



DRAGON

WINCH



INSTRUCTION MANUAL

HYDRAULIC WINCHES

www.dragonwinch.com



IMPORTANT

For your safety and the safety of others, follow the recommendations below. Improper use of the winch can be extremely dangerous for you and others, and may lead to serious damage. Before you start using your winch, read and follow the instructions below carefully.

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SAFETY PRECAUTIONS

Clothing

Always wear leather gloves when holding the winch rope.

Do not hold steel cable with bare hands, because even small cracks on the cable may cause injury.

It is recommended to use non-slip shoes.

Use headgear and tie long hair.

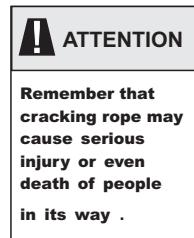


Keep safe distance

Make sure unauthorized people are kept at appropriate distance from the working winch and its rope. It is recommended to be kept at 1.5 x length of rope.

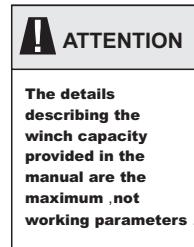
REMEMBER THAT CRACKING ROPE MAY RESULT IN SERIOUS INJURY AND EVEN DEATH OF PEOPLE IN ITS WAY.

Do not cross stretched rope and do not stand over the rope.



Do not overload the winch

The details describing the winch capacity provided in the manual are the maximum, not working parameters. Remember that the winch pull force values are given for perfect conditions, which do not take into account slopes, bumps, etc. Therefore, remember to select the winch that is appropriate to your needs. Winch selection details are provided further on in this manual.



Control of the technical condition

Before each starting, check if the winch is not damaged. Repair or replace defective or damaged parts.

Repairing the winch

Use only genuine parts. If they are not available, use parts with appropriate attestations and safety certifications.

Repairing of a damaged rope consists in shortening it above the damaged place .



SAFETY PRECAUTIONS

Winding the rope

Always use gloves.

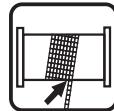
Pay attention to the correct direction of rope winding. The rope must be wound on the underside of the winch drum (between the mounting plate and the drum). Wrong direction of rope winding may cause serious damage to the winch.

The rope must be wound uniformly – fake next to fake – on the winch drum in such a manner as to avoid building up of the rope in one place or to jam the rope below the lower layers. Improper winding of the rope significantly reduces the efficiency of the winch and may lead to damaging the equipment.

After work, the rope should pulled (laid on the drum) with no load. Hold the tightened rope in one hand and the winch remote control in the other. For your own safety, during winding keep a minimum distance of 1.5 m from the winch.

A UWAGA

Lina musi być zwijana równomiernie - zwój obok swoju.



WINCH OPERATING PRINCIPLES



IMPORTANT

Proper operation, maintenance and storage of the winch have a crucial impact on its efficiency and lifetime. For your own and other people's safety, read this manual carefully and follow its recommendations. Improper use of the winch may lead to accidents and serious damage.

Recommendations

Loads must pulled in a straight line. If pulling loads at an angle is necessary, use the appropriate load block.

Pulling load, assure proper winding the rope up on the drum. It is essential that the rope is not wound in one place and to avoid jamming of the rope between previous fakes. In such cases unwind the rope and start winding again.

WINCH OPERATING PRINCIPLES

Remote control winch should be stored in the vehicle. Before each attachment check its technical condition.

The winch is equipped with a manual gear engaging and releasing. Begin load winding with engaged gear. Do not disengage and engage the gear while the motor is running.

To avoid damaging the rope, do not install hooks directly on the rope. It is necessary to use the factory-provided thimble (eye) or pulley block with a movable pulley.

Observe the winch carefully during operation, while maintaining the maximum possible distance. It is recommended that the pulling process is stopped every meter to check if the rope is wound correctly.

It is not recommended to attach the rope to the tow hook of the pulled vehicle. The rope should be attached to the vehicle frame.

Using pull block significantly increases the winch pull force. Pulling the load on a double rope (using pull block) increases the power of the winch almost twice, however it decreases the range of the rope and pulling speed by half. Remember to place the vehicle centrally, distributing the load uniformly on both sections of the rope.

Do not wrap the rope directly around a tree. Use appropriate synthetic bands or protection.

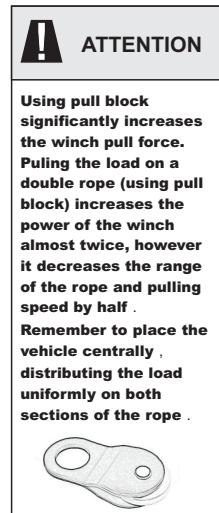
Omega shackles are recommended for connecting the winch rope with chain or another rope.

When extending the rope from the winch remember to leave at least 3 rope fakes on the drum - 5 recommended. Fully extending the winch rope and running the winch under load can result in pulling rope mounting from the drum, damaging the equipment and serious injury of persons nearby.

It is recommended to put a blanket or car mat on the rope of the winch in operation. Should the rope break, this will direct it to the ground. It is also recommended to open the car bonnet to protect windscreens in such a case.

Winch rope during operation should be stretched all the time. This prevents rope "breaking" and tangling. If the rope starts to tangle or fold, partially unwind the rope and start winding again. If this does not work, loosen the rope and straighten it manually.

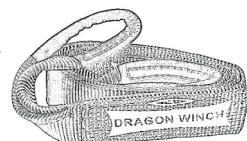
To stabilize the vehicle when pulling loads ,it is recommended to use stop blocks .



Wireless remote controller



Tree belt



Shackle



WINCH OPERATING PRINCIPLES

Winch rope

The strength of the steel rope provided with the winch is appropriate to the power and intended use of each specific winch.

The diameter and length of the rope for the same winch model may vary, maintaining constant strength and safety parameters.

Before using the winch, make sure that the rope is not damaged.

Do not use the winch if the rope is damaged.

Do not repair the rope. A defective rope must be replaced with a new one or shortened accordingly, fitting the thimble. This is what your safety depends on.

Do not use the winch rope as a tow-rope.

Pulling the load use only the winch. Do not "boost" the winch with the vehicle drive.

The working life of the rope is directly dependent on how it is used and stored. Overloading the winch may result in damage to the rope.



Safety

Do not attempt to overload the winch above its permitted limits.

Remember that the maximum drawbar pull specifies the winch capacity in conditions without additional loads and obstacles, and on the first coil of rope on the drum.

Every obstacle (slope, mud, water, slushy terrain, etc.) increases the rolling resistance of the pulled car which requires the use of significantly greater winch capacity. This is important when choosing a suitable winch and its intended use.

Any jerks while pulling are very dangerous and may lead to breaking the rope, damaging to the winch as well as serious injuries.

Although, in the description of the winch capacity, the term "vertical pull" is mentioned, under no circumstances may the winch be used for vertical load lifting. Both the winch and the rope are not adapted to such use. The term "vertical pull" only serves to determine the capacity and the technical parameters of the winch.



WINCH LUBRICATION AND MAINTENANCE

A new winch is factory-protected and does not require additional preservation procedures.

The winch requires periodic maintenance and technical surveys, depending on the manner and conditions in which it is operated.

Periodic maintenance consists in: dismantling, cleaning, replacing the grease, replacing worn parts of the winch.

Steel wire rope should be greased periodically using an appropriate penetrating oil. After the first use the winch under load the rope is not covered by the warranty. Check the new rope before use for any damage. Also, keep all elements of the winch clean.

If the winch and control box gets wet, it must be dried, cleaned and maintained.

If you use a winch in harsh conditions (off-road rallies, water, mud), check the technical condition of the winch.

MOUNTING OF HYDRAULIC WINCH

It is recommended to use the shortest possible hoses.

Pressure and oil flow decreases with increasing length of the hose or reducing its diameter. If you have a hydraulic pump more powerful than required, use the appropriate regulator to adjust the maximum pressure in the winch hydraulic installation.

Particular care should be taken not to chamfer the winch during installation, which may lead to permanent damage.

The winch shall be mounted in a suitable place.

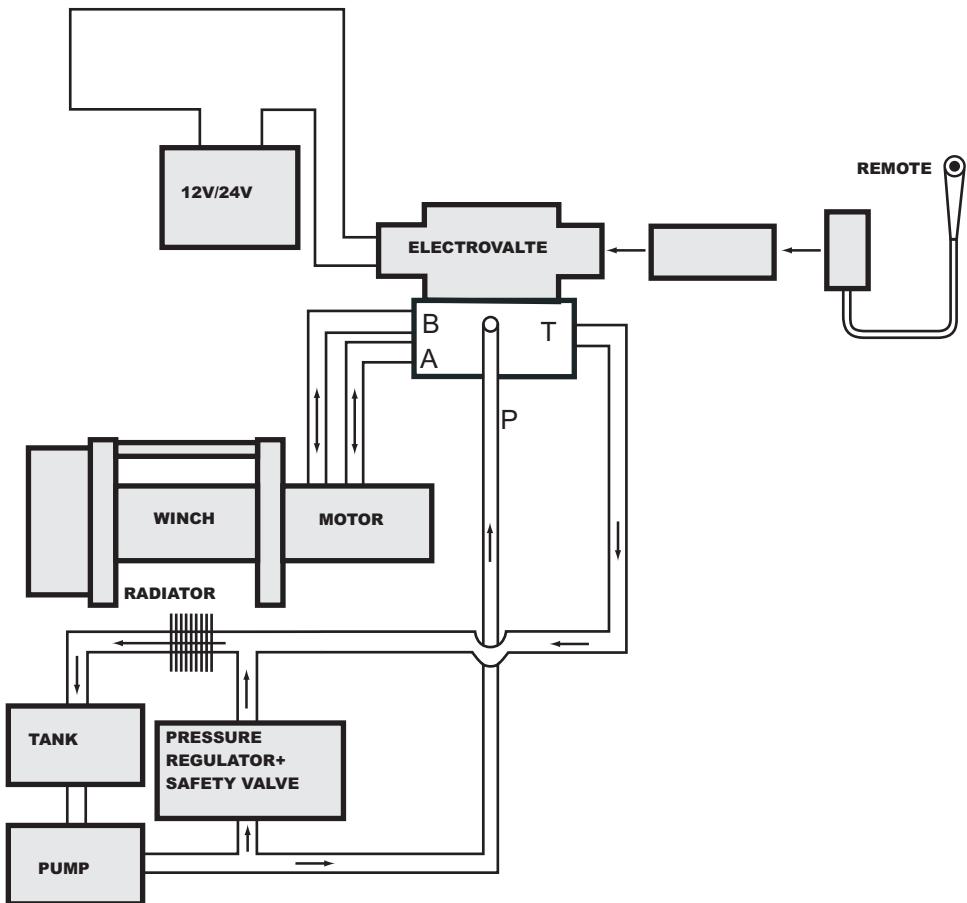
The power of the winch must be adapted to the vehicle, place and assembly type.

Winch should be mounted on a sturdy steel frame with four-point mounting system. The winch must be mounted horizontally.

It is very important to assemble the winch on a flat surface, technologically adapted to support the winch.

Using a special mounting plate of 10 mm minimum is recommended.

Rope roller guide should be assembled in a way that facilitates pulling the rope in and out. The following diagram shows how the winch should be connected.





CONNECTION OF HYDRAULIC WINCH

System

Open system with return filter

Relief valve

The relief valve should be mounted as close to the winch as possible

Pump

Maximum oil flow of 60 l/min. The pump should deliver a pressure of 170 bar.

Tank

It should be equipped with a filtering device ,consisting of sieve ,air filter and oil level indicator .

The volume of the oil level tank

The volume of the tank should be at least 60 liters. NOTE! Do not fill the tank completely, there should be room for decompression. Use Castrol CML or similar hydraulic oil (150 LHM 32-68). Viscosity Index 150/175 cSt at 100°C

Hoses

They should be at least the following dimensions :
inlet of the pump : 1 1/4 - 1 1/2
pump tank : 1 1/4 - 1 1/2

Control valve

4 channel built in in the relief valve .

The main control valve

Provides a better control of the winch operation and braking

Oil suction indicator

approx .250 microns

WINCH OPERATION

Recommendations

Before loading the winch, it is recommended to test its operation by unwinding and winding the rope a few times. It is essential to get to know the correct operation of the winch, both visually and acoustically.

Operation

If you use the winch to pull another vehicle or cargo, put the vehicle hand brake on and put stop blocks under wheels.

Pull the necessary length of rope out and anchor it in the appropriate place. Gear lever located on the gear housing works as follows:

1. To disengage, switch gear transmission lever to "OUT" or "LUZ," it will allow to unwind the rope freely. **DO NOT START THE MOTOR IN THIS POSITION!**
2. To start the winding, before starting the motor, switch the lever to "IN" or "PRACA." The winch is ready to work. **DO NOT START THE MOTOR BEFORE THE GEAR HAS ENGAGED. PULL FOR ROPE TO PROTECT THE GEAR.**

Before you begin, please check again all the connections, rope and cables.

Connect the remote control to the winch. For safety reasons, it is recommended to sit in the driver's place while pulling.

When pulling your car yourself with the winch, start the car engine, release the hand brake, switch the gears to neutral, do not "help" the winch with the car drive.

Control the winch using "IN" and "OUT" buttons located on the controller. Check regularly if the rope is wound on the drum correctly.

If you stop the winch under load, put the stop blocks under the wheels of the vehicle or the load. When putting the stop blocks, do not stand behind the vehicle/load.

SERVICING THE WINCH

It is recommended to run the winch at least once per month. Unwind and wind the rope several times using winch motor. This allows to keep the winch elements in good repair. In case of problems, contact DRAGON WINCH SERVICE. Use only authorized spare parts.

If the winch is used in off-road conditions, a regular maintenance is necessary (see "Winch lubrication and maintenance").

WINCH POWER



IMPORTANT

The parameters specified in the manual and descriptions are maximum parameters, not working parameters. For your own safety and safety of and others load the winch at 80% maximum. To select the winch correctly to your needs, contact DRAGON WINCH DISTRIBUTOR.

The pull capacity of the winch is also dependent on area.sloping. Below are the maximum values of the weight of the load, which can be applied to the winch depending on the ground slope. The values are given in pounds and kilograms.

Ground slope angle	10%		20%		40%		60%		80%		100%	
The winch pull force value Lbs & kg	Lbs	kg	Lbs	kg	Lbs	kg	Lbs	kg	Lbs	kg	Lbs	kg
1500	7538	3392	5102	2296	3233	1455	2496	1123	2134	960	1928	868
2000	10050	4523	6803	3061	6347	2856	2816	1267	2407	1083	2175	979
2500	12563	5653	8503	3826	5388	2425	4160	1872	3556	1600	3213	1446
3500	17588	7915	11905	5357	7543	3394	5824	2621	4979	2241	4499	2025
6000	30151	13568	20408	9184	12931	5819	9983	4492	8535	3841	7712	3470
8000	40174	18078	27209	12244	17206	7743	13285	5978	11364	5114	10244	4610
9000	42714	19221	28912	13010	18319	8244	14167	6375	12093	5442	10925	4916
10000	47739	21483	32313	14541	20474	9213	15833	7125	13515	6082	12211	5495
12000	60240	27108	40800	18360	25800	11610	19920	8964	17040	7668	15360	6912
13500	67770	30497	45900	20655	29025	13061	22410	10085	19170	8627	17280	7776
15000	75300	33885	51000	22950	32250	14513	24900	11205	21300	9585	19200	8640
16500	82830	37274	56100	25245	35475	15964	27390	12326	23430	10544	21120	9504
18000	90368	40665	61205	27542	38703	17416	29882	13447	25562	11503	23042	10369



IMPORTANT

The values above apply for freely running vehicle, without additional terrain obstacles. In some cases, using a larger capacity winch or appropriate pulley block may be necessary.

The values above specify the maximum pull force of the winch using a single rope ,when winding the first rope layer on the drum .

WINCH PARAMETERS

DWHI 18000 HD

Application: commercial vehicles

Hydraulic Power Pull: 18 000 lb/ 8 165 kg

Gear: one stage planetary gear and two-stage cycloid gear

Reduction: 50:1

Brake type: dynamic

Steel rope length: 28 m

Dimensions (LxWxH): 600mm x 215 mm x 252 mm

Gross weight of the kit: 68 kg

Bolt pattern: 254 mm x 114 mm

db: 65

Rope winding speed (the first layer of rope on the drum)

rope load	kg	0	4532	5443	8165
rope speed	m/min	6	5	4	3,5

Pull force depends on the rope layer

rope layer		1	2	3	4
rope pull	kg	8165	6597	5534	4767
rope on the drum	m	5	11,5	19	28

DWHI 15000 HD

Application: commercial vehicles

Hydraulic Power Pull: 15000 lb/ 6 804 kg

Gear: one stage planetary gear and two-stage cycloid gear

Reduction: 33:1

Brake type: dynamic

Steel rope length: 28 m

Dimensions (LxWxH): 600mm x 215 mm x 252 mm

Gross weight of the kit: 66 kg

Bolt pattern: 254 mm x 114 mm

db: 65

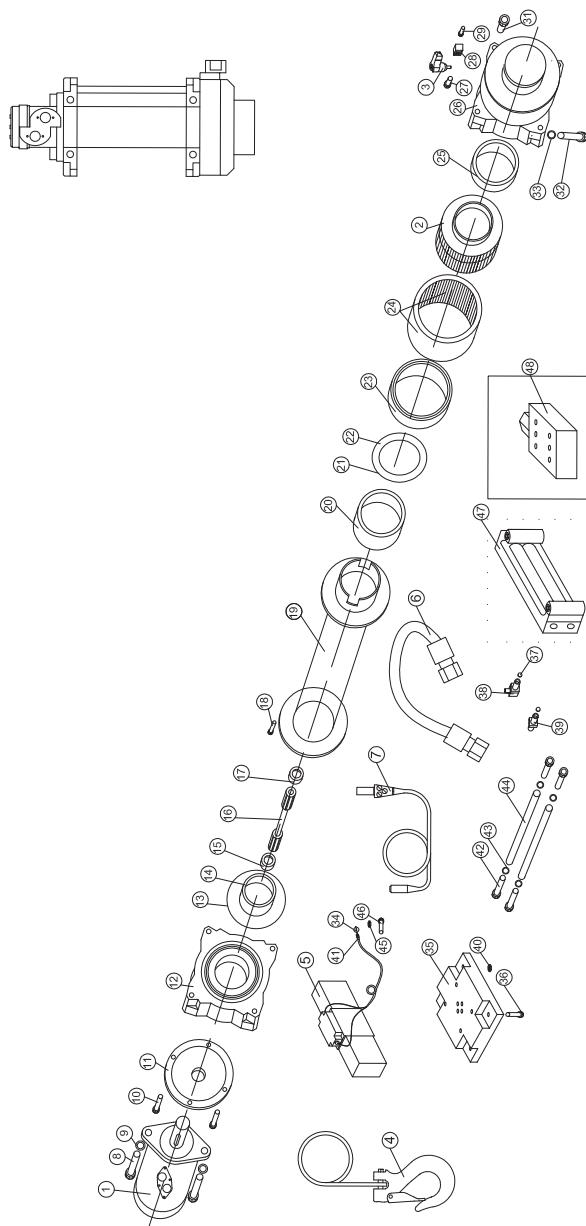
Rope winding speed (the first layer of rope on the drum)

rope load	kg	0	4532	5443	6804
rope speed	m/min	7,5	6	5,5	3,5

Pull force depends on the rope layer

rope layer		1	2	3	4
rope pull	kg	6804	5498	4612	3972
rope on the drum	m	4,8	12	21	28

WINCH CONSTRUCTION



ELEMENTY WYCIAŁGARKI



2.	1	PLANETARY GEAR
3.	1	CLUTCH LEVER
4.	1	HOOK
5.	1	ELECTROVALVE
6.	4	HYDRAULIC HOSES
7.	1	REMOTE CONTROL
8.	2	M12x35 BOLT
9.	2	12 WASHER
10.	4	8x16 BOLT
11.	1	PLATE CONNECTOR
12.	1	SLIDE BEARING
13.	1	RING
14.	1	DRUM BUSHINGS
15.	1	TRANSITION SHAFT 1
16.	1	DRIVE AXLE
17.	1	TRANSITION SHAFT 2
18.	1	M6x8 BOLT
19.	1	DRUM
20.	1	ROLLER BEARING
21.	1	O-RING SEAL
22.	1	O-RING SEAL
23.	1	INTERNAL BRACKET
24.	1	TOOTHED RING OF THE GEAR
25.	1	ROLLER BEARING
26.	1	GEAR HOUSING
27.	1	M8x10 BOLT
28.	1	UCLUTCH HANDLE
29.	4	M6x20 BOLT
30.	1	CLUTCH ADJUSTMENT
31.	12	SM12x15 BOLT
32.	4	M 12x35 BOLT
33.	4	12 WASHER
34.	1	SOCKET PLUG
35.	1	VALVE COVER
36.	4	M6x45 BOLT
37.	6	"O" RING
38.	3	90° LINE
39.	3	CABLE
40.	4	M6 NUT
41.	1	LINK
42.	4	M10x35 BOLT
43.	4	10 WASHER
44.	2	CONNECTOR
45.	2	M5x16 BOLT
46.	2	N5 NUT
47.	1	ROLLER GUIDE
48.	1	BALANCING VALVE



IMPORTANT

Safety precautions and procedures presented in this manual cannot anticipate all possible circumstances and situations you may encounter. It is always essential to use your common sense and maximum safety.



IMPORTANT

In case of doubt as to any point of this manual, please contact us.

**We wish you successful use of DRAGON
WINCH products !**

Dear Customer,

Thank you for purchasing the DRAGON WINCH product. In case of technical problems, please contact the service. ABILUS Group Sp. z oo, the General Distributor of DRAGON WINCH brand, hereinafter referred to as the Guarantor, guarantees correct operation of the winch.

WARRANTY TERMS

1. The warranty covers winches with a valid guarantee card. The warranty is valid together with the proof of purchase.
2. The warranty is granted for the period of 24 months, from the winch delivery date. The delivery date is indicated on the warranty.
3. The guarantor undertakes to repair the factory defects of the winch found during the warranty period.
4. This warranty does not cover defects resulting from: repairs carried out by entities other than the Guarantor, failure to observe correct installation and operation principles described in the manual, storing the winch in unsuitable conditions, neglect, lack of supervision, improper use, failure to observe the winch operation procedures, wrong direction of winch rope winding, overloading the winch, accidental events such as fire, electrical discharges, spills, impact of chemicals and the circumstances and events of force majeure.
5. Warranty does not cover operational mechanical defects such as damage to housing, damage to the motor, transmission, or drum, caused by overloading the winch. The parameters which, if exceeded, will overload the winch are specified in detail in the operation manual for the specific type of winch.
6. Warranty does not cover housing parts and accessories subject to normal wear and tear, including: scratches, persistent dirt, fading of texts, etc..
7. Winch rope (steel and synthetic), after the first use of the winch under load is not covered by warranty. Therefore, check the rope before the first use.
8. Warranty does not cover winches, which failed due to the lack of proper maintenance (see "Winch lubrication and maintenance").
9. The basis for consideration of the warranty claim is submission of: properly secured winch, valid warranty card, proof of purchase and warranty claim application, which should include a description of the fault, the circumstances of its occurrence, the type of vehicle in which the winch was installed and the customer contact details (address, phone number).
10. Contact the Guarantor concerning the winch delivery at the specified address of the service. The Guarantor shall cover the cost of transportation, as long as the winch is shipped through the courier indicated by the Guarantor.
11. A defect reported during the warranty period shall be repaired by the Guarantor at the Guarantor's cost within 14 working days. The period shall commence on the first working day after the date of winch delivery to the service.
12. If the repair requires spare parts to be imported from abroad, the repair period may be extended to 30 days, to which the customer consents by using the service.
13. The customer shall have the right have the winch replaced with a new one if the Guarantor determines that the removal of defect is impossible. The winch shall be replaced with a new one, defect-free within not more than 30 days. If, in special cases (e.g. no such product on offer), the winch may not be replaced with the same type, the Guarantor, on agreement with the customer, shall replace the winch with the winch of another type, with possibly the closest technical parameters. Such action shall be considered fulfilling the Guarantor's obligations. Warranty is extended by the time of warranty service.
14. If the complaint turns out to be unfounded, the Guarantor shall charge the customer with the costs of the warranty procedures and transport costs.
15. The Guarantor is not liable for the damages resulting from incorrect winch operation.



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16. The Guarantor shall not be responsible for additional costs incurred by the customer, resulting from damaging the winch.
 17. The warranty rights do not incorporate the customer's claims for reimbursement of profits lost in connection with the winch defect.
 18. If the customer does not accept the warranty conditions, they are entitled to return the winch to the Seller at its own expense within 10 working days from the date of purchase. In this case, the winch may not have any signs of use. The Seller shall cover the cost of transportation, as long as the winch is shipped through the courier indicated by the Guarantor.
 19. In disputable matters, not regulated by this warranty, applicable regulations of the Civil Code shall apply.



Declaration of Conformity

02/10/2013

(declaration number)

1. The manufacturer of the product:

ABILUS GROUP Sp. z o.o.
ul. Kasztanowa 15
32-085 Modlniczka

2. Product Name:

Car Winch
TYP: DWM2000, DWM2500, DWM3000,
DWM3500, DWM4500, DWM6000, DWM8000,
DWM10000, DWM12000, DWM13000, DWP2000,
DWP3500, DWP5000, DWH2500, DWH3500,
DWH4500, DWH6000, DWH8000, DWH9000,
DWH10000, DWH12000, DWH12500, DWH15000,
DWH18000, DWT14000,DWT15000, DWT16800,
DWT18000, DWT20000, DWH18000, DWH10000,
DWH12000, DWH15000, DWH18000, DWH1200,
DWH1300

(Name, trade name, type, variety, grade, class, serial number)

3. Purpose and scope of the product application:

The machine is designed to:

x pull damaged vehicles

x move or drag goods

x remove or pull off-road cars

(In accordance with the reference document)

4. Reference documentation:

The Machinery Directive MAD 2006/42/EC, Electromagnetic compatibility directive
EMC 2004/108/WE

(In accordance with the reference document)

I declare with full responsibility that the products referred to in item 2 are
compliant with the reference documents mentioned in item 4.

(Date of issue)

(Name and signature of authorized person)

#	date of adoption	date of issue	description	signature
1				
2				
3				
4				
5				



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