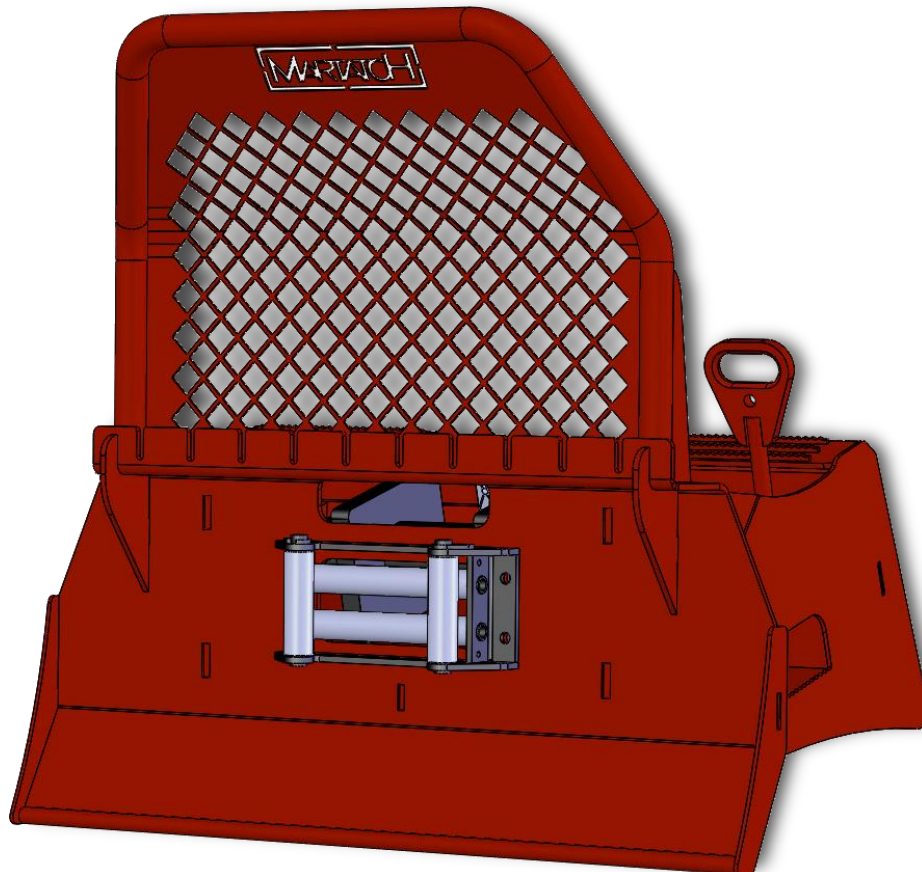




MARTATCH

Operator's Manual

MHFW Logging Winch - 2018



WWW.MARTATCH.COM

TABLE OF CONTENTS

Introduction, General Information.....	3
Owner and Operator Safety Information	4-8
Specifications	9-11
Mounting and Setup.....	12-13
Operation	13-14
Maintenance.....	16
Grease Points.....	16
Cable Replacement.....	17
Parts Illustrations.....	18-19
Trouble Shooting.....	20
Warranty Policy	21

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INTRODUCTION

Congratulations on your purchase of a new Martatch MHFW Logging Winch. You or any other person, who will be assembling, operating, maintaining, or working with this product are required to read and completely understand the information and instructions contained in this manual. Contact Martatch Attachments at 1-800-698-5510 with any questions about this product. Keep this manual available for reference whenever this product is being handled or used. Provide this manual to any new owners and/or operators. This manual covers model(s):

- All MHFW Logging Winches

GENERAL INFORMATION

The purpose of this manual is to assist in assembling, mounting, operating, and maintaining your MHFW Logging Winch. Read this manual carefully to obtain valuable information and instructions that will help you achieve years of safe and dependable service. The illustrations and data used in this manual were current at the time of printing, but due to possible engineering and/or production changes, this product may vary slightly in detail. Martatch Attachments reserves the right to redesign and/or change components as may be necessary without notification to anyone.

Throughout this manual, references may be made to:

Power source - The engine-driven machine to which this product is attached.

Right, Left Front, Rear - Directions are determined in relation to the operator of the equipment when seated in the normal operation position.

Important - Precautions that must be followed to prevent substandard performance.

Owner and Operator Safety Information

THINK SAFE, BE SAFE !



This symbol by itself or with a warning word throughout this manual is used to call your attention to instructions involving your personal safety or the safety of others. Failure to follow these instructions can result in injury or death



DANGER - This signal word is used where serious injury or death will result if the instructions are not followed properly.



WARNING - This signal word is used where serious injury or death could result if the instructions are not followed properly.



CAUTION - This signal word is used where minor injury could result if the instructions are not followed properly.



NOTICE - Notice indicates a property damage message

SAFETY PRECAUTIONS



WARNING! Read Manual Prior to Installation

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual, as well as all manuals related to the Power Source before beginning installation, operation, or maintenance.



WARNING! Read and Understand All Safety Statements

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all O.S.H.A. regulations, local laws, and other professional guidelines for your operation. Know and follow safe work practices when assembling, maintaining, repairing, mounting, removing, or operating this product.



WARNING! Know Your Equipment

Know your equipment's capabilities, controls and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to ensure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued, or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they are hard to read.



WARNING! Protect Against Flying Debris

Always wear proper safety glasses, goggles or a face shield when driving pins in or out, or when any operation causes dust, flying debris, or any other hazardous material.



WARNING! Lower or Support Raised Equipment

Lower attachment to the ground before leaving operator's station. Do not work under raised booms without taking the proper action to support them, or lower booms to ground level.



WARNING! Use Care When Working With Hydraulic Fluid Pressure

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your Power Source operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by fluid, see a doctor at once.
- Wear safety glasses, protective clothing when searching for hydraulic leaks. **DO NOT USE YOUR HANDS!**

SAFETY PRECAUTIONS



WARNING! DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life, and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Contact Martatch Attachments before modifications are made.



WARNING! SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing, or any accessories that can catch in moving parts.
- If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use the correct tool for the job at hand. Make sure they are in good condition for the task required.
- Wear the protective equipment specified by the tool manufacturer. (i.e. safety glasses, work gloves, protective shoes, hardhat etc.).



WARNING! SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, and all safety requirements. See Power Source manual for these instructions.

- Keep all step plates, grab bars, pedals, controls, etc. free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating..
- Do not allow riders on the attachment or the Power Source.
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with attachment in a raised position.
- Do not alter or remove any safety feature from the Power Source or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

SAFETY DECALS AND LOCATION

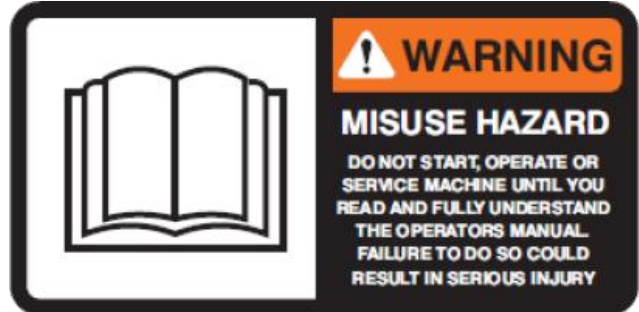
The diagram on this page shows the location of the decals. The decals are identified by their part numbers, with reductions of the actual decals located on the next page. Use this information to order replacements for lost or damaged decals. Be sure to read all decals before operating the attachment. They contain information you need to know for both safety and product longevity.

INSTRUCTIONS

- Keep all safety decals clean and legible.
- Replace all missing or damaged safety decals.
- When replacing parts with safety decals attached, new parts must also have safety decals attached.
- Safety decals are available from Martatch Attachments.



MHFW LOGGING WINCH - SAFETY DECALS



POWER SOURCE SPECIFICATIONS



IMPORTANT - Exceeding any of the maximum recommended power source specifications can result in damage to this product and void all warranties.

Recommended HP on Power Source

- MFHW-Logging Winches are recommended for use with 30 - 150 HP Machines

To maintain required Power Source stability add Rear Counterweights.

Note: - See Power Source manuals for correct weight needed.

DO NOT EXCEED MAXIMUM WEIGHT LIMIT.

Winch motor Specifications

General Specification

Rated line pull	10000lbs(4536kgs)
Motor displacement	50ml/r
Oil flow	15~40L/min
Pressure	12.5Mpa
Gear reduction ratio	28:1
Cable (Dia.× L)	Ø3/8 "×65.6 ' (Ø9.2mm×20m)
Drum size(Dia.× L)	Ø2.5"×8. 8" (Ø63mm×223mm)
Mounting bolt pattern	21.7"×19.7 " ×4.5 " (550mm×500mm×114.3mm) 4-M10
Overall dimensions (L×W×H)	22.8" (L) x 7.9" (W) x 9.5" (H) - 580(L) mm X201 (W) mm X 242(H) mm
Net weight lbs(kg)	95Lbs., 43Kg

Winch motor Specifications

Pull, Speed, Pressure, Flow (First layer)

Line pull lbs(kgs)	Pressure Mpa(Psi)	Flow G/min(L/min)	Line speed ft/min(m/min)
0	2.0(290.1)	4.0 (15)	7.2 (2.2)
4000(1814)	3.9(565.6)	6.6 (25)	12.5 (3.8)
6000(2722)	7.5(1087.7)	9.2 (35)	17.7 (5.4)
8000(3629)	10.5(1522.8)	10.6 (40)	20.0 (6.1)
10000(4536)	12.5(1812.9)	/	/

Line Pull And Rope Capacity Inlayer

Layer of wire rope	Rated line pull lbs(kgs)	Total rope on drum ft (m)
1	10000(4536)	17.4 (5.3)
2	7969(3629)	39.4 (12.0)
3	6624(2994)	65.0 (19.8)
4	5667(2540)	65.6 (20.0)

Bolt Torque Specifications

Diameter (Inches)	Wrench Size	MARKING ON BOLT HEAD					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	110	149	170	230	240	325
3/4"	1-1/8"	192	261	297	403	420	569
7/8"	1-5/16"	306	416	474	642	669	907
1"	1-1/2"	467	634	722	979	1020	1383

Bolt Torque Specifications(Cont.)

Diameter & Thread Pitch (Inches)	Wrench Size	FINE THREAD			
		MARKING ON HEAD			
		Metric 8.8		Metric 10.9	
		N-m	lbs-ft	N-m	lbs-ft
6 x 1.00	10 mm	8	9	11	8
8 x 1.00	13 mm	21	16	29	22
10 x 1.25	16 mm	41	30	57	42
12 x 1.25	18 mm	75	55	103	76
14 x 1.50	21 mm	118	87	163	120
16 x 1.50	24 mm	181	133	250	184
18 x 1.50	27 mm	263	194	363	268
20 x 1.50	30 mm	367	270	507	374
22 x 1.50	34 mm	495	365	684	505
24 x 2.00	36 mm	623	459	861	635
30 x 2.00	46 mm	1258	928	1740	1285

Diameter & Thread Pitch (Inches)	Wrench Size	COARSE THREAD			
		MARKING ON HEAD			
		Metric 8.8		Metric 10.9	
		N-m	lbs-ft	N-m	lbs-ft
6 x 1.00	10 mm	8	9	11	8
8 x 1.25	13 mm	20	15	27	20
10 x 1.50	16 mm	39	29	54	40
12 x 1.75	18 mm	68	50	94	70
14 x 2.00	21 mm	109	80	151	111
16 x 2.00	24 mm	169	125	234	173
18 x 2.50	27 mm	234	172	323	239
20 x 2.50	30 mm	330	244	457	337
22 x 2.50	34 mm	451	332	623	460
24 x 3.00	36 mm	571	421	790	583
30 x 3.00	46 mm	1175	867	162	1199

MOUNTING & SET UP



WARNING! - READ MANUAL PRIOR TO INSTALLATION

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual, as well as all manuals related to this equipment and the Power Source thoroughly before beginning installation, operation, or maintenance. **FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE POWER SOURCE MANUAL(S).**

1. Inspect the attachment for shipping damage. If damage does exist, do not operate until the damaged parts have been replaced or repaired.
2. Place this product on a firm, level surface that is large enough to safely accommodate this product, your prime mover and all workers involved in the mounting process.
3. Refer to the Power Source operator's manual(s) for your loader and quick-attach and follow the mounting instructions contained therein.
4. When shipped the hydraulic cylinder(s) on this product may contain air, or an air-fluid mixture. Failure to remove all the air from the hydraulic cylinder(s) can cause uneven, jerky cylinder movement when the hydraulic controls are being operated and unwanted cylinder movement when the controls are not being operated.

*See Maintenance section for regular maintenance

MOUNTING & SET UP (CONT.)



READ AND UNDERSTAND ALL SAFETY STATEMENTS

Read all safety decals and safety statements in all manuals before beginning any setup. Know and obey all O.S.H.A. regulations, local laws, and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing, or operating this equipment.

- **WARNING!** Failure to obey the following procedures could result in death or serious injury.
- Never operate this product where visibility is obstructed the operated view.
- Always operate at a safe operating speed for the surrounding conditions.
- **IMPORTANT** - Striking objects or sweeping materials other than aggregate can result in damage to this product and may void warranties.

Set up

1. Complete mounting procedure as specified on previous page.
2. Connect hydraulic hoses with quick couplers to available ports.

MFHW LOGGING WINCH OPERATION

Basic operation

With the mounting and set up done, you are ready to use your winch.

WARNING

- 1 - **Make sure clutch is totally engaged before starting any winch operation;**
- 2 - **Stay clear and away from raised loads;**
- 3 - **Stay clear of cable while pulling do not try to guide cable;**
- 4 - **A min. of 5 wraps of cable around the drum barrel.**

MFHW LOGGING WINCH OPERATION

Basic operation (Cont.)

Winch working demonstration:

1. Disengage the clutch by turning the clutch to the “CLUTCH OUT” position.
2. Grab the cable assembly and pull the cable to the desired length, then attach to item being pulled.
Caution: Always leave at least five turns of cable on the drum; Review Winch Safety Warnings and Precautions on page 2, 3 before continuing.
3. Reengage the clutch by turning the clutch assembly to the “CLUTCH IN” position as needed.
4. Insert the switch assembly connector onto the directional valve
5. Test-run winch in both directions. Turn the winch in each direction for about one or two seconds meantime make the clutch totally engaged automatically.
6. While standing aside of the tow path, hold and operate the switch assembly supplied by your choice. Wait until the motor stops before reversing directions.
7. When the towing is finished, remove the switch assembly from the female connector of the directional valve and replace the female connector cover.

Winch accessories you will need

NOT INCLUDED WITH YOUR WINCH

Gloves – For handling the wire rope and hook strap.

Anchor Strap/Chain – Tree saver anchor straps are made of high quality nylon with high tensile strengths up to 15000lbs.

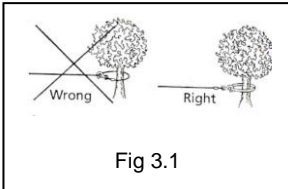
Heavy Blanket – place on the cable to absorb energy should the wire rope break

INCLUDED WITH YOUR WINCH

7/16" x 125' Cable, swivel hook & 2 chokers

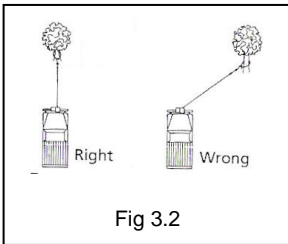
RIGGING TECHNIQUES

Self-Recovery



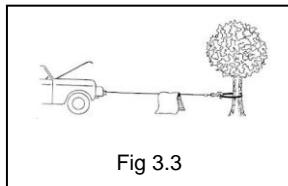
Locate a suitable anchor such as a strong tree trunk or boulder.

Always use a sling as an anchor point. **⚠ CAUTION** Do not attach the clevis hook back onto the cable as this could cause damage to the cable. As shown in Fig 3.1

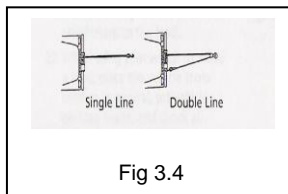


⚠ CAUTION Do not winch from an acute angle as the wire rope will pile up on one side of the drum causing damage to wire rope and the winch. Fig 3.2

Short pulls from an angle can be used to straighten the vehicle. Long pulls should be done with the wire rope at a 90° angle to the winch/vehicle.

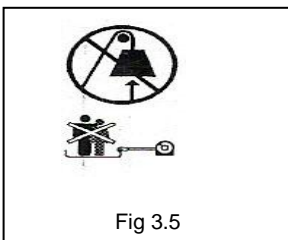


When pulling a heavy load, place a blanket or jacket over the wire rope five or six feet from the hook. In the event of a broken cable it will dampen the snap back. For additional protection open the hood of the vehicle as shown in Fig 3.3



For pulls over 70% rated line pull, we recommend the use of the snatch block/pulley block to double line the wire rope. Fig 3.4

This reduces the load on the winch and the strain on the rope by up to 50% depending on the included angle.



WARNING - Never use your winch for overhead hoisting or for lifting people or moving people.

MAINTENANCE

This section covers regular maintenance required to insure that your logging winch performs as it should and stays in good operating condition.

BEFORE EACH USE

- Make sure that all other fasteners are in place and are performing their specified function.
- Make sure that all hydraulic fittings are tightened and that there are no leaks in any fittings or hoses.
- Make sure that all safety decals are in place, are clean, and are legible. (See the safety decals and location)
- Check all wear parts, replace any damaged or excessively worn parts.
- Apply grease at grease points if necessary (See below)

GREASE POINTS

Grease points are usually equipped with a grease nipple via a greaseable pin or Bushing. Grease should be applied to the grease points after every 20 hours of use. Always check to make sure that all components at grease points are moving with ease and there is no friction or visible rust forming.

Grease points will be found in the following locations.

(As shown Below)

1. At winch fairlead (Front of winch attachment)

- ***Note** - All moving parts within the Winch motor have been Lubricated using high temperature lithium grease at the factory. No internal lubrication is required.
- Lubricate Cable Assembly periodically using a light penetrating oil.



MAINTENANCE

CABLE ASSEMBLY REPLACEMENT

If the wire rope has become worn or is beginning to show signs of strands breaking, it must be replaced before being used again.

1. Turning clutch to the “CLUTCH OUT” position.
2. Extend cable assembly to its full length. Note how the existing cable is connected to the drum.
3. Remove old cable assembly and attach new one as the old cable connected to the drum. Insert the end of the new rope and secure the screw being tightly screwed
4. Turning clutch to the “CLUTCH IN” position.
5. Retract cable assembly onto drum, first five wraps being careful not to allow kinking, then winch cable must be wound onto the drum under a load of at least 10% rated line pull.

If you have questions regarding maintenance, please contact Martatch Attachments.

MARTATCH ATTACHMENTS

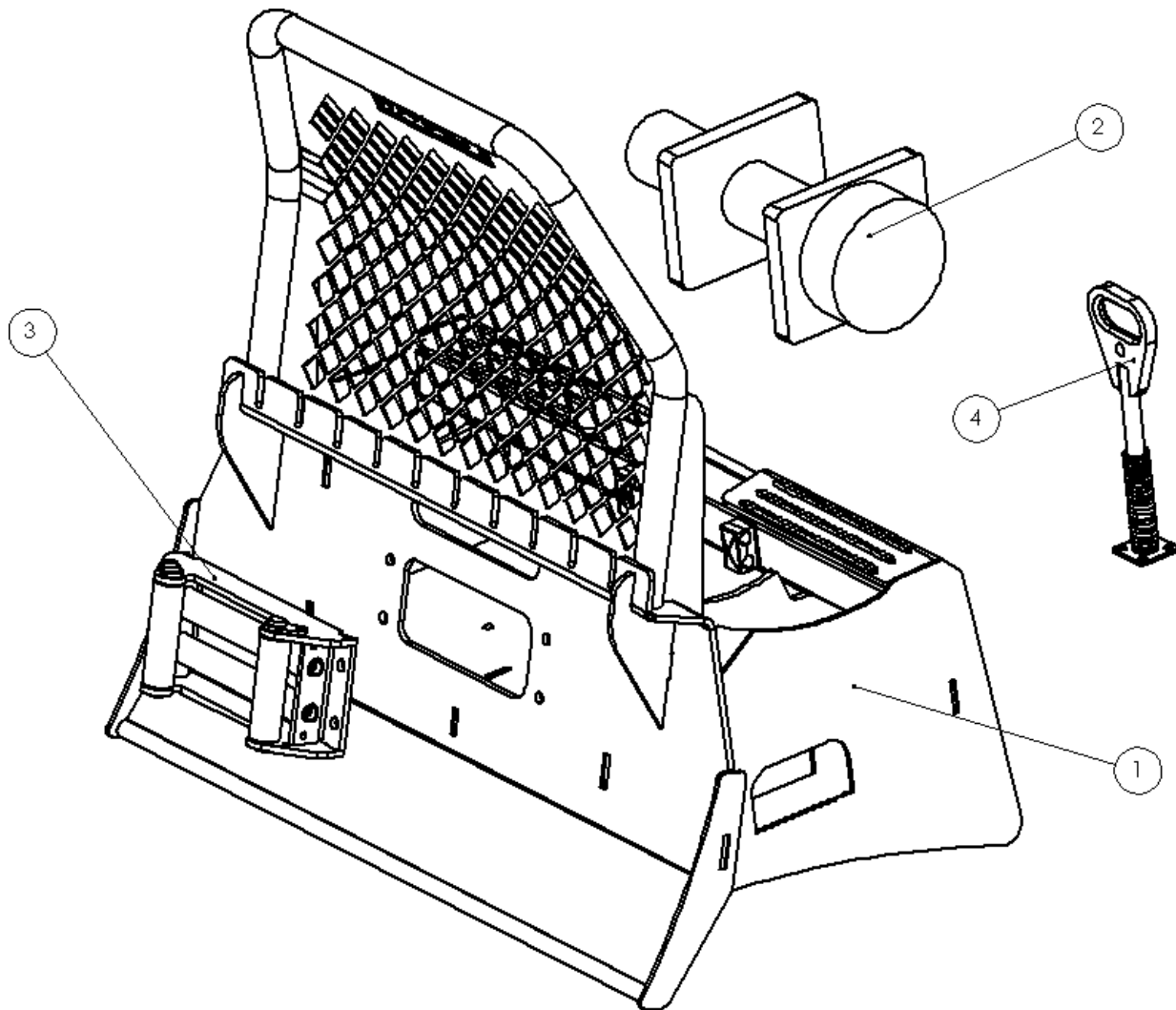
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PARTS ILLUSTRATIONS

The following diagrams are a breakdown of all major components and parts for the MHFW logging winch.

Weldments, Sub-Assemblies & Parts

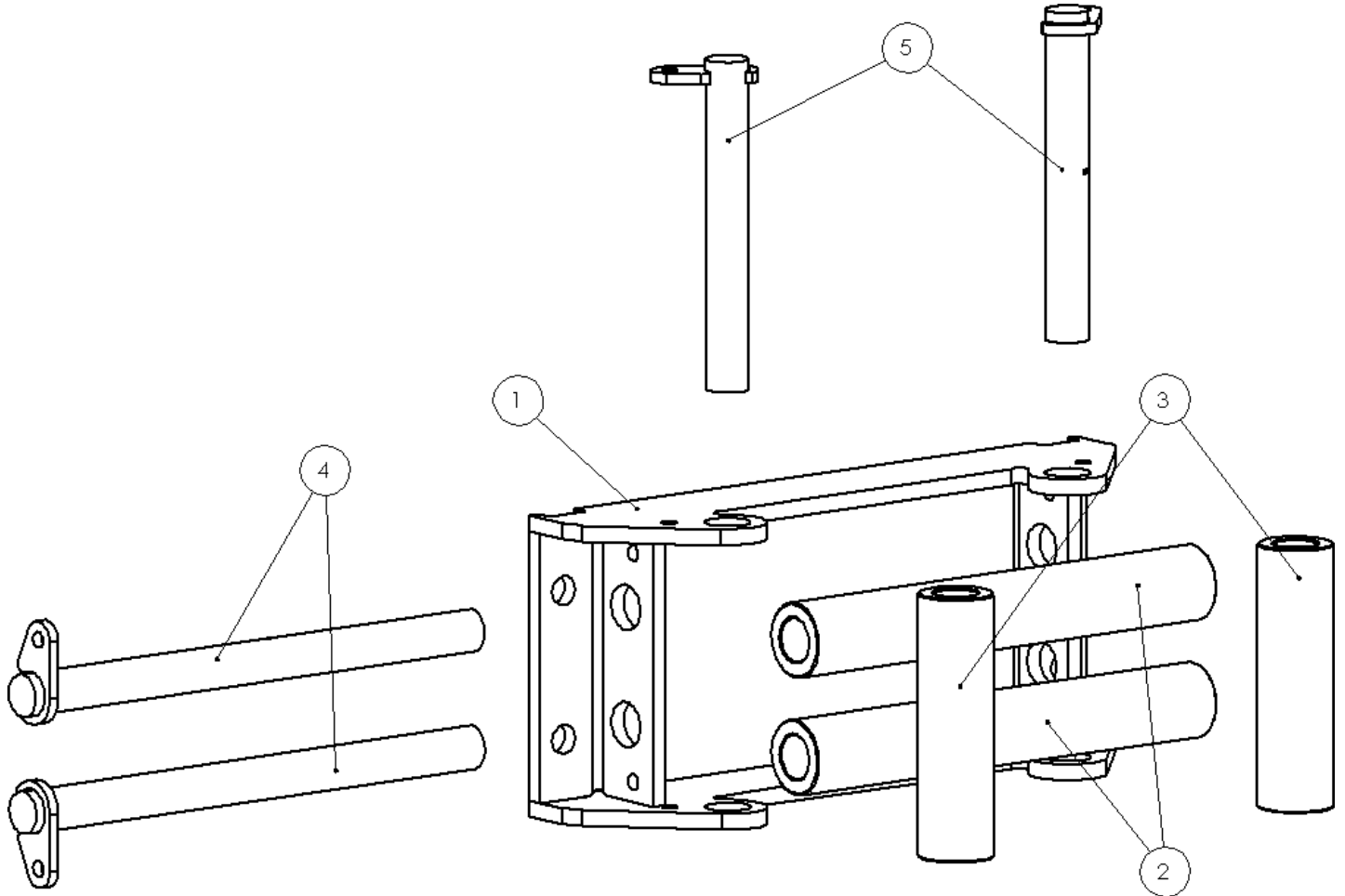
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MHFW-FA	FRAME ASSEMBLY	1
2	MHFW-WA	RUNVA 10HX-4.5T HYD. WINCH	1
3	MHFW-WF	WINCH FAILEAD (SUB-ASSEMBLY)	1
4	MSHH	SPRING HOSE HOLDER	1



PARTS ILLUSTRATIONS (Cont.)

Sub-Assemblies

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	WF-FA	FRAME ASSEMBLY	1
2	WF-002	LARGE ROLLER	2
3	WF-003	SMALL ROLLER	2
4	WF-PA1	LONG PIN ASSEMBLY	2
5	WF-PA2	SHORT PIN ASSEMBLY	2



MHFW-WF

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SUGGESTED ACTION
Winch does not turn .	-Insufficiently hydraulic system pressure. -Improper connections of hydraulic system, no oil into motor.	-Check relief valve regulate pressure. -Check all the plumbing fixtures according to the working principle chart. -Defective directional control valve.
Motor runs but Cable drum does not turn	- The clutch is Not engaged	-Turn the clutch to the high or lows peed position. If problem still persists, a qualified technician needed to check and repair.
Winch drum runs slowly or without normal power.	-Insufficient pressure or oil flow - Insufficient fluid in the system	-Bump is not suitable or defective. Change a new one or a suitable one -Check fluid level. Add fluid until full.
Winch brake not working normally.	-Hydraulic pressure remnants in brake while winch stop.	-Use bigger back oil pipe.
Winch cannot spool off wire rope with load smoothly.	-Wrong winch working direction.	- Only changing A→C1,B→C2 into A→C2,B→C1.
Winch braking malfunction.	-Winch working in wrong direction. -Brake slice worn or worn not.	-Change winch working direction looking is to clockwise look at the motor end - Simply readjusted the braking angle or replaces the new brake slice.

If you have problems not listed here please contact Martatch Attachments.

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Martatch Attachments **Warranty Policy**

All equipment sold by MARTATCH ATTACHMENTS is warranted to be free from defects of material and workmanship. The company will not be liable for indirect or consequential damages. The company's liability will be limited exclusively to replacing or repairing without charge, at its factory or elsewhere, at its discretion. Any material or workmanship defects that becomes apparent within one year from the date which the equipment was purchased. The buyer by the acceptance of the equipment will assume all liability for any damages that may result from the use or misuse by his employees or others.

All claims must be reported to a MARTATCH ATTACHMENTS representative prior to any repairs or modification.

All claims are subject to a MARTATCH ATTACHMENTS representative approval.

All claims must be accompanied by pictures of the faulty product.

MARTATCH ATTACHMENTS Warranty will not cover product that has been misused or modified in an unauthorized manner.

MARTATCH ATTACHMENTS Warranty will not cover normal wear on Attachments.

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