

EQUUS

YOUR PARTNER IN THE FOREST



MADE IN
SLOVAKIA

**YOUR
PARTNER
IN THE
FOREST**

EQUUS



**FOREST WHEELED SPECIAL RANKS AMONG THE TOP
IN ITS CLASS ON THE WORLD MARKET
FOR FORESTRY EQUIPMENT**



**MANUFACTURER WITH THE
LARGEST SHARE OF OWN COMPONENTS
ON THE EUROPEAN MARKET**



EQUUS



COMPANY

The founder of SITTRANS s.r.o., producer of special forestry tractors under the EQUUS brand, has more than 12 years of experience with servicing forestry machinery. He used his professional capabilities, accuracy and abundant experience to develop a new forestry tractor. It was a response to requirements of customers who demanded a powerful tractor with long useful life, easy maintenance and affordable price. In its class, the forestry wheeled special tractor EQUUS 175N belongs among the leading technical achievements in the global forestry machinery market.

The first prototype of the forestry tractor EQUUS was built in 2014. Already in 2015, SITTRANS

s.r.o. was regularly producing more than 1 tractor per month, which were supplied mostly to Slovak and Czech customers. **Nowadays, we produce 4 to 5 tractors per month, we have our business representatives throughout Europe as well as in other countries** and 90% of our production is exported.

Thanks to the number of units produced and several years of experience, servicing activities and suggestions from our markets, we constantly obtain new data and valuable information, on the basis of which – and also in line with the global market developments – our forestry tractor EQUUS is being continuously improved and upgraded.

Our company started with four employees. At present, we employ more than 50 employees of different professions. **We use the highest share of our own components in the machine** (frames, cabin, reel, front blade, shield, hydraulic arm, clam-bunk, etc.), which allows us not only to control the quality parameters throughout the production process, but also to flexibly respond to new market demands, to develop and implement own innovative solutions and, last but not least, to maintain an affordable price for the final product. **We have own R&D centre in Banská Štiavnica, which allows us to promptly respond to requirements of our customers and the market.**

WHEELED FORESTRY SKIDDER

EQUUS 175N

We are introducing you the most-effective forestry skidder in its category EQUUS 175N, which key attributes are robustness and high work done efficiency linked with economic returns. High strenght of frames, the lowest centre of gravity and excellent passability makes this machine a perfect choice for work in the most demanding terrains.

EQUUS 175N is a special wheeled forestry tractor which is primarily intended for dragging and handling timber. Thanks to the combination of rugged and simple design, use of the latest components, comfort ergonomic interior, robust cab with large windows, smart control of all processes, easy adaptation for operation on roads and a high variability of accessory working mechanism of EQUUS brand, the tractor represents a modern and efficient machine that is capable of handling the demanding work and motion needed to harvest wood in forests, as well as a fast travel on roads, while demonstrating excellent reliability and long useful life.



ENGINE

As one of the first forestry machine manufacturers, EQUUS has installed the most advanced CUMMINS B45 engine that meets the requirements of the most demanding STAGE V (TIER 4F) emission class.

The four-cylinder engine with the torque of 780 Nm is able to work at optimum speed when dragging timber, working with the reel and the hydraulic arm, resulting in reduced fuel consumption, long useful life and, last but not least, higher profits per 1 cubic metre of timber harvested. Compared to competitors, it shows clearly the best ratio of fuel consumption and work done, measured in cubic meters of wood. Optional accessories include reversible fan for cleaning of the cooler.

ENGINE CUMMINS	
Type	CUMMINS B45, STAGE V
Power	129 kW (175 PS) @ 2200 rpm
Torque	780 Nm @ 1500 rpm
No. of cylinders	4
Volume of cylinders	4,5 l
Diesel tank	170 l
AdBlue tank	37 l

ENGINE VOLVO	
Type	VOLVO PENTA TAD583VE, STAGE V
Power	175kW (238 PS) @ 2300 rpm
Torque	950 Nm @ 1300 rpm
No. of cylinders	4
Volume of cylinders	5,1 l
Diesel tank	170 l
AdBlue tank	25 l

TRANSMISSION - HYDROSTATIC

The tractor's drive unit features a hydraulic pump, placed in a closed circuit with a hydraulic motor with an increased volume of 300 ccm and a 45° swinging plate. This system provides the tractor with high performance and low fuel consumption.

The hydraulic motor drives NAF two-speed mechanical transmission, from which the torque is transferred by cardan shafts to axles. Both gear speeds have 3 speed modes with the possibility to limit and adapt speed in the range from 0 to 100% using +/- buttons on joysticks. Thanks to the hydrostatic transmission with a great cooling system, the tractor is able to drive on roads in the speed of 40 km per hour both forward and backward. The NAF transmission allows for the disconnection of the rear axle 4x4/4x2. Our competitors often utilize 2-hydraulic motor version, which does not increase working efficiency in the forest. Apart from that, such system is

more difficult to troubleshoot and maintain. It is suitable for machines that spend more than 50% of its working time travelling on roads.

Our hydrostatic transmission behaves like a standard transmission – it does not decrease the speed when under load and, compared to a hydrodynamic transmission, it also provides higher braking force when driving downhill.

Speed:
I - turtle: Speed range 0-18 km/h will allow you to hold an engine when towing a timber in a range, where the speed is as effective as possible and the power leads to reduction of fuel consumption and increase of longer service life.
II - rabbit: Speed range 0-40 km /h is designed for comfortable transport not only at highways.



CABIN

The in-house produced EQUUS cabin does not only comply with the strictest requirements of FOPS, ROPS and OPS standards, but it far exceeds them, as it is approved in the T1a category, which means that it complies with criteria stricter by 75% than those for working machines.

EQUUS tractor has a noise-reduced cabin, which can be tilted in the direction of the engine. This feature ensures an easy access from both sides for servicing. The cabin has safety tinted glass reflecting 20% of sun light. Thanks to it, the interior of the cabin does not overheat. The cabin provides an ergonomic workplace for the operator, as well as a good view to all sides. It has the lowest position measured from the ground. It thus provides the most convenient way to get in and out of the cabin, while maintaining excellent trafficability. The cabin has doors from both sides. 8 powerful LED lights are used as working lights on the cabin and on all sides of the tractor.

Cabin of the EQUUS tractor is air-conditioned and is provided with heating. It is well lit, equipped with radio with Bluetooth handsfree system and sprung seat (on request, the seat can be equipped with heating, ventilating and inflating systems). All machine controls are located in accessible places in the cabin. Adjustable steering wheel, ergonomic joysticks on electrical rotating seat, accelerator and brake pedal is on the rotating floor of the seat. Important information such as temperature of coolant, hydraulic oil, engine oil pressure, combustion engine speed, activation of locks or displayed alarms can be viewed on two communication displays. You can set parameters of all functions of hydraulic arm from within the cabin, with the possibility to save settings for 4 operators. It is possible to install remote control for reel, rear shield and the tractor's travel.



HYDRAULIC CRANE EQUUS 120 kN

EQUUS has designed own hydraulic crane with the lifting power up to 120 kN. EQUUS hydraulic crane features a long useful life, easy maintenance, serviceability and ability to be folded under the cabin level which allows for more comfortable travelling on roads or transport using a standard truck.

For 4-wheel tractors you can choose hydraulic cranes with the reach of 7.5 m, 8.2 m or 9.1 m. For the 6-wheel tractor EQUUS 175N 6WDC you can also choose the hydraulic crane with the reach of 9.5 m. Arm features include floating arm position, lighting and timber support.

Apart from grapples, we can supply hydraulic cranes with harvester heads produced by SP Maskiner, Nisula, and Kesla.



FRAMES AND AXLES

Frames of this forestry skidder are completely welded from the S690 high-strength sheets, which contribute to the high rigidity and long service life of the machine.

The tractor consists of two independent frames connected by bearings and vertical pins. This arrangement allows for mutual movement of the frames around both the horizontal and vertical axes, with the possibility to lock the frames using two hydraulic valves.

Axles manufactured by well-known producer NAF with the parameters of 17 t dynamic / 4100 Nm are used as standard in higher-class skidders. Intentional over-dimensioning of this key component provides our skidder with a substantial reserve in durability and loadability even under the toughest operating conditions.

WINCH EQUUS 2BN

Two-drum winch of own production features a transmission with spur gear even in the standard version. Its simple design and use of quality materials ensure a long useful life without significant demands concerning its maintenance.

The winch is powered by DANFOSS hydraulic motor with automatic control in order to achieve better working efficiency. The winch provides a towing force of 10 tonnes, which can be optionally increased up to 16 tonnes. The drums provide for the capacity of 2 x 120–180 m. The possibility to start winching smoothly ensures safer work with the winch and at the same time a longer useful life of the rope.



COMPACTNESS

Depending on the type of used tyres, the skidder reaches height up to 3 m and the width of the skidder starts by 2,42 m. Even while using tyres of 23.1-26 (590 mm width), the total spread of the skidder is in range of 2,45 m, such spread is necessary for safe transport by standard version of any truck. Possibility of this kind of transport obviously not only saves the time, but also money.

The EQUUS tractor is defined as T1a vehicle. It means that it is allowed to tow trailers on roads and is equipped with hydraulic or pneumatic brakes for the trailer.

This attribute together with a possibility to transport themselves over 100 km at one time belongs to the most competitive advantage of EQUUS skidder.

PERFORMANCE AND POWER

EQUUS 175N with its weight and dimensions belongs to the middle-class between similar skidders, but with the towing power meets parameters of higher category, which means 6-cylinder engine machines.

With the axles of 17 t dynamic / 4100 Nm, axle drive and cardans from higher class concept, wheel base, lower gravity, up-to date engine in combination with our own unique technical solutions, we are able to meet parameters and towing power of more expensive machines in higher classes, with no need to rise a price of the skidder.

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and watch
the video



175N BH



SKIDDER EQUUS 175N BH

The basic version of the EQUUS 175N BH forestry tractor features a front blade, rear shield and reel. For users who are used to the traditional way of working with a forestry tractor, EQUUS 175N BH is the optimal choice.

BASIC SPECIFICATION

Length	6480 mm
Width	2450 mm
Height	2980 mm
Ground clearance	560 mm
Weight	10.000 kg

ENGINE

Type	CUMMINS B45, STAGE V
Power	129 kW (175 PS) @ 2200 rpm
Torque	780 Nm @ 1500 rpm
Type	diesel with direct fuel injection (Electronic Common Rail)
No. of cylinders	4
Volume of cylinders	4,5 l

175N BH

WORKING HYDRAULICS

The Load Sensing hydraulic system is driven by DAN-FOSS regulating axial piston pump of 100 cm³, with the output of 220 l/min at 2200 rpm.

The maximum working pressure is 310 bar.

WINCH

Type	Front toothing in the transmission gearbox
No. of drums	2
Towing power	2 x 10 t - 16 t
Winding speed	2 speed levels 0,65 m/s - 1,35 m/s
Rope capacity	2 x 115 m - 160 m Ø14 mm

HAFO auxiliary reel – its function is to pull heavy winding wire rope using the auxiliary nylon rope to tree trunks up to the distance of 170 m. The auxiliary winch has an advantage especially when dragging timber up steep slopes.

Hydraulically driven reel guide pulleys – they smoothly pull the rope out of the reel drum, making the work with the heavy steel rope much easier. They also include a roller at the reel drum. It presses the rope while it is unwinded or winded, thanks to which the rope is permanently tensioned and it is therefore wound on the reel drum in well-arranged manner. Result – longer useful life of the rope.

FORESTRY TYRES

- 540/70-30
- 23.1-26
- 28L-26



REAR SHIELD

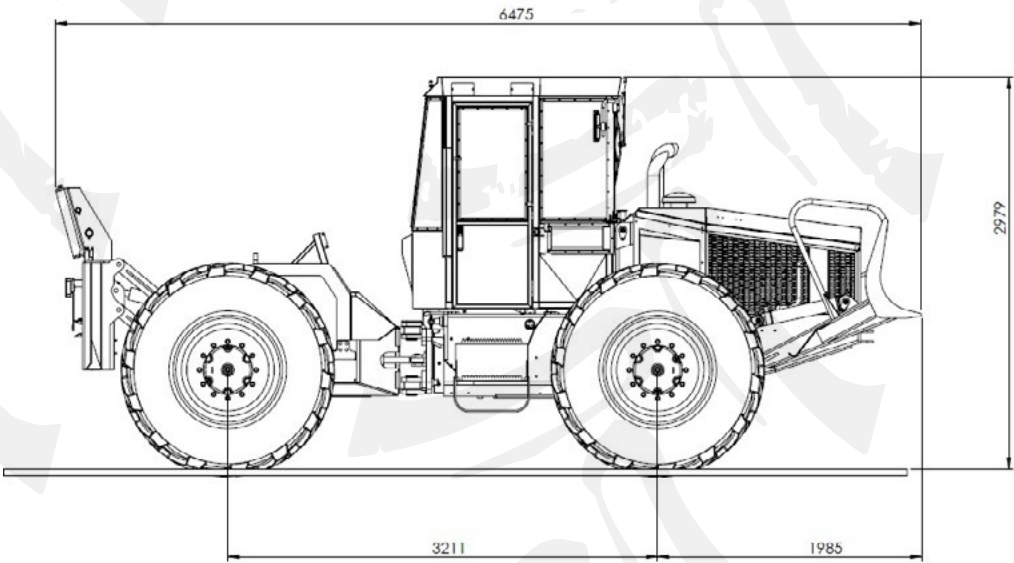
Tiltable rear shield. Several types, forms and widths of the rear shield are available. The upper edge of the shield is equipped with rigging fixtures. In the upper part, spheric rope pulleys are placed. A towing attachment can be also mounted on the shield. The shield can be also equipped with extendable pulleys reaching up to 2 meters. The baseline width of the rear shield is 2400 mm.

FRONT BLADE

The folding blade is intended for pushing timber and terrain forming. It features a reinforced bottom rail and supports that prevent rolling of tree trunks. Thanks to the high lift of the blade, the tractor has a very good approach angle, which is a great advantage when running downhill from steep slopes. The baseline width of the front blade is 2200 mm. Several types and widths of the blade are available. Optionally, it is possible to fix a toolbox to the front blade or to equip it with claws to hold timber. The lifting power of the front blade can be also increased if requested.



175N BH



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175N UN



SKIDDER EQUUS 175N UN

The universal design of EQUUS 175N UN with its own hydraulic arm and grapple will be attractive even for the most demanding customers. With the auto-closing clam-bunk, reel, front blade, rear shield and other optional equipment, this model is the most frequently sold version of all the EQUUS tractors.

BASIC SPECIFICATION

Length	7850 mm
Width	2450 mm
Height	2980 mm
Ground clearance	560 mm
Weight	from 12.600 kg

ENGINE

Type	CUMMINS B45, STAGE V
Power	129 kW (175 PS) @ 2200 rpm
Torque	780 Nm @ 1500 rpm
Type	diesel with direct fuel injection (Electronic Common Rail)
No. of cylinders	4
Volume of cylinders	4,5 l

175N UN

WORKING HYDRAULICS

The Load Sensing hydraulic system is driven by DANFOSS regulating axial piston pump of 130 cm³, with the output of 286 l/min at 2200 rpm or 145 cm³ with the output of 329 l/min. The maximum working pressure is 350 bar. Control of the system is possible thanks to ETL intended to monitor the instantaneous power of the combustion engine. It places no load on the combustion engine and does not reduce its speed when it is under load. This allows the tractor to smoothly work with the harvester head.

WINCH

Type	Front toothing in the transmission gearbox
No. of drums	2
Towing power	2 x 10 t - 16 t
Winding speed	2 speed levels 0,65 m/s - 1,35 m/s
Rope capacity	2 x 115 m - 160 m Ø14 mm

HAFO auxiliary reel – its function is to pull heavy winding wire rope using the auxiliary nylon rope to tree trunks up to the distance of 170 m. The auxiliary winch has an advantage especially when dragging timber up steep slopes.

Hydraulically driven reel guide pulleys – they smoothly pull the rope out of the reel drum, making the work with the heavy steel rope much easier. They also include a roller at the reel drum. It presses the rope while it is unwinded or winded, thanks to which the rope is permanently tensioned and it is therefore wound on the reel drum in well-arranged manner. Result – longer useful life of the rope.

FORESTRY TYRES

540/70-30
23.1-26
28L-26



HYDRAULIC CRANE

Type	EQUUS 120
Lifting moment	120 kN
Length	7,5m / 8,2m / 9,1 m

GRAPPLE

Gripen
SuperGrip

CLAMBUNK

fixed
removable with quick coupler

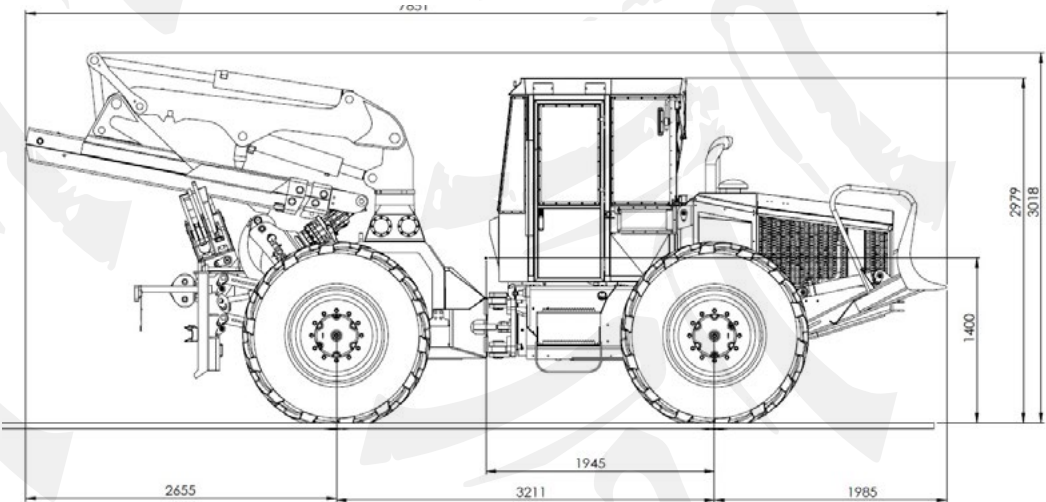
REAR SHIELD

Several types, forms and widths of the rear shield are available. The upper edge of the shield can be equipped with rigging fixtures or radius with teeth for placing of trunks. Spheric rope pulleys are located in its upper part. The shield can be also equipped with extendable pulleys reaching up to 2 meters. Clambunk and towing attachment are a matter of course. The baseline width of the rear shield is 2400 mm.

FRONT BLADE

The folding blade is intended for pushing timber and terrain forming. It features a reinforced bottom rail and supports that prevent rolling of tree trunks. Thanks to the high lift of the blade, the tractor has a very good approach angle, which is a great advantage when running downhill from steep slopes. The baseline width of the front blade is 2200 mm. Several types and widths of the blade are available. Optionally, it is possible to fix a toolbox to the front blade or to equip it with claws to hold timber. The lifting power of the front blade can be also increased if requested.

175N UN



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175N UH



SKIDDER

EQUUS 175N UH

The machine for customers, who need a harvester head for their work. This version is suitable for thinning methods of winning of for final work after timber winning. Except for extensive machine equipment, customer may choose between different harvester heads from NISULA, SP Maskiner or KESLA.

BASIC SPECIFICATION

Length	7850 mm
Width	2450 mm
Height	2980 mm
Ground clearance	560 mm
Weight	from 13.000 kg

ENGINE

Type	CUMMINS B45, STAGE V
Power	129 kW (175 PS) @ 2200 rpm
Torque	780 Nm @ 1500 rpm
Type	diesel with direct fuel injection (Electronic Common Rail)
No. of cylinders	4
Volume of cylinders	4,5 l

175N UH

WORKING HYDRAULICS

The Load Sensing hydraulic system is driven by DANFOSS regulating axial piston pump of 130 cm³, with the output of 286 l/min at 2200 rpm or 145 cm³ with the output of 329 l/min. The maximum working pressure is 350 bar. Control of the system is possible thanks to ETL intended to monitor the instantaneous power of the combustion engine. It places no load on the combustion engine and does not reduce its speed when it is under load. This allows the tractor to smoothly work with the harvester head.

WINCH

Type	Front toothing in the transmission gearbox
No. of drums	2
Towing power	2 x 10 t - 16 t
Winding speed	2 speed levels 0,65 m/s - 1,35 m/s
Rope capacity	2 x 115 m - 160 m Ø14 mm

HAFO auxiliary reel – its function is to pull heavy winding wire rope using the auxiliary nylon rope to tree trunks up to the distance of 170 m. The auxiliary winch has an advantage especially when dragging timber up steep slopes.

Hydraulically driven reel guide pulleys – they smoothly pull the rope out of the reel drum, making the work with the heavy steel rope much easier. They also include a roller at the reel drum. It presses the rope while it is unwinded or winded, thanks to which the rope is permanently tensioned and it is therefore wound on the reel drum in well-arranged manner. Result – longer useful life of the rope.

FORESTRY TYRES

- 540/70-30
- 23.1-26
- 28L-26



HYDRAULIC CRANE

Type	EQUUS 120
Lifting moment	120 kN
Length	7,5m / 8,2m

GRAPPLE	CLAMBUNK
Gripen	fixed
SuperGrip	removable with quick coupler

HARVESTER HEADS

Nisula 500 H/C	Nisula 555 H/C
SP 461 LF	SP 561 LF
KESLA 20RH-II	KESLA 25RH-II

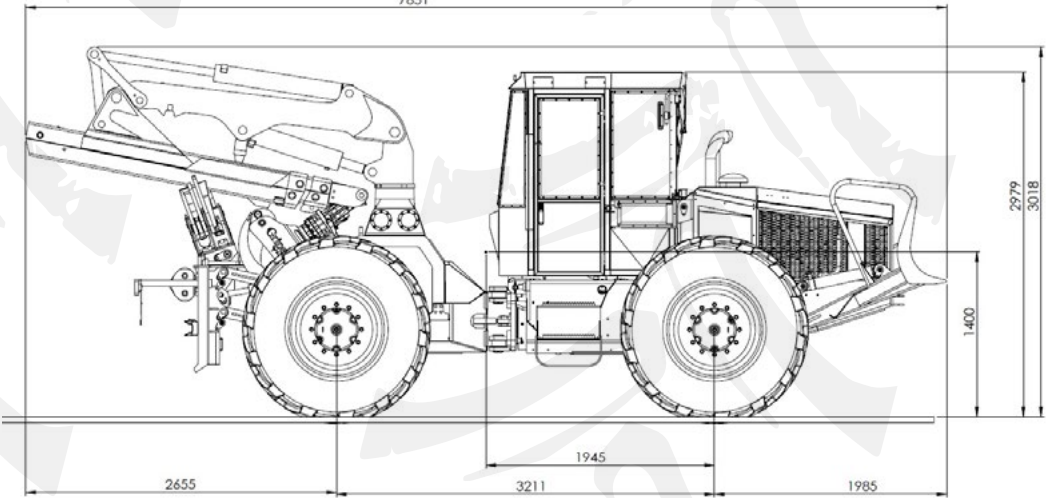
REAR SHIELD

Several types, forms and widths of the rear shield are available. The upper edge of the shield can be equipped with rigging fixtures or radius with teeth for placing of trunks. Spheric rope pulleys are located in its upper part. The shield can be also equipped with extendable pulleys reaching up to 2 meters. Clambunk and towing attachment are a matter of course. The baseline width of the rear shield is 2400 mm.

FRONT BLADE

The folding blade is intended for pushing timber and terrain forming. It features a reinforced bottom rail and supports that prevent rolling of tree trunks. Thanks to the high lift of the blade, the tractor has a very good approach angle, which is a great advantage when running downhill from steep slopes. The baseline width of the front blade is 2200 mm. Several types and widths of the blade are available. Optionally, it is possible to fix a toolbox to the front blade or to equip it with claws to hold timber. The lifting power of the front blade can be also increased if requested.

175N UH



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175N 6WDC



COMBI MACHINE

EQUUS 175N 6WDC

6-wheel forestry tractor EQUUS 175N 6WDC offers possibilities of combined use. Apart from loading and hauling of shorter timber, it also offers the option to use clam-bunk for dragging long timber. EQUUS 175N 6WDC is equipped with double-drum reel with towing force up to 16 tonnes.

BASIC SPECIFICATION

Length	from 8925 mm
Width	2635 mm
Height	3510 mm to stanchion 3440 mm to crane
Ground clearance	560 mm
Weight	from 17.240 kg

ENGINE CUMMINS

Type	CUMMINS B45, STAGE V
Power	129 kW (175 PS) @ 2200 rpm
Torque	780 Nm @ 1500 rpm
Type	diesel with direct fuel injection (Electronic Common Rail)
No. of cylinders	4
Volume of cylinders	4,5 l

175N 6WDC

ENGINE VOLVO	
Type	VOLVO PENTA TAD583VE, STAGE V
Power	175kW (238 PS) @ 2300 rpm
Torque	950 Nm @ 1300 rpm
No. of cylinders	4
Volume of cylinders	5,1 l

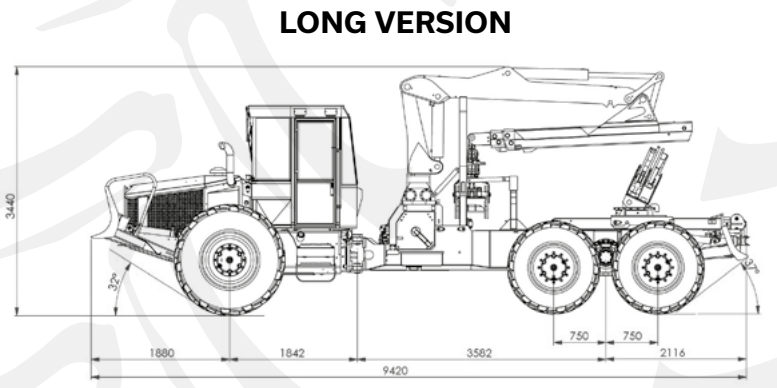
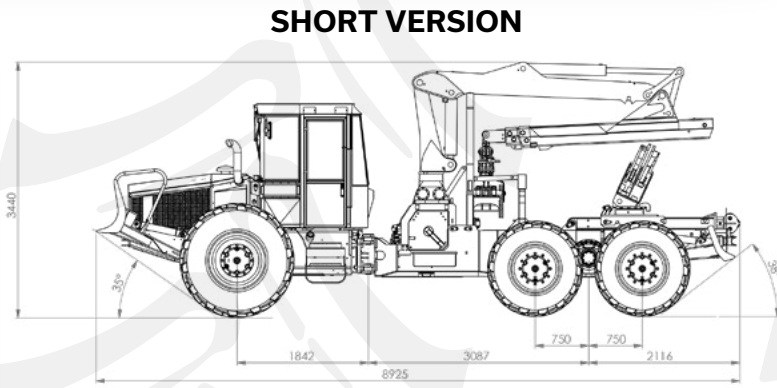
TRANSMISSION	
Type	Hydrostatic
Specification	3 speed modes and 2 mechanical transmission
1. Speed	0 – 14 km/h (turtle)
2. Speed	0 – 32 km/h (rabbit)
Max. speed	32 km/h (forward and backward)
Switchboard	Disconnecting of rear bogie axle 6x6 / 6x2

WORKING HYDRAULICS	
The Load Sensing hydraulic system is driven by DANFOSS regulating axial piston pump of 130 cm3, with the output of 286 l/min at 2200 rpm or 145 cm3 with the output of 329 l/min. The maximum working pressure is 350 bar. Control of the system is possible thanks to ETL intended to monitor the instantaneous power of the combustion engine. It places no load on the combustion engine and does not reduce its speed when it is under load. This allows the tractor to smoothly work with the harvester head.	

WINCH	
Type	Front toothing in the transmission gearbox
No. of drums	2
Towing power	2 x 10 t - 16 t
Winding speed	2 speed levels 0,65 m/s - 1,35 m/s
Rope capacity	2 x 115 m - 160 m Ø14 mm
HAFO auxiliary reel – its function is to pull heavy winding wire rope using the auxiliary nylon rope to tree trunks up to the distance of 170 m. The auxiliary winch has an advantage especially when dragging timber up steep slopes.	

AXLES	
Type	NAF
Front axle	rigid, wet lamellar brakes and two-wheel with 100% differential lock
Forestry tyres	23.1-26 / 28L-26
Rear axle	BOGIE NAF with four-wheel and with 100% differential lock
Forestry tyres	600/55-26.5 / 710/45-26.5

FRONT BLADE	
The folding blade is intended for pushing timber and terrain forming. It features a reinforced bottom rail and supports that prevent rolling of tree trunks. Thanks to the high lift of the blade, the tractor has a very good approach angle, which is a great advantage when running downhill from steep slopes. The baseline width of the front blade is 1750 mm. Several types, forms and widths of the blade are available.	



175N 6WDC

HYDRAULIC CRANE	
Type	EQUUS 120
Lifting moment	120 kN
Length	9,5 m
The in-house produced hydraulic crane has a double telescope, lifting power of 120 kN and the reach of 9.5 m. The crane can be supplied with hydraulic tilting pillar, which is a great advantage when working on slopes.	

GRAPPLE	
Gripen	
SuperGrip	

CLAMBUNK	
Removable clambunk features the automatic clamping function and nominal loading area of 1.6 m².	

REAR SHIELD	
The rear shield is used to secure the tractor's position in the terrain when dragging wood by a reel or when working with the hydraulic arm. It can be also used for the protection of tractor when dragging wood. The baseline width of the rear shield is 2200 mm.	

LOGGING BUNK SUPERSTRUCTURE	
Superstructure with the capacity up to 12 tonnes with four uprights and bars, removable and with a hydraulic lift in its rear area. The last pair of uprights can be mechanically extended (+ 600 mm). Uprights can be delivered with adaptors extending the loading area, as well as with adaptors extending individual uprights.	

PTO – KARDAN

Would you like to have forestry skidder, but you need to do also mulching, or to pursue different works using the output shaft takeoff and don't want to buy another single-purpose tractor?

Take advantage of the combination of the new VOLVO PENTA engine, the most powerful hydrostatic drive and the unique transmission.



DIFFERENT USES

Do you need to use the skidder for atypical temporary works, for example construction, ground adjustment?

It can be very simple: with rugged quick clamping system, you will be able to install many of forest grabs, steaming grabs, grabs for brushwoods, mulching heads, trimmer heads, grabs with saw, etc at the hydraulic crane of EQUUS.

Our customer from Australia applied the drilling set for soil sampling to our undercarriage.





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YOUR
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IN THE
FOREST




EQUUS


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