

Master of the Ski Slopes ...



The PistonBully 300 Polar.

PistonBully[®]

The PistenBully: Series Overview.

**One will take the lead.
Many will follow in its tracks ...**



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PistenBully. Successful by the thousand. On the move all over the world. In Scandinavia's quiet forests, and in Canada's expanses, at fun parks and on icebound vehicle proving runs in Greenland. The PistenBully is at home wherever performance counts. What seems impossible, it handles with ease. The PistenBully leads the way with innovation and is the international Number One in ski trail and slope maintenance.

One Brand Name, Five Model Lines.

PistenBully models have been designed systematically to maintain ski trails and slopes, as individual machines or as part of a fleet. They have state-of-the-art technical features to cope with the latest developments and trends in winter sport. With suitable attachments and special equipment, they interpret your wishes and ideas to perfection.

The PistenBully 300 Polar.

A professional through and through. With the right feel for gentle machine-made snow processing and precise preparation of even extreme terrain, and with the expertise needed for truly efficient snow management. The new PistenBully 300 Polar combines intelli-

gence and strength in a whole new way: with its computer-controlled tiller, efficient on-board computer, greater thrust and 430 hp Mercedes-Benz engine. This machine is a powerhouse, it promises to think with you, and it can be equipped with a winch for use on steep terrain.



- 1) *The PistenBully 100 prepares very high-quality ski trails*
- 2) *The PistenBully 200. A medium-weight machine that prepares large snow areas and uses very little fuel.*
- 3) *The PistenBully 300 with winch. Conqueror of mountain peaks, with the reserves of power needed to move large amounts of snow*
- 4) *ParkBully. With the multi-function front blade, it's a specialist when building fun parks, but ideal for a variety of other duties too.*
- 5) *The PistenBully 300 Polar. Powerful thrust. Prepares large areas economically.*

Demanding Tasks Dismissed in No Time.

A top vehicle concept can do it easily like the PistenBully 300 Polar with winch, for example. Even on steep terrain the winch can be freely pivoted through 360°. High preparation speeds up to 19 km/h mean optimum results. Thanks to the new SNOWtronic tiller control, there is an excellent combination of performance, thrust and climbing capability.

Moving Mountains – of Snow.

No problem, thanks to significantly higher thrust from 430 horsepower and a 4.6 meter-wide front blade. You can move up to 40% more snow with the new PistenBully 300 Polar and prepare slopes even quicker. Simple, economic, and efficient it's always kind to the snow and the landscape.

The PistenBully. The Basic Vehicle Concept and the Driveline Concept.

Like everything else in life, changes are inevitable, but with a PistenBully ...



How is true performance achieved? What costs can be recouped? Only a small proportion of the total costs, considered over the entire service life, depend on the purchase price. It's the sum total of all the details that makes the vehicle economical and flexible. Performance depends on well thought-out groundwork. This is what conquers the mountain in a cost-conscious way.

Over to You.

Height-adjustable chassis. Automatic track tensioning. Hydrostatic drive. Low maintenance assemblies, clear and compact design. The low center of gravity and low surface pressure, thanks to the large contact area of the tracks, ensure supreme climbing capability. Economical fuel consumption and reduced maintenance times leave you with plenty of time for the PistenBully 300 *Polar* to do what it does best – earn its keep.



The Cost-conscious Mountain Climber.

State-of-the-art engine technology from Mercedes Benz. More power, lower consumption and emissions. Environmentally friendly and economical. The engine complies with the Euromot 2 emission limits. With 430 hp from 12 liters and a massive torque of 2,000 Nm

at 1,200 rpm, this is a power package ready for the toughest work. Fully electronic engine management is included: more accurate fuel control cannot be found anywhere else today. Plenty of power and mobility in hand even on the mountain peak and in the most demanding working conditions.



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1) *The Powerbar - a typical PistenBully feature with many design advantages. All assemblies, from engine to driveline, are arranged centrally.*

2) *The chassis of the PistenBully 300W comes with solid disk wheels as standard.*

3) *The SNOWtronic system allows you to model any ski slope the way you want it – quickly, economically and effectively.*

4) *The drive wheels with steel support rings increase safety.*

5) *The loading platform with the new folding rails is ideal for transportation work.*

Burn Rubber!

The new disk wheels used on the PistenBully 300 *Polar* (standard equipment) have solid rubber tires. Assembly by a new welding method that combats rim tension caused by temperature changes gives them increased life expectancy and improved lateral location.

The PistenBully 300 *Polar* – Full System Capability.

For example with front- and rear attachments weighing up to 1,500 kilograms. With direct absorption of the loads, of course. The load platform can also carry a considerable weight. The stable chassis frame, of high-strength fine-grain steel that is extremely resistant to the cold, makes this possible.

The PistenBully. Ergonomics.

Everyone must find a place in life –
for instance Yours could be the ideal driver's seat ...



Ergonomics and safety. What is the most sought-after workplace? The driver's seat in the PistenBully 300 Polar. We have put a lot into this area, including a good in-cab climate and unobstructed all-round vision, maximum comfort and convenience. For satisfaction when driving or preparing slopes. An ideal situation for the driver, the operating company and all winter-sport enthusiasts.

A Good Place to Work.

Open the window. The heated armrest keeps you warm. Fresh air. Simply slide the side window along. If the weather is fine, open the sunroof. This kind of comfort is standard in the PistenBully 300 Polar. The modified driver's seat has further position adjustments and two levels of seat heating. The cab heating is thermostatically controlled, with carefully planned heat distribution. Especially at head level, to keep you comfortable and avoid fatigue.

Panoramic View Included.

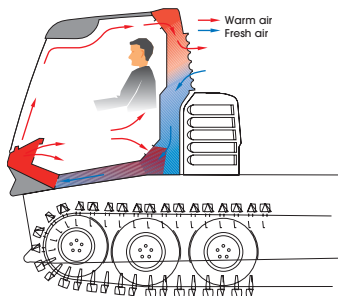
Double curvature tinted windshield, large side and rear windows. For a clear view in all weathers. Thanks to the parallel wiper system at the front, heated by the coolant, and the twin rear wipers. All lights are arranged to avoid glare for the driver.

As Bright as Day - Even at Nighttime.

Six new xenon headlamps (standard equipment) illuminate the front work area as if it were broad daylight. The area lit is almost as large as a soccer field. At the rear, two backup lights integrated into the engine cover provide optimal tiller illumination.



- 1) *A comfortable driving area - the cockpit of the PistonBully 300 Polar, with heated driver's armrest*
- 2) *The parallel windshield wiper system is heated by the coolant.*
- 3) *The transport rails can be folded up, to increase load capacity or to carry previously instructed personnel in comfortable seat shells integrated into the engine cover.*
- 4) *One-touch functions. For blade and winch control.*



There are useful storage spaces in the cockpit, doors, rear panel, center and roof consoles. A cup holder is also provided. The instruments are directly in the driver's line of vision. With their white backgrounds, they are ideal for eyes used to the snow. The semi-circular steering wheel makes driving convenient. The quiet Mercedes Benz engine and improved sound insulation aid concentration when working.

Press-Button Opening.

Service and maintenance made easy. Get down. Shut the doors and press the button. The cab pivots forward, the platform to the rear, either separately or together. Everything is accessible with speed and simplicity. The PistonBully 300 Polar is designed throughout for easy service and maintenance.

The PistenBully. The SNOWtronic system.

A Mountain of Work in Front of You? A Perfect Slope Behind You!



without SNOWtronic

What does the perfect ski slope look like? What do tomorrow's skiers want? How are you able to model, shape creatively and form contours in one operation? With the adaptive SNOWtronic tiller control you will be able to do this with greater precision than ever before. Instead of tilling or inadvertently compacting moguls, you can now model, preserve or smooth them. Down to the last detail.

SNOWtronic Shapes Your Ski Slope.

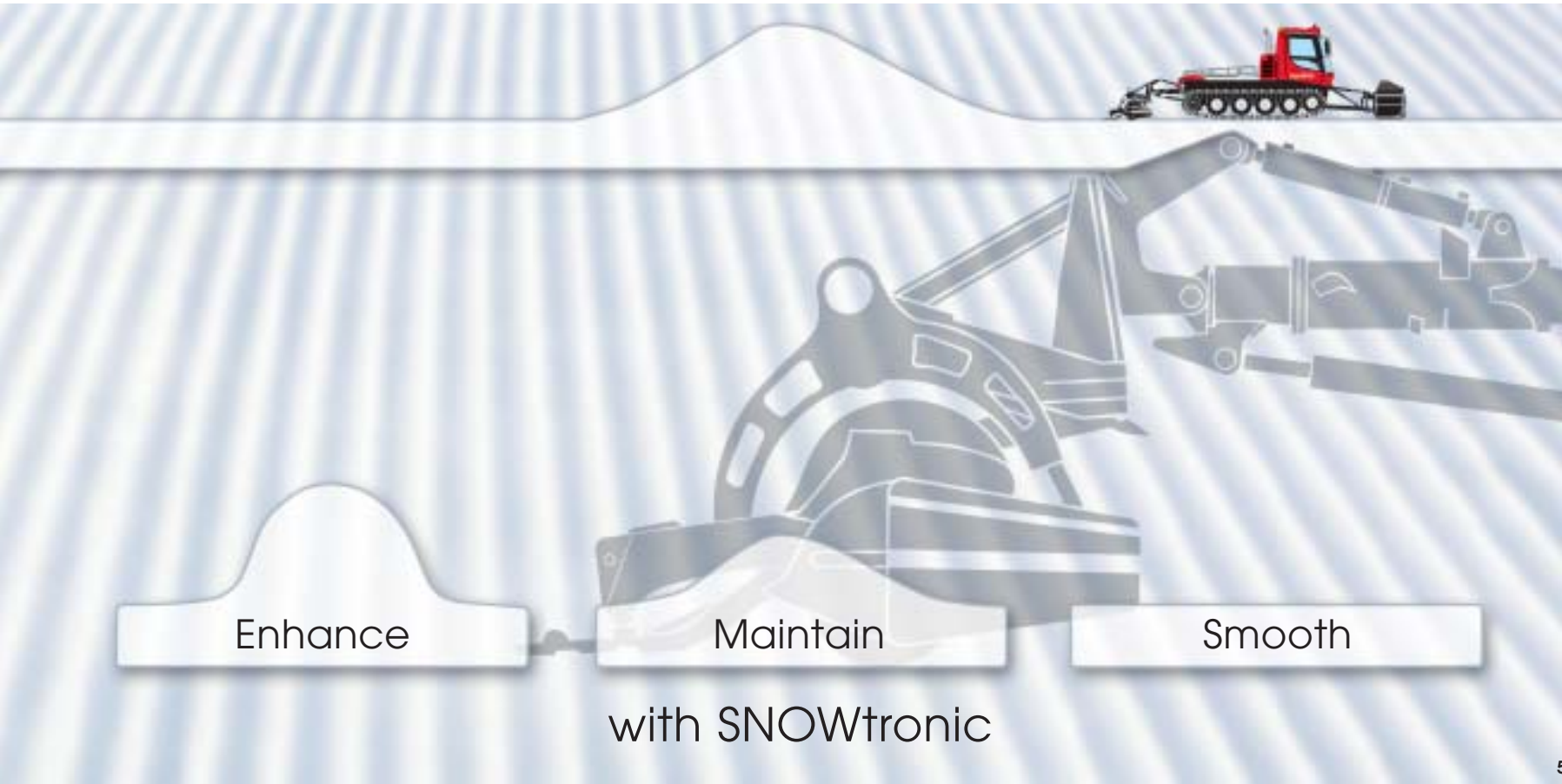
Gone are the times when shaping the slope correctly meant a mixture of instinct and hard work. SNOWtronic control now allows you to concentrate on shape. Just select the desired contour to suit the slope, and skiers will experience a newly created world. Fast, accurate and capable of being duplicated at any time, thus creating a recognizable brand label for winter-sport enthusiasts.

Everything On Screen.

The new on-board computer system displays all the information important for vehicle operation about the winch and the intelligent SNOWtronic tiller control. Included are camera images of freshly prepared terrain at the rear if required, for immediate quality assessment of the slope allowing greater safety when reversing.

Everything under Control.

The digital travel and tiller electronics gives you continuous control of functions, devices and performance, together with engine and operating management, a statistical evaluation option and fault messages. All is revealed on this display, and means greatly enhanced driving and steering convenience permitting safe travel and arrival at your destination.



- 1) The multifunction display tells the driver about current vehicle and tiller operating conditions.
- 2) PistenBully. Not a bland brand!
- 3) Superb ski slopes prepared with SNOWtronic.
- 4) The new equipment carrier control system now ensures that it can be pivoted laterally when raised and moved into position.
- 5) Continuously variable tiller control, from 0-100%. Terrain shapes can be enhanced, smoothed or maintained.

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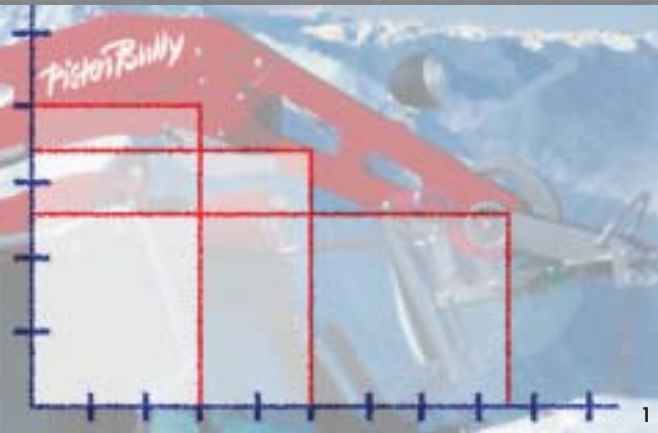
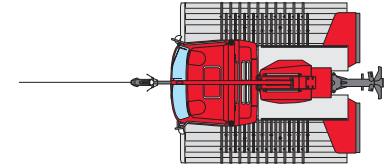
Enhancing, Smoothing, Shaping - Creative Work.

The driver can select from a number of possibilities with the SNOWtronic system: smoothing and forming slight waves on a furrowed connecting slope or creating a mogul on an otherwise flat slope. In each case, the tiller models the terrain regardless of vehicle

movement and without manual intervention. All settings are continuously variable. Selecting a 0% terrain contour will suppress any contours and smooth the slope. At 100%, existing shapes are enhanced and built up, but with tiller depth remaining unaffected. This takes the burden off the driver, leaving him to concentrate on what's in front.

The PistenBully 300 W Polar.

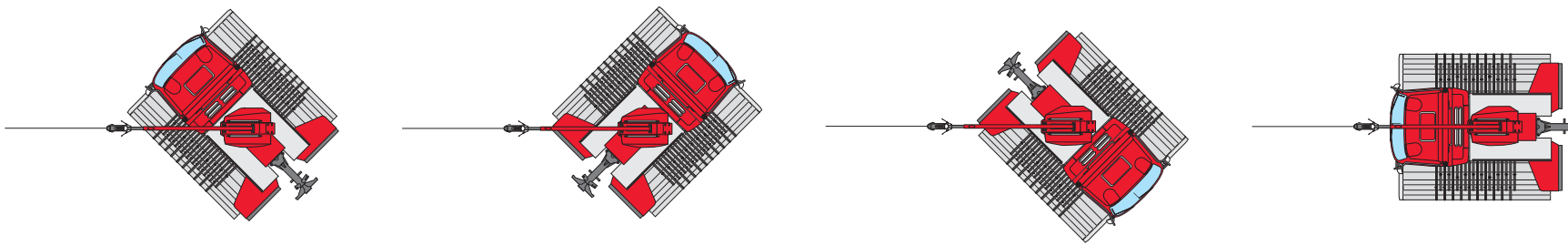
Twist and turn how you like –
when you're safely attached ...



The new PistenBully 300 W Polar is for all those who like to storm the peaks. Thrust: 93 kN. Winch cable pull: 40 kN. And in addition: 1,050 meters of cable, making efficient slope work possible. Three travel speed stages. New winch gears for even less maintenance and greater availability. And the rope failure detector (RFD) watches out for the slightest damage to the cable.

Snow Management in Three Stages.

Driving speed and winch cable pull - the ideal combination is the secret. Electronically adjustable. For optimum machine performance in every situation. On very steep slopes or more level terrain. At a speed of up to 17 km/h with the winch in operation, flatter areas are crossed quickly. And on journeys to the work area, you can build the speed up to 19 km/h.



- 1) *Driving speed and winch cable pull: electronically controlled in three steps for steep slopes and flatter terrain.*
- 2) *Work-area lights for good vision when reversing. Or the optional video camera so that you can immediately judge the condition of the ski run.*
- 3) *Maximum cable pull of 4 t provides high reserves of safety*
- 4) *The service door can be opened up wide. The rope failure detector (RFD) is an early warning system that signals even minor strand breakages, so that you can check the cable in time.*
- 5) *The winch can be pivoted through 360° on the vehicle making it easier on the operator and machine. Work can be done in any position on the mountainside.*

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The Powered Drum Winch.

Simple to install and remove. Comes with a 1,000-meter cable. The power drum winch system protects the cable from wear. Large idler pulleys (320 mm) and capstan guides limit the cable angle, and a monitoring device checks that the cable is taut and neatly wound on to the drum. Controlled cable dampings and regulated constant pull prevent sudden peak loads on the winch. The 360-degree pivoting

winch mount means that the PistenBully can change direction without risk of the cable becoming twisted. A cable guide along part of the boom minimizes the build-up of snow and ice on the cable. A signal is heard when the maximum cable length is reached or if the cable is not wound on correctly. The PistenBully 300 W *Polar* has been thoroughly trained to look after its winch cable, which should last a long time.

The PistenBully 300 W Polar.

Whatever keeps you up on the peak in wind and weather also brings more efficiency to the valley.



RFD - A Performance Package that Sets Standards.

The rope failure detector (RFD) emits a signal when strand breakages appear, so that you can change the cable in good time but not prematurely. Two sprung shoes trigger the strand breakage signal and also ensure accurate cable guidance into the capstan sheaves. You avoid unnecessary maintenance and standstill times. And safety has top priority – always.

The New Winch Arm and Winch Gear.

Improved in every detail, the new winch arm has higher resistance to load moments on the X and Y axes for better absorption of cable pull. The winch gearbox now has a new tooth pattern and bearings. Its reinforced housing walls make it even stronger. Checking the oil level? Just look through the sight glass located on the outside.

Safety and Driving Convenience.

So that the driver can concentrate on difficult or steep terrain, the PistenBully 300 W *Polar* has a hydraulic holding brake for positioning the winch regardless of the vehicle's attitude on the slope. There are spotlights on the winch boom and at the rear of the winch to pro-

vide the best all-round view. And a good view of the cable when driving uphill. The improved electronic cable pull meter indicates and controls the actual force. The necessary cable pull can be adjusted simply and quickly at the handwheel as the situation demands.



- 1) *The rope failure detector (RFD) monitoring the cable precisely each time it is used and sounds an alarm if it shows signs of damage.*
- 2) *All functional units of the winch are clearly laid out and designed for easy maintenance.*
- 3) *Wound on well and safely.*
- 4) *Be well-advised: let PistenBully work for you.*
- 5) *Start. Switch on the winch. Attach the cable. Adjust cable pull. Ready? Off you go!*

The Hydraulic Turntable Drive.

The winch can be fully rotated hydraulically at a speed of 1.5 rpm. As you approach the attachment point you bring the winch into position at the touch of a button, no matter what the vehicle's position or angle may be. Hook on to the attachment point, enter the cab, tension the cable, release the brake and drive off. It's as simple as that, and quicker than it takes to describe.

Longer Maintenance Intervals.

Maintenance intervals are now twice as long, thanks to new details and a lot of improvements. A gearbox oil change is only needed once a year. The rope failure detector picks up the slightest strand breakage and helps to avoid the high cost of a snapped cable – with up to 1,000 hours of operation from the original cable.

The PistenBully. After Sales Service and Support.

**Built for People who Want the Excitement of Driving -
and for Those who Prefer to Avoid it ...**



Service. It has to be on call all the time, even if you don't usually know it's there. 24 hours a day. Advice, assistance and spare parts supply. A task for more than 70 service points and agencies all over the world. With an exceptionally efficient training and know-how exchange concept, aimed at making you independent of outside conditions. What could be better? Our service team looks forward to seeing you - as seldom as possible!

Service Competence should be Shared.

We aim for an integrated Service concept with you as its partner. We train your drivers and mechanics. We pass the know-how on to them that we have accumulated over the years. We supply you with full vehicle documentation and technical details. Good practises for the bigger picture. And a splendid resource of information.



With this work of reference at your disposal, your own team can trace and correct minor malfunctions quickly and expertly. The aim is always to keep your vehicle operational at the lowest possible cost. Call our Technical Center for assistance or to obtain urgently needed spare parts. Those who have used our vehicles for a long time know that they can be trusted – and so can the Service support we provide.

Designed and Built to Benefit You.

Why choose an expensive solution when there are cheaper ones around? One good reason is our identical component strategy. Wherever possible, parts subject to wear or needing routine replacement are identical for all PistenBully model lines. This makes it easier to keep parts in stock in your own repair shop, especially with a standard PistenBully fleet. We think of a lot of things on your behalf.

The PistenBully. Economy.

Cost-conscious Customers choose the PistenBully. The Only Other Question is - Which Model?



Economy. Does it pay to choose a PistenBully? Now, next year and in the more distant future? We're convinced it does. Agreed, we're in business to sell these machines at a profit. But they offer genuinely high performance, have a long, trouble-free working life, and are economical to run. Spare parts are always available, with competent Service support. All this is in the best interests of you - our customers.

What does a Complete Vehicle Lifetime Cost?

The list price and residual values only account for a small proportion of the vehicle's total cost. Upkeep and running costs are the main items: staff, fuel and oil, repairs and maintenance. This is where the PistenBully overtakes all the others - thanks to its well-planned, cost-effective overall concept.



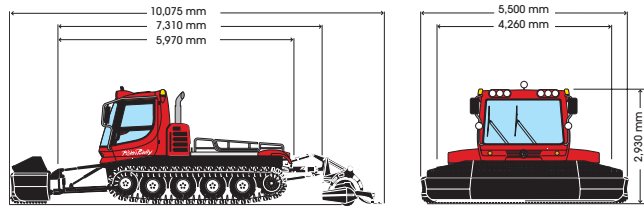
- 1) *Best equipped for any task: a large selection of various tracks are available for every PistonBully*
- 2) *In modern training centers we train our own staff as well as the drivers and service staff of our customers.*
- 3) *Each vehicle - prior to delivery - undergoes rigorous inspection and testing. The power obtained from this process is fed into the electricity grid, generating our own electricity for our plant.*
- 4) *On site fast: the worldwide service of PistonBully.*

Economy in Operation.

Maximum working time, minimum costs. From fuel to replacement parts. Fuel prices are rising all the time, so economy is definitely a major factor. Servicing costs are automatically lower if maintenance intervals are lengthened. High working speeds guarantee excellent slope preparation. The PistonBully helps to cut operating costs wherever they are incurred.

Lasting Value.

A PistonBully can reach a considerable age. During its working life it usually has two or three owners. There is always strong demand for a secondhand PistonBully, because it remains so reliable even after many years of service. Parts subject to wear are still available for PistonBully models that are now more than 15 years old.

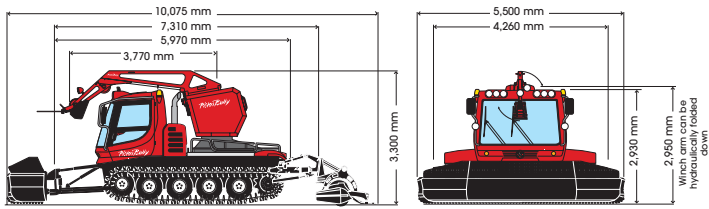


PistenBully 300 Polar

Dimensions	Width without tracks	2,600 mm	102.5"	Brakes	Using hydrostatic transmission, with no mechanical wear.			
	over combined tracks	4,260 mm	168"		Two multi-disk parking/holding brakes.			
	over steel tracks	4,260 mm	168"		Electrical	Voltage	24 Volt	
	over Multiflex tiller	5,500 mm	216.5"	Alternator		28 V/140 A		
	Height with cab tilted	3,380 mm	133"	Batteries		2 x 12 V/135 Ah		
	Overall height	2,930 mm	115"	Cold-start rating		600 A		
	Ground clearance	approx. 350 mm	14"	Performance Data		Speed, continuously variable	0 - 23 km/h	0 - 14 mph
	Loading platform	2,230 x 1,920 mm	88" x 75.5"			Specific ground pressure with combined tracks	0.053 kg/cm ²	0.75 psi
					with steel tracks	0.056 kg/cm ²	0.77 psi	
Weight	Tare weight with combined tracks	7,300 kg	16,094 lbs	Prepared area	ca. 102,000 m ² /h	25 acres/h		
	Tare weight with steel tracks	7,500 kg	16,535 lbs					
	Gross weight limit incl. attachments	11,000 kg	24,250 lbs					
	Payload on platform excl. attachments	2,500 kg	5,510 lbs					
Engine	Type	Mercedes-Benz OM 457 LA						
	Cylinders	6						
	Displacement	11,970 cm ³	730 cu.in.					
	Output acc. to ECE	315 kW (430 bhp)						
	Max. torque	2,000 Nm at 1,200 rpm	1,416 ft/lbs at 1,200 rpm					
	Fuel consumption	from 22 l/h	5.8 gal/h					
	Fuel tank capacity	210 l	56 gal					

Attachments

Front-end	All-Way Blade, Rotary Snow Blower, SnowCutter, PipeMagician, Snow Bucket
Rear-end	Multiflex Tiller, Flexible Compactor Bar
Bodies	4-, 8-, 18- or 20-passenger cabin



PistenBully 300 W Polar

Dimensions	Width without tracks	2,600 mm	102.5"	Winch superstructure	Cable pull	40 kN (4,080 kp), 3-stage	9,000 lbf
	over combined tracks	4,260 mm	168"		Cable diameter	11 mm	0.43"
	over steel tracks	4,260 mm	168"		Cable length	1,050 m	3,450 ft
	over Multiflex tiller	5,500 mm	216.5"		Usable cable length	1,000 m	3,280 ft
	Height above winch, ready for operation	3,300 mm	130"		Cable breaking strain	129.8 kN (13,231 kp)	29,000 lbf
	(winch arm can be lowered)	(2,950 mm)	116"		Drive rating at 40 kN pull	110 kW (150 bhp)	
	Ground clearance	approx. 350 mm	13.75"		Weight (winch, cable, superstructure)	1,700 kg	3,750 lbs
	Loading platform	2,230 x 1,920 mm	88" x 75.5"		System	Drum winch system	
Engine	Type	Mercedes-Benz OM 457 LA		Performance data	Speed with winch in operation	0 - 17 km/h/3-step (4.72 m/s)	0 - 11 mph
	Cylinders	6			Speed with winch assembled	0 - 19 km/h (5.27 m/s)	0 - 12 mph
	Displacement	11,970 cm ³	730 cu.in.		Specific ground pressure with combined tracks	0.063 kg/cm ²	0.90 psi
	Output acc. to ECE	315 kW (430 bhp)			Specific ground pressure with steel tracks	0.064 kg/cm ²	0.91 psi
	Max. torque	2,000 Nm at 1,200 rpm	1,476 ft/lbs at 1,200 rpm	Weight	Tare weight with combined tracks	9,000 kg	19,840 lbs
	Fuel consumption	from 22 l/h	5.8 gal/h		Tare weight with steel tracks	9,200 kg	20,280 lbs
	Fuel tank capacity	210 l	56 gal		Gross weight limit incl. attachments	11,000 kg	24,250 lbs
Engine	Using hydrostatic transmission, with no mechanical wear.						
	Two multi-disk parking/holding brakes.						
Electrical	Voltage	24 Volt					
	Alternator	28 V/140 A					
	Batteries	2 x 12 V/135 Ah					
	Cold-start rating	600 A					

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