

TRACTION-WINCH

T10 - T14 - T20 Series



www.timbermax.ca



Made in Canada

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TRACTION-WINCH

T10 - T14 - T20 Series

Forestry of the Future

Forestry is continuously changing and evolving. The challenges that loggers, foresters and forest companies face daily bring about solutions and improvements that reflect the incredible resourcefulness of those who work in the forest industry. Major technological breakthroughs have been seen throughout the decades—and there is more to come. The need for renewable resources continues to grow. At the same time, there are high environmental expectations of the industry. Also, Globalization has increased the pressure on the entire industry, and the need to improve our practices and technologies is now more important than ever.

Steep Slope

Accessing timber and recruiting qualified operators continues to be challenging—Timbermax has introduced an innovative and reliable solution for loggers: the Traction-Winch. The T-Series Traction-Winch is robust, powerful and reliable. The winch's compact spooling system makes it compatible with a wide range of carriers while simplifying and reducing the cost of installation.

Safety

The mechanization of logging operations has significantly reduced the number of accidents. However, risks and dangers still need to be intensively managed. Timbermax is not only building logging equipment; it is our commitment to ensuring the users of our technology have the training and the support to get the maximum benefit from our equipment and return home safely.





WHY should YOU use the Traction-Winch?

- ➡ **Safety:** The system provides traction assist, which in combination with the *iWinch*® Control System, allows the operator to better identify limits and danger.
- ➡ **Productivity:** It significantly improves productivity while reducing costs in areas where yarders are too expensive and conventional equipment reaches its traction and safe operating limits.
- ➡ **Soil Disturbance:** It substantially reduces soil disturbances. In situations in the past, where it might have been necessary to stop operations and wait for dry conditions, it is now possible to keep working throughout the year.
- ➡ **Snow:** It improves accessibility to timber in areas affected by heavy snowfall.

WHAT are the limits ?

Operator Skills

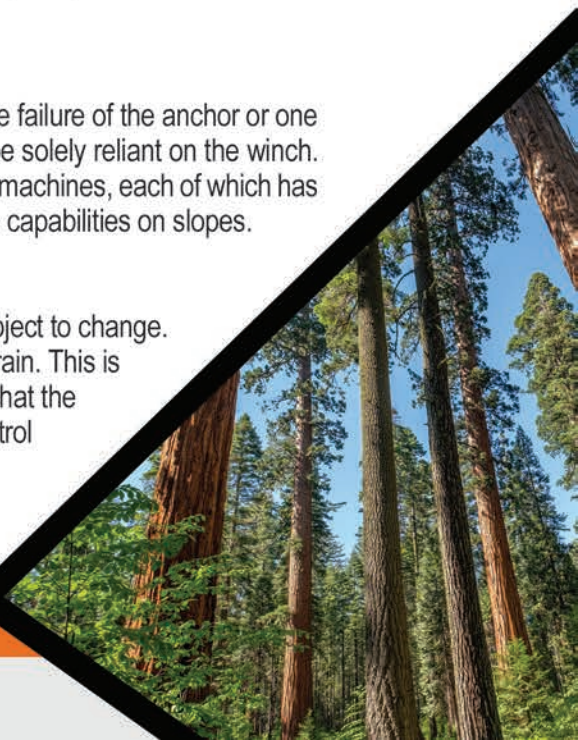
Even with the use of proven technologies, human error can still be the source of an accident. Establishing safe work standards and procedures is extremely important. There are challenges operators will face, and they should not underestimate the learning phase.

Equipment Operational Limits

The Traction-Winch is not a safety device and should not be used as such. The failure of the anchor or one of its components is a possibility - it is essential that the operator's safety not be solely reliant on the winch. The Traction-Winch can be mounted on a wide range of carriers and anchoring machines, each of which has its operating limits. Modifications to the carrier may be necessary to improve its capabilities on slopes.

Ground Conditions

The traction capacity of the soil depends on many factors, any of which are subject to change. For example, the soil's moisture content might change rapidly following heavy rain. This is why Timbermax does not give a fixed slope limit. However, experience shows that the system works optimally on slopes from 35%-70%. The Timbermax *iWinch* Control system can provide the operator with continuous feedback on the traction capacity of the soil.



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Robust, Powerful, Reliable

The Timbermax Traction-Winch Package consists of the winch unit, hydraulic components, and the *iWinch*® Control System. The winch is compact and features a built-in spooling device - making it compatible with a wide range of carriers. Through field experience and continuous product improvement, Timbermax believes that there is a machine configuration that will work for you.

Configuration Solutions

One Machine System

The winch is installed on the steep slope machine. The cable is attached to a stump or suitable anchoring point.

- *Quicker setup time*
- *Static line (longer cable lifetime)*
- *Cost effective for full-time dedicated cutting machine*

Two Machine System

The winch is installed on a carrier (excavator, dozer, or Timbermax ELEVATOR®) or suitable anchoring machine.

- *Versatility: tether a skidder, buncher, harvester, or forwarder*
- *Minor modifications to the slope machine required*
- *Extra power from anchor machine engine*

A Timbermax representative is available to review your current operation and provide you with advice on a suitable solution to fit your needs.

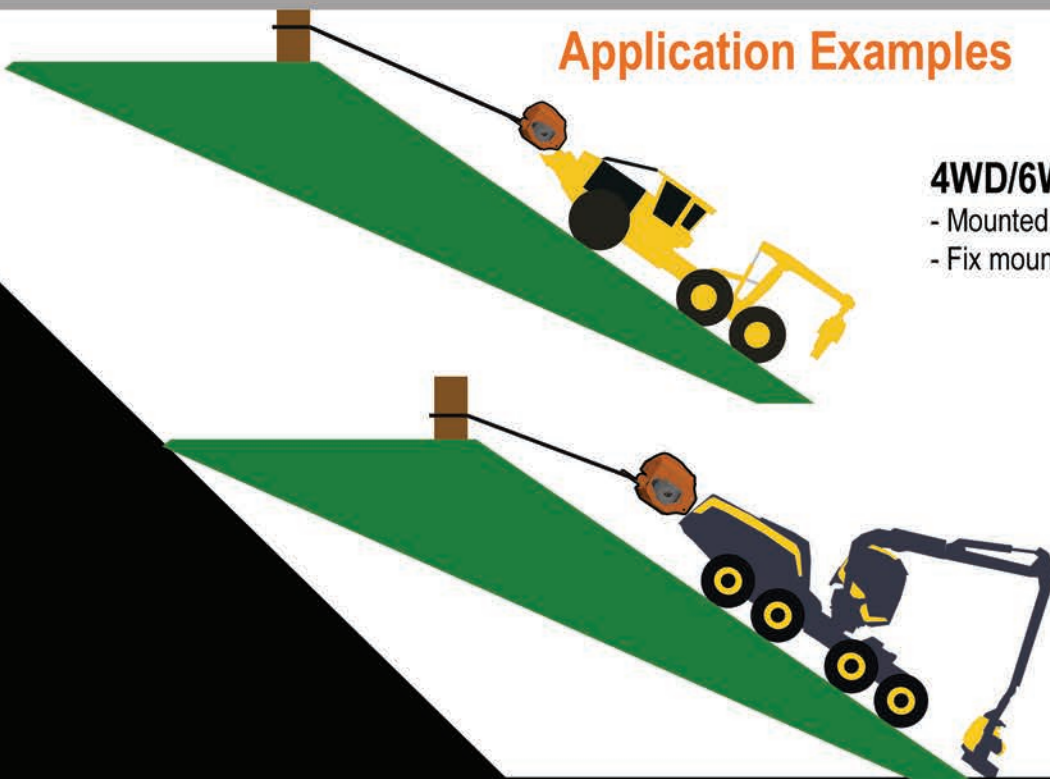
Application Examples

4WD/6WD Wheeled Skidder

- Mounted to the front
- Fix mounted or tiltable

Wheeled Harvester

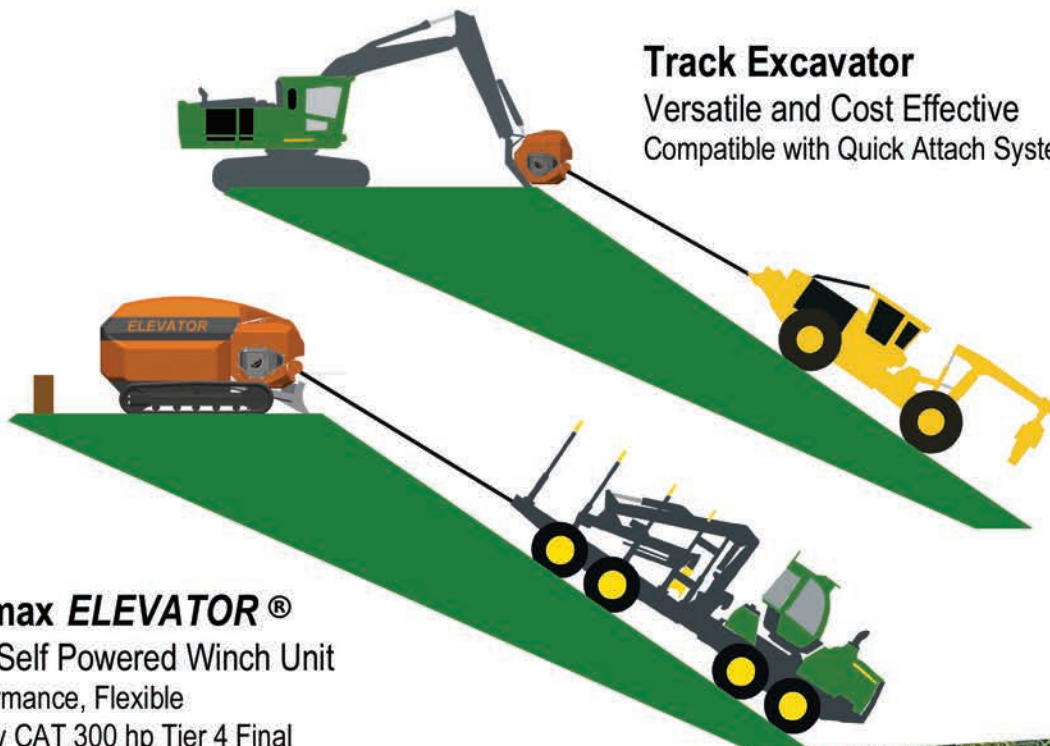
- Mounted to the rear
- Fix mounted or tiltable





Track Excavator

Versatile and Cost Effective
Compatible with Quick Attach System



Timbermax *ELEVATOR*®

Powerful Self Powered Winch Unit
High Performance, Flexible
Powered by CAT 300 hp Tier 4 Final



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UNIQUE Concept

Limited Carrier Modifications Required

Standard mounting dimensions makes installation simple and swapping between machines easy.

Carrier Requirements:

- 1" Pressure Line
- 1" Return Line
- ½" Drain Line
- Electrical Cable (7 connectors) with +24 V Supply

TIMBERMAX Drive

Powerful, Reliable and Efficient

It is powered by a variable displacement hydraulic motor, which allows high torque or high speed under low load conditions. The winch drum transmits power through the three-stage planetary gear drive. A multi-disc, spring applied brake secures the drum.

REMOTE Control

Easy to Operate

Timbermax has remote controls available to match your installation and options.



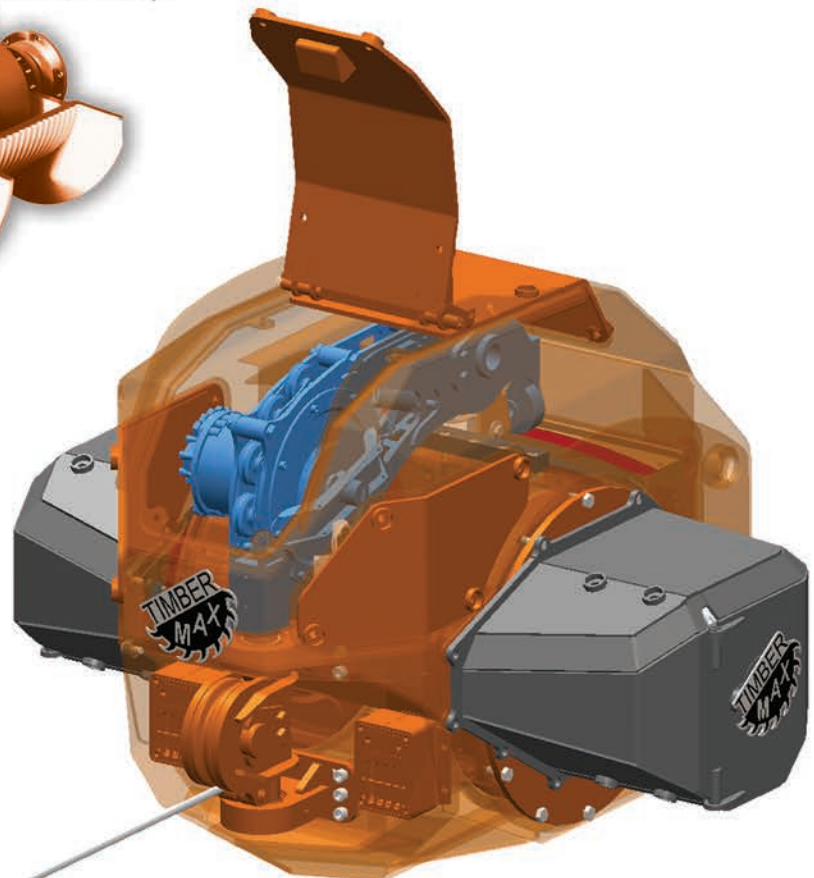
EXCAVATOR Mount Ready

Versatile, and Dynamic

No need to install sheaves, pulleys or drums on the carrier.
Most 20 + ton units can be used as the base carrier.



Powered by
Rexroth
Bosch Group





iWinch® Control System

Intuitive, and User-Friendly

- Winch pull setup, tension monitoring with alarms
- Redundancies and safety features for maximum operator safety
- Remote diagnostic ready



QUICK Attach

Converts Carrier to Winch-Assist

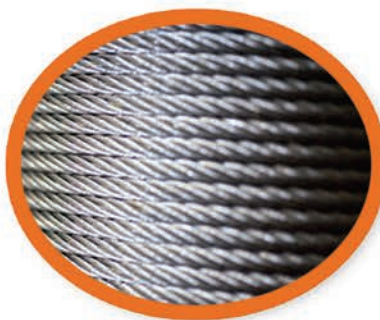
This system enables the carrier to operate as a road builder without restriction, while the quick attach allows you to convert to winch-assist quickly.



COMPACT Design

Perfect Spooling

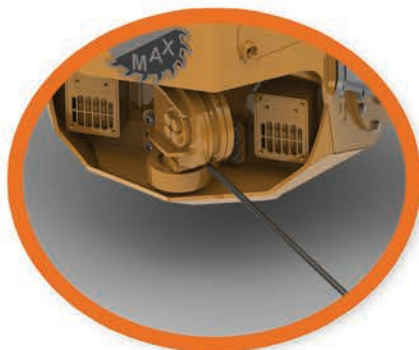
With a reliable and robust spooling system, the winch drum has been designed to extend cable lifetime and reduce operating costs.



PIVOTING Rope Guide

± 45 degrees

The Timbermax rope guide contains an oversized bearing and a swivel-mount allowing for operation within 45 degrees from the center.



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A UNIQUE Product

It's not a mystery that the logging industry has been searching for technology to provide safer practices in steep slope harvesting, and TIMBERMAX has risen to the challenge. The T-Series Traction-Winch is easy on the eyes, and frankly - it's cool!

The versatility of being able to mount the winch directly to a skidder, buncher, harvester, forwarder or secondary machines such as the TIMBERMAX Elevator, or an excavator makes this system an attractive and cost-effective option.



The LOGICAL choice

Seamless integration into the machine's operating systems provides smooth operation and ease of functionality for the operator.

Since the T-Series is an attachment, you can swap the bucket or power-clam with the winch in approximately 15 minutes. This quick transition maximizes the machine utilization and transforms it into a robust, powerful, and reliable Traction-Winch System!



Uphill skidding



Low-bedding couldn't be any easier!



Versatility



Downhill skidding

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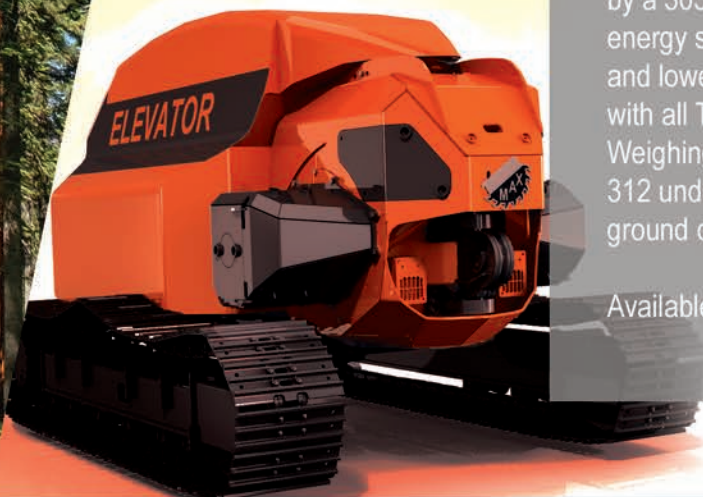
T10



T14



T20



Metric Specifications

		T10	T14	T20
Winch Pull	(kN)	100	125	200
Rope dia.	(mm)	16	19	22
Capacity	(m)	500	350	500
Max. Speed	(km/h)	5.5	5.2	5.0
Weight	(kg)	3500	3500	4500
Min. Flow	(l/min)	190 - 240	190 - 240	280 - 380
Pressure	(bar)	280-320	280-320	300-320

Imperial Specifications

		T10	T14	T20
Winch Pull	(Tons)	10	12.5	20
Rope dia.	(in)	5/8"	3/4"	7/8"
Capacity	(ft)	1600	1100	1600
Max. Speed	(ft/s)	5	4.7	4.5
Weight	(lb)	7700	7700	9900
Min. Flow	(gpm)	50 - 60	50 - 60	75 - 100
Pressure	(psi)	4000-4600	4000-4600	4400 - 4600

Tlumbermax *ELEVATOR*®

Dynamic, Fuel Efficient, Mobile

The Tlumbermax *ELEVATOR* is a self-propelled unit, powered by a 305 hp CAT 7.1 Engine. Its intelligent engine control and energy storage system work together to offer high performance and lower fuel consumption. Its modular design is compatible with all Timbermax Traction-Winch's: T10, T14, and T20.

Weighing 12,500 kg, the *ELEVATOR* is constructed on a CAT 312 undercarriage. It has improved mobility and agility due to its ground clearance and high drawbar pull.

Available in 2019. Preorder your unit today!



iWinch® CONTROL System

User-Friendly, Embedded Solution

iWinch Display: The display is mounted to the steep slope machine and relays information essential to effective operation of the winch unit to the operator on a high-contrast, 12" monitor. Additional information available is diagnostics, troubleshooting, and statistics.

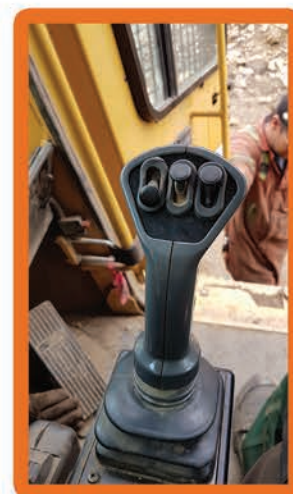
Drum Camera: The spooling quality is paramount to maintain a long cable lifetime. The camera gives the operator the opportunity to confirm at any time that the system is operating correctly.

Tension Setup: The iWinch system recognizes which direction the slope machine is moving. It can be set to 3 different tension settings:

1. Uphill
2. Not Moving
3. Downhill

At any time, the operator can reduce the preset tension with the potentiometer.

Slope Test: Operators can test the soil traction capacity by having the cable tension reduced to zero, to determine if the machine will hold on the slope unassisted. Safety is a priority!



KEY Features

Bidirectional Communication

Timbermax maintains that it is paramount to sustain safe communication between the winch and slope machine, and offers a high-end solution. Even in a two-machine system, it is possible to monitor the winch unit. The operator in the slope machine can monitor the following:

Winch Carrier Alarms: Low Fuel, Low Engine Oil Pressure, Check Engine, Over Temperature, Low Hydraulic Oil Level

System Protection and Speed Control of the Slope Machine

The Timbermax Traction-Winch can be utilized for both track and wheeled machines. Track machines tend to require a high pull and lower speed; the wheeled application requires a faster cable speed. This system is integrated to limit the top speed while the winch is engaged, preventing overspeed while enabling the operator to focus on the task at hand.

Data Logging and Statistics

The angle sensor mounted in the slope machine allows the operator to get feedback on the current slope gradient. Winch tension, slope gradient, and slope test data are recorded in the iWinch. This data can be accessed and utilized for operational planning and reporting.





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