

TRACTION - WINCH

T10 - T14 - T20 Series



www.timbermax.ca



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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.

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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 of suitable anchoring point.

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

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

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

Timbermax *ELEVATOR*®

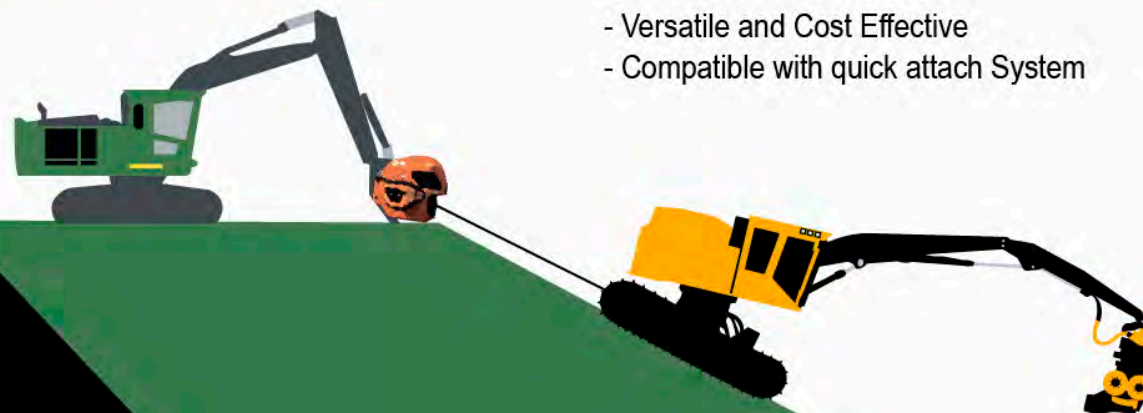
- Powerful Self Powered Winch Unit
- High Performance, flexible
- Fully remote operated



Applications Examples

Tracked Excavator

- Versatile and Cost Effective
- Compatible with quick attach System



Wheeled Harvester

- Mounted to the rear
- Fix mounted or tiltable



4WD/6WD Wheeled Skidder

- Mounted to the front
- Fix mounted or tiltable



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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
- 3/4" drain line
- Electrical cable (5 connectors) including + 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.



Powered by
Rexroth
Bosch Group

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 24 + ton units can be used as the base carrier.



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



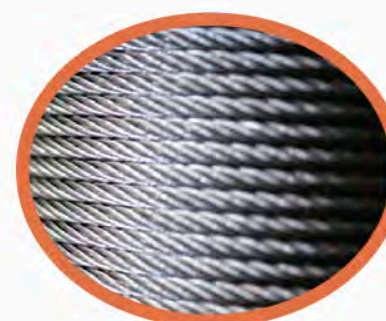
QUICK attach

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.



Uphill Skidding



THE LOGICAL CHOICE

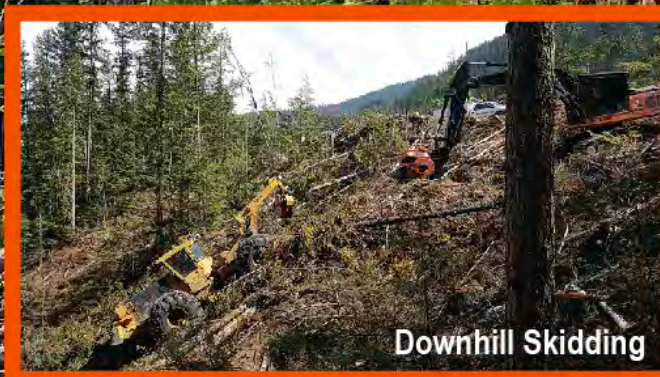
Seamless integration into the machine's operating systems provides smooth operation and ease of functionality for the operator.

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!

Versatility



Downhill Skidding



Low-bedding couldn't be any easier!



Used Feller Buncher Mount



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Metric specifications

		T8	T10	T14	T20	T20HD
Winch Pull	(kN)	80	100	125	170-200	170-200
Rope dia.	(mm)	16	16	19	22	25
Capacity	(m)	345	500	360	540	420
Max Speed	(km/h)	10	5	5	5	5
Weight	(kg)	2100	3600	3600	4700	4700
Min. Flow	(l/min)	200	200	200	300	300
Pressure	(bar)	310	290	340	320	320

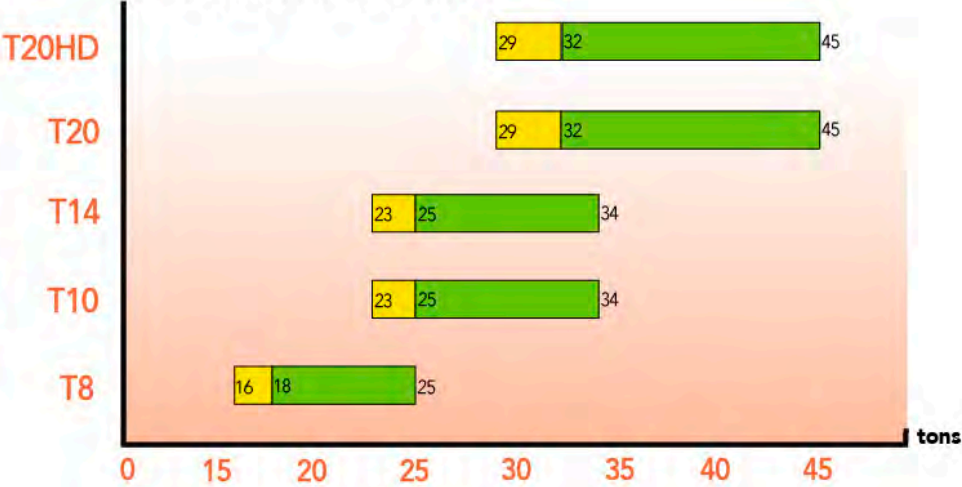
* Cable weight included

Imperial specifications

		T8	T10	T14	T20	T20HD
Winch Pull	(tons)	8	11	14	19-22	19-22
Rope dia.	(in)	5/8"	5/8"	3/4"	7/8"	1"
Capacity	(ft)	1130	1640	1180	1770	1380
Max Speed	(ft/s)	9	4.5	4.5	4.5	4.5
Weight	(lb)	4620	7920	7920	10340	10340
Min. Flow	(gpm)	50	50	50	80	80
Pressure	(psi)	4300	4200	4930	4200	4200

* Cable weight included

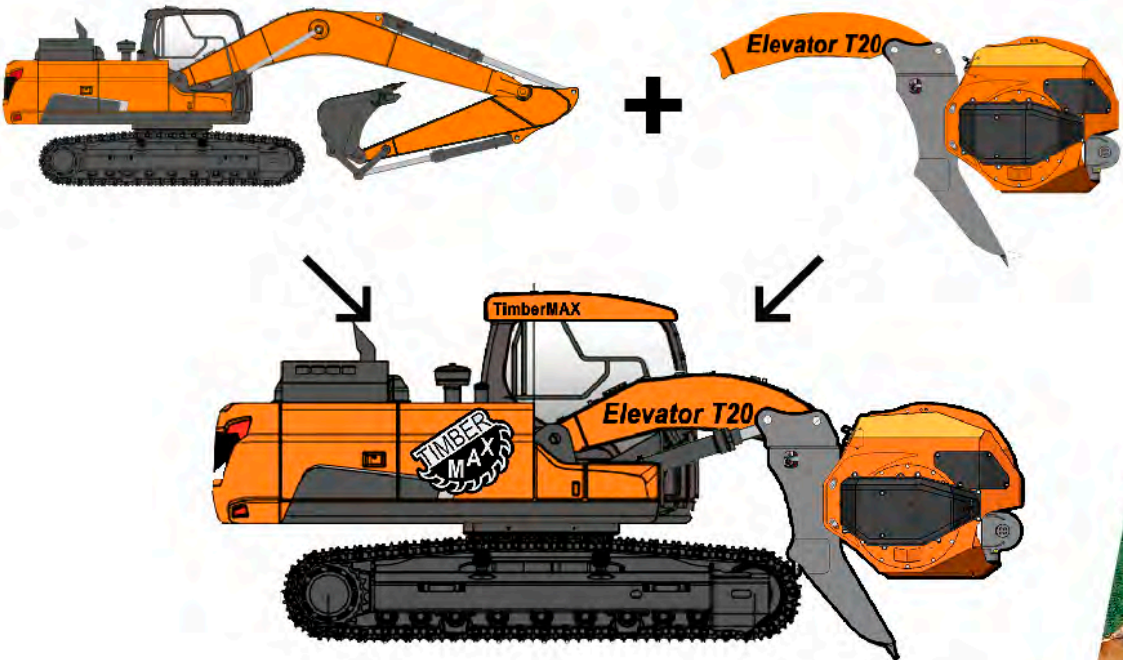
Base Excavator size chart



TimberMAX ELEVATOR®

Convert excavator in Fully remote operated traction-winch system

Wide range of carrier compatible



The TimberMAX ELEVATOR® is an install kit that upgrades a Construction Excavator in a Fully Remote Operated Traction-Winch System. It has the capacity to help itself to climb the hill. Once it is in position it can swing around and face the hill in the right direction. The original boom can be used or purpose-built one can be mounted to increase the stability. Ask your dealer for more information.

- Integral remote control for hydraulic functions
- Good Ground clearance, Agile in harsh environment
- Good resell value



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iWINCH® AUTOMATIC 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.

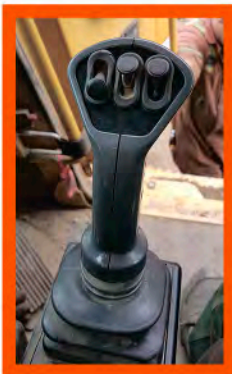
Drum Camera: The spooling quality is paramount to maintain a long cable lifetime. The camera gives the operator the opportunity to confirm at any time that the system is operating correctly.

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

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!

Documents: The iWinch® provides the user manual, check lists, schematics and Spare Parts Book.



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, Movement sensor)

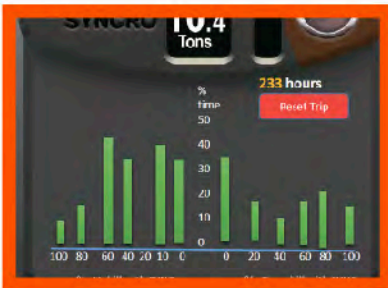
System Protection and Speed Control of the Slope Machine

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!



USER-FRIENDLY

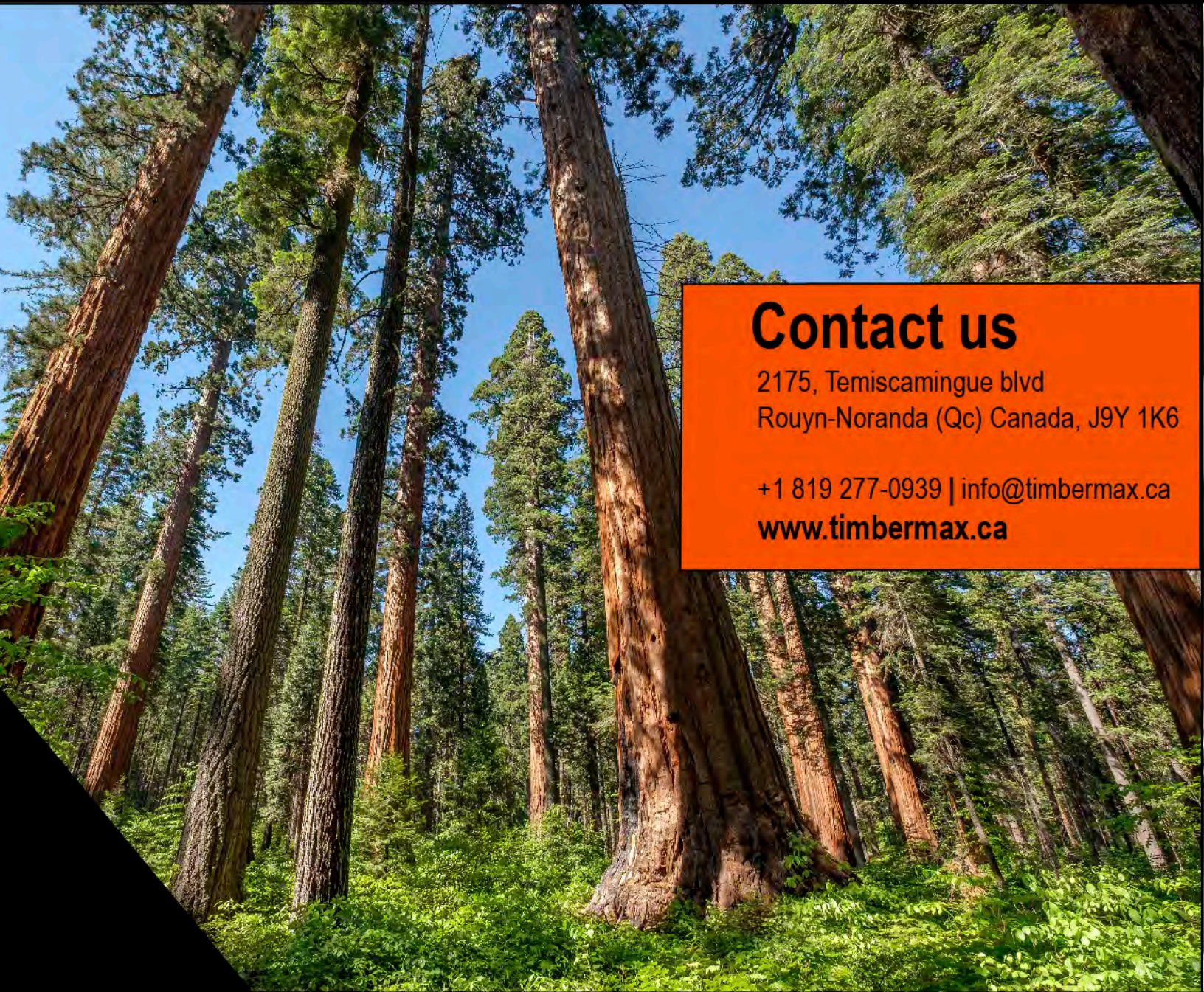
Advanced Safety Features



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