

LEITWOLF





#### CLEAN MOTION MORE WITH LESS

CLEAN MOTION is PRINOTH's cutting-edge philosophy, which is not only synonymous with low energy consumption and sustainable environmental protection but also creates vehicles boasting efficiency, excellent performance, and a long service life. Achieve more with less.

#### ENGINE TECHNOLOGY STAGE IV/TIER 4 FINAL

The six-cylinder diesel engine has an output of 390 kW/530 hp and generates a torque of 2,460 Nm. It is the world's first production vehicle in its class to meet the new "Stage IV/Tier 4 final" exhaust emission standard and offers an impressive reduction in nitrogen oxide emissions.

#### UNATTAINABLE STANDARDS TILLING TECHNOLOGY

The POWER tiller ensures deep, fine-grained tilling results and offers an exceptional trailing configuration thanks to a unique rear mounting frame. Extra torque and power guarantee unprecedented slope quality and long-lasting grooming results.

#### COMFORTABLE DRIVER'S CAB ERGONOMIC AND COMFORTABLE

The LEITWOLF driver's cab offers a comfortable workplace with a central seating position and superb all-round visibility. The standardized PRINOTH instrumentation with a multifunctional joystick and digital 8.4 inch color display make it more comfortable and easier to control than ever before.

#### AREA COVERAGE AND CLIMBING ABILITY

With a track width of 4.5 m, the LEITWOLF is 294 mm wider than comparable vehicles and, thanks to the large-track working surface, has the best climbing ability. With the LEITWOLF you can prepare larger areas in a shorter period of time, saving time as well as fuel.



### 4.5 T WINCH PULLING FORCE AND OPTIMAL VEHICLE HANDLING

The AUTOMATIC winch is ideally suited to the vehicle, as the central position of the winch pivot point ensures neutral driving behavior. Even with lateral stresses above the side mirrors, the LEITWOLF maintains its lateral stability and offers various possibilities for the preparation of steep slopes and difficult terrain.



#### **STAGE IV/TIER 4 FINAL**

The combination of the SCR system and exhaust gas recirculation generates 80% less nitrogen oxide compared with its predecessor. The LEITWOLF therefore meets the exhaust emission standard "Stage IV/Tier 4 final."

## **CLEAN MOTION**

#### MORE WITH LESS

CLEAN MOTION by PRINOTH is a pioneering philosophy, which is not only synonymous with low energy consumption and sustainable environmental protection but also creates vehicles boasting efficiency and excellent performance. Using natural resources sustainably is one of PRINOTH's primary concerns when developing products.

#### RESPONSIBILITY

PRINOTH cares about clean slope preparation. We make sure to keep exhaust emissions low and use resources sensibly, as well as ensuring high economic efficiency and a long service life. After all, our snow groomers are used day in, day out wherever outstanding technology needs to be combined with a high degree of environmental responsibility.

#### ENVIRONMENTAL COMPATIBILITY

The LEITWOLF takes the outstanding properties of its previous model and refines them, ensuring an even better performance that goes far beyond simply preparing the technical conditions of the slope. It offers powerful drive and a tremendous climbing ability combined with maximum grooming performance, exceptional handling, low operating costs, and top results in terms of environmental compatibility.

#### MAXIMUM GROOMING PERFORMANCE

With a track width of 4.5 m, the LEITWOLF is 294 mm wider than comparable vehicles and, thanks to the large-track working surface, has the best climbing ability. With the LEITWOLF you can prepare larger areas in a shorter period of time, saving time as well as fuel.



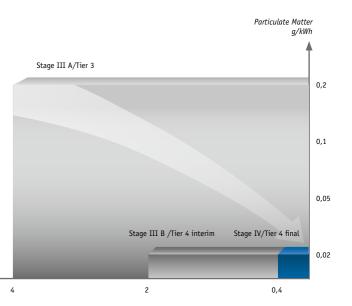
#### **BRAINS AND BRAWN**

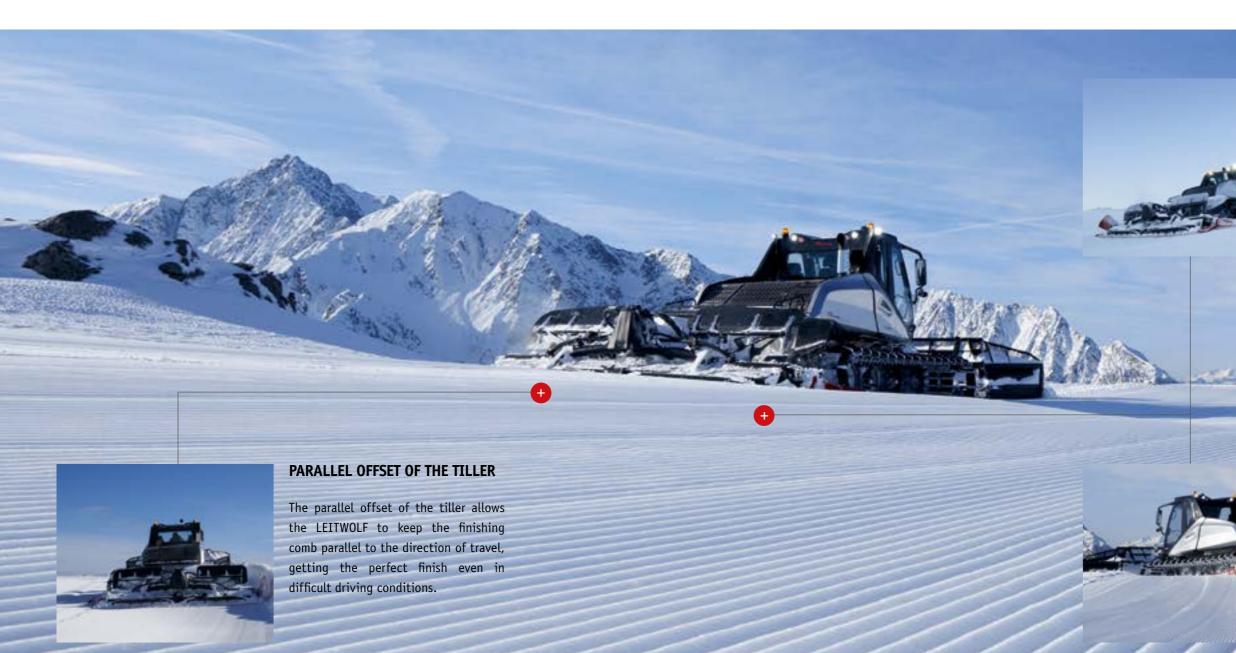
The most powerful vehicle in its class, the LEITWOLF boasts 390 kW/530 hp, yet it also offers lower fuel consumption and reduced emissions despite its high power. The exceptionally efficient power transmission delivers higher torque and therefore greater pushing performance.



#### SCR SYSTEM

The urea solution (AdBlue) is injected into the exhaust tract after the oxidizing converter. In the SCR catalyst, a chemical reaction separates the harmful nitrogen monoxide and dioxide into harmless nitrogen and water vapor.





# **POWER TILLER**

#### PERFECT SLOPE QUALITY

Steep slopes, tricky transverse crossings, and deep troughs – None of these are a problem for the LEITWOLF. With its POWER tiller and the highest track width in its class, the LEITWOLF guarantees perfect slope quality, no matter the snow conditions. Your customers will notice and you will be rewarded by a high visitor frequency on your slopes.

#### NUMBER 1 IN SLOPE GROOMING

The POWER tiller ensures deep, fine-grained tilling results and offers an exceptional trailing configuration thanks to a unique rear mounting frame. Extra torque and power guarantee unprecedented slope quality and long-lasting grooming results.

#### A DAZZLING LOOK

The POWER tiller produces a perfect slope that lasts much longer than ever before. With its specially arranged teeth, the tiller can prepare perfect snow packs, facilitating snow infeed in the tiller housing and ensuring an even layer of snow.

#### THE PRINOTH POWER TILLER

» Unique slope quality thanks to an innovative tiller shaft
» Durable preparation result thanks to ideal conditioning of the snow laye
» Robust tiller teeth counter premature wear and tear
» Perfect slope surface and snow throughput thanks to the anti-adhesive of
» Reduced maintenance thanks to simplified design



#### **POWER TILLER**

The POWER tiller promises long-term sustainable fun on the slopes. Constant optimization ensures excellent slope quality and a deep and fine-grained tilling result.

### TRAILING CONFIGURATION

The trailing configuration of the tiller can be selected and adjusted between parallel offset and free trailing mode depending on the situation. This allows the driver to adjust the tiller to suit the conditions on the slopes.

#### LOW-MAINTENANCE AND EFFICIENT

er coating Its optimized design means that the POWER tiller needs low-maintenance as well as being really easy to operate and adjust. It can be locked in a rigid position from the cab without the driver having to get out. The tiller teeth are perfectly arranged, reducing fuel consumption, and extremely robust, preventing premature wear.



#### **DISPLAY & JOYSTICK**

The multi-functional PRINOTH joystick is designed for a comfortable hand position and allows the driver to operate all the main functions of the blade, tiller and winch with one hand.



#### **STEERING LEVER CONTROL**

The steering levers allow each track to be individually controlled for precise handling and comfortable steering.

# **COMFORTABLE DRIVER'S CAB**

#### COMFORTABLE WORKPLACE

The central driving seat gives the driver an optimum overview. The cabin can be entered and exited from both sides, which keeps distances short. The cabin is fitted with an optional fully-automatic air conditioning system, which ensures a pleasant driving environment. Standard cab and window heating ensure a comfortable environment and unhindered visibility.

#### STANDARDIZED INSTRUMENTATION

The standardized PRINOTH instrumentation has been implemented across the entire fleet of new-generation snow groomers, ensuring greater efficiency and optimal workflows. This means that drivers need no longer lose time familiarizing themselves with their vehicles.

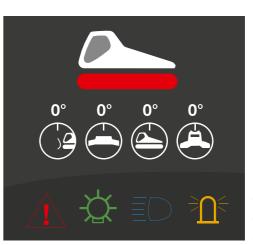
#### **ERGONOMIC CONTROL ELEMENTS**

With the 8.4 inch color display, you have all the required information perfectly in sight. The primary vehicle functions can be controlled with one hand thanks to the multi-function joystick. The secondary vehicle functions can be operated via the direct-access keys, including function feedback. The central menu button can be used to navigate the information and configuration menu.

#### INNOVATIVE ONBOARD DIAGNOSTICS

B-0.0

The driver is alerted to fault messages by audible alarm signals and can easily find details in the fault log. Gas pedal characteristics, interval times, steering characteristic curves, and other properties can be stored individually for up to 6 drivers and accessed at any time.



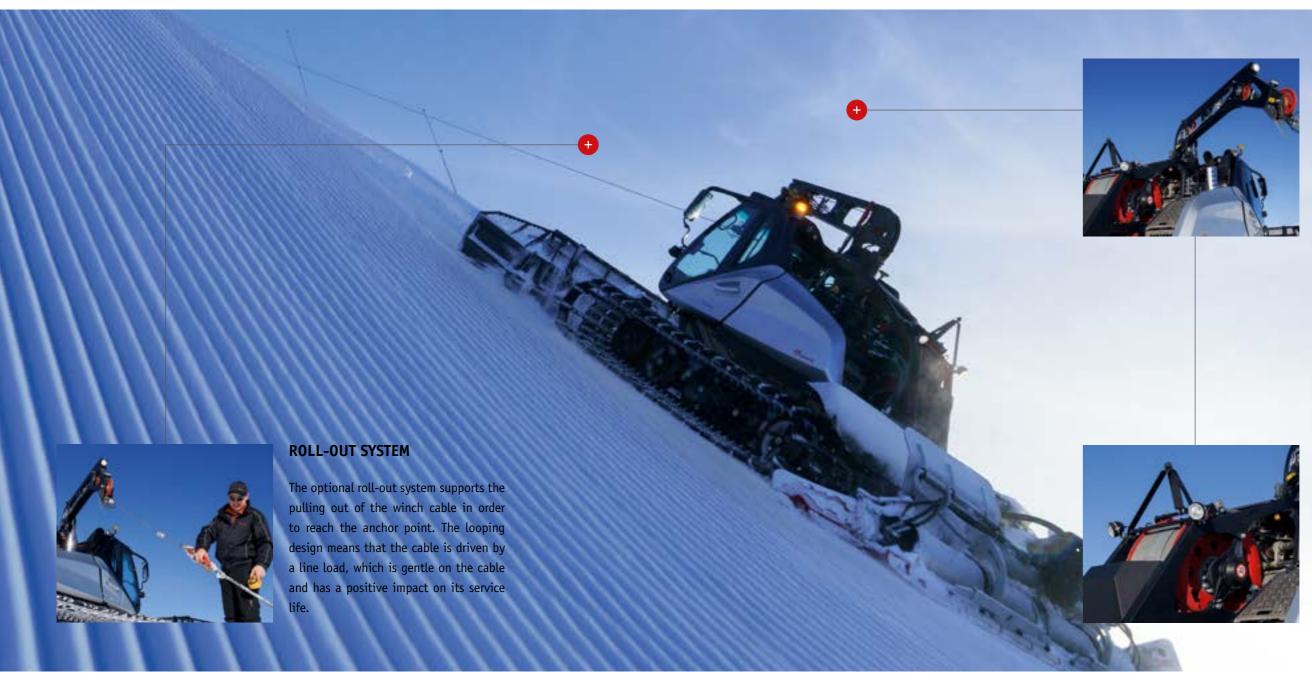




### ROOF WINDOW & AIR CONDITIONING

The driver's cab is fitted with an integrated roof window. An optional, fully-automatic air conditioning system ensures a pleasant driving environment.

> Function feedback as well as failure diagnostics shown on the main display, detailed information in the service menu level.



### **AUTOMATIC WINCH**

#### OPTIMAL VEHICLE HANDLING WITH WINCH IMPROVED OVERALL PERFORMANCE

The AUTOMATIC winch is ideally suited to the vehicle, as the central position of the winch pivot point ensures neutral driving behavior. Even with lateral stresses above the side mirrors, the LEITWOLF maintains its lateral stability and offers various possibilities for the preparation of steep slopes and difficult terrain.

With a maximum pulling force of up to 44.1 kN/4.5 t, the winch can be operated in manual or automatic mode. The automatic mode operates up to the maximum pulling force, while the eco mode employs a limited traction force of up to 34.3 kN/3.5 t, achieving a higher grooming speed and reducing fuel consumption.

#### CONCENTRATING ON THE SLOPE

The manual mode allows the driver to easily adjust the working speed using a potentiometer on the joystick. In all situations, the driver can override the automatic mode by activating a control on the joystick. The automatic mode allows the driver to devote his full attention to the slope surface.

#### THE AUTOMATIC WINCH AT A GLANCE:

» 4.5 t pulling force

force control

- Automatic WINCONTROL pulling
- Choice of automatic, eco, or manual mode
- Cable length up to 1,200 m
- Cable diameter 11 mm
- » Breaking load 150 kN

#### WINCH PULLING FORCE

Even at high grooming speeds, the pulling force does not have to be dialed back. With varying cable lengths of 850 m, 1,050 m and 1,200 m, you can adapt perfectly to different slope lengths. One particular advantage is the availability of the maximum pulling force regardless of the corresponding cable length on the drum.



#### HYDRAULIC WINDING SYSTEM

The linearly-guided automatic winding system extends the life of the winch cable thanks to the precise way it works. The cable can be wound and rewound quickly and easily.

#### **REAR VIEW CAMERA**

The AUTOMATIC winch is fitted as standard with a heated rear view camera in order to give the driver the necessary overview of the area behind the vehicle. The picture from the camera is shown automatically in the information display when reversing and can be activated individually if required.

### **BOGIE WHEELS & FENDERS**

The optimization of the bogie wheels significantly reduces the weight for even better climbing ability and lower fuel consumption. The fenders have a modern design and prevent snow from being thrown over the tiller.

## **ACTIVE UNDERCARRIAGE**

#### MAXIMUM GROOMING PERFORMANCE

With a width of 4.5 m the LEITWOLF has the widest track width in its class and achieves the best pushing performance. In addition, the high track working surface improves climbing ability. With the LEITWOLF you can prepare larger areas in a shorter period of time.

#### ACTIVE UNDERCARRIAGE

The track working surface can be increased or reduced by lifting the undercarriage. Decreasing the working surface improves maneuverability, while increasing it improves the vehicle's climbing ability and pushing performance, which is further enhanced by the vehicle's low center of gravity.

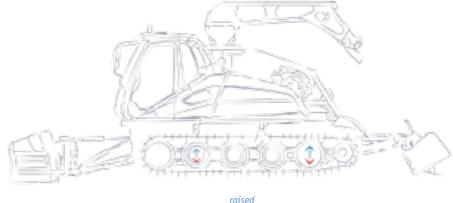
#### MORE POWERFUL ENGINE

The new generation of pumps from Bosch Rexroth works in combination with improved tubing to optimize efficiency in the drive train and therefore provides better power transmission. Thanks to higher oil flow volumes, the diesel engine can be used in the lower speed range without reducing working speeds. This reduces fuel consumption.

#### THE BENEFITS OF THE ACTIVE UNDERCARRIAGE

Decreasing and increasing the track working surface by raising and lowering the undercarriage » Optimized maneuverability Maximum climbing ability » Improved pushing performance

» Perfect adaptation to the terrain



Raising and lowering the track working surface





#### ACTIVE UNDERCARRIAGE

The track working surface or platform can be lowered by raising the undercarriage or lifted by lowering it. Raising the undercarriage increases maneuverability, while lowering it increases traction and thus the climbing ability and pushing performance.





### **BLADES & TRACKS**

#### **LEITWOLF X - PARK VERSION**

### LEITWOLF not only offers exceptional results in terms of slope preparation, but the LEITWOLF X can also be used to prepare and model parks, jumps, and courses. Thanks to an enhanced range of movement of its toothed blade and its impressive vehicle characteristics, it leaves a lasting impression in parks too.

#### GREAT MANEUVERABILITY IN THE PARK

With its high level of thrust, its large blade and extraordinary working width, extraordinary working width, the LEITWOLF X can move large volumes of snow in no time at all, giving it a considerable advantage over finish when the vehicle is in reverse operaother vehicles, particularly when it comes to constructing parks and courses. Another major plus is the active undercarriage, which makes the LEITWOLF X an extremely maneuverable vehicle for its size.

PARK BLADE

As an alternative to the MASTER Blade, the LEITWOLF X can also be fitted with the PARK Blade. Thanks to a new blade tooth design, it leaves behind a perfect surface tion. The two side cutters help the driver to shape obstacles with precision and create sharp edges.

#### TRANSPORT DEVICE ON THE PARK BLADE

The cutters can be removed very easily if they are not needed and can be stored in the transport device while the vehicle is in operation. Extra mounts for tying and transporting rails or crates give the park blade even more functionality.

#### MASTER BLADE

The wider blade provides greater thrust and ensures that slope edges are well-defined. The blade extends further forward than the tracks, making it far easier to work with in close proximity to obstacles. The angle of the blade teeth makes it easier to break up ice and snow and increases the efficiency of slope preparation.



#### **UNIQUE PUSHING** PERFORMANCE

Optimal snow rolling in the blade thanks to the ideal shaping of the blade's radius reduces the power required and increases the amount of snow moved for unique pushing performance.

#### **FLOATING POSITION**

A standard feature of the blade is its floating position, allowing it to operate 100% vertically but also longitudinally, following any unevenness in the ground as required.

#### STEEL TRACKS

If you are looking for climbing ability and grip, then PRINOTH tracks are the answer. Tracks are important because the performance potential of the LEITWOLF can only be fully exploited if they function perfectly. The tried-and-tested steel track improves the LEITWOLF's climbing ability and maneuverability, ensuring a long service life and minimal wear.



#### LED LIGHT PACKAGE

The LEITWOLF's LED light package provides optimum illumination, ensuring maximum visibility and improved productivity.

# **LED IT SHINE**

#### FRONT LIGHTING

» Search light	Halogen
» Turning indicators	Halogen
» Directional spotlights	LED
» High and low beams	LED
» Fog lights on the mirror holders	LED

#### REAR LIGHTING

» Turning lights	Halogen
» Directional spotlights	LED
» Turn indicators	Halogen

#### PERFECT ILLUMINATION

The LED lighting concept has been elevated to a whole new level of efficiency in the LEITWOLF in order to provide even better illumination of the vehicle's surroundings. The front lighting covers a large distance and has uniform light distribution for the perfect overview,

#### COMING HOME – LEAVING HOME

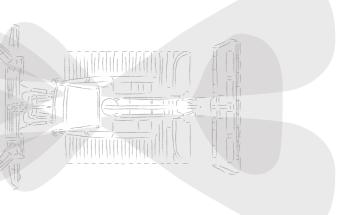
The *Coming Home – Leaving Home* function lights your way to the vehicle and back from the vehicle, ensuring perfect visibility. When remotely unlocking/locking the vehicle, the side lights are activated automatically to enable the driver to safely approach or leave the vehicle.





### SEARCH LIGHT

The search light allows the targeted lighting of individual points or whole areas, making it easier to work in the twilight and nighttime hours.





#### **PERFECT CONTROL**

The steering lever control allows you to keep a firm handle on everything. Comfortable work procedures and complete control over the vehicle guarantee pleasant driving conditions.

### **CERTIFIED SAFETY FOR THE** DRIVER

The LEITWOLF is ROPS certified to DIN EN 15059. In the event of a roll-over, the design of the driver's cab prevents excessive deformation and injury to the driver and passengers.

# **FUNCTIONS**

#### CAN BUS CONTROL SYSTEM

#### DETAILED DIAGNOSTICS ON THE DISPLAY SETTING THE DESIRED ENGINE SPEED

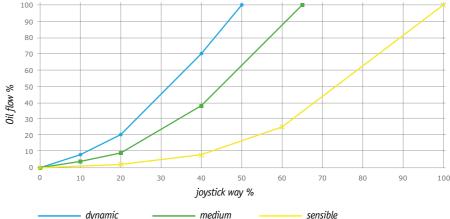
The CAN bus technology connects all the control devices in the vehicle for efficient and reliable fault diagnosis. Faults can be resolved quickly and a seamless operation is guaranteed.

any possible malfunctions and gives instructions during the startup test. This facilitates troubleshooting and provides a targeted solution for the fault in the sys- overruled at any time by using the foot pedal. tem.

The information display tells the driver of The Cruise Control function allows the driver to set the desired engine speed and control both speed and steering behavior using the steering levers. If necessary, the default setting can be

#### INDIVIDUALLY CUSTOMIZABLE BLADE CONTROL SETTINGS

The LEITWOLF enables the driver to influence both the movement speed and the starting/stopping behavior of the movements. This means the vehicle's behavior can be adjusted to suit the driver's preferences.







#### TILLING MODE

With the LEITWOLF, pre-selection of the tilling mode (contact pressure, floating position and counter pressure) can even take place when the tiller is raised.

Various blade control settings allow the drivers to adapt the vehicle to perfectly suit their way of working.



#### SNOW DEPTH MEASUREMENT

High-precision snow depth measurement and visualization. PRINOTH has partnered with Leica Geosystems to offer a satellite-based system that enables highly accurate snow depth measurement under the vehicle and the blade. This system uses a 3D model of the terrain without snow to provide the basis for accurately measuring snow depth.



#### **RESOURCE MANAGEMENT**

vehicle data. Highly efficient software uses accurate measuring methods and precise vehicle monitoring to show how productivity can be increased and costs cut.



#### **MOUNTAIN CONSULTING**

A consultancy program for the entire a consultancy program adapted to the individual needs of each ski resort that



training. Following a requirement analysis, individual driver training is used to optimize the driver's operation method. Customized, in-depth training delivers lasting improvements.

## **SNOW HOW & SERVICE**

#### ANALYSIS AND CONSULTING CONCEPT

PRINOTH provides you with the most up-todate snow groomers which have been tried and tested worldwide. But that's not all. We also provide you with the knowledge necessary to improve performance and reduce operating costs. For this we have developed SNOW HOW by PRINOTH.

#### **OPTIMIZATION OF WORK PROCEDURES**

SNOW HOW is a combination of innovative technology and targeted consultation and training measures based on the many years of experience of our experts. Optimizing work procedures is a key element of this program. SNOW HOW consists of four building blocks that can be used in combination or alone to achieve lasting improvements.

#### **PRODUCTIVITY & QUALITY**

SNOW HOW quarantees higher productivity and better slope quality at lower costs for operators of ski resorts. PRINOTH is laying the foundations for innovative snow groomers with high performance and efficiency in combination with low consumption and sustainable environmental protection.

#### MAINTENANCE MADE EASY

When developing the LEITWOLF, we paid particular attention to ensuring easy access to the service components in order to make maintenance as simple as possible. Thanks to this approach, the vehicle is easy to maintain despite its technological complexity and innovative engine technology.

#### MAINTENANCE AND CHECK-UP

The preconditions for cost-optimized snow grooming is proper maintenance and rapid vehicle repair. Cut your operating costs through early fault diagnosis and thereby increase the lifespan and reliability of your snow groomer. We offer quick and reliable service to ensure that your vehicles are 100% ready for use during the winter season.





#### **DIMENSIONS AND WEIGHT**

Overall vehicle length Overall vehicle length with attachments
Overall height (without winch)
Working width
Front blade with side wings open
Front blade with side wings closed
Tiller without hydraulic side wings
Tiller with hydraulic side wings
Weight with aluminum track, blade and tiller
Weight with aluminum track, blade, tiller and winch

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FRONT BLADE

MASTER blade

TILLER

CABIN

Operator seat

Passenger seat

Interior features

.....

hydraulic side wings

#### PERFORMANCE

Maximum speed	22.5 km/h
Turning radius	0 (on its own axis)
Climbing ability	up to 100%
(depe	nding on snow conditions)
Active undercarriage	independent front and
	rear height adjustability

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#### ENGINE

Model	Mercedes OM 471 LA		
Turbo diesel common rai	rbo diesel common rail system and charge air		
cooling, fully-electronic	cooling, fully-electronic engine management		
Power output (ECE) 390	kW/523 bhp @ 1,800 rpm		
Torque	2,460 Nm @ 1,300 rpm		
Displacement	12,800 cm <sup>3</sup>		
Layout	6 cylinders in line		
Exhaust emission standard	d Stage IV/Tier 4 final		
Emission regulation type	SCR, EGR		
Fuel tank capacity	260 l		
Ad Blue tank capacity	40 l		
Integrated engine brakin	g		

#### ELECTRICAL SYSTEM

Operating voltage	24 VDC
Battery	2x 12 V - 180 Ah
Starting capacity	1000 A (EN)
Alternator	150 A

#### DRIVE

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Drive pumps	175 cm <sup>3</sup>
Drive motor	125 cm <sup>3</sup>

#### ILLUMINATION

..... 4 LED working lights at the front

- 2 high/low beam lights
- 2 LED rear working lights
- 2 lateral halogen working lights
- 2 LED fog lights on mirror rails
- 2 direction and positioning lights
- 2 turning lights
- 1 searching light

#### AUTOMATIC WINCH

6,650 mm 9,195 mm	Maximum winch pulling force WINCONTROL auto/e	44.1 kN/4.5 t co/manual mode
3,130 mm	Constant pulling force across all	cable lengths
4,500 mm	Full pulling force	
5,950 mm	(on vehicle longitudinal axis)	+/-35°
5,050 mm	Continuous pulling force reduction to the side	
5,320 mm	Winch pivot point adapted to center of gravity	
6,520 mm	machine center for neutral drivin	ıg behaviour
11,734 kg	Maximum cable length	1,200 m
13,985 kg	Cable diameter	11 mm
	Cable breaking strain	150 kN

#### STANDARD FUNCTIONS

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Recaro seat as central seat

optional second passenger seat

PRINOTH multifunctional joystick

Electrically heated front, side and rear windows Exterior mirror electrically adjustable and heated

1 full passenger seat

8.4 inch color display

Steering lever control

Heated front wipers

Automatic heating control Electro-hydraulically tiltable cabin

ROPS certified according to EN15059

with USB interface

Storage box or

12-way front blade with quick-change system

POWER tiller with quick-change system and

Individually customizable blade control settings

Parallel movement of the tiller Hydraulic track tensioning Adjustable tiller pressure Cruise control On-board diagnostics Stored personalized driver settings Reverse operation alarm Automatic heating control Engine preheating Loading platform (in standard vehicle) Central locking system

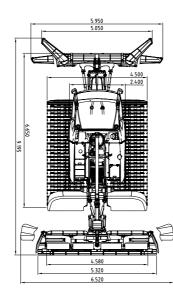
#### PARK FUNCTIONS - LEITWOLF X

Inclinometer Tape measurement tool Improved range of motion of tiller and blade for park application Optional: Park blade from BISON X

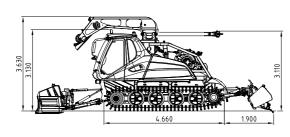
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#### OPTIONS .....

CD player, MP3 player, USB connection (MP3, WMA), Bluetooth Auxiliary alarm Hands-free kit for mobile phone Front hydraulics Front-side AUX input, DAB, DAB+, DMB, RDS RESOURCE MANAGEMENT Radio equipment-ready SNOW DEPTH MEASUREMENT Hands-free kit for mobile phone









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