

OPERATING INSTRUCTION MANUAL

42700-000 Fiber Cable Puller™ with Tuf-Lugger lite™



IMPORTANT SAFETY INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE USING The Fiber Cable Puller or Tuf-lugger lite™

WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY:

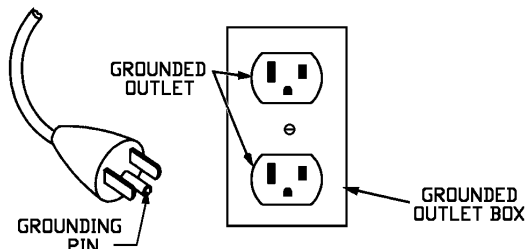
- ✎ The TUF-Lugger Lite™ Electric is an electrical device. Use only as described in this manual.
- ✎ The Tuf-lugger Lite Gas is a gas device. Ensure suitable ventilation is provided. Do not use indoors.
- ✎ Connect to a properly grounded outlet only. See Grounding Instructions.
- ✎ Do not use with damaged cord or plug.
- ✎ Do not leave the Fiber Cable Puller when plugged in or running. Unplug from outlet or turn off when not in use and before servicing or dis-assembly.
- ✎ Do not handle plug or Fiber Cable puller lite with wet hands.
- ✎ Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- ✎ Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run over cord. Keep cord away from heated surfaces.
- ✎ The Tuf-lugger Lite Gas model will get hot during operation. Do not touch motor or heated surface.
- ✎ Do not remove or modify the 115/230 VAC plug.
- ✎ Do not use in wet or damp locations. Do not expose to rain. Store indoors.
- ✎ Do not use in the presence of flammable liquids or gases.

GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This appliance is for use on a nominal 120-volt circuit and has a grounding attachment plug that looks like the plug illustrated in the adjacent sketch. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adaptor should be used with this appliance.



SAVE THESE INSTRUCTIONS

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Tuf-lugger Lite stand-alone setup

10

The Fiber Cable Puller™ is a capstan winch primarily intended for pulling Fiber cable that requires a minimum bend radius, but is also equally capable of pulling rope or polyester pull tape. The Tuf-Lugger lite power source is mounted to the pulling frame and can be dis-assembled and operated as a stand alone Tuf-lugger Lite winch, part #41000-500. The unit can also be purchased with a gas powered winch as well.

- Footswitch: Cable actuated
- Conduit Guides: Standard 2", 3", 3-1/2", 4"
Optional 2-1/2", 5", 6"
- Height: 2'-10"
- Footprint: 48" wide, 51" deep
- Pulling Forces:

Gas version:

2-1/4" Capstan: 2200 lb max – 40 ft/min (using Tuf-lugger lite configuration, included)

9" Capstan: 2933 lb max @ 19 ft/min
1960 lb @ 34 ft/min max.

24" Capstan: 1100 lb max @ 51 ft/min
742 lbs @ 91 ft/min max.

30" Capstan: 880 lb max @ 64 ft/min
594 lbs @ 114 ft/min max.

40" Capstan: 660 lb max @ 85 ft/min
445 lbs @ 152 ft/min max.

Electric version:

2-1/4" Capstan: 2200 lb max – 40 ft/min (using Tuf-lugger lite configuration, included)

9" Capstan: 2500 lb @ 19 ft/min

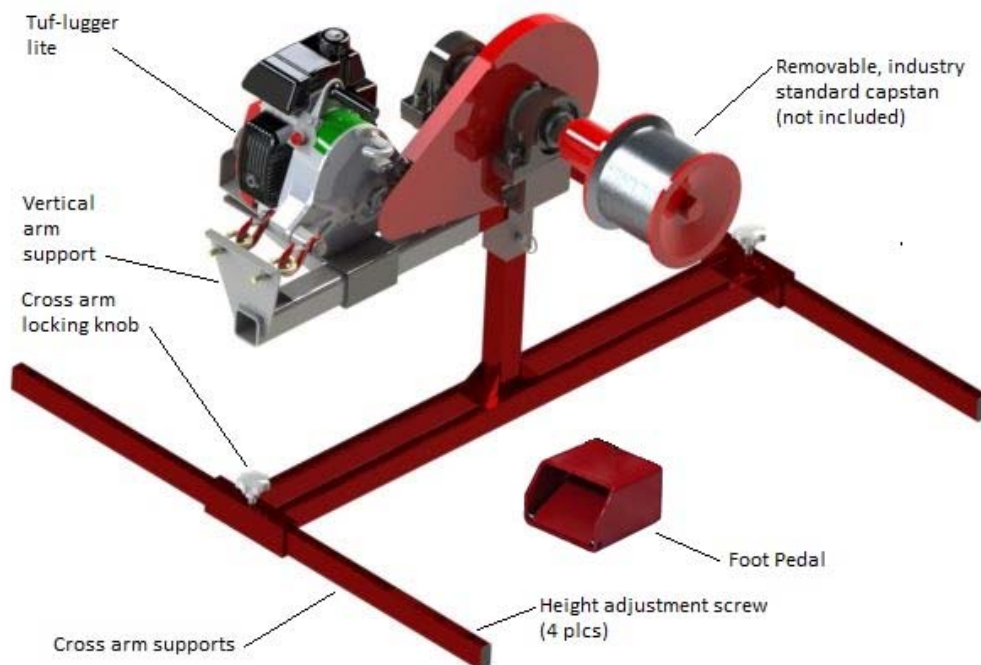
24" Capstan: 840 lb @ 50 ft/min

30" Capstan: 675 lb @ 64 ft/min

40" Capstan: 500 lb max @ 85 ft/min

• 15min/hr work cycle

• Power requirement: 115V, 10 Amp



1

Review the jobsite safety requirements.

Follow Standard procedures when accessing vaults and manholes, including gas detection, ventilation, and work area protection. Failure to do so may result in death or serious injury.



Use extreme caution when working around live electrical circuits. Failure to do so may result in death or serious injury.



Wear recognized safety equipment including hardhat, safety glasses, safety shoes, and leather work gloves. Failure to do so may result in personal injury.

2

Inspect the condition of the Fiber Cable Puller or TUF-Lugger Lite™, checking for worn or damaged parts.

Have damaged parts replaced by an authorized service center. Any attempt to modify the Fiber Cable Puller or TUF-Lugger Lite™ or use other than DCD replacement parts will void the warranty and may result in death or serious injury.



Periodically lubricate the drive chains with light machine oil.

3

Examine the condition of the pulling rope. Check for contamination with mud, sand, or dirt. Check for rust discoloration. Check for broken or worn strands.

Use a pulling rope with a maximum rated capacity that meets or exceeds the Fiber Cable Puller™ maximum pulling force of 2,500 lb. Failure to do so may result in death or serious injury.



Downgrade or discard pulling rope that has been subject to overload, or physical degradation. Failure to do so may result in death or serious injury.



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4

Assemble the Fiber Cable Puller™ into the desired operating location.



5

Install cross beam supports as shown. Tighten down knob screws.



8

Assemble the shaft sub-assembly to the frame and secure in place with a locking pin.



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10

Insert the first section of the vertical arm support with the block end in the shaft assembly, with the hole in the bar pointing upwards.



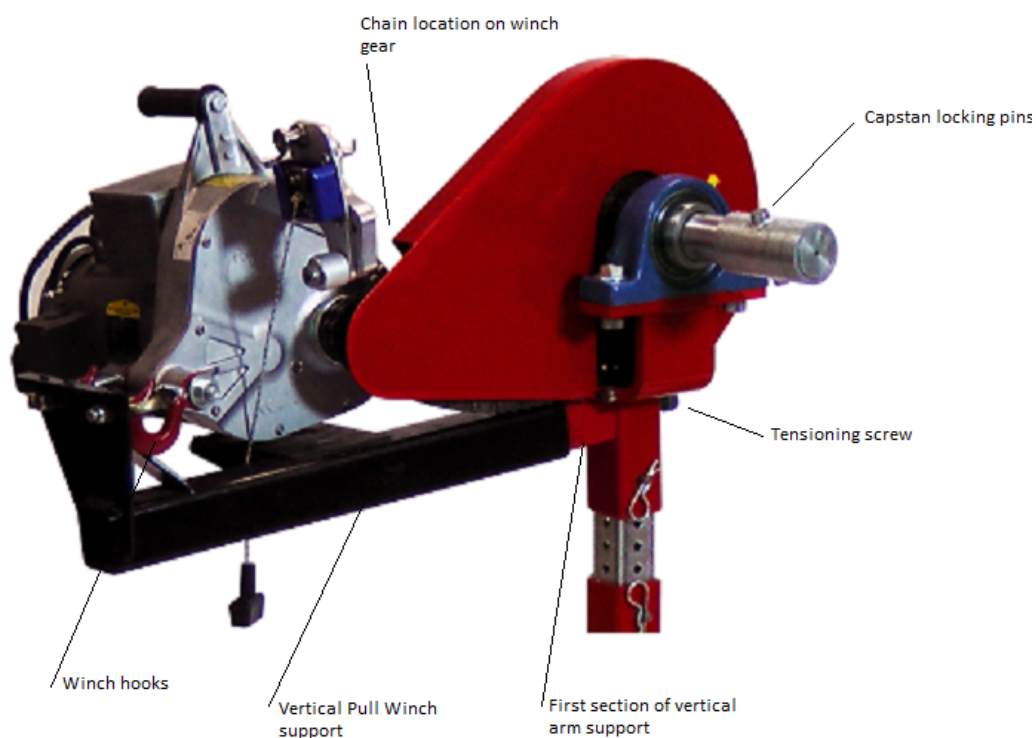
11

Install the Vertical pull winch support to the first section of the vertical arm support. Do not pin yet.

Install the winch hooks to the support. Hook the chain around the gear on the winch. Pull the winch support out in order to apply tension on the chain until the locking pin in the vertical pull support can be inserted. Torque the Tensioning screw until sufficient chain tension is achieved.

Install the desired capstan (not included) to the shaft. Press in and turn clockwise to allow locking pin to engage.

For using the winch on it's own, reverse these steps, remove the winch gear and replace with the winch capstan provided with the unit.



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- 13** Wrap rope around capstan as shown and place foot pedal on capstan side of winch.



- 14** Plug the TUF-Lugger™ into a 120 V, 15 A grounded outlet or extension cord.



Read all electrical safety instructions located on the first page of this manual before using the TUF-Lugger™. Failure to do so may result in serious injury or death.



Use only a three prong grounded extension cord with the proper wire size for the length of cord. For lengths less than 50ft, use a 14Ga cord as a minimum. Lengths from 50–100ft, use a 12 Ga cord as a minimum. Failure to do so may result in overheating and damage to the electric motor.

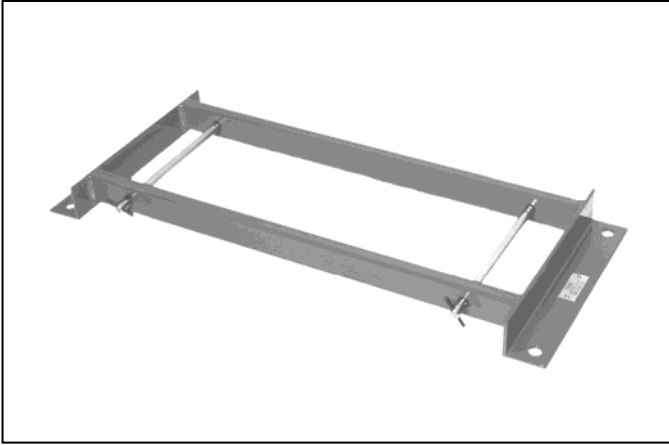
- 15** Manually apply tension to the tail end of the rope and depress the footswitch to begin pulling.



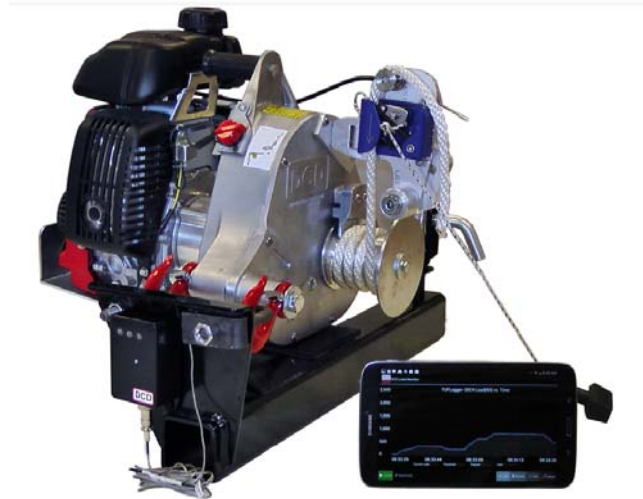
Unload the footswitch and ensure footswitch cable is as straight as possible and untangled to prevent the cable from binding inside. Stand at least 30° to either side of the pulling rope while under load. The pulling rope may fail under tension and release stored energy. Failure to do so may result in death or serious injury.

There are several accessories available for the TUF-Lugger™ to enhance its capabilities.

Floor Mount Adapter



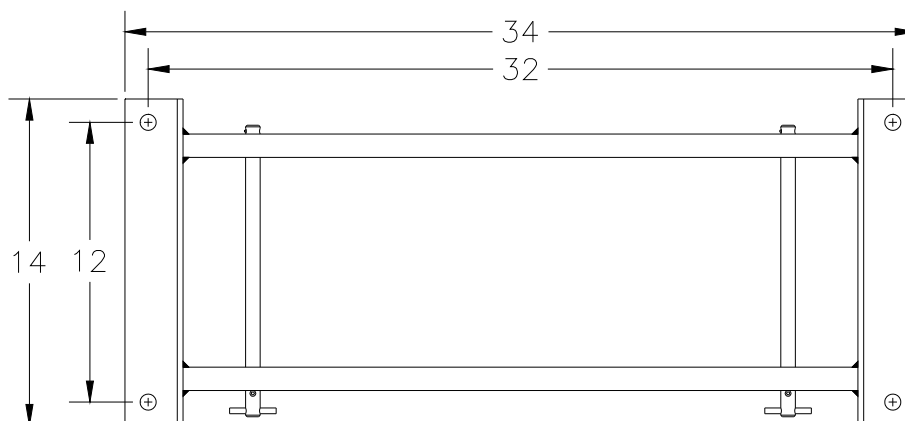
Load Monitor



Floor Mount Adapter

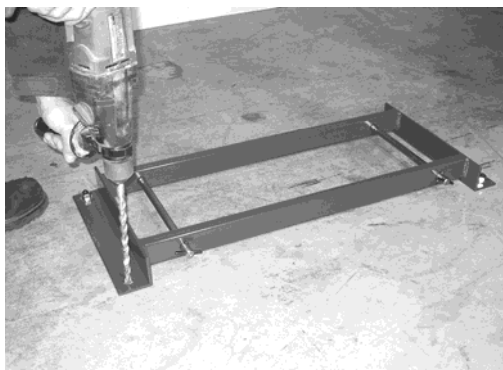
DCD # 40000-400

TUF-Lugger™ Power Pack may be removed from the frame and secured to a concrete floor using the Floor Mount Adapter.



B3

Align the Floor Mount Adapter with the direction of pull and secure to the floor with 4 x 5/8" concrete inserts.



Use only concrete inserts with an ultimate pullout force of 8,000 lb. ensure that they are installed in accordance with the instructions provided by the insert manufacturer. Failure to do so may result in death or serious injury.

C2

Place the TUF-Lugger Lite™ and capstan assembly into the Floor Mount Adapter and secure using the pins provided with the adapter.



For ease of movement, disconnect the TUF-Lugger Lite™ from the Capstan assembly when moving. Use proper lifting technique when moving the power pack. Failure to do so may result in personal injury.



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The Load Monitor system uses a load cell to measure the tension in the rope. It consists of a load cell, digital box, and software for android and windows applications. It receives its power from AA batteries (included).

The Load Monitor is used with the DCD TUF-Lugger Lite™ Support Plate (42200-010) and Vertical pull support (42200-050) or as a stand-alone compression load cell up to 1000lbs in direct compression.

- Line Tension Range with Tuf-lugger Lite anchor options: 0 – 2500 lbs
- Data Collection Rate: User defined, between 1-10 data points per second
- Visual and Email Alarms: User defined through Application
- Alarm override capability
- Metric or Imperial charting
- User controlled calibration setting
- Ability to export data file in csv (comma separated value) format



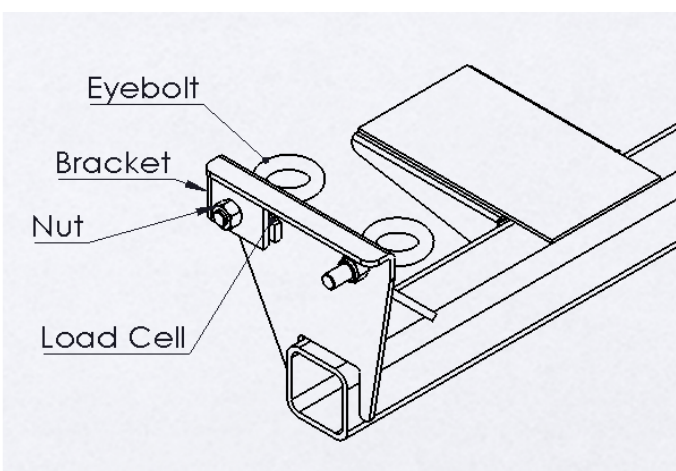
Installation of the Load Monitor requires an adjustable wrench. Once installed, the Load Monitor can be left in place permanently.

F1

Remove one of the existing eye bolts installed with bracket.

Install the eyebolt, load cell, bracket and nut included with your load cell kit.

Torque nut with minimal preload and mount the load cell pack with strap to a desirable location that is away from the pull and will avoid any entanglement with the wire.

**F3**

For detailed bracket installation, operation, App installation, and usage guidelines, follow the 40000-260 operating instructions and Load Monitor Quick Start Guide provided with your unit.



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Tuf-Lugger Lite removal from Frame

The Fiber Cable Puller is powered by our Tuf-lugger Lite 41000-500 winch, which can be removed from the frame and used independently as a 41000-500 Tuf-Lugger Lite lifting – electric winch. For additional information on the Tuf-lugger lite assembly, reference the 42000-500 Tuf-Lugger Lite manual provided.



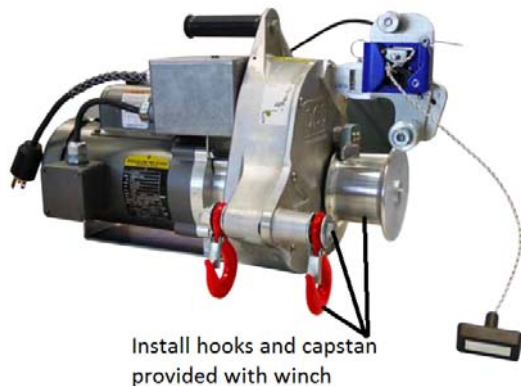
Ensure the winch is unplugged from power before proceeding to avoid any physical harm or injury.

F1

Remove the gear from the winch and, using the same hardware, replace the gear with the capstan provided.

Re-install the rope guide and roller provided to the winch.

The reverse process can be followed to re-install the winch to the frame.



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