

MOBILE TRACTION WINCH

TWINCH

ENGLISH





SOIL PROTECTION

Sustainable cultivation means taking care and use of forest areas in a way that maintains or even improves the terrain's productivity with its output, its regeneration ability and its vitality.

With the help of a traction winch the whole braking power and tractive force of the timber harvesting machine can be supported in slope transition terrain at any time. Serious damage to the soil is reduced because of a slip value of less than 20%, which makes it easier to systematically develop logging trails.



SAFETY AS A BASIC PRINCIPLE

Within the last years the development of lighter forestry machines, due to the use of new tensile steels, has contributed to the fact that the limits of passable slopes has steadily increased upwards.

In order to guarantee the safe use of machines in such steep terrains the timber harvesting machine has to be adjusted to the expected field of operation, taking into account the slope gradient and changes in weather conditions. The traction winch can significantly contribute to safe working provided that the machine itself is placed in a stable position, including the machine's own braking efficiency.



T-WINCH

In all places where unsecured driving leads to increased risk for the operator and his machine, the solid T-WINCH traction winch assistant can be used. Not only is the application of the traction winch a considerable cost saving for the operator because of the verifiable reduction of fuel consumption, but the use of T-WINCH also represents an environmentally conscious approach in the field of timber harvesting. The remarkable construction together with the functional design, ensures an approved and reliable operation in situ. An easy reach of the operation field is provided by the help of the crawler movement and the radio control. The blade in the front part of the machine provides even more stability in rough terrain.

HIGHLIGHTS

- > **With the use of T-WINCH no undesirable rear weight and no structural alteration works of the basic machine are required**
Irrespective of the decision which machine is used for working on steep terrain, a maximum of safety is provided together with a minimum of installation work.
- > **Independent steering along forest roads is possible by uncoupling the rope**
An easy release of the rope ensures the possibility of leaving the logging trail at any time. A remote storing of the timber, somewhere along the forest road can therefore be achieved easily.
- > **Maximum safety preventing rope breakage**
- > **Versatile field of applications**
T-WINCH is always a valuable assistance for steep slope working, no matter what machine, as only a suitable connecting point on the tethered machine is required.

YOUR BENEFIT.

POWERFUL SUPPORT.

MINIMAL FUEL CONSUMPTION.

INSPIRED DESIGN AND TECHNOLOGY

Ecoforst builds a traction winch which will ensure the client profits from organising their work more efficiently by the use of modern design, carefully considered operational tasks and quality construction materials.

The diesel engine transmits the maximum torque to a double pump unit with adjustable delivery volume. These two pumps power both the closed hydraulic cycle of the winch transmission as well as the open cycle of the additional auxiliary functions. Thus the crawler movement drive and the movement of the blade can be controlled synchronously, which leads to a maximum ease of use.

To guarantee a low fuel consumption, pressure and volume flow of both pumps are continuously adjusted to the active load by using a load-sensing system.



ENGINE

- > Robust FPT diesel engine
- > Maximum power output 305 kW
- > Worldwide availability of spare parts



TOOLBOX

- > Hydraulic lift and lowerable
- > Ergonomic access



ROPE OUTLET

- > Hardened high quality rope guides
- > Bearings on all rope guide elements
- > Stable fixing to the blade



**INTELLIGENT
TECHNOLOGY.
CONTINUOUSLY
VARIABLE POWER.
EFFICIENT
PERFORMANCE
CONTROL.**



CAST IRON DRUM

- > Good winding behaviour
- > Rope capacity 560 m
- > Rope diameter 26 mm
- > High tensile strength
- > Special compaction
- > Long operating life



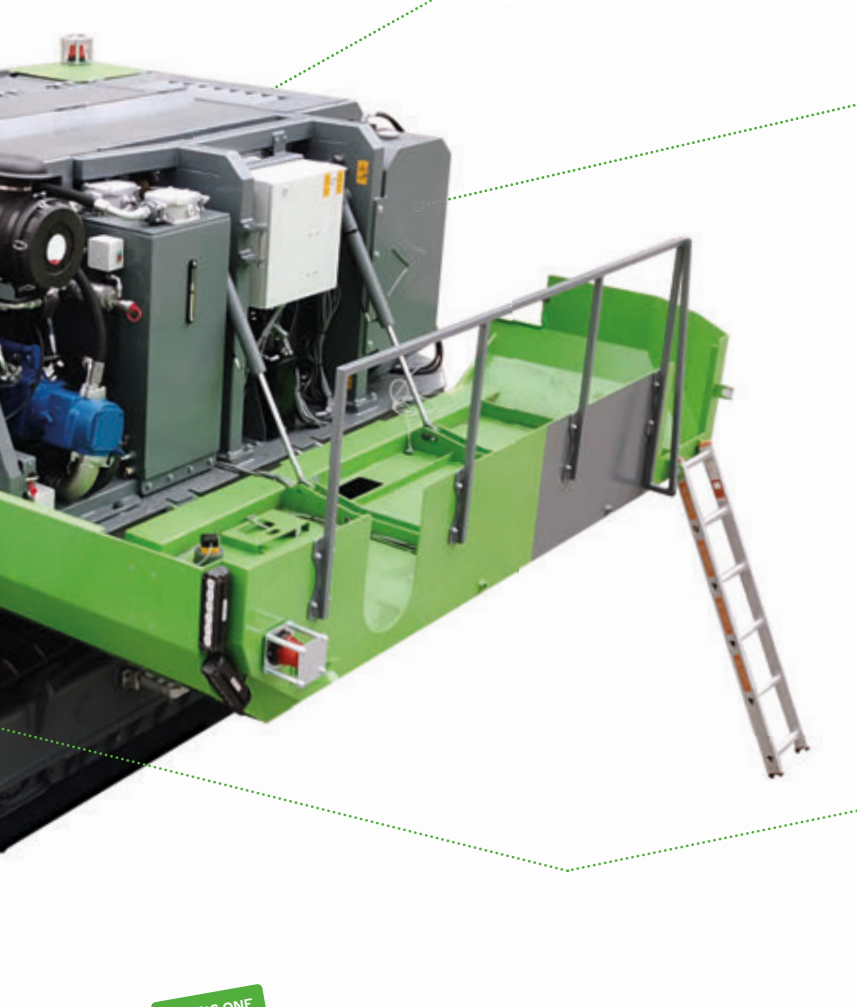
WINCH TRANSMISSION

- > High dynamic torque
- > Integrated multi-disc brake
- > Easy maintenance
- > Hydraulic pressure 460 bar



CRAWLER MOVEMENT

- > Stable crawler construction
- > Powerful chain drive
- > 600 mm



THE BIG ONE
TWINCH 30.2



**INTELLIGENT
TECHNOLOGY.
CONTINUOUSLY
VARIABLE POWER.
EFFICIENT
PERFORMANCE
CONTROL.**



IMPROVED DESIGN AND TECHNOLOGY

The 10.3, the third generation of the T-WINCH was improved through feedback of our customers all over the world. This led to steel covers, better service access and a 50% bigger fuel tank.



STRAW LINE*

- > Light synthetic cable
- > Auxiliary winch
- > 400m rope

**optional equipment*



ENGINE

- > Robust diesel engine
- > Maximum power output 125 kW
- > Worldwide availability of spare parts



ROPE OUTLET

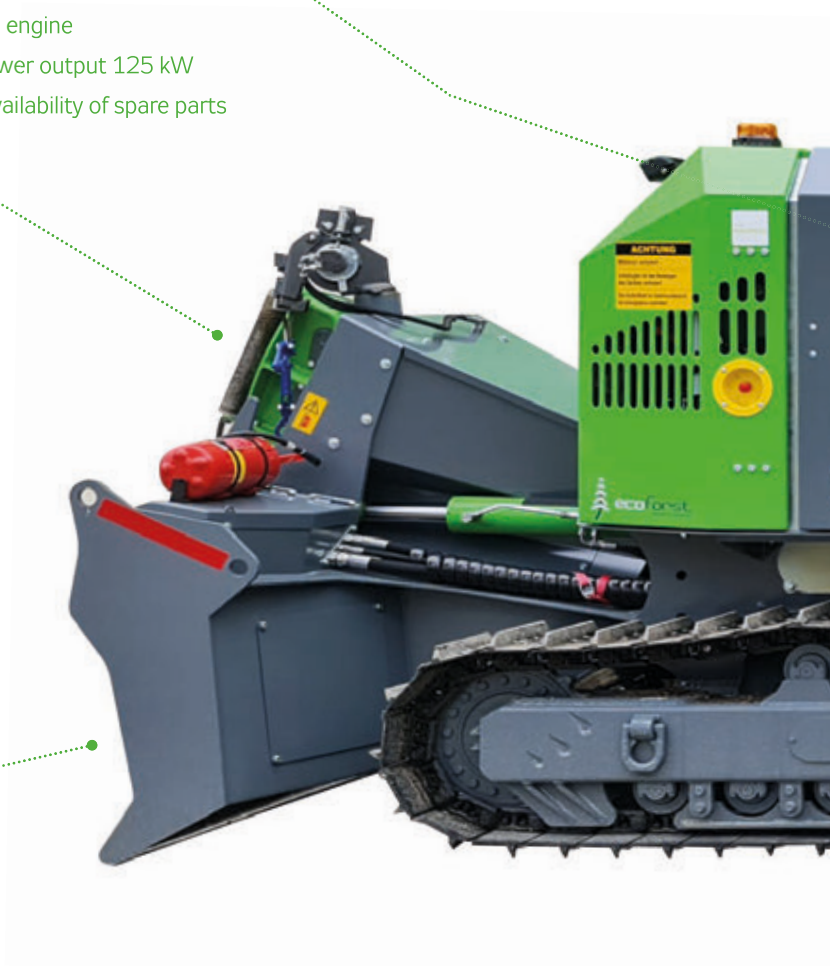
- > Hardened high quality rope guides
- > Bearings on all rope guide elements
- > Stable fixing to the blade



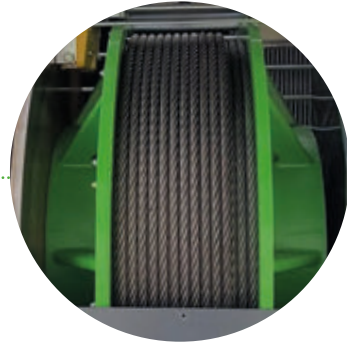
LOGGING WINCH*

- > Maximum pulling force 7t
- > Rope capacity 80 m
- > Maximum rope speed 1.5 m/s

** Optional equipment*



**APPROVED
WORLDWIDE
IMPROVED WITH
OUR CUSTOMERS.**



CAST IRON DRUM

- > Good winding behaviour
- > Rope capacity 500 m
- > Rope diameter 20 mm
- > High tensile strength
- > Special compaction
- > Long operating life



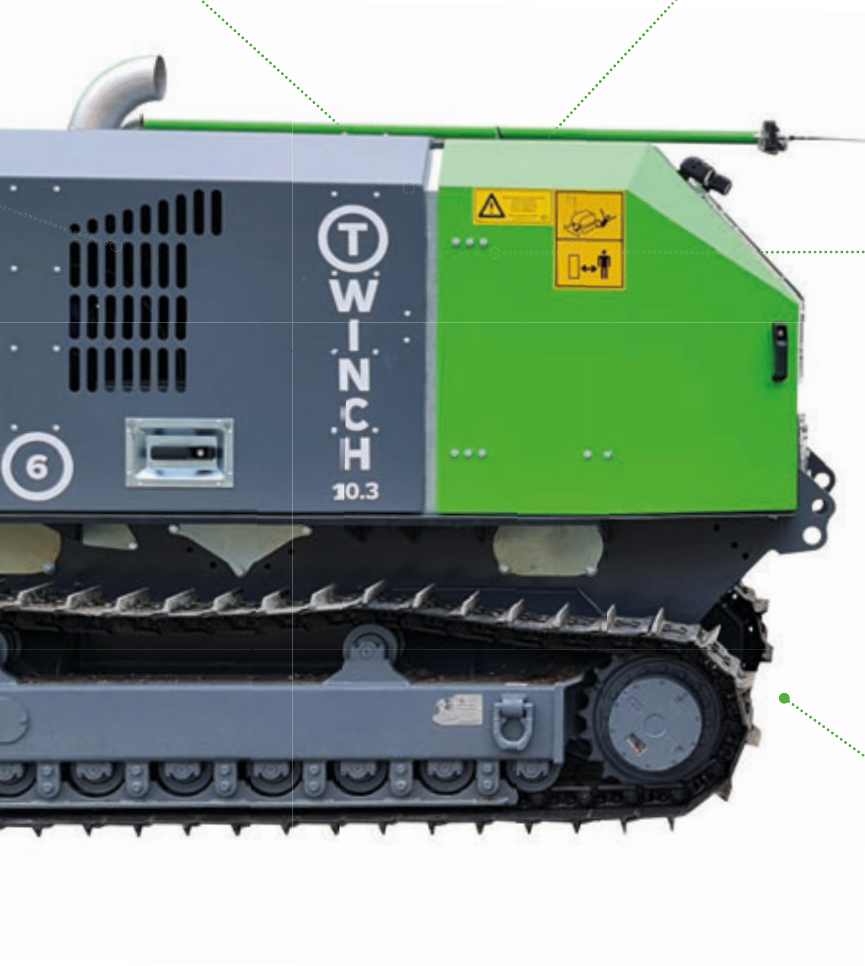
WINCH TRANSMISSION

- > High dynamic torque
- > Integrated multi-disc brake
- > Easy maintenance
- > Hydraulic pressure 420 bar



CRAWLER MOVEMENT

- > Stable crawler construction
- > Powerful chain drive



TWINCH 10.3

EASY AND SAFE POSITIONING OF T-WINCH



1 – POSITIONING

With the help of the remote control T-WINCH can be moved to any position in the chosen terrain. Tasks i.e., change of the location through activating the crawler movement, can be handled proportionately. This makes the adjustment of an ideal and safe location for the winch easier.

Tip While driving through extremely rough terrain the traction rope of the T-WINCH can also be used as a safety rope.



2 – ANCHORING

A stable anchoring of the winch takes place through the blade and the crawler, as well as the use of additionally fixed lashing belts if necessary. The operator is notified on the remote, if the T-WINCH starts moving.

Tip Belts and other slinging accessories can be kept safely in lockable, big dimensioned storage boxes.



3 – OPERATING

After positioning in the terrain the traction winch is ready for use. Tractive force assistance is preset by the operator on the radio transmitter. Change of direction is automatically detected by the T-WINCH. "Set and forget!"

Tip Changing the task switch of the T-WINCH into traction mode blocks all other auxiliary functions.



FORWARDER

The T-WINCH supports working on slopes and helps to maximise productivity. The use of chains or bandtracks can often be avoided because of the improved rough terrain driving characteristics of the forwarder. The reduced weight compared to an onboard winch provides benefits in power consumption and prevents damage to the logging trail as well as the ground.



HARVESTER

With a maximum rope length of 500 m (1600 ft) on the 10.3 and 560 m (1840 ft) on the 30.2 it is easy to keep the timber harvester safely on the slope during harvesting. During the winter months the harvester operator does not have to worry about driving in steep and rough terrain, but can concentrate fully on his main task of timber harvesting.



SKIDDER

In an established forestry road system the use of skidders is still very popular. T-WINCH can support the work of skidders because of the high speed of the winch; up to 4 kph with the 10.3 (2.5 mph) and 8 kph (5 mph) with the 30.2 and the easy uncoupling of the traction rope. Challenging slopes are no longer a handicap and the tractive force is maximised.



EXCAVATOR

For earth moving works on steep slopes, T-WINCH also offers helpful support if the driving power of the crawler movement is not sufficient. The cost-intensive use of expensive inefficient special machines can be reduced to a minimum.



TECHNICAL SPECIFICATION COMPARISON:

DIMENSIONS

	10.3		30.2	
	Metric	Imperial	Metric	Imperial
Length	4590 mm (4680 mm)	15 ft (15,3 ft)	6150 mm	20 ft
Width	2260 mm	7,4 ft	2990 mm	10 ft
Height	2280 mm	7,5 ft	2980 mm	10 ft
Ground clearance	590 mm	2 ft	630 mm	2 ft
Weight	10.700 kg	23369 lbs	33.000 kg	72752 lbs

ENGINE

	10.3		30.2	
Diesel Engine	FPT N45 StageV		FPT C87 Tier4 final	
Power output	125 kW / 170 hp		305 kW / 414 hp	
Capacity	4,5 l	275 cu in	8,7 l	531 cu in
Diesel tank	300 l	79 gal	625 l	165 gal
DEF Tank	45 l	11.8 gal	81 l	21 gal

HYDRAULIC SYSTEM

	10.3		30.2	
Winch Pump	1 x 125 ccm	7,6 cu in	1 x 280 ccm	17.1 cu in
Winch Drive	1 x 115 ccm	7,0 cu in	1 x 170 ccm	10.4 cu in
Open Pump	1 x 75 ccm	4.6 cu in	1 x 190 ccm	11.6 cu in

WINCH

	10.3		30.2	
Max. theoretical pulling force	150 kN	33721 lbf	250 kN	56202 lbf
Nominal constant pulling force	100 kN	22481 lbf	180 kN	40465 lbf
Rope diameter	20 mm	3/4 in	26 mm	1.06 in
Maximum rope speed	4 km/h	2.5 mph	8 km/h	5 mph
Supported machine weight	5 t - 55 t	115 00 - 121 000 lbs	10 t - 80 t	22 000 - 176 000 lbs

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