

BISON BISON X

PROFESSIONALISM ON PARKS, PIPES AND SLOPES.







CLEAN MOTION MORE WITH LESS

CLEAN MOTION is PRINOTH's cutting-edge philosophy, which is not only Synonym for 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

With 298 kW/406 HP, the BISON is a real energy-package. With low fuel consumption and a 90% reduction in nitrogen oxide and fine dust emissions, its innovative engine technology meets the strictest current exhaust emission standard, "Stage IV/Tier 4 final."

OPERATOR'S CAB ERGONOMIC AND COMFORTABLE

The operator's cab serves as a comfortable workstation, offering superb visibility and space for everything an operator needs. The standardized PRINOTH instrumentation with a multi-functional joystick and digital 8.4 inch color display makes working the night shift a real pleasure. And thanks to innovative sound insulation and a noise-optimized engine, all that can be heard is the sound of crunching snow.

UNATTAINABLE STANDARDS TILLING TECHNOLOGY

The POWER tiller ensures deep, fine-grained tilling results and offers an exceptional trailing configuration thanks to a newly developed rear mounting frame with enhanced kinematics even on curves. Optimized tiller teeth guarantee unprecedented slope quality and long-lasting results.

BISON X THE ULTIMATE XPERIENCE

Developed to meet the evolving and creative requirements of the park industry, the BISON X is the unbeaten number one when it comes to park building – combining elements from the snow-board and freestyle scene with innovative features, styling any park to absolute perfection. Outstanding performance, unobstructed view, and exceptionally comfortable operator's cab are all part of the package.

PROFESSIONALISM ON PARKS, PIPES AND SLOPES.

When it hits the slopes, the BISON is guaranteed to impress thanks to its exceptional thrust, excellent maneuverability, unrestricted vision, and outstanding comfort. The park version BISON X is the undefeated champion when it comes to building terrain parks and ski cross courses. It also makes the perfect tool for preparing and maintaining cross-country and snowmobile trails.





CLEAN MOTION

MORE WITH LESS

CLEAN MOTION by PRINOTH is a pioneering philosophy, which is not only Synonym for 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

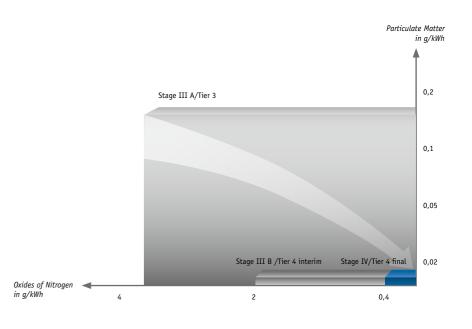
PRINOTH cares about clean slope preparation. We make sure to keep exhaust emissions low and use resources sensibly, while ensuring high economic efficiency and a long service life. After all, our vehicles are used day in, day out wherever outstanding technology needs to be combined with a high degree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

THINKING SUSTAINABLY

When it hits the slopes, the BISON is guaranteed to impress thanks to its exceptional thrust, excellent maneuverability, unrestricted vision, and outstanding comfort. Its powerful diesel engine with 298 kW/406 HP provides all the momentum it needs. At the same time, a fully electronic engine management system guarantees lower fuel consumption and reduced maintenance costs.

POWERFUL AND HIGH-TORQUE

With an increased torque of 1,726 Nm and a whole host of efficient, comprehensive solutions, the BISON offers brand new opportunities to optimize work procedures. Thanks to the new drive system, the diesel engine can be used in the lower speed range without reducing working speeds, while cutting fuel consumption.







COMFORTABLE CAB

FIRST-CLASS COMFORT IN THE CAB

The exceptionally roomy cab in the BISON boasts an unobstructed view. Optimized sound insulation, a quiet engine, and highly efficient external lighting ensure unparalleled comfort for the operator. The intuitive operation of all control elements and the ergonomic positioning of the armrest and joystick make driving a pleasure.

SEAT CONFIGURATION

The central seat in the BISON provides an unlimited panoramic view and optimum ride comfort. In the park configuration, a swivel seat that can be moved to the side allows the operator to switch easily from the central position to the left-hand side, ensuring a clear view whatever the situation.

OPTIMUM SUPPLY OF FRESH AIR

The cab features an integrated sunroof and adjustable side windows on both sides for an optimum supply of fresh air. Standard cab and window heating ensures a comfortable environment and unhindered visibility.

INNOVATIVE ONBOARD DIAGNOSTICS

The operator 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 operators and accessed at any time.

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 electric joystick. The secondary vehicle functions can be operated via the direct-access keys. The central dial button offers information navigation on the display's configuration menu.



Innovative PRINOTH joystick





AUTOMATIC WINCH

OPTIMAL VEHICLE HANDLING WITH WINCH IMPROVED OVERALL PERFORMANCE

The AUTOMATIC winch is perfectly integrated 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 BISON 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 uses the maximum pulling force to achieve a higher grooming speed, while the eco mode employs a limited pulling force of up to 34.3 kN/3.5 t in order to reduce the fuel consumption.

CONCENTRATING ON THE SLOPE

The working speed can be adapted to suit the snow conditions. In all situations, the operator can override the automatic mode by activating a control on the joystick. The automatic mode allows the operator to devote his full attention to the slope surface.

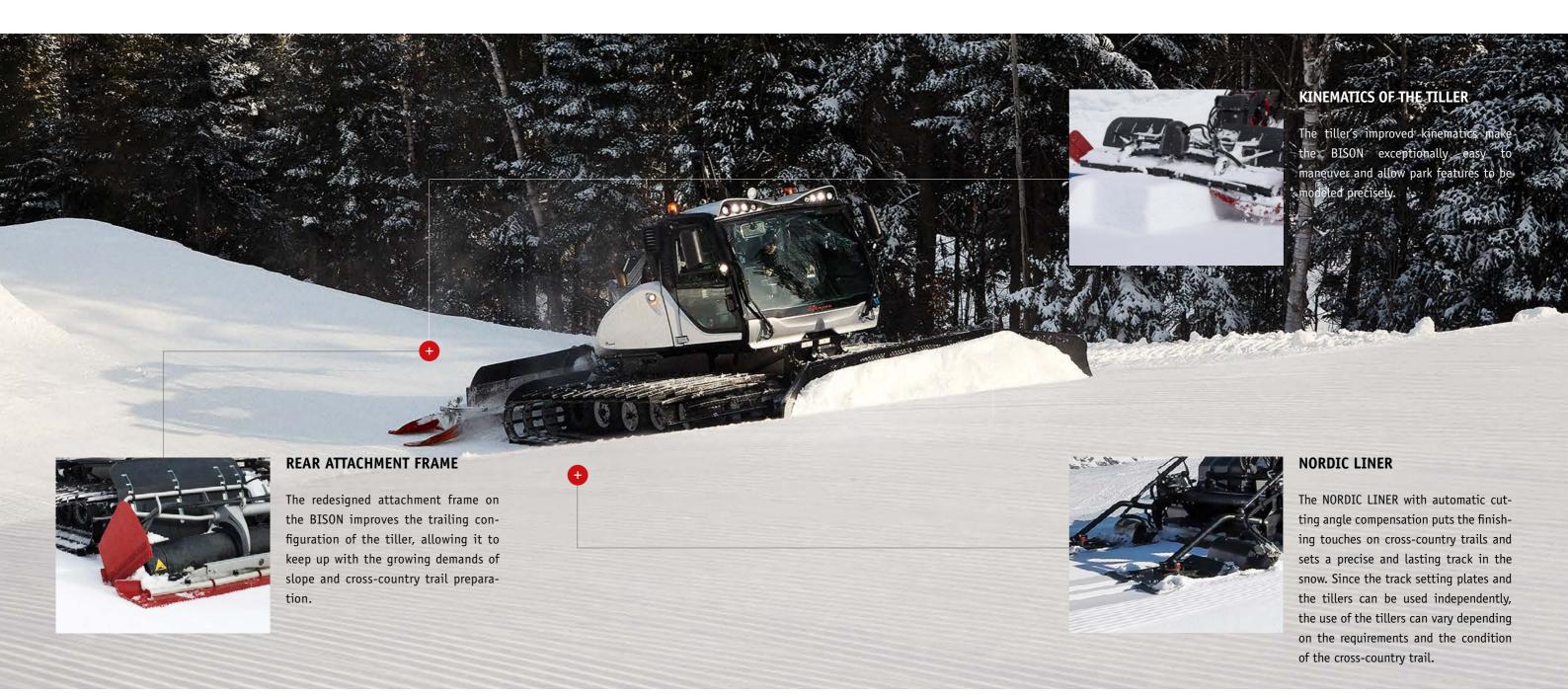
AUTOMATIC WINCH AT A GLANCE

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

ADJUSTABLE PULLING FORCE

When at high grooming speeds, the pulling force does not have to be dialed back. Cable lengths of 850 m, 1,050 m or 1,200 m are available to fit any slope requirements. One particular advantage is the availability of the maximum pulling force regardless of the corresponding cable length on the drum. This design increases the life of the winch.





POWER TILLER

NUMBER 1 IN SLOPE GROOMING

The POWER tiller ensures deep, fine-grained tilling results and offers an exceptional trailing configuration thanks to a newly developed rear mounting frame with enhanced kinematics. Optimized tiller teeth ensure unprecedented slope quality and lasting, clear to see results.

THE PRINOTH POWER TILLER

- » Deep and fine-grained tilling results
- » Unique slope quality thanks to an innovative tiller shaft
- » Durable preparation result thanks to ideal conditioning of the snow mantle
- » Robust tiller teeth prevent premature wear and tear
- » Perfect slope surface and snow through put thanks to the anti-adhesive coating
- » Reduced maintenance thanks to simplified construction

FOR PERFECT PISTES

With a working width of 4.3 m and a high working speed, the BISON delivers exceptional grooming results. Its outstanding pushing capabilities and high-performance drive make it a truly powerful package that guarantees perfect slope quality.

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.

LOW-MAINTENANCE AND EFFICIENT

Its optimized structure means that the POWER tiller requires low maintenance nd it is really simple to operate and adjust. It can be locked in a rigid position from the cab without the operator having to get out. The tiller teeth are perfectly arranged, reducing fuel consumption, and extremely robust, preventing premature wear.





BLADE & TRACKS

MASTER BLADE

The tried-and-tested MASTER blade ensures good pushing performance and precise slope edges. The angle of the blade teeth facilitates the breaking up of ice and snow, which ultimately increases efficiency during slope preparation.

PARK BLADE

The high-performance park blade on the BISON X has been specially developed for park construction, with its newly designed blade teeth that leave a perfect finish even when the vehicle is backing up. The two side cutters help the operator to shape obstacles with precision and create sharp edges.

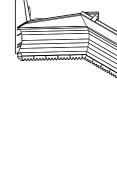
TRANSPORT DEVICE ON THE PARK BLADE

The side cutters can be removed very easily and can be fastened to the back of the blade when not in use. Additional hooks to transport park construction tools bring a new dimension of functionality to

TRACKS

If you are looking for climbing ability and grip, then PRINOTH tracks are the answer. Tracks are important because the performance potential of a snow groomer can only be fully exploited if they function perfectly. With the BISON and BISON X, you can choose between the tried-and-tested PRINOTH aluminum track and the optimized steel track.





Steel track PRINOTH aluminum track

Park Blade with side cutters





LED IT SHINE

FRONT LIGHTING

- » Search light
- » Position lights with indicators
- » Directional spotlights
- » High and low beams
- » Directional spotlights on the mirror holders

REAR LIGHTING

- » Turning lights
- » Directional spotlights
- » Position lights with indicators
- » Directional spotlights on the mirror holders

STANDARD	PREMIUM
Halogen	Halogen
Halogen	Halogen
Halogen	LED
Halogen	LED

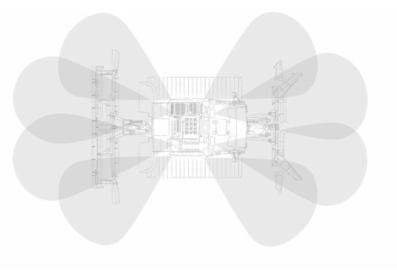
STANDARD PREMIUM Halogen Halogen LED LED Halogen LED

PERFECT LIGHTING

The standard halogen lighting concept has been elevated to a whole new level of efficiency in the BISON in order to provide even better illumination of the vehicle's surroundings. The front lighting covers a larger distance and has uniform light distribution for the perfect overview, day or night.

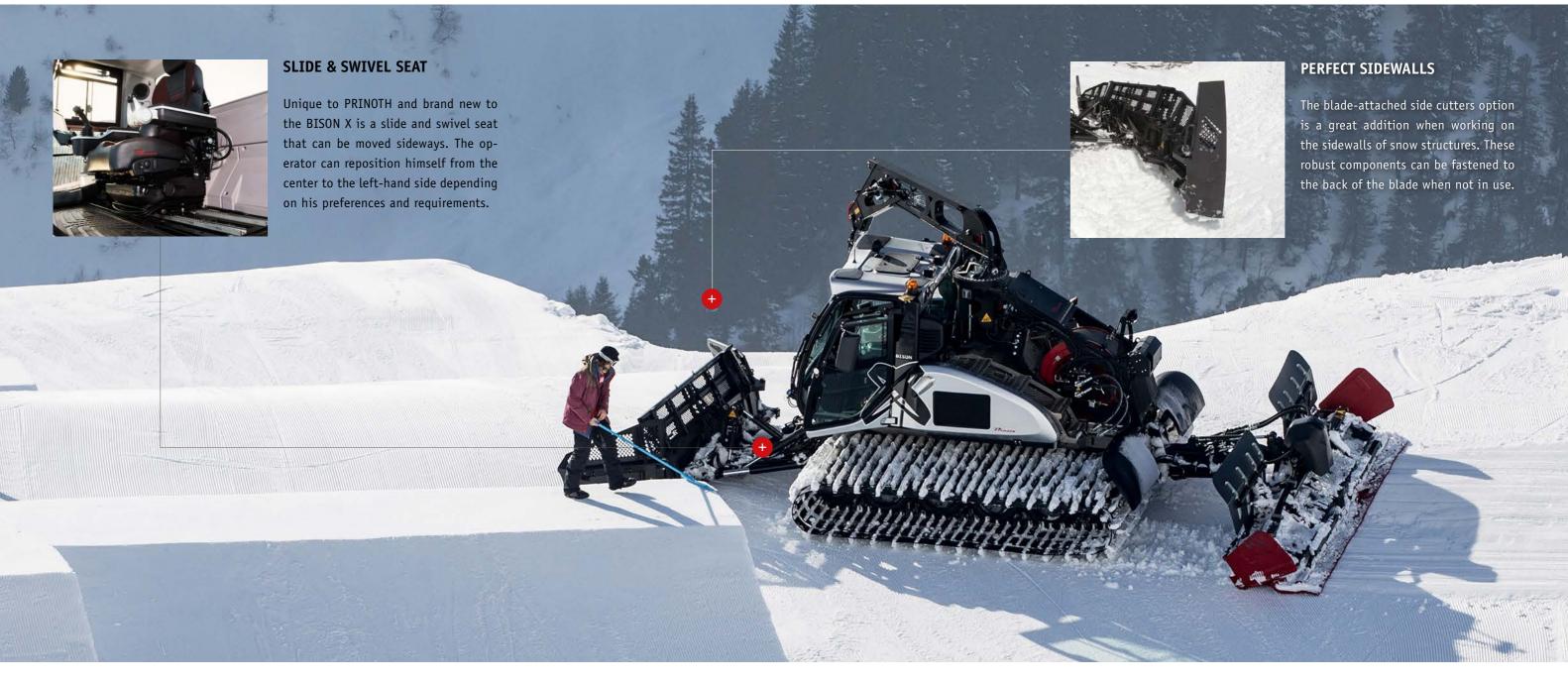
PREMIUM LED LIGHT PACKAGE

For an even greater visibility, a LED light package is available. In comparison with standard halogen lighting, this cuts energy consumption by approximately 60% – for efficiency that pays off.



The energy-saving LED technology provides optimum illumination





THE ULTIMATE XPERIENCE

BISON X

With its new features, the BISON X brings a whole new dimension to your park and boasts outstanding performance, unobstructed view, and an exceptionally comfortable operator's cab. Developed in partnership with leading park builders, this undisputed champion combines innovative features from freestyle and park building scenes to deliver perfect styling results.

PERFECTLY SHAPED

The high-performance park blade has targeted developed shape and arrangement teeth which conjure up a perfect finish in the snow. The blade is designed to achieve optimum results, even when used backwards, and can therefore significantly reduce work time. The side cutters ensure that obstacles are shaped to absolute precision with crisp, clean edges.

PRECISION WORK

A new surface treatment method with antiadhesive properties prevents snow from sticking to the blade. The side cutters of the blade help meticulous operators to carry out precision work and create sharp edges with ease. If they are not needed, they can be removed easily and stored in the transport device while the vehicle is in operation.

360° VIEW

With its unique sliding seat technology, the swivel seat can slide sideways, allowing operators to choose between the central and left-hand seat positions for the very first time. The seat can be adjusted by up to 500 mm and can be slid from the center to the left-hand side as required. Two gas pedals on the floor guarantee efficiency and operating comfort. Stiff necks are a thing of the past: the seat pivots up to 15° each side, providing unobstructed view from all angles.

MANEUVERABILITY OF THE BLADE

The maneuverability of the blade and side cutters allows the creation of sophisticated shapes when designing a park. The park blade has a working range of 128° and the tiller can move through 166°. Operators can easily construct and maintain perfect pistes using the joystick. The BISON X combines high performance with reduced maintenance costs and low fuel consumption.







FUNCTIONS

CAN BUS CONTROL SYSTEM

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

SETTING THE DESIRED ENGINE SPEED

The cruise control and manual throttle function allows the operator to set the desired In the engine speed and control both speed and operate steering behavior using the steering levers.

If necessary, the default setting can be overruled at any time by using the foot pedal.

CERTIFIED SAFETY FOR THE OPERATOR

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

IT'S ALL ABOUT RELIABILITY

Designing a vehicle is a balancing act between reliability and the lowest possible weight. The loads experienced during operation were simulated using the finite element method (FEM) in order to achieve an optimum power/ weight ratio and good reliability.

DETAILED DIAGNOSTICS ON THE DISPLAY

The information display tells the operator of any possible malfunctions and gives instructions during the startup test. This facilitates troubleshooting and provides a targeted solution for the fault in the system.





SNOW HOW

A COMPREHENSIVE SOLUTION

Comprised of the FLEET MANAGEMENT and SNOW MEASUREMENT modules, SNOW HOW by PRINOTH is the analysis and consulting software that delivers proven benefits to ski areas worldwide. Developed in collaboration with our partners and customers, these modules offer cutting-edge technology that provide precise and comprehensive values for increased productivity.

FLEET MANAGEMENT

The FLEET MANAGEMENT Software developed by PRINOTH is invaluable when it comes to managing slopes and vehicle fleets. Precise data collection and exact vehicle monitoring allow for workflow optimization and efficient route planning, and consequently, resource and cost savings and increased efficiency. Efficient management requires proper information: vehicle status, working time, position, speed, engine and vehicle figures, as well as the winch status, tiller and lighting.

All of these are transmitted in real time and displayed in PRINOTH's own SNOW HOW software. Upon set up, the customer neither has to install a local server nor save and transfer the data, meaning he can focus completely on managing his fleet. The added bonus: snowmobiles, ATVs and other vehicles can also be fitted with the fleet management software. This means that a ski resort's entire fleet of vehicles can be monitored, and managed and optimized.

SNOW MEASUREMENT

In cooperation with Leica Geosystems PRINOTH offers a satellite-based system which makes it possible to get the most accurate measure and visualization of snow depth. Based on Leica's renowned iCON Alpine System, the special software was adapted to the requirements of snow. A 3D model of the landscape without snow is the basis for the precise measurement of the snow depth, down to the nearest centimeter. An operator can see on a monitor installed in

the snow groomer the exact snow depth and the profile of the ground in real time. Therefore, during preparation, he can rely immediately on the data analyzed in real time from the GPS antennae and angle sensors. This means an optimization of snow management from production, to distribution, to preparation. PRINOTH's Snow Measurement System can be used on slopes, parks and ski jumps. The system can be installed on any type of snow groomer, regardless of the manufacturer.

A SINGLE PLATFORM FOR ALL DATA

Information from both SNOW HOW modules is retrievable via a single user interface. Switching between different programs is no longer necessary, ensuring continuous workflow. Moreover, information featuring the snow-making data is also available with one click. Mountain Managers can now easily monitor all of their operations via PRINOTH's SNOW HOW platform.

TECHNICAL DATA BISON & BISON X

DIMENSIONS AND WEIGHT

Overall vehicle length 5.835 mm Overall vehicle length with attachments 8,848 mm Overall height without winch 3,008 mm Working width Shipping dimension (length/ width/ height) 5,835 mm/2,440 mm/2,990 mm Multiple operator profiles Blade with sidewings open (Standard) 5,360 mm Blade with sidewings open (Park) Blade with sidewings closed (Standard) Blade with sidewings closed (Park) Tiller with raised sidewings Tiller with lowered sidewings 6,200 mm from 9,894 kg Vehicle weight with attachments alutracks, blade, tiller

PERFORMANCE

Max. speed	21 km/
Turning radius	on the spo
Payload	1,000 k

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ENGINE

Model		Caterpillar C9.3
Power output (ECE)	298 kW	/406 PS @ 1,700 rpm
Max. torque	1,	726 Nm @ 1,400 rpm
Displacement		9.3
Layout		In line 6 cylinde
	direct in	jection, Common Rai
Exhaust emission st	tandard	Stage IV/Tier 4 fina
Emission regulation	ı type	SCR + DPI
Fuel tank capacity		266
DEF tank capacity (AdBlue)	27

DRIVE

Drive pump	145 cm
Traction drive	107 cm

ELECTRICAL SYSTEM

Operating voltage	24 VDC
Starter	24 VDC
Generator	28 VDC/250 A
Battery	2x 12 VDC/135 Ah
Starting canacity	1 000 A (FN)

Operator seat (Standard) RECARO central drive with air suspension and height adjustment Passenger seat (Standard) 1 full passenger seat storage box Operator seat (Park) Electrically adjustable sliding swivel seat with air suspension and height adjustment Passenger seat (Park) Instructor seat Interior 8.4 inch color display Steering levers PRINOTH multifunctional joystick Tinted roof Electrically heated front, side and rear windows

Exterior mirror electrically adjustable and heated Heated front wipers CD player, MP3 player, USB connection (MP3, Bio-oil charging ex work WMA), Bluetooth Hands-free kit for mobile phone Front-side AUX input, DAB, DAB+, DMB, RDS Radio equipment-ready

Automatic heating control Electro-hydraulically tiltable cabin ROPS certified according to EN15059

LIGHTING

- 4 halogen working lights in the front 2 high/low beam lights
- 2 direction and positioning lights
- 2 turning lights
- 4 halogen working lights at the back
- 2 LED-lights on the mirror rails on each side Park: complete serial LED lights

INCLUDED FUNCTIONS

Hydraulic track tensioning Adjustable downpressure Cruise Control & throttle 4,216 mm On-board diagnostic Rear alarm 5,674 mm ECS (Electronic Climate System) 4,510 mm Engine heater 4.625 mm Loading platform 5,100 mm Central locking

PARK FUNCTIONS

Inclinometer Tape measurement tool Increased kinematics for park application Side cutters for the Park blade

OPTIONS

Full LED lights Steel tracks Additional alarm horn Fleet Management Front hydraulics Brushguard Front-end loader Shaping tool Instructor seat Rear view camera on standard vehicles

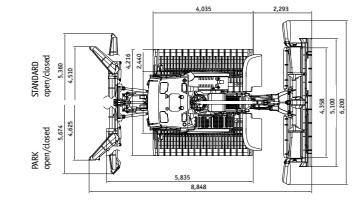
AUTOMATIC WINCH

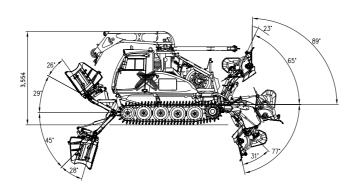
Pulling force	44,1 kN/ 4.5 t
Maximum cable length	1,200 m
Rope diameter	11 mm
Breaking load	150 kN
AUTOMATIC Wincontrol	auto/eco/manual

ADDITIONAL EQUIPMENT

NORDIC LINER with automatic cutting angle compensation with or without track tiller Trail grooming kit

Subject to modifications in the course of technological advancement.









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