In addition, all models can be fitted with a pneumatic suspension seat to further increase driving comfort.

Acoustic and thermal comfort have also been taken care of down to the smallest detail, thanks to intensive research into the most innovative technical solutions and materials, ensuring optimal soundproofing and thermal insulation. The latest generation air conditioning system guarantees ideal temperatures to work all year round and prevents the entry of dust into the cab, thanks to the cab pressurisation in compliance with ISO 10263-3\* standards.

To increase operating comfort, all models in the compact telescopic handlers range are fitted as standard with a Tac-lock implement locking device, hydraulically controlled from the cab. To make it easier for the operator to enter and exit the cab, the exclusive door can be opened by 180°. In addition, the upper part of the window can be locked during opening to facilitate air exchange and direct contact with those working outside.

#### AIR CONDITIONING



The air conditioning system is completely new and has been developed according to automotive standards, halving the warm-up and cool down times so as to ensure the optimal temperature even in extreme weather conditions. The inlet vent is placed on the side of the cab, away from potential sources of dust and dirt to maximise the service life of the filters. Inside there are eight vents, three of which are dedicated to defrosting the windscreen, for optimal climate comfort.

#### NOTE:

\* pressurisation level not approved for use of pesticides, work in hazardous environments, with asbestos, etc.



## CAB



The cab has a new design that favours functionality and comfort. The information to the driver and the controls of the different systems and devices is grouped into functional areas, in order to maximise the ergonomics of activation. The reverse shuttle at steering wheel, intuitive and within easy reach, increases safety and manoeuvring agility while maintaining full control of the steering wheel.

- 1 Joystick
- 2 Reverse shuttle
- 3 Display
- 4 Air conditioning system
- 5 Inching - Brake - Accelerator
- 6 Curved windscreen
- 7 Glove compartment







## EFFICIENCY

### Simpler and smarter

Merlo has developed the most versatile and compact telescopic handlers, characterized by reduced dimensions and light weights that guarantee reduced maneuvering space and lower impact on the ground. The P27.6 operational safety and high maneuverability are ensured by the 4-wheel steering system with three types of steering, reducing maneuvering times, all to the benefit of productivity, reduced fuel consumption and machine wear.

Merlo telescopic handlers are designed to offer the best visibility on the market, maximizing travel efficiency and customer safety. Boom position, bonnet design and over 4.3 sq.m of glass surface ensure fast, safe and precise operations, reducing maneuvering time.

The Merlo models in the compact telescopic range are equipped with a double-acting hydraulic service line and an electrical socket for machine-implement communication, located at the top of the boom, making them compatible with a wide range of attachments, specifically designed for Merlo telescopic handlers. The attachments are easily interchangeable, thanks to the exclusive Tac-Lock system.

Models with 115 HP engines are equipped with the latest generation engine and transmission control system, i.e. the EPD (Eco Power Drive) system. The exclusive EPD technology automatically controls and adjusts the engine revolutions based on operating conditions, disconnecting it from the accelerator pedal and allowing a reduction of up to 18% in fuel consumption. The operator only has to operate the accelerator pedal and all functions are fully automated.





## BOOM

Merlo designers have created a sturdy, compact and light telescopic boom which has become the industry standard for design, load capacity and speed in the execution of work.

The structural-type steel chosen for the boom is welded along the neutral bending axle, for a boom that stays straight regardless of extension and load conditions.

Components such as pipes and cables are placed inside of the boom, ensuring that the external bodywork remains clean and free from obstructions.

## THREE STEERING MODES

This exclusive solution adopted on the axles guarantees the maximum steering angle to perform manoeuvres in tight spaces.



front wheel  
steering



pivot steering



crab steering







# ALL IN ONE

## Strength

## Compactness

## Versatility

The P27.6 represents the smallest model in the compact telescopic handlers family.

This feature, combined with high manoeuvrability, makes it extremely easy to use during material handling and positioning, also in small spaces.

Equipped with the exclusive Merlo cab, already a favourite on the higher segment models, it guarantees the most spacious and comfortable driving position available on the market.

The large glass surface, the level of soundproofing and the exclusive roominess allow you to make the most of the capacities of this model, reducing fatigue and guaranteeing maximum safety.



## TRANSMISSION - AXLES



Merlo personally designs and produces most of the components that make up its telehandlers. The axles are an integral part of every design and are conceived and seized for better integration with the main components of the machine:

- Maximum performance and excellent versatility thanks to the two torque levels available
- Low centre of gravity, maximum reliability and high traction
- Integral servo-braking: acts on all four wheels for maximum safety in all working environments

The P27.6 Plus offers power and essential features, developed to meet the needs of each customer ensuring performance and efficiency applicable to any context of use.

The P27.6 Plus is delivering greater torque to the wheels, a perfect model for those who need superior performance without sacrificing on the extraordinary compactness and comfort qualities.



### TRANSMISSION

- 1 Axle
- 2 Differential
- 3 Hydrostatic engine
- 4 Drive shaft
- 5 Engine
- 6 Hydrostatic pump
- 7 Hydraulic pipelines

## ENGINE



The P27.6 models are equipped with the new 75 HP (55 kW) four-cylinder KOHLER KDI2504TCR 2,500cc engine. The engine complies with Stage V anti-pollution regulations with DOC (Diesel Oxidation Catalyst) and DPF (Diesel Particulate Filter) system.

## BOOM SUSPENSIONS

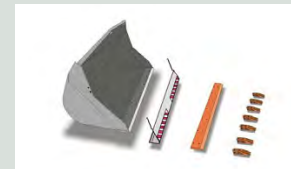
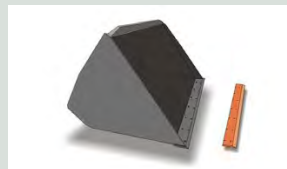


The active boom suspension system (BSS) is available as an option, which protects the load during transfer and maintains a high level of driving comfort on rough terrain. The suspension is automatically deactivated at low speed (below 3 km/h), for boom maximum precision and power.

# ATTACHMENTS

The attachments, designed and manufactured in the Merlo Group's plants, are the real operational tools of Merlo telescopic handlers: they are the result of the great experience of our technicians who interpret the operational needs of our customers and create solutions capable of enhancing the performance of the machine in different operating situations. Attachments with dedicated dimensional and performance characteristics have been developed also for the compact telescopic handlers range.

The entire Compact range is equipped with the ZM2 implement-holder carriage, which allows attachments to be shared on several models. The exclusive and patented attachment recognition system and the efficient hydraulic locking system allow for quick implement changeover and automatic configuration of the operating parameters, all to the benefit of versatility and safety.



# TRAINING CENTRE

The Merlo Training and Research Centre (CFRM) has made safety and machine training its mission. The CFRM provides training courses for operators of aerial platforms for people, forklifts, telescopic handlers, cranes, earthmoving machines, agricultural and forestry tractors, snow ploughs and urban hygiene vehicles.



# MERLO MOBILITY

## Always connected

The Merlo telescopic handler range offers exclusive technology, making their telescopic handlers even smarter and more connected. The customer, through the MerloMobility 4.0 connectivity system, can fully utilise the information detected by the machines and transferred to a portal. Merlo Mobility is a flexible tool able to optimise the machine's operational monitoring in the various sectors of activity.





## SERVICE



Whoever buys a Merlo machine chooses a product that meets the highest standards of quality, reliability and innovation.

The customer can count on first-class assistance and maintenance services offered by our network of official dealers.

Merlo Service offers a complete range of services thanks to the constant training and continuous updating of specialised technicians who work in the various service centres, located throughout the country.



## PARTS



We manufacture more than 90% of our machine components internally; thanks to this, we can guarantee original spare parts that are made ad hoc for our machinery.

In addition, our spare parts are subject to continuous and rigorous quality controls. The careful and periodic maintenance, combined with the use of original spare parts, becomes an economic advantage and reduces the number of interventions required; in this way your Merlo telescopic handler will maintain its level of performance unchanged over time.





Model	P27.6Plus
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#### Performance

Unladen weight (kg)	4850
Maximum load capacity (kg)	2700
Lift height (m)	5.9
Maximum reach (m)	3.3
Boom section	2

#### Powertrain

Engine	KOHLER KDI2504TCR
Range / cylinders	2500/4
Engine power (kW/HP)	55/75
Anti-pollution technology	Stage V - DOC + DPF
Reversible fan	No
Maximum speed (km/h)	40
Fuel tank capacity (l)	70
Adblue tank capacity (l)	-
Hydrostatic transmission	SI - 1V
EPD	No
Axles	Axial
Reducers	Epicyclic
Brakes	Dry discs
Automatic parking brake	Yes

#### Hydraulic system

Hydraulic pump	Gears
Delivery/pressure (l/min-bar)	95-210
Hydraulic oil tank capacity (l)	70
Auxiliary hydraulic service on boom	Yes
Rear service line	OPT

#### Cab

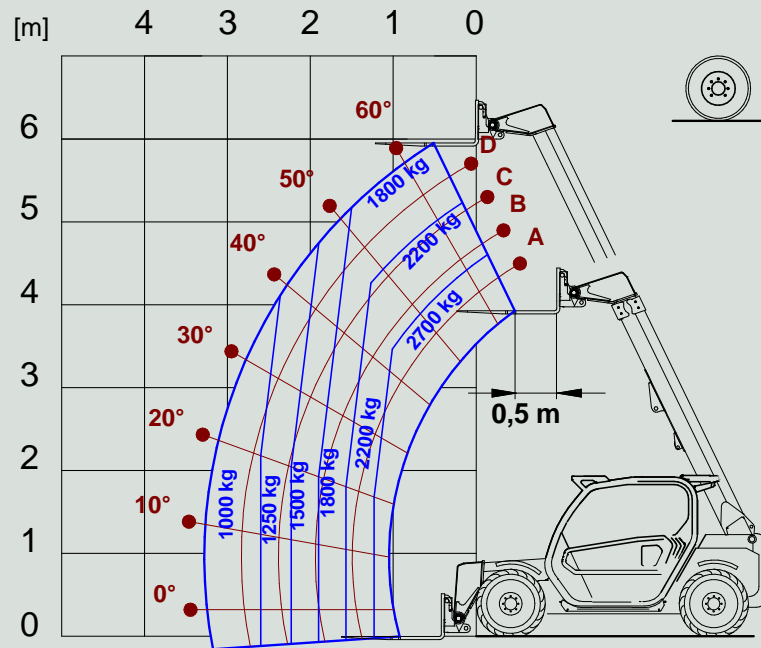
Cab finishing	ECO
MCDC	No
FOPS LIV II Cab	Yes
ROPS cab	Yes
Controls	Electro- mechanical joystick control
Reverse shuttle	Finger touch

#### Configuration

Hydropneumatic suspension BSS	OPT
Roof wiper	Yes
Sun-shade in the cab	Yes
Tac-lock	Yes
Pre-arrangement for aerial work platform	OPT
Pedal inching-control	Yes
Permanent four-wheel drive	Yes
All-wheel steering	Yes
Three steering ways	Yes
Standard tyres	12-16.5"
Tractor type approval	OPT



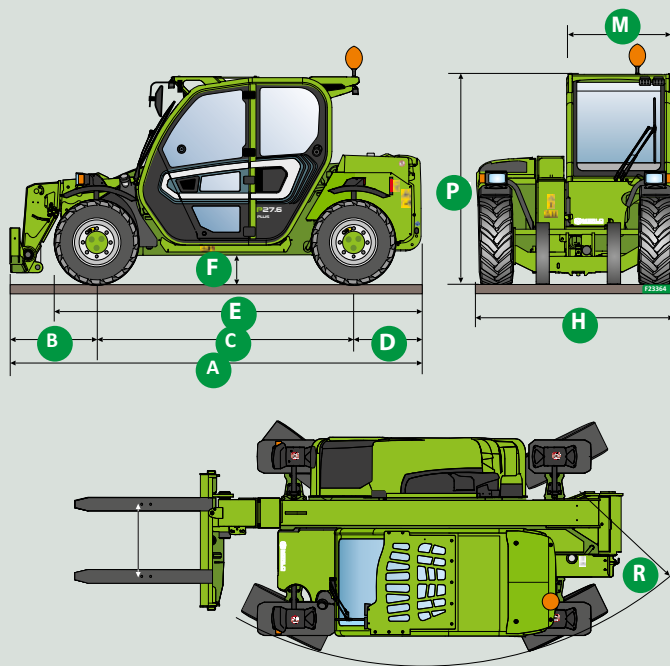
# Load Chart



# Dimensions

## P27.6 PLUS

A (mm)	3910
B (mm)	820
C (mm)	2450
D (mm)	640
E (mm)	3495
F (mm)	270
H (mm)	1860
M (mm)	1010
P (mm)	1960
R (mm)	3370

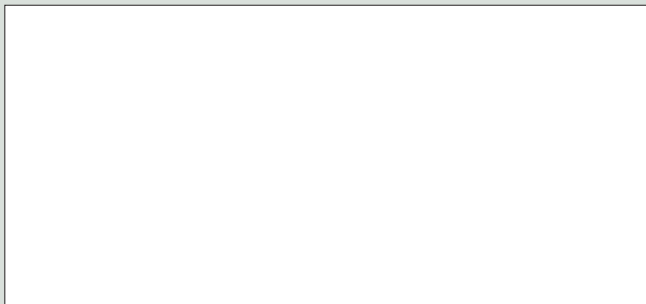




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#### **Your Merlo dealer**



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The products shown may include optional equipment.