



ARBPRO LD2

ENGLISH

Instruction Manual

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IMPORTANT INFORMATION

Please read these instructions carefully and make sure you understand them before using this unit.

Retain these instructions for future reference.

IDENTIFICATION OF SYMBOLS:



WARNING! This device can be dangerous.
Careless or improper use can cause serious or even fatal injury.



Read and understand the instruction manual before using the device.



Protective Gear

Fig 1

Winch/Arborist Lowering Device

Attention danger!

Use of this device is only permitted in tree care. Professional trained persons can only use this product and in total respect of the instructions written in this manual. The instruction manual can only give indications on the correct use of the device and can not replace professional training in tree care rigging operations.

Read and understand instructions manual before using the device.

In no circumstances this device can be used to lift persons.

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Always wear suitable PPE (refer to picture n. 1):

- ◆ wear clothes suitable to the job, comfortable and close-fitting. Do not wear necklaces or scarfs that can be caught up.
- ◆ wear strong boots with rubber sole and protection cap.
- ◆ wear eye protection
- ◆ always wear protection helmet
- ◆ wear strong gloves

Not following all safety informations of this manual can lead to serious dangers or death.

The user is responsible of all accidents or dangers concerning persons or property.

Always entrust or give only to persons trained on use of this device. Always give together with instruction manual.

User must be rested, good health and in good psychophysical conditions.

Never modify the product. This could lead to injuries or serious damages.



Do not use this device before reading and understand this manual in all his parts. In case of doubts contact the manufacturer or dealer.

1 Description

ARPRO LD2 is a combined tool, thanks to the multi function main frame it can hold a powerful winch or a simple descending brake

2 Components

1 Main Frame

2 Winch- Manufacturer Harken Model 44.2STC Maximum pulling force kg 1200

3 Stopper- Manufacturer Spinlock Type XCS1216

4 Stopper anchor plate

5 Guide

6 Detachable rubber pad

7 Stabilisation plate

8 Anchor point

9/10 Guide for lowering line (left and right)

11 Self Tailer

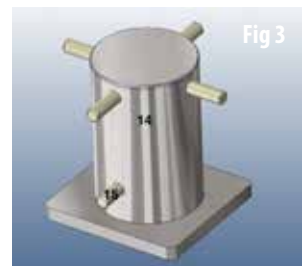
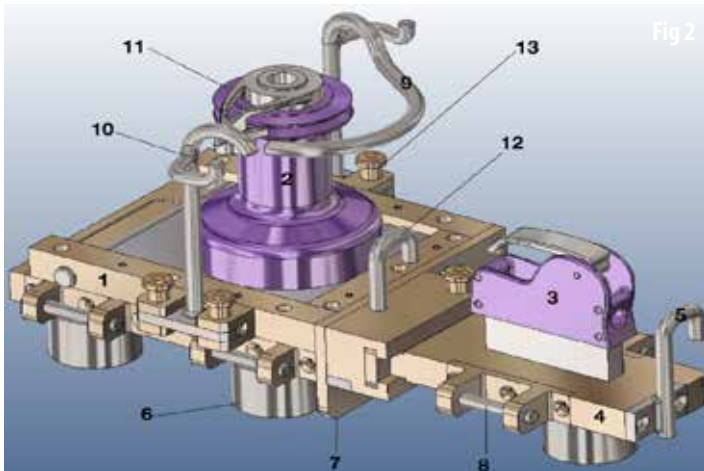
12 Guide

13 Automatic Pin

14 Descending brake – Aluminum 150 mm

15 Pin

16 Polyester anchor sling – 4 mt length - 50kN



3 Technical features

Weight (main frame):	kg 16,5
Weight (winch):.....	kg 9,5
Weight (descending brake):.....	kg 5
Breaking strength with brake installed:	kg 7500
Safe working load limit with winch installed:.....	kg 1200
Safe working load with descending brake installed:	kg 1500

4 Working area

ARBPRO LD2 is designed and manufactured only for tree care operations, to lower branches and limbs during pruning and rigging operations.

It must be attached at the base of a tree with correct dimensions and enough strength to complete the job. User must be trained and must be sure that the tree has enough strength to support forces generated by rigging operations.

5 Rigging rope

ARBPRO LD2 must be used only in combination with high quality textile ropes. In no circumstances can it be used with metal wire ropes.

Use of double braided polyester ropes is recommended in the dimensions written in this manual.

Always check rigging gear before using it. User must check rope condition and be sure of rope strength. In case of any doubt on rope condition, replace it with a new one.

Rope size depends on the installed application. The following rules must be respected:

- ◆ ARBPRO LD2 with winch installed: rope diameter must be 12,14 or 16mm (½" - 9/16" or 5/8")
- ◆ ARBPRO LD2 with descending brake installed: rope diameter must be 12, 14, 16 mm or 19 mm (½", 9/16", 5/8" or 3/4")

6 Installation

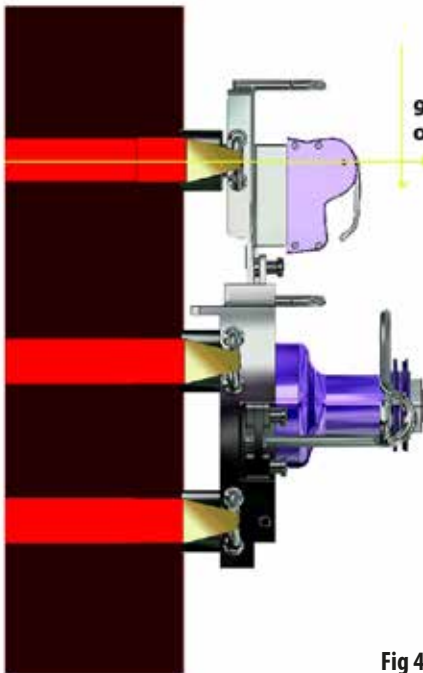
ARBPRO LD2 can be installed on the same tree where the job will be done or on a different tree.

User must be sure that the tree is strong enough.

Two different types of installation are possible:

- ◆ **“Light”** this installation is recommended if the tree must be preserved. For this installation rubber pads (6) must be mounted in the slots on back of the main frame.

Safe working load with this type of installation is kg 1000 (with both winch or descending brake installed).



Straps assembly (in all kind of installation):

Check straps before installation.

Install straps by inserting the hooks into the rings placed on side of main frame (Attention! Ratchet bar should be mounted facing outside). Straps must be at 90°. Any other angle is not correct and potentially dangerous.

Tighten straps by pulling on ratchet bar to ensure a good anchorage.

Fig 4

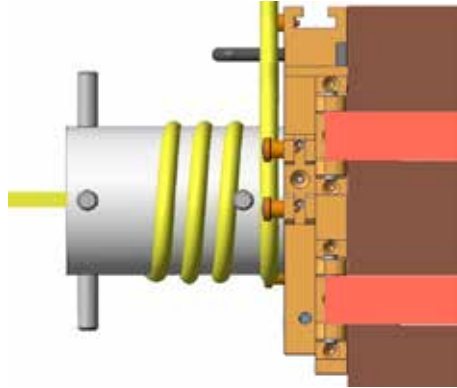
“Heavy”. This installation offer best anchor of the device. Can be used only if the tree has to be removed.

Remove rubber pads from the back of the main frame. Cut the tree (cm 25 x 4) using a chainsaw allowing the stabilisation plate (7) to fit inside.

Attention! Do not use this type of installation if the cut may reduce tree strength.

Install the main frame using the straps (follow instructions for “Light” installation). **Safe Working Load for this installation is:**

1200 kg (with Winch), 1500 kg (descending brake).



7 Use

7.1 Control Checks

Read and understand the instruction manual before using the device. If you have any doubt please contact the manufacturer or the distributor.

Before any use check the device as follow:

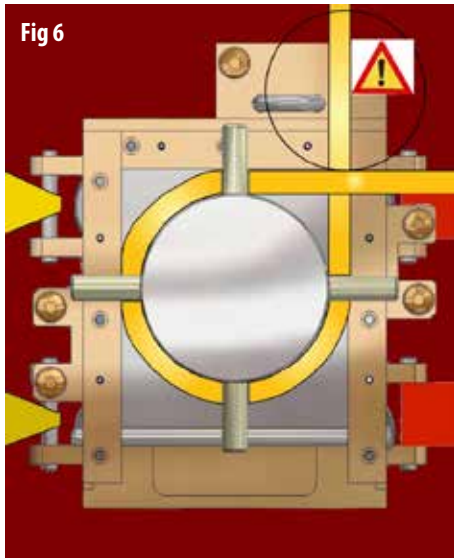
- ◆ check the metal parts for deformations, damages, cracks, rust on:
 - main frame
 - stabilisation plate
 - anchor rings
 - guides
 - descending brake
 - winch
 - straps
 - identification plates
- ◆ rigging chain (rope, block, slings, carabiners etc.)

Also check:

- ◆ tree and rigging point strength
- ◆ rope angles
- ◆ rules and laws
- ◆ security and emergency plan
- ◆ user training grade and knowledge of tree rigging operations



Attention! Do not use the device if any of the control checks above failed, or if there is any doubt concerning the strength of one of the components of rigging system.



Attention!

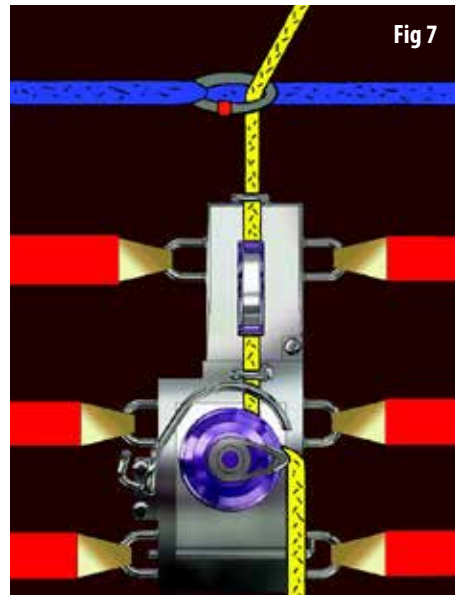
Rigging rope must enter the device vertical. Entry angles must not exceed 15°.

When bollard is installed DO NOT use guide hook (12). Guide hook must be only used when the winch is installed. With bollard installed rigging rope must go behind the two pins 15. For more information refer to picture n. 10.



If ARBPRO LD1 is in a position not allowing correct rope entry angles, it is imperative to redirect the rope to obtain a correct installation.

See picture n. 7

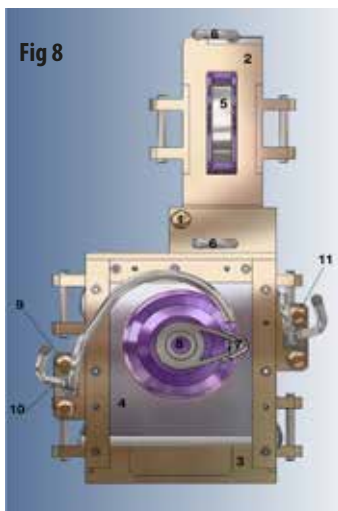


7.2 Using ARBPRO LD1 with Winch installed

Winch must be only used in combination with Stopper.

Set up (refer to picture n. 8):

- ◆ open locking pin (1) by pulling the handle and twist
- ◆ connect stopper plate (2) to the main frame by sliding into the guides
- ◆ pull and twist the handle to release and let the pin lock into the frame
- ◆ connect main frame (3) to the tree (see chapter 5)
- ◆ insert the winch plate (4) with “top” sign up and lock it using the bar and pin
- ◆ open stopper handle by pulling upwards
- ◆ insert rope and close the stopper by pulling the handle down
- ◆ with the stopper (5) locked the rope can only move down in the direction of the winch
- ◆ place the rope into the guides (6) before stopper and winch
- ◆ wrap the rope on winch drum clockwise and fill the space on the drum. Last turn must exit the drum (7) and locked in the self tailer
- ◆ insert winch bar in the front hole (8) and the system is ready to pull
- ◆ open side locking pins (9) and insert **ONE rope guide only (10 or 11)**. **In no circumstances winch operations can be performed with both guides mounted at the same time. Looking at the device from the front, left guide (10) must be used when the operator can move from front to left side of the device. Right guide (11) when the operator can move from front do right side.**
- ◆ close locking pins and check rope guide is in correct position.



Pull:

Turn the handle clockwise to obtain a 13.8:1 pulling rate.

Turn the handle anticlockwise to obtain a 44.2:1 pulling rate



Attention!

Pulling winch handle is strictly a one man operation. User must NEVER stay in the rigging zone if any part of the rigging system should fail

Lowering:

Once the branch or limb has been cut prepre to rig.

During lowering operations never lose hand control of the rigging rope. Always wear suitable gloves to protect hands in case of overload.

- ◆ Release the rope from self tailer
- ◆ hold the rope firmly and rotate it perpendicular to the winch axis. Place the rope into the rope guide (9 or 10) for lowering. Never release the stopper lever (5) without wrapping at least 4 turns of line on the winch drum.
- ◆ only after the rope is placed into the rope guide, hold the rope with one hand and release the stopper with the other hand.



Always hold the rope at this point and never release the contact.



- Prepare to lower. Place yourself in a safe zone. User must NEVER be in the bull eye of fall/drop zone. Always keep rope at safe distance. A tangle of rope can catch the operator and graze or pull him dangerously towards the device.

- Lower the piece controlling descent. If there are to many wraps on the winch drum and is not possible to lower, close the stopper lever with one hand holding the rope with the other. Take one wrap off the drum rope with one hand, place the rope into the rope guide and hold it with one hand, release the stopper with the other hand and repeat lowering procedure.

7.3 Using ARBPRO LD2 with descending brake installed

- ◆ Remove stopper frame opening locking pin
- ◆ Remove rope guide opening locking pins
- ◆ Insert tube in place with “top” sign pointing up. Lock it with pin
- ◆ Instal rope as shown. Rope must pass back of the pins (left and right) to avoid overlapping
- ◆ it is possible to change braking force by changing the number of wraps (more wraps more braking force). This force depends on several things:
 - braiding type of the rope
 - rope diameter
 - rope wear
 - rope manutention (dirt, umidity, storage etc.)

Due to different **variables** it is difficult to give sharp datas on breaking forces. As an example the following datas was mesured with a Yale Double Esterlon 12 mm (1/2") brand new rope:

¾ wrap: kg 80

2 ¾ wraps: kg 400

3 ¾ wraps: kg 800 (See Fig. 10)



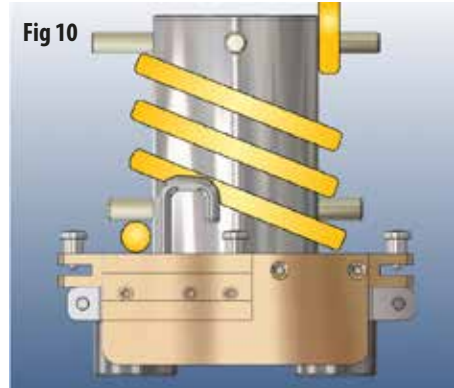
Attention:

When lowering the operator must always keep clear from lowering zone. Always wear PPE.

User must always control rope with both hands. Rope must always be coiled and stored in a bag to avoid knots and tangles. Never stay in the direction of the rope. Never twist the rope around hands, arms or any part of the body.

Attention!

During rigging operations dynamic loads can accour. It is imperative to reduce dynamic loads. Too many wraps or sudden stops during lowering can shock load the entire system (lowering device, rope, block, sling, rigging point) and lead to potential dangers. For example 100 kg x 1 mt free fall genrates 600 kg impact force! Never stop the work suddenly. Always let the load run and break it slowly to reduce kinetic force.



8 Transport, maintenance and care

8.1 Transport

Shocs and crashes can cause hidden damage and reduce the strength of this device.

Damage can be serious and irreverisbles. For all these reasons it is important to take maximum care during transportation to avoid collisions with solid objects or sharp edges.

Avoid any contact with aggressive agents such as acids, oils, chemicals, gasoline.

8.2 Abrasion

Dirt ropes with sand, mud, soil accelerate abrasion on tube, winch, rope guides. Clean rigging ropes frequently.

8.3 Cleaning

Do not use aggressive chemical products. Clean with warm water (<40° C) and light soap.

For Harken winch maintenance refer to Harken guide.

8.4 Storage

Store the device in cool and dry place. Do not store in direct sunlight, umidity, salt, avoid contact with chemical such as acids, oils, gasoline. Keep from direct heat sources and store at temperatures under 40° C.

8.5 Repairs

For repairs only contact manufacturer or distributor.

9 Symbols and identification

On the main frame of ARBPRO LD2 there is a tag for identification and control which gives essential product information:

- ◆ Product name and model
- ◆ Year of production
- ◆ Serial number
- ◆ CE mark

Presence of this tag is essential. In case it should be damaged or one or more details can't be read, it is possible to ask for a copy. Just ask the manufacturer or distributor giving name, serial number and date of purchase.

DECLARATION OF CONFORMITY

The manufacturer:

Arbpro s.r.l.
Via Calamandrei 30
20831 Seregno (MB) - Italy
VAT# IT07032670965

Declares under his responsibility that the following brand new product:

Product Type:	ARBPRO LD2
Serial Number:	SEE PRODUCT TAG
Year of production:	SEE PRODUCT TAG
Safe working load with descending brake installed	KG 1500
Safe working load with winch installed:	KG 1200

Follows the provisions of the directive 2006/42/CE (machinery)

Seregno, 01 January 2012

Technical file kept by:
 Arbpro s.r.l. Unipersonale



Alessandro Mazza
 Administrator

