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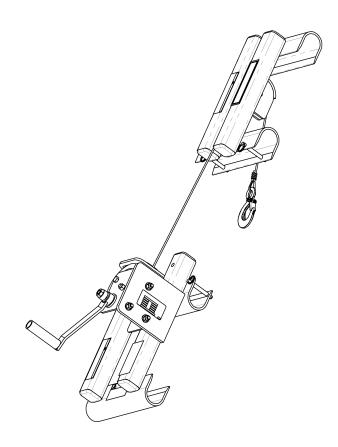
INSTRUCTIONS

International Version

MODEL NUMBER: LW185

SERIAL NUMBER:

(please see serial label and record number here)



LADDER LIFT



READ ALL INSTRUCTIONS AND WARNINGS
BEFORE OPERATING THIS PRODUCT



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SPECIFICATIONS

Model Number: LW185

Description: The Ladder Lift attaches to the rungs of a ladder, with the pulley

assembly on top and the winch assembly near the bottom, to

enable window installations above ground level.

Maximum Load Capacity: 185 lbs [85 kg]

Maximum Lift Height: 30 ft [9.1 m]

Dimensions: Winch unit = 15" x 17½" x 11" [381 mm x 438 mm x 281 mm]

Pulley unit = $4\frac{1}{2}$ " x $15\frac{1}{2}$ " x 11" [114 mm x 394 mm x 281 mm]

Weight: 26 lbs [12 kg] (not including ladder)

Ladder Requirements: ANSI Type IAA, rated to 375 lbs [170 kg] capacity

WARNINGS



Powr-Grip is pleased to offer the most reliable materials handling products available. Despite the high degree of security provided by the Ladder Lift, certain precautions must be observed to protect the operator and others.



Always wear personal protective equipment that is appropriate for the material being handled. Follow trade association guidelines.

Always operate the Ladder Lift under conditions approved for its design (see INTENDED USE: OPERATING ENVIRONMENT).

Never operate a Ladder Lift that is damaged, malfunctioning, or missing parts.

Never remove or obscure warning labels.

Never operate a Ladder Lift if the Maximum Load Capacity or any warning appears to be missing or obscured.

Never exceed the Maximum Load Capacity or attempt to lift loads the Ladder Lift is not designed for (see INTENDED USE: LOAD CHARACTERISTICS).

Never allow people to sit or stand on any components of the Ladder Lift, the ladder or the load being lifted.

Never lift a load higher than necessary or leave suspended loads unattended.

Never lift a load over people.

Always use the locking pin to secure the restraining latch on the lifting hook before lifting a load (see OPERATION: To ATTACH A LOAD TO THE LADDER LIFT).

Always keep other personnel far enough away from the Ladder Lift to avoid injury in the event of an unexpected load release.

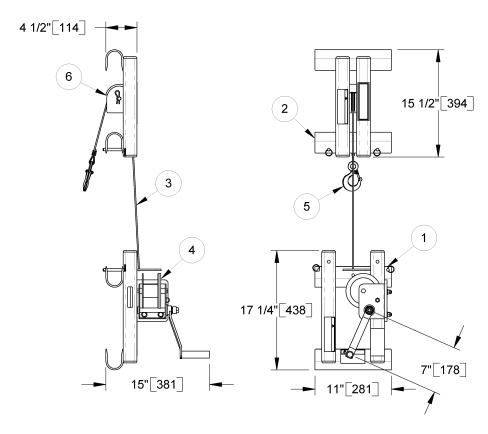
Always remember that modifications to the Ladder Lift may compromise its safety. Wood's Powr-Grip cannot be responsible for the safety of a Ladder Lift that has been modified by the customer. For consultation, contact Wood's Powr-Grip.

Never use the Ladder Lift near power transmission lines. It conducts electricity.

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OPERATING FEATURES

Note: Components featured in the following instructions for assembling, operating or maintaining the Ladder Lift are <u>underlined</u> on their first appearance in each section.



Standard LW185 shown.

1 WINCH UNIT 3 WIRE ROPE 5 LIFTING HOOK

2 PULLEY UNIT 4 HAND WINCH 6 PULLEY

ASSEMBLY

- 1) Open the shipping container and remove all materials for restraining or protecting the Ladder Lift. Save the container for use whenever the Ladder Lift is transported.
- 2) Install the handle on the <u>hand winch</u>, as follows: The handle has been removed for shipping and replaced temporarily by a 5/8-11 hex nut and washer, to maintain tension on the winch during transport. Remove the temporary nut and washer; they are no longer needed. Install the handle and all original hardware as shown in the illustration for winch model DLB800A in the winch manufacturer's instructions (provided in final section of this *INSTRUCTIONS* manual). However, note that spring E has been replaced by a polyethylene spacer.
- 3) Select a ladder that conforms to all the Ladder Requirements stipulated in SPECIFICATIONS.
- 4) Attach the Ladder Lift's winch and pulley units to the ladder, as follows: Slacken the <u>wire</u> <u>rope</u> on the <u>winch unit</u> (see OPERATION: To LOWER A LOAD). Remove the cotterless hitch pins from each rung support. Then hook the <u>pulley unit</u> on the top load-bearing rung of the ladder and hook the winch unit a few rungs above the base of the ladder, at a comfortable height for using the <u>hand winch</u> (see OPERATING FEATURES for proper orientation of units). Reinsert the cotterless hitch pins to secure the winch and pulley units to the ladder.
- 5) Erect the Ladder Lift, as follows: To prevent the <u>lifting hook</u> from swinging and hitting something inadvertently, take up most of the slack in the <u>wire rope</u> before erecting the Ladder Lift (see OPERATION: To RAISE THE LOAD). Two people are normally required to maintain stability while erecting the Ladder Lift, especially with longer ladders. Lean the ladder against the building where you intend to use the Ladder Lift. For extension ladders, slacken the wire rope and extend the ladder to its final erected length, using the ladder pulley as necessary.

MARNING: Never place base of ladder more than 1/4 of its length from building.

When the Ladder Lift is in its final position, the distance from the base of the ladder to the building should be 1/4 the length of the extended ladder (for example, the base of a 24 ft [731 cm] *extended length* ladder should be 6 ft [182 cm] from the building). For maximum stability, the operator should locate the base of the ladder out as far as possible without exceeding this relationship. If the ladder were positioned past 1/4 of its extended length from the building, this could cause the ladder to slide out and it could damage the Ladder Lift.

Once the Ladder Lift has been erected correctly, the lifting hook can be lowered to attach a load (see OPERATION: To LOWER A LOAD). Then the Ladder Lift is operational.

6) Test the Ladder Lift as directed in MAINTENANCE: TESTING SCHEDULE.

MARNING: Winch brake may require a short break-in period to work properly.

Be sure to perform the Load Test (see MAINTENANCE: TESTING SCHEDULE) before putting the Ladder Lift into service. Do not attempt to raise or lower loads unless the brake on the hand.com/hand

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INTENDED USE

LOAD CHARACTERISTICS



/N WARNING: This Ladder Lift is NOT intended for lifting hazardous materials, such as explosives or radioactive substances.

The operator must verify that the Ladder Lift is intended to handle each load, in accordance with the following requirements:

- The load must not exceed the maximum allowable weight specified under Maximum Load Capacity (see SPECIFICATIONS).
- The maximum length, width and height of the load are not defined by fixed dimensions, but the operator must verify that the load will not contact the ladder while being lifted. Note: This does not include loads which would only hit the ladder if they rotate while hanging from the wire rope; such loads should be constrained with guide ropes or other appropriate means, to prevent rotation while lifting.

OPERATING ENVIRONMENT

The operator must determine whether the Ladder Lift is intended to be used in each work environment, in accordance with the following restrictions:



WARNING: Never use Ladder Lift in dangerous environments.

- This Ladder Lift is not intended for use in any environment that is inherently dangerous to the operator or likely to compromise the Ladder Lift's ability to function. Environments containing explosives, caustic chemicals and other dangerous substances must be avoided when using the Ladder Lift.
- Using the Ladder Lift in wet environments may require the operator to take special precautions: Moisture on the ground diminishes the ladder's slip resistance, and without adequate reinforcement of the feet, would constitute an unacceptably dangerous condition. Refer to the ladder manufacturer's directions about safe working surfaces.



WARNING: Moisture reduces slip resistance of ladder feet.

Although the Ladder Lift's exterior surfaces can tolerate some exposure to water vapor, they are not designed to be waterproof. Submerging the Ladder Lift or using it in rain may damage its components; these and similar conditions must be avoided.

OPERATION

BEFORE USING THE LADDER LIFT

The operator must determine whether the Ladder Lift is capable of performing each intended task, in accordance with the SPECIFICATIONS and INTENDED USE sections of this INSTRUCTIONS manual. In addition, the following preparations must be completed prior to using the Ladder Lift.

Taking Safety Precautions

The operator must read and understand the ladder manufacturer's instructions for ladder use, including all safe working practices.

The operator must also read and understand this INSTRUCTIONS manual, including all **WARNINGS**, before using the Ladder Lift. If necessary, contact Wood's Powr-Grip or an authorized dealer for assistance.



/ WARNING: Always wear appropriate personal protective equipment.

The operator must wear any personal protective equipment and take any other precautions required to handle the load safely. Consult appropriate trade association guidelines to determine what precautions are necessary for each type of load material.

The operator must perform all inspections and tests required by the Inspection and Testing SCHEDULES (see MAINTENANCE).

TO ATTACH A LOAD TO THE LADDER LIFT

Before the operator attaches a load to the Ladder Lift, the load must be located directly beneath the pulley unit. A good way to determine whether the load is centered under the pulley is to winch the <u>lifting hook</u> up or down so that it hangs freely at a height just above the load. Move the load so that it's clearly centered beneath the hook. Never use the Ladder Lift to pull or drag the load sideways, even if the distance seems insignificant.



N WARNING: Never use Ladder Lift to pull or drag load sideways.

Once the load is centered, pull the locking pin from the restraining latch on the lifting hook. Whether the load uses a solid bail, loop or chain, clip the load into the lifting hook and make sure the restraining latch flips back into place to form a secure loop on the hook. Reinsert the pin into the restraining latch to lock it into place.

TO RAISE THE LOAD

Before lifting the load, crank the <u>hand winch</u> clockwise as needed to remove excess slack in the wire rope and to verify that it is not loose or tangled in any way. Make sure the load is ready for lifting and that it will not slide or swing once tension is applied to the wire rope. Also make sure that the load will not encounter any obstructions on the way up to its installation point.

To raise the load, crank the winch in the clockwise direction. You should hear audible "clicks" as the winch gradually lifts the load, indicating that the automatic brake is properly engaged. When the load is only a few inches off the ground, stop cranking the winch and verify that the automatic brake will hold the load. Once you have verified that the brake is functioning, slowly continue to crank the winch until the load has reached the desired height. Take care not to shake the Ladder Lift by aggressively cranking on the winch.

Note: The hand winch requires a minimum load of 50 lbs [23 kg] for the automatic braking feature to work correctly; see the winch manufacturer's instructions for details (provided in final section of this *INSTRUCTIONS* manual).

If winching becomes significantly more difficult at any time while you are lifting the load, discontinue winching. Make sure there are no obstructions to the load, that you have not exceeded the Maximum Lift Height (see SPECIFICATIONS) and that the wire rope has not become snagged anywhere. Identify the source of the resistance and resolve it before continuing, in order to prevent undue stress on the Ladder Lift units, wire rope or load.



WARNING: Never force winch to overcome obstacles or snagged rope. Doing so could result in personal injury, or damage to Ladder Lift or load.

If a rotating load would strike anything on the way up to the desired height--especially a work support structure, the building or the Ladder Lift itself--use a guide rope or similar means to restrain the load from rotating. Do not allow anyone to stand under the load while using such a restraint; it should be sufficiently long for a person to stand safely out of the way while using it.



WARNING: Never leave suspended load unattended.

TO LOWER A LOAD

To lower a load, follow the same safety guidelines as when raising a load (above), and slowly crank the <u>hand winch</u> counter-clockwise until the load rests securely on the ground or a stable support. Follow the same procedure to lower an empty lifting hook.

AFTER USING THE LADDER LIFT

If there is a load attached to the Ladder Lift, first remove the load. Then reverse the ASSEMBLY instructions, as follows: Carefully remove the Ladder Lift from the building and set it on the ground.¹ Once the Ladder Lift is on the ground, remove the cotterless hitch pins and unhook the <u>pulley and winch units</u> from the ladder. Reinstall the cotterless hitch pins once both units are free from the ladder. Retract the <u>wire rope</u> until the pulley and winch units are touching one another, while minimizing contact between the wire rope and the ground. The Ladder Lift is now ready for storage.

Store the Ladder Lift in a dry location and, if necessary, cover it to prevent dirt, water or other contaminants from damaging the wire rope.

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 $^{^{1}}$ For extension ladders, it is acceptable to use the ladder's pulley system to retract the ladder first.

MAINTENANCE

INSPECTION SCHEDULE

Perform inspections routinely, according to the following frequency schedule:

Every-Lift Inspection

- Examine the wire rope, pulley and hand winch for damage, rust or debris.
- Examine the ladder and the weldments of the winch and pulley units for visual damage.
- Check for unusual vibrations, noises or winch resistance while using the Ladder Lift.

If any deficiency is detected during the inspection, correct it before using the Ladder Lift and perform the Frequent Inspection to follow.

Daily Inspection

• Inspect the wire rope as directed under Wire Rope Maintenance to follow.

If any deficiency is detected during the inspection, correct it before using the Ladder Lift and perform the Frequent Inspection to follow.

Frequent Inspection

(following every 20-40 hours' use; or whenever Ladder Lift is out of service for 1 month or more)

- Examine the Ladder Lift's structure for visual damage (also refer to the ladder manufacturer's instructions about inspecting the ladder and evaluating possible damage).
- Examine the full length of <u>wire rope</u> (including <u>lifting hook</u>, thimble and wire clamp) for visual damage (see Wire Rope Maintenance to follow).
- Examine the <u>hand winch</u> for conditions requiring service (see WINCH MAINTENANCE to follow). If any deficiency is detected during the inspection, correct it before using the Ladder Lift and perform the Periodic Inspection to follow.

Periodic Inspection

(following every 250-500 hours' use; or whenever Ladder Lift is out of service for 1 year or more)

- Examine the entire Ladder Lift for external evidence of looseness, excessive wear, deformation, cracks, excessive corrosion, dents to structural or functional components, cuts, or any deficiency which might constitute a hazard.
- Inspect the <u>wire rope</u> as directed under WIRE ROPE MAINTENANCE to follow.
- Keep a written record of all Periodic Inspections.

If any deficiency is detected during the inspection, return the Ladder Lift to Wood's Powr-Grip or an authorized dealer for repair (see LIMITED WARRANTY).

Infrequent Use

If a Ladder Lift is used less than 1 day in a 2-week period, perform the Periodic Inspection *each time before using the Ladder Lift*.

TESTING SCHEDULE

Perform these tests when placing the Ladder Lift in service *initially* and *each time following a repair or modification*. Correct any deficiency and retest before using the Ladder Lift.

Operational Tests

• Test all features and functions of the Ladder Lift (see OPERATING FEATURES, OPERATION and MAINTENANCE).

Load Test

Prove that the Ladder Lift can lift 100% of its Maximum Load Capacity (see SPECIFICATIONS), using an actual load or an equivalent simulation.² Employ the following method to test with an actual load:

- 1) Place a test load with appropriate LOAD CHARACTERISTICS (see INTENDED USE) on a stable support.
- 2) Attach the load to the Ladder Lift as previously directed.
- 3) Raise the load a minimal distance, and release the handle of the <u>hand winch</u> to assure that the load is supported by the Ladder Lift.
- 4) Lower the load a minimal distance and again release the winch handle, to make sure that the load is supported by the Ladder Lift.
- 5) Allow the Ladder Lift to hold the load for 5 minutes. The load must not slip or fall during this time period. If it does, perform a Periodic Inspection of the Ladder Lift. Be sure to inspect the hand winch as indicated under WINCH MAINTENANCE. Correct any deficiency that is found and retest the Ladder Lift.

Note: See MAINTENANCE topics to follow for additional directions about inspecting and testing specific Ladder Lift components.

-

 $^{^2}$ ASME Standard B30.6 requires the Ladder Lift to be tested to not less than 100% and not more than 110% of its Maximum Load Capacity.

WIRE ROPE MAINTENANCE

All <u>wire ropes</u> wear out eventually, gradually losing work capability throughout their service life. That's why regular inspections and maintenance are critical, especially as the rope approaches the end of its useful life. Referring to ASME B30.6-2003, the following guidelines for rope maintenance apply:

Daily Inspection of Wire Rope

All <u>wire rope</u> in service should be visually inspected once each day it is in use. A visual inspection includes examining the full length of all wire rope that can be expected to be used during the day's operations. Wire rope should be replaced immediately upon finding any of the following forms of obvious visual damage:

- Kinking, crushing, unstranding, birdcaging, main strand displacement or core protrusion.
- Rust or other corrosion.
- Any broken or cut strands.

If there is any concern that the rope could be too worn or unsafe for any reason, a more thorough Periodic Inspection should be performed.

Periodic Inspection of Wire Rope

Periodic Inspections of the <u>wire rope</u> must be performed by an appointed, competent person. Each inspection must consider the entire length of rope and be thorough enough that individual wires in the strands are visible to this person during the inspection. Special care should especially be taken to inspect the rope near the end connections or at common wear points. The inspector must keep a written record of all Periodic Inspections. Any wear indicating a loss in strength should be noted, and the inspector must judge whether further use of the rope constitutes a hazard. Such wear may include, but is not limited to, the following:

- Damage outlined in the Daily Inspection.
- Reduction of rope diameter below nominal (5/32" [4 mm]) from loss of core support, internal or external corrosion, or wear of the outside wires.
- Severely corroded or broken wires at the end connections.
- Severely corroded, cracked, bent, worn or improperly applied end connections.

Wire Rope Replacement

Numerous factors are involved in determining when the <u>wire rope</u> should be replaced. Once a rope exhibits any of the following criteria, it should be removed from service and replaced with another suitably rated rope:

- Broken or cut strands/wires.
- Wear of 1/3 the original diameter of the outside individual wires.
- Kinking, crushing, birdcaging, main strand displacement or core protrusion.
- Evidence of heat damage from any cause.
- Reduction from nominal diameter 5/32" [4 mm] of more than 1/64" [0.4 mm].

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Care and Storage of Wire Rope

<u>Wire rope</u> may look like a simple, single part, but it is really a machine with many moving parts, requiring as much care and maintenance as gears and chains. Rope should be stored to prevent damage, deterioration and corrosion. Place the Ladder Lift in a dry location, and cover it to prevent dirt, water or other contaminants from damaging the rope. It is also important to apply lubricant on a regular basis, to reduce internal friction and prevent corrosion.

When the rope is in use, care should be taken to prevent the ground or other objects from scraping, nicking, crushing or inducing sharp bends in the rope. Also, the rope should never be dragged on the ground, especially through dirt, mud or water.

WINCH MAINTENANCE

Refer to the winch manufacturer's instructions (provided in final section of this *INSTRUCTIONS* manual) about inspection, testing and maintenance of the <u>hand winch</u>.

PULLEY MAINTENANCE

The <u>pulley</u> of the Ladder Lift must be kept lubricated and periodically inspected for damage, but otherwise requires very little maintenance. If at any time the pulley becomes cracked, chipped, dented or otherwise damaged, replace it immediately. Operating with a damaged pulley puts it at risk of failing or possibly causing a jam that cannot be cleared. A damaged pulley can also damage the <u>wire rope</u>, reducing its service life or requiring it to be replaced.

LADDER MAINTENANCE

Refer to the ladder manufacturer's instructions about ladder inspection, testing and maintenance.

REPLACEMENT PARTS LIST

Stock No.	Description	Qty.
66472MM	Hand Winch w/Automatic Brake - 800 lbs [362 kg] Capacity	1
66413	Nylon Sheave w/Hub for 5/32" [4 mm] Wire Rope - 800 lbs [362 kg] Capacity	1
59660AM	5/32" [4 mm] Wire Rope Assembly	1
49110	End Plug - 2" x 2" x 3/16" [50.8 mm x 50.8 mm x 4.8 mm] Tubing Size	8
13520	Cotterless Hitch Pin - 3/8" x 3" [10 mm x 76 mm]	4
13220	Hairpin Cotter Pin	1

SERVICE ONLY WITH IDENTICAL REPLACEMENT PARTS
SUPPLIED BY OR APPROVED BY WOOD'S POWR-GRIP CO., INC.

LIMITED WARRANTY

Powr-Grip products are carefully constructed, thoroughly inspected at various stages of production, and individually tested. They are warranted to be free from defects in workmanship and materials for a period of one year from the date of purchase.

If a problem develops during the warranty period, follow the instructions hereafter to obtain warranty service. If inspection shows that the problem is due to defective workmanship or materials, Powr-Grip will repair the product without charge.

WARRANTY DOES NOT APPLY WHEN:

Modifications have been made to the product after leaving the factory.

Rubber portions have been cut or scratched during use.

Repairs are required due to abnormal wear and tear.

The product has been damaged, misused, or neglected.

If a problem is not covered under warranty, Powr-Grip will notify the customer of costs prior to repair. If the customer agrees to pay all repair costs and to receive the repaired product on a C.O.D. basis, Powr-Grip then will proceed with repairs.

TO OBTAIN REPAIRS OR WARRANTY SERVICE

For purchases in North America:

Contact the Technical Service Department at Wood's Powr-Grip Co.. When factory service is required, ship the complete product--prepaid--along with your name, address and phone number to the street address hereafter.

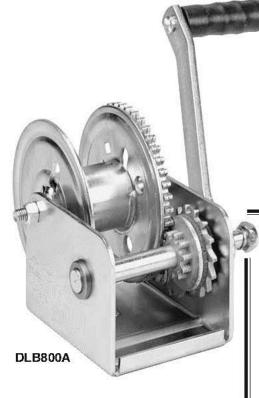
For purchases in all other localities:

Contact your dealer or the Technical Service Department at Wood's Powr-Grip Co. for assistance.

Wood's Powr-Grip Co., Inc. 908 West Main St. / P.O. Box 368 Laurel, MT USA 59044

> phone 800-548-7341 phone 406-628-8231 fax 406-628-8354





DLB350A
DLB350AG
DLB800A
DLB800AG
DLB1200A
DLB1200AG
DLB1500A
DLB1500AG
DLB2000AG
DLB2500A

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Dwg. No. 206306K 1/08

ISO 9001: 2000 REGISTERED QM.S.

WARNING READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THIS WINCH. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN SERIOUS OR FATAL INJURY. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.



IMPORTANT SAFETY INFORMATION

- This brake winch is built for multi-purpose hauling and lifting operations. It is not to be used as a
 hoist for lifting, supporting or transporting people, or for loads over areas where people could be
 present.
- Respect this winch. High forces are created when using a winch, creating potential safety hazards.
 It should be operated and maintained in accordance with instructions. Never allow children or anyone who is not familiar with the operation of the winch to use it. A winch accident could result in personal injury.
- Check winch for proper operation on each use. Do not use if damaged. Seek immediate repairs.
- Never exceed rated capacity. Excess load may cause premature failure and could result in serious personal injury. This winch is rated on first layer of cable on the hub. Using more layers of cable increases the load on the winch.
- Never apply load on winch with cable fully extended. Keep at least three full turns of cable on the reel.
- Secure load properly. When winching operation is complete, do not depend on winch to support load.
- Operate with hand power only. This winch should not be operated with a motor of any kind. If the
 winch cannot be cranked easily with one hand, it is probably over-loaded.
- If winch will be used in freezing, icy conditions, apply silicone spray to ratchet pawl and spacer items V, W, X or Y. Do not spray other brake mechanism parts.

ASSEMBLY — Thread the handle onto the winch drive shaft and be certain that a clicking noise is produced when the handle is turned clockwise. Install the spring and locknut (Items E and G) on the end of the drive shaft as shown on parts drawing. These parts may appear to serve no function, but they provide several important fail-safe features, and should not be altered or removed.

WINCH MOUNTING AND CABLE ATTACHMENT — For maximum strength and safety, this winch should be mounted with three 3/8" bolts (M10), washers and lock washers. (See parts drawing). Using fewer bolts or alternate locations will result in damage to the winch base and the winch may malfunction.

Attach cable or rope by either method shown in sketch

OPERATING INSTRUCTIONS — Wind cable on winch reel by turning winch handle in clockwise direction. This should produce a loud, sharp, clicking noise. The load will remain in position when the handle is released. Wind cable off the winch reel by turning winch handle counterclockwise (no noise will be produced). The load will remain in position when the handle is released, but for extra security it is recommended that the handle be turned clockwise until at least two clicks are heard. This will add extra tightness to the brake mechanism. Always satisfy yourself that the winch is holding the load before releasing the winch handle.

AIMPORTANT: Sufficient load must be applied to the cable to overcome internal resistance and operate the brake properly, otherwise turning the crank handle counterclockwise will only remove the handle from the shaft – the reel will not turn. The minimum operating load

requirement is 50 lb (23 kg) for Models DLB350A, DLB350AG, DLB800A, DLB800AG, DLB1200A and DLB1200AG, 75 lb (34 kg) for DLB1500A and DLB1500AG, 175 lb (80 kg) for DLB2000AG and DLB2500A.

Models DLB805A, DLB1205A, & DLB1505A, are equipped with a lockout lever for the purpose of 'freewheeling' cable out when there is no load on the winch. To 'freewheel' cable out, simply turn the handle counterclockwise until lockout lever can be engaged behind handle hub. In this condition cable can be easily pulled from the winch drum.

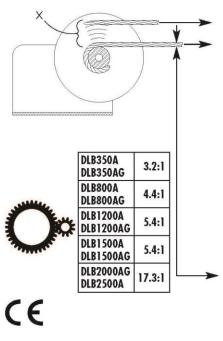
MARNING: Never put winch in freewheel mode if any potential for a load on the cable exists. Engaging the lockout lever keeps the winch from stopping in the event that a load is accidentally applied.

WINCH MAINTENANCE — In order to insure maximum performance, a periodic inspection for any necessary preventive maintenance should be made. Check at least once annually and more frequently when the winch is exposed to an environment which is particularly dirty or wet. For continued smooth performance and increased life, occasionally grease gears, reel shaft and handle threads. An occasional drop of oil on the drive

shaft bearings is also recommended. If winch will be used in freezing, icy conditions, apply silicone spray to ratchet pawl and spacer items $V,\,W,\,X$ or $Y.\,$ Note: Do not oil or grease brake mechanism items H and $J.\,$

Keep winch in good working order. Damaged or severely-worn parts create unnecessary dangers and could result in personal injury or property damage.

NOT FOR THE MOVEMENT OF HUMAN BEINGS



ENGLISH - EC DECLARATION OF CONFORMITY - Dutton-
Lainson Company, Hastings, NE 68902-0729 U.S.A.
manufactures and declares that this winch is in conformity with
the essential health and safety requirements specified in The
Supply of Machinery (Safety) Regulations 1992 and the
provisions of The Machinery Directive (89/392/EEC). This
declaration does not apply to other machinery using this

DANSK - EØF OVERENSSTEMMELSESERKLÆRING - Dutton-Lainson Company, Hastings, NE 68902-0729 USA, fremstiller og erklærer, at dette skraldespil er i overensstemmelse med de væsentlige sundheds- og sikkerhedsregler som er specificeret i The Supply of Machinery, Sikkerhedsregulativer af 1992, og Maskineldirektiv (89/392/EØF). Denne erklæring gælder ikke andet maskineri, der benytter skraldespillet.

SUOMI - EY:N VAATIMUSTENMUKAISUUSVAKUUTUS -Dutton-Lainson Company, osoite Hastings, NE 68902-0729, USA, vakuuttaa tämän vintturin valmistajana, että vintturin noudattaa vuoden 1992 koneidentoimitussäännösten (Supply of Machinery [Safety] Regulations) olennaisia työterveys- ja turvallisuusvaatimuksia sekä konedirektiivin (89/392/ETY) määräyksiä. Tämä vakuutus ei koske muita laitteita, joissa vintturia käytetään.

NEDERLANDS - EG VERKLARING VAN OVEREENSTEMMING -Dutton-Lainson Company, Hastings, NE 68902-0729 VS, fabrikant, verklaart dat deze lier voldoet aan de fundamentele gezondheids- en veiligheidseisen zoals vastgelegd in de Machinerichtlijn (89/392/EEG) en de nationale wetgeving ter uitvoering van deze richtlijn. Deze verklaring is niet van toepassing op andere machines die gebruik maken van deze

FRANÇAIS - DÉCLARATION DE CONFORMITÉ CE - Dutton-Lainson Company, Hastings, NE 68902-0729 U.S.A. construit ce treuil et déclare qu'il est conforme aux exigences de sécurité et de sûreté essentielles spécifiées dans «The Supply of Machinery (Safety) Regulations 1992» (règlements de sécurité relatifs à la fourniture de machinerie) et dans «The Machinery Directive» (directive relative à la machinerie) (89/392/CEE) Cette déclaration ne s'applique pas aux autres machines utilisant ce treuil.

DEUTSCH - EU-KONFORMITÄTSERKLÄRUNG - Dutton-DEUTSCH – EU-KONFORMITATSERKLARUNG – Dutton-Lainson Company, Hastings, NE 68902-0729 USA, der Hersteller der Winde, erklärt, daß das Produkt mit den grundlegenden Gesundheits- und Sicherheitsanforderungen übereinstimmt, die in den Bestimmungen zum Inverkehrbringen von Maschinen (Sicherheit) 1992 und den Bestimmungen der Maschinenrichtlinie (89/392/EWG) spezifiziert sind. Diese Erklärung gilt nicht für andere Maschinen, die diese Winde verwenden.

	X	
DLB350A, DLB350AG	10 1	110 lb/50kg 350 lb/160kg
DLB800A, DLB800AG	9	330 lb/150kg 800 lb/360kg
DLB1200A, DLB1200AG	8 1	551 lb/250kg 1200 lb/545kg
DLB1500A, DLB1500AG	6 1	728 lb/330kg 1500 lb/680kg
DLB2000AG	5 1	959 lb/435kg 2000 lb/905kg
DLB2500A	5 1	1308 lb/593kg 2500 lb/1134kg

DLB350A	1/8" (2000 lb) x 84'
DLB350AG	3mm (590kg) x 22.5m
DLB800A	3/16" (4200 lb) x 68'
DLB800AG	4mm (1080kg) x 23.0m
DLB1200A	7/32" (5600 lb) x 69'
DLB1200AG	5mm (1640kg) x 19.7m
DLB1500A	1/4" (7000 lb) x 60'
DLB1500AG	6mm (2350kg) x 15.1m
DLB2000AG	7mm (3200kg) x 8.9m
DLB2500A	5/16" (9800 lb) x 34'

ITALIANO - DICHIARAZIONE DI CONFORMITÀ ALLE DIRETTIVE DELLA COMUNITÀ EUROPEA - La Dutton-Lainson Company, con sede a Hastings, NE 68902-0729 USA, produce verricelli e dichiara che questo verricello è conforme ai requisiti essenziali di sicurezza e tutela della salute specificati nella normativa sulla sicurezza delle macchine emessa nel 1992 e nella Direttiva Macchine 89/392/CEE. Questa dichiarazione non è valida per altre macchine che utilizzino questo verricello.

e valua per attre macchine che utilizzino questo verricello.

NORSK – SAMSVARSERKLÆRING FOR EU – Dutton-Lainson
Company, Hastings, NE 68902-0729, USA, fremstiller og
erklærer at denne vinsjen er i samsvar med grunnleggende
helse- og sikkerhetskrav spesifisert i for sikkerhetsforskriftene
i det amerikanske regelverket for maskinlevering av 1992 [The
Supply of Machinery (Safety) Regulations], samt
bestemmelsene i det amerikanske maskindirektivet for EØS (89/392/EEC). Denne erklæringen gjelder ikke for andre maskiner som bruker denne vinsjen.

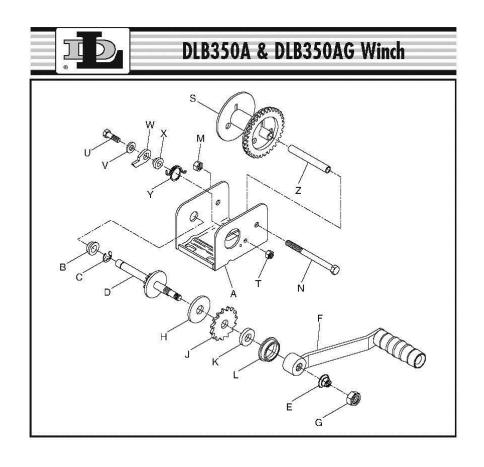
PORTUGUÊS - DECLARAÇÃO DE CONFORMIDADE COM A CE A empresa Dutton-Lainson Company, Hastings, NE 68902 0729, nos E.U.A., fabrica este guincho e declara que este está em conformidade com os requisitos essenciais de saúde e segurança, tal como especificados nos Regulamentos (de Segurança) para o Fornecimento de Máquinas de 1992 e como previsto na Directiva relativa a Máquinas (89/392/CEE). Esta declaração não se aplica a outras máquinas que utilizem este

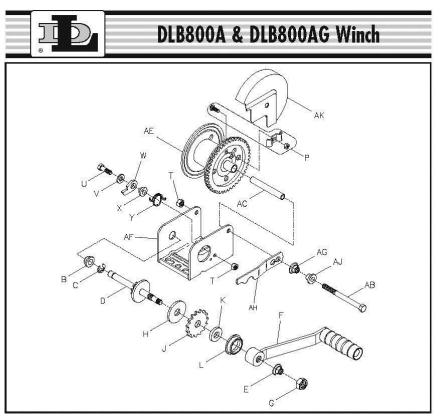
ESPAÑOL - DECLARACION DE HOMOLOGACION PARA CE -Dutton-Lainson Company, de Hastings, NE 68902-0729, EE.UU., fabrica y declara que este cabrestante satisface los requisitos esenciales de salubridad y seguridad específicados en el Reglamento (de Seguridad) para Suministro de Maquinarias de 1992 y en las disposiciones de la Directriz de Maquinarias (89/392/EEC). Esta declaración no incluye los demás equipos que utilicen este cabrestante.

SVENSKA – FÖRSÄKRAN OM ÖVERENSSTÄMMELSE –
Dutton-Lainson Company, Hastings, Nebraska 68902-0729
U.S.A. tillverkar och försäkrar att denna vinsch
överensstämmer med de väsentliga hälso- och säkerhetskrav
som specificerats i Maskinerifiörordningar (säkerhet) 1992 och bestämmelserna i Maskineridirektiv (89/392/EEC). Denna försäkran gäller inte andra maskiner som använder denna

ΕΛΛΗΝΙΚΑ - ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΟΚ Η Dutton-Lainson Company, Hastings, ΝΕ 68902-0729, U.S.Α δηλώνει ότι κατασκευάζει το παρόν βαρούλκο σε Ο. 3.7 δηκωνε στι κατοικεσίζει το παρον βυρουλλο σε συμμόρφωση με τις βασικές απαιτήσεις υγτεινής και ασφαλείας που προβλέπονται από τους Κανονισμούς Διάθεσης Μηχανημάτων (Ασφαλείας) 1992 και τις διατάξεις της Κοινοτικής Οδηγίας για Μηχανήματα (89/392/ΕΟΚ). Η δήλωση αυτή δεν ισχύει για άλλα μηχανήματα που χρησιμοποιούν το παρόν βαρούλκο.

Ron Haare





PARTS LIST

Ref	Description	Part No.
Α	Base	404900*
Α	Base - DLB 350AG	404945*
В	Bushing	204012
С	"E" Ring	205116
D	Drive Shaft	306061
E	Spring	204364
F	Handle – 7"	5703061
	Handle - 9-3/8"	5703103
G	Nut	205033
Н	Pressure Plate	204362
J	Ratchet Wheel	404164
K	Pressure Washer	404163
L	Bushing	206328
М	Nut	205316
N	Bolt	205332
Р	Rope Clamp Kit	304221
S	Reel	306075*
T	Locknut	204803
Ü	Bolt	205167
V	Flat Washer	205055
W	Pawl	404409
	Pawl – "G" Series	404190
Х	Spacer	404166
	Spacer – "G" Series	404191
Υ	Spring	204363
	Spring – "G" Series	204460
Z	Reel Spacer	207183
AB	Bolt	203161
AC	Reel Spacer	204807
AE	Reel	306062*
AF	Base	404893*
	Base - DLB 800AG	404895*
AG	Spring (optional)	204364

To order replacement parts contact:

Dutton-Lainson Company

www.dlco.com Tel: 800-569-6577 Fax: 402-460-4612

e-mail: DLsales@dutton-lainson.com

In Europe Contact:

Aqua-Marine International Ltd.

8 Flanders Parks Hedge End, Southampton Hants, England SO30 2FZ

Tel: +44 (0) 1489-776050 Fax: +44 (0) 1489-776055

e-mail: sales@aqua-marineint.co.uk

Ref	Description	Part No.
АН	Lockout Lever (optional)	404579
AJ	Spacer (optional)	404166
AK	Gear Cover (optional)	
	Painted Bronze	5240346
	Plated	5240361
AL	Base	404896*
	Base - DLB 1200AG	404897*
AM	Bushing	204009
AQ	Gear Cover (optional)	
	Painted Bronze	5240122
	Plated	5240221
AR	Spacer Washer	204360
AS	Reel	304754*
AS	Reel - 1-7/8" (optional)	304768*
AT	Base	404891*
	Base - DLB 1500AG	404892*
AU	Drive Shaft	304760
ΑV	Handle – 9-3/8"	5703103
	Handle – 12"	5703111
AX	Reel Spacer	204808
AY	Gear Cover (optional)	
	Painted Bronze	5240387
	Plated	5240403
AZ	Reel	304755*
BA	Base - DLB2500A	406047*
	Base - DLB 2000AG	404899*
BB	Spacer	404434
ВС	Bolt	205006
BD	Flat Washer	205139
BE	Intermed. Drive Shaft	306035
BF	Nut	205014
BG	Bolt	204804
ВН	Reel	304756*
BJ	Drive Hub (Optional)	304562
BL	Handle Brk. Assy (Opt)	304795
ВМ	Handle (Optional)	304638
BN	Handle Hub (Optional)	304630
BP	Slotted Nut (Optional)	404970
BQ	"E" Ring	206162
BR	Bushing	206163
BS	Bolt	205335

^{*}Specify Color When Ordering