

EN - User Manual

HAND WINCH ASSEMBLY AND OPERATING INSTRUCTION



www.autoflex.hu



There is no trailer without us!



WARNINGS

To prevent injuries, read and understand all warnings and instructions before use.

The assembling and operating instructions must be followed.

FAILURE TO READ AND APPLY THE INSTRUCTIONS CONTAINED IN THIS WARNING CAN RESULT IN SUDDEN FAILURE OF EQUIPMENT, PROPERTY DAMAGE AND SERIOUS INJURY.

Due to continuing improvement, the actual product may differ slightly from what described herein.

FIELD OF APPLICATION

These winches are mainly used as a trailer winch.

This winch is built for multi-purpose hauling and pulling operations.

SAFETY INSTRUCTIONS

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.



■ It is not approved for moving and lifting persons or animals; or for loads over areas where people could be present.



■ It is forbidden to use it for moving suspended loads.



■ It is not suitable for continuous operation.



■ It is not approved for motor-driven operation. Operate with hand power only. If the winch cannot be cranked easily with one hand, it is probably overloaded.



■ The winch is not suitable for fastening the load on the transporting vehicle. For this purpose separate fastening tools (ratchet straps and clamps) must be used.



■ It also forbidden to use the winch as a pulling or stretching apparatus.



■ Never exceed rated capacity. Always use strap of correct rated strength.



■ Maintain a firm grip on the winch handle at all times, and never release the handle when ratchet lever is in unlocked position with a load on the winch. Otherwise, handle will spin violently, which could cause personal injury.



■ Never use the winch handle as a convenient handle for pulling or maneuvering the entire trailer or other equipment. Never pull on the winch handle against a locked ratchet.



■ **CAPACITY RATING IS THE MAXIMUM LINE TENSION THE WINCH CAN WITHSTAND WITH ONE LAYER OF LINE AROUND THE DRUM. CAPACITY DECREASES AS LINE BUILDS UP ON DRUM. Keep at least 3 turns of strap around the drum when load applied.**



■ Be sure strap is pulling straight off winch, not an angle.



■ Before use inspect winch, strap and attachment for damage. Do not use if damaged. Seek immediate repair to prevent injury.



■ Always maintain winch as described in the instruction sheet.

EN - User Manual

HAND WINCH ASSEMBLY AND OPERATING INSTRUCTION

We stock two different models according to operation:

- 460cm strap with 10cm drum, 13cm handle
- 610cm strap with 12,5cm drum, 18cm handle

Features

- One speed winch
- One piece, solid steel gears
- Compact design
- Grease able axle shaft
- E-coating plus powder spray finish (500 hours salt spray test)
- Covered gear assembly
- Reversible handle left to right operation
- 1 speed winch
- Made in the Hungary

Specs:

- Capacity: 414kg
- Drum Diameter:
 - 6S6120 – 108 mm
 - 6S6233 – 126 mm
- Drum Hub Diameter:
 - 6S6120 – 11mm
 - 6S6233 – 11mm
- 5-Year limited warranty

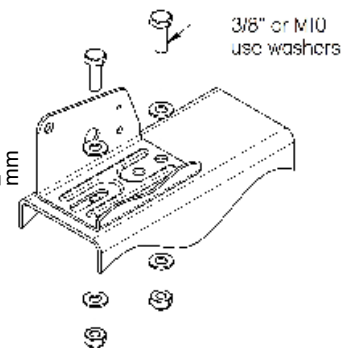
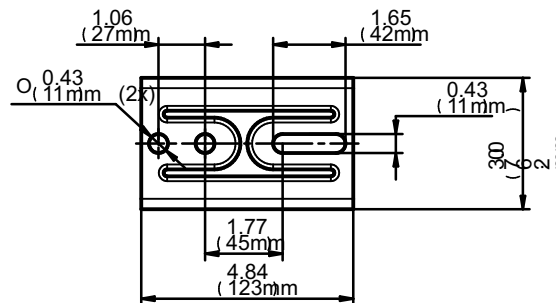
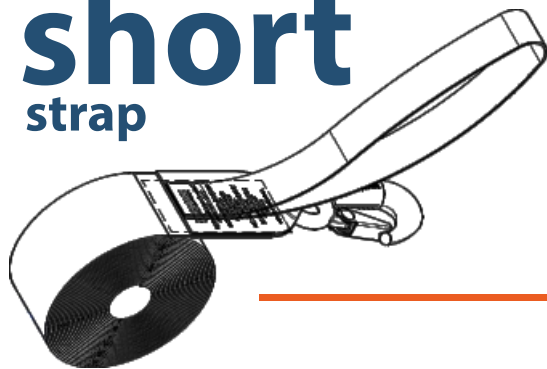


Model	Rated Capacity	Drum Diameter	Drum Hub Diameter	Gear Ratio	Handle Length	Max Drum Capacity-Strap
6S6120	414kg	108 mm	11mm	3,1	5"	460cm
6S6233	414kg	126 mm	11mm	3,1	7"	610cm



Altering the component parts of the winch after assembly might lead to an accident or it might unduly influence its correct operation; therefore it is strictly forbidden!

6S6120 short strap



Part # 6X0985G007
Hex. nut M12

5"

Part # 6S6108.001
5" handle

Part # 6S6112.001
Bearing

Part # 6S6117.001
Washer

Part # 6X0471G013
Retaining ring

Part # 6S6121.001
Axle

Part # 6X0980V006
Hex. nut M10

Part # 6S6116.001
Spacer

Part # 6S6109.001
Gear cover

Part # 6X1171.046
Sticker

Part # 6S6113.001
Gear

Part # 6S6111.001
Drum assembly

Part # 6S6118.001
Hex. screw M10

Part # 6X0471G013
Retaining ring

Part # 6X71412017
Grease fitting

Part # 6X1692.005
Sticker

Part # 6X0933G004
Hex. nut M6

Part # 6X0125A026
Washer M6

Part # 6S6119.001
Bushing

Part # 6S6122.001
Ratchet pawl

Part # 6S6115.001
Spring

Part # 6X0985G045
Hex. nut M6

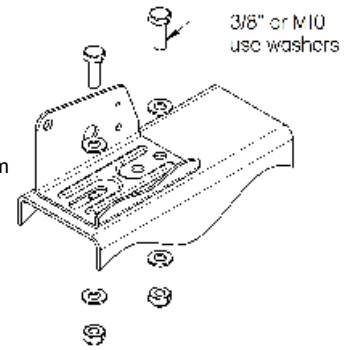
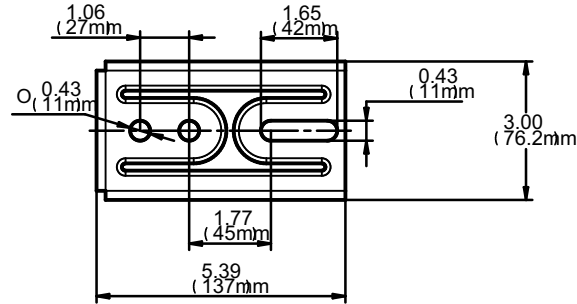
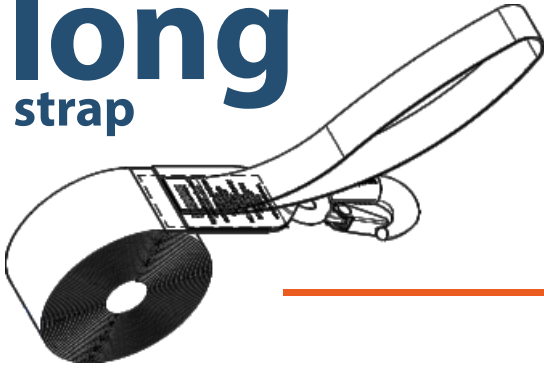
Part # 6S6110.001
Housing

Part # 6S6112.001
Bearing

EN - User Manual

HAND WINCH ASSEMBLY AND OPERATING INSTRUCTION

6S6233 long strap



Part # 6X0985G007
Hex. nut M12

7"

Part # 6S6283.001
7" handle

Part # 6X0933G004
Hex. nut M6

Part # 6X0125A026
Washer M6

Part # 6S6119.001
Bushing

Part # 6S6112.001
Bearing

Part # 6S6117.001
Washer

Part # 6X0471G013
Retaining ring

Part # 6S6121.001
Axle

Part # 6S6115.001
Spring

Part # 6S6122.001
Ratchet pawl

Part # 6X0985G045
Hex. nut

Part # 6X0985G006
Hex. nut M10

Part # 6S6116.001
Spacer

Part # 6S6235.001
Gear

Part # 6S6234.001
Housing

Part # 6S6232.001
Gear cover

Part #
6X1171.046
Sticker

Part # 6S6241.001
Drum assembly

Part # 6S6118.001
Hex. screw M10

Part # 6X0471G013
Retaining ring

Part # 6X0471G013
Retaining ring

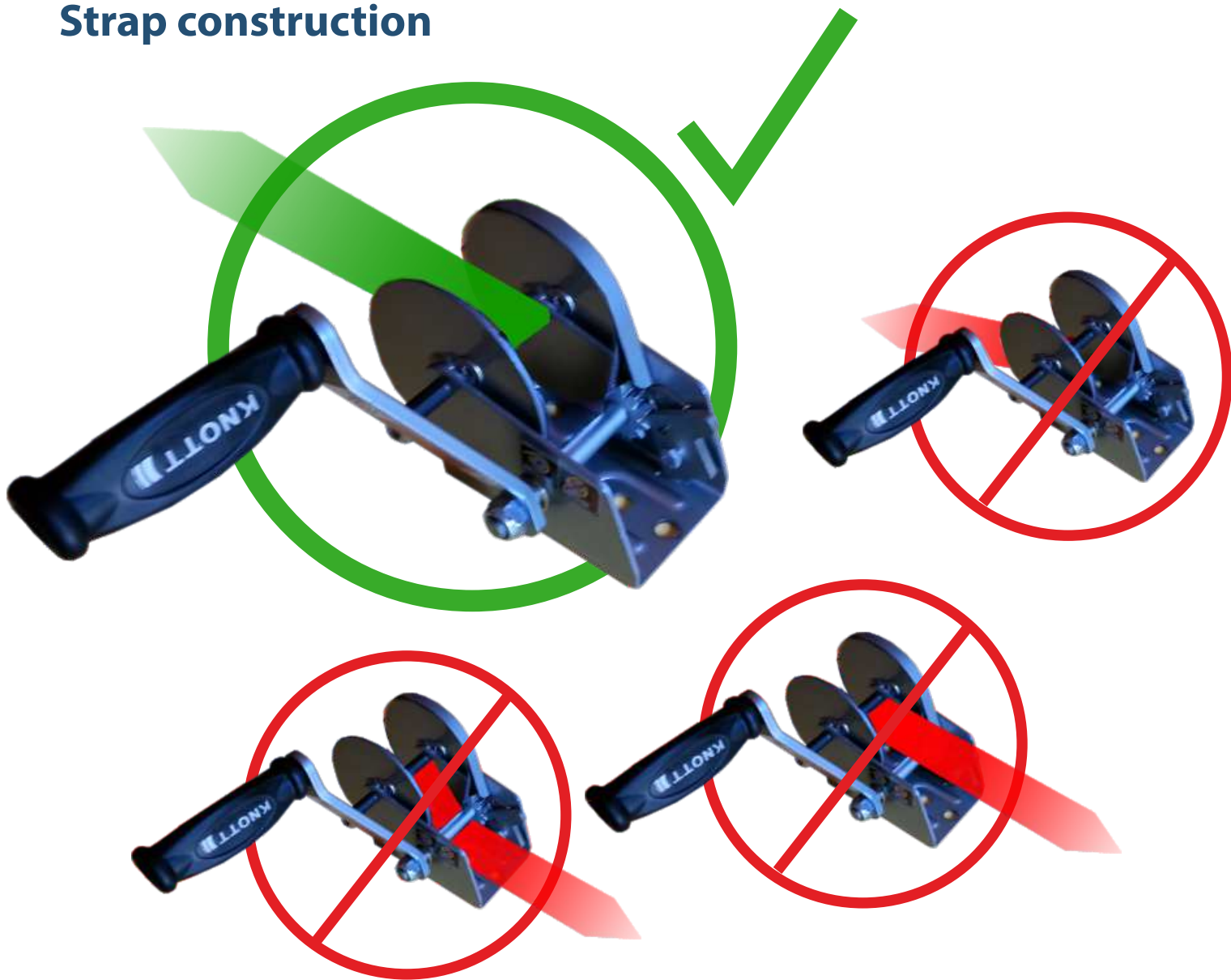
Part # 6X71412017
Grease fitting

Part # 6X1692.006
Sticker

Part # 6S6112.001
Bearing

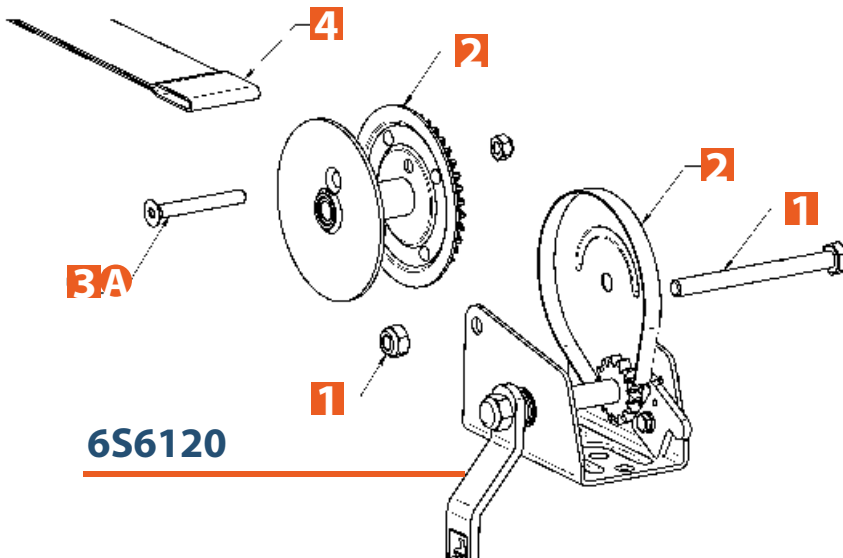


Strap construction



EN - User Manual

HAND WINCH ASSEMBLY AND OPERATING INSTRUCTION



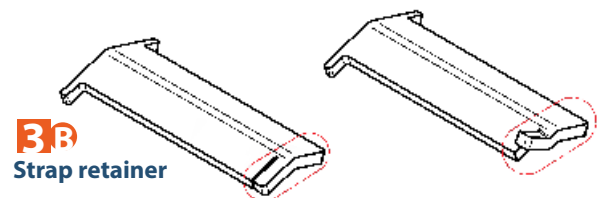
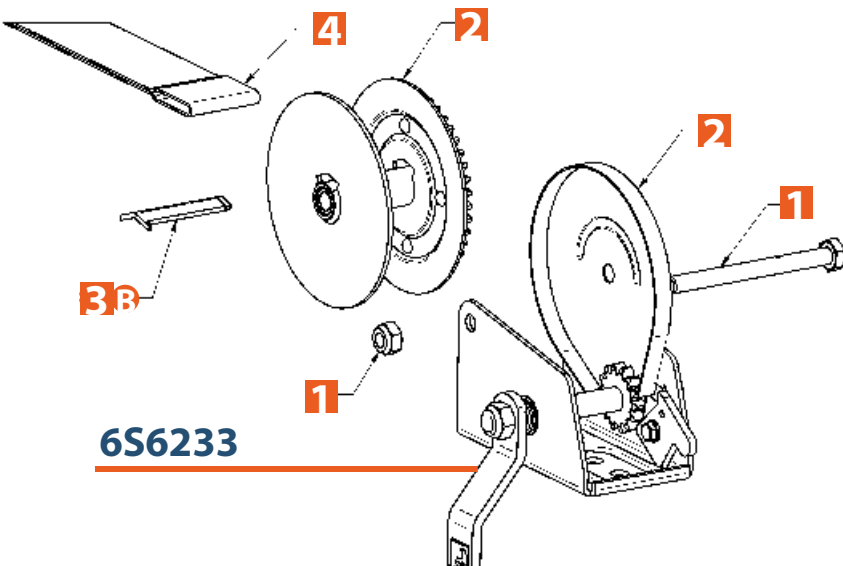
Replacing winch strap on the 6S6120 and the 6S6233 winches:

- 1 loosen and remove the locknut and the bolt from the drum
- 2 pull up the drum and slide it out of the gear cover
- 3A loosen the locknut on the bolt holding the strap and remove them from the drum
- 3B straighten the end of the retainer piece and pull out of the drum
- 4 remove used strap and replace

Assemble the winch:

- 4 Insert the retainer piece in the drum through the end loop of the strap
- 3A Attach and tighten the locknut
- 3B Secure the retainer piece by bending its corner with pliers
- 2 Place the drum back into the housing
- 1 Insert the bolt through center of the drum hub, attach and tighten locknut

Pay attention for the right strap position. Strap must be on the top of the drum hub and must be facing away from the winch before winding the strap onto the drum. Wind up the strap as the engaged ratchet allows.

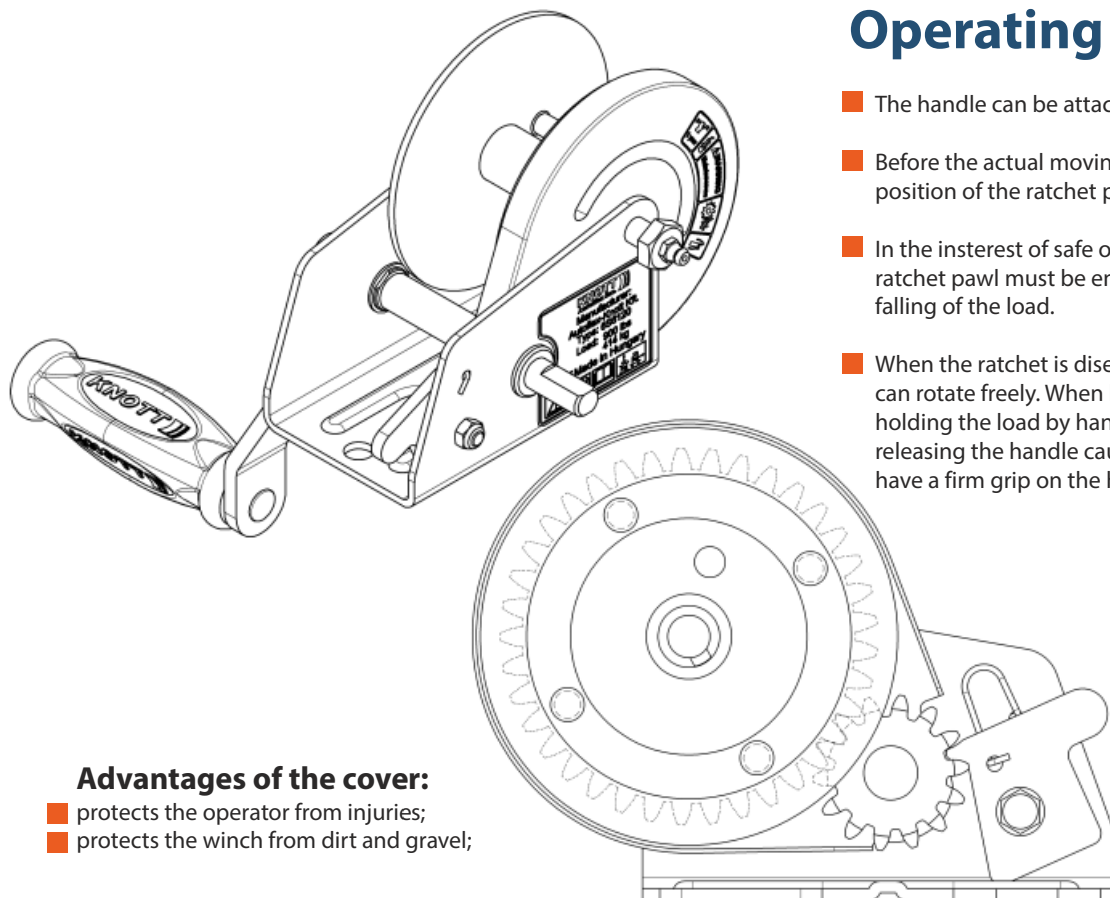




WARNING!

If the original winch strap needs replacement we recommend using our original KNOTT – Autoflex Inc winch strap. A replacement strap must be 5cm wide and no longer than the original unless it can't be wind up onto the drum fully. For safety reasons it must have at least the same Working Load (WL) and Breaking Strength (BS) specification as the original, which is WL 414kg and BS 2700 lbs for both winches discussed in this manual.

Shortening the length of the strap by knotting or twisting or adding to its length is forbidden!
Only so many ropes, straps, rings, etc can be engaged into the hook at once as many can properly fit into the hook.



Operating instructions

- The handle can be attached to either side of the winch.
- Before the actual moving of the load we must check the position of the ratchet pawl.
- In the interest of safe operation when pulling a load, the ratchet pawl must be engaged. The ratchet prevents the falling of the load.
- When the ratchet is disengaged the drum and the handle can rotate freely. When lowering a load the winch operator is holding the load by hand. When the ratchet is disengaged releasing the handle cause the falling of the load. Always have a firm grip on the handle and lowering the load slowly.

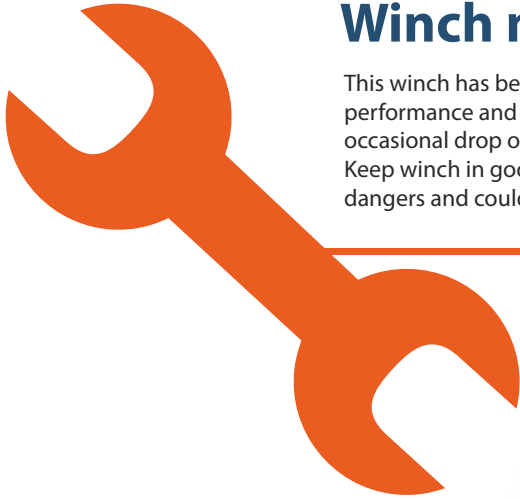
Advantages of the cover:

- protects the operator from injuries;
- protects the winch from dirt and gravel;

Winch maintenance

This winch has been fully lubricated at the factory; but, for continued smooth performance and increased life, occasional greasing of gears and reel shaft and an occasional drop of oil on drive shaft bearings are recommended.

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



SAE test

This report prepared by:

TESTLINK SERVICES, INC.
Product Evaluation Dept.
903 Guthrie St.
P.O. Box 221
De Soto, IA 50069

Report of Trailer Accessory
Testing
Performed on one Hand Crank
Winch Design
In Accordance with SAE J1853
Model/Part Nos.: 1531

Prepared for:

Autoflex-Knott Kft.
Hrsz: 11751/1
Kadafalva-Heliport
Kecskemet 6000
HUNGARY

Introduction:

This report presents the results of testing performed on one hand crank brake winch design in accordance with the latest version of SAE J1853 (Rev. OCT 2008). This project was authorized by Autoflex-Knott Kft.

Summary of Results:

Specimen No. / Type	SAE J1853, Proofed To Rating	Comments
1 / 6S6120	414 kg	Complies



Winch - Static Test Procedure:

The hand crank winch specimen is bolted with two or three, 1cm, grade 5 bolts, to a nonyielding test plate. For tests with wire rope, a minimum of three turns (or one and one half turns, for webbing) for a first layer condition, exists at the beginning of each loading sequence.

The hook is placed over a 2cm mandrel (free to rotate) and the specimen loaded in tension until the desired momentary proof load is attained or until a failure occurs. Lines are pulled parallel to the base plate. Lines are shortened where needed to accommodate testing. Over-sized lines are used for 200/300% load requirements (as the Standard permits) to accommodate testing when/if needed. Two speed assemblies are tested in the high speed (direct drive) setting. Preloads are 100 lbs.

Sample Description:

Type of Device: Trailer Accessory; fabricated steel, hand crank winch.

Instrumentation:

The test equipment used for this test series is the Instron Model 3385H, serial #3217 with an NIST traceable calibration due date of December 15, 2015.



As Received (with hook supplied)

EN - User Manual

HAND WINCH ASSEMBLY AND OPERATING INSTRUCTION

Winch Test Data:

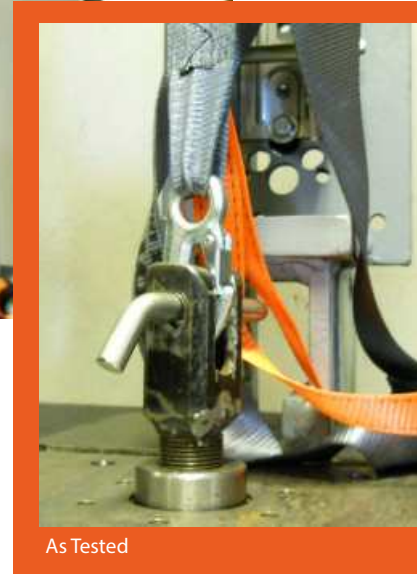
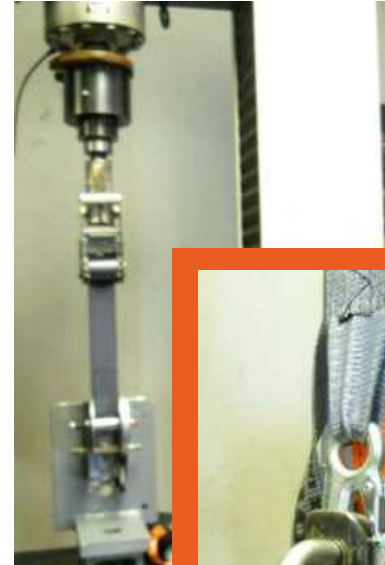
Specimen Number / Rating (in lbs.)	5.2 First layer maximum Line Pull: (Held for 1 min. and must be fully Functional after load) (Strap / 1 1/2 turns used for test; Cable / full first layer on drum)	5.3 First layer maximum Line Pull: (Held for 1 min) (Strap / 1 1/2 turns used for test; Cable / full first layer on drum)	6.1 Attachment of Winches: (secured with three 3/8" grade 5 bolts) (Held for 1 min.) (Strap / 1 1/2 turns used for test; Cable / full first layer on drum)	6.2 Attachment of Winch Lines: (test load applied to a line section near Strap / Wrap lock bolt - no turns Cable / 3 Full wraps)	7.1 Application requirements / Line: (test load applied to a line section and hook)	7.2 Application requirements / Hook: (test load applied to a shortened line section and hook)
% of rating - applied load	200%	300%	300%	150%	150%	150%
1 / 900	1,800 lbs. - Complies	2,700 lbs. - Complies	2,700 lbs. - Complies	1350lbs. - Complies	1350lbs. - Complies	1350lbs. - Complies

Winch Specimen Dimensions:

Specimen Number	Markings (Imprinted)	Maximum First Layer Line Pull Rating, Pounds (Requested)	Winch Line Type / Nominal Dim., In.	Spool Drum Dia., Inches	Ratio (see item 5.1 for wire rope)
	On one side only: 1531 Marketing label (8 lines, in part) Type: 6S6120 Load: 900 lbs 414 kg Made in Hungary - plus four warning labels				
1 / 6S6120		900	Fabric / 0.045 x 2.0 x 15 feet	0.877	-

Winch Frame Thickness, In.	Pinion Shaft Dia., In.	Pinion Gear Thk., In.	Drum/Spool Axle/Bolt, In.	Drum/Spool Gear Thk./Dia., In.
0.14	0.47	0.25 (one piece solid)	10mm 8.8, with grease zerk in head & locking nut	Enclosed – approx. 0.25 x 4 (one piece solid)

Ratchet Pawl Thk., In.	Ratchet Pawl Pivot / Shaft, In.	Line Wrap Lock Bolt, In. (for tape/web type)	Forged Hook, Nominal Dim., In.
0.20	5mm 8.8 bolt w/nyloc nut	0.30 counter-sunk allen head	0.54 x 0.69n radius, Marked LC12.5KN





Address:

Kecskemét, Kadafalva-Heliport

Tel.: (+36) 76/481-515

Fax: (+36) 76/481-494

e-mail: info@autoflex.hu

web: www.autoflex.hu

KNOTT 
AUTÓFLEX KFT.

www.autoflex.hu