



MANUAL

User's Manual (Bedienaar/Operateur/Operator)
Machinery Directive 2006/42 / EC
EN13157:2004+A1

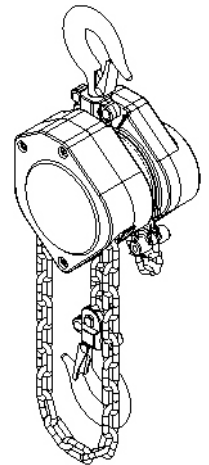


HT0025 & HT0050 ALU

Hand chain hoist ALU

Handkettingtakel ALU

Palan Manuel à Chaine ALU



△ WARNING

This equipment should not be installed, operated or maintained by any person who has not read and understood all the contents of this manual. Failure to read and comply with the contents of this manual can result in serious bodily injury or death, and/or property damage.

Nederlandstalige handleiding beschikbaar op eenvoudig verzoek

Manuel en Français disponible sur simple demande.

29/04/2023
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www.vabotec.com



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1. DEFINITIONS

This HT0025 ALU & HT0050 ALU Series chain hoist has been designed for vertically lifting and lowering loads, by hand, under normal atmospheric conditions of the work place.

- ⚠ DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- ⚠ WARNING** Indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used alert against unsafe practices.

2. SAFETY RULES

2.1 General

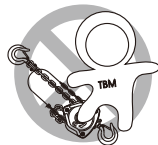
Failure to read and comply with the contents of this manual can result in serious bodily injury or death, and property damage. Although you may be familiar with this or similar equipment, it is strongly recommended that you read this manual before installing, operating or maintaining the product.

Equipment described herein should not be used in conjunction with other equipment unless necessary and required safety devices applicable to the system. The company shall have no liability to the client for any loss, damage or other claims for compensation arising from this type of misuse. Modifications to upgrade, rerate, or otherwise alter this equipment shall be authorized only by the original equipment manufacturer.

⚠ DANGER



① NEVER use a hoist for lifting, supporting or transporting people.



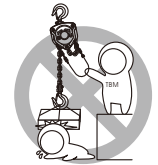
② NEVER use your foot to apply pressure on hoist.



③ NEVER use two or more hoists together to lift load beyond the rated capacity of hoist.



④ NEVER lift up load beyond the rated capacity of the hoist.



⑤ NEVER lift or transport loads over or near people.

2.2 Rules before use

- ⚠ CAUTION** Hoist operators shall be required to read this manual, the warning contained in this manual, instruction and warning labels on the hoist or lifting system. The operator shall also be required to be familiar with the hoist controls before being authorized to operate the hoist or lifting system.



- ⚠ WARNING** Do not use the hoist if there are deep nick, gouges or stretch on hook, contact our company or the distributor of the hoist and replace the hook with new parts.

⚠ CAUTION

1. Ensure every description of name plate is clear and visible.
2. Check the hoist before daily use according to the Daily Inspection.
3. Estimate the weight of load and choose the hoist of suitable rated capacity.
4. Ensure hooks not be deformed and rotates freely with no roughness.
5. Ensure the running of the brake system is normal.
6. Lubricate load chain according to recommendations of manufacturer

2.3 Rules for operation

⚠ WARNING



① NEVER use a twisted, kinked, damaged or stretched load chain.



② NEVER use the hoist chain as a sling.



③ NEVER use the hoist as a support.



④ NEVER support a load on the tip of the hook..



⑤ NEVER run the load chain over an sharp edge.



⑥ NEVER weld or cut a load suspended by a hoist.

⚠ WARNING

1. NEVER use damaged hoist or hoist that is not working properly.
2. NEVER swing a suspended load.
3. NEVER use the hoist chain as a welding electrode.
4. NEVER operate a hoist so far that the bottom hook touches the hoist body.
5. NEVER operate a hoist so far that the load chain pulls the anchorage.
6. NEVER operate a hoist if excessive noise occurs.
7. NEVER allow your attention to be diverted from operating the hoist.

2.4 Rules after use

- ⚠ CAUTION** Put down the load slowly and safely after lifting.

- ⚠ WARNING** NEVER suspend a load for an extended period of time.

2.5 Inspection and maintenance

- ⚠ CAUTION** Ensure the qualified service personnel inspect the hoist periodically.

- ⚠ WARNING** Do not attempt repair of a hook by heat treating, bending or attaching anything by welding. Such procedures will weaken and may cause failure of the hook.



2.6 Others



Always consult the manufacturer or your dealer if you plan to use a hoist in an excessively corrosive environment (salt water, sea air and/ or acid, explosive environment or other corrosive compounds, etc.).



NEVER use a hoist which has been taken out of service until the hoist has been properly repaired or replaced.

3. MAIN SPECIFICATION

3.1 Operation conditions

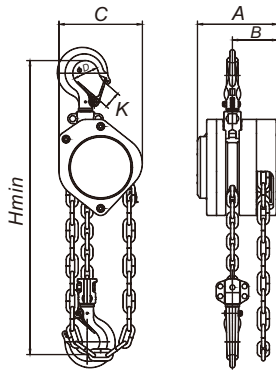
Allowable ambient conditions

Operation temperature: -10° C to +60° C

Operation humidity: 100%RH or less, this product should not be used under water.

Non-asbestos material: Friction plates are made of asbestos free material.

3.2 Technical specification



Model		HT0025ALU	HT0050ALU
Capacity		250kg	500kg
Lifting height	M	3	3
Running test load	KN	3.1	6.13
Effort required to lift rated load	N(kg)	202(20.5)	213(21.5)
Chain size x Strands of load chain	mm	4.0x1	5.0x1
Hand Chain	mm	3x15	
Moving distance of load sheave with one meter lifting	mm	27.5	38.5
Net weight	kg	3.5	5.3
Extra weight per meter of extra lift	kg	0.68	0.88
Dimension mm	A	99.5	113.5
	B	59	64
	C	100	118
	Hmin	260	320
	D	∅34	∅34
	K	24	24
Package size	cm	260x140x125	290x160x140



4. OPERATION

4.1 Introduction

This hoist has been designed for vertically lifting and lowering loads, by hand, under normal atmospheric conditions of the work place. However, since dealing with heavy loads may involve unexpected danger, all the Safety Rule must be followed.

Safety Working Environment: the operator must be aware of the following points while using the hoist.

- (1) The operator must have a clear and unobstructed view of the entire travel area before operating the hoist. When not possible, a second or more persons must serve as scouts in the nearby area.
- (2) The operator must check the entire travel area is safe and secure before operating the hoist.

4.2 Features

Face the hand chain wheel side of the hoist, pull hand chain clockwise to raise the load and pull hand chain counter clockwise to lower the load.

The clicking sound of the pawl when load is being raised indicates normal operation.

5. INSPECTION

5.1 General

There are two types of inspection, the Daily Inspection performed by the operator before using the hoist, and the more thorough Periodic Inspection performed by qualified service personnel who have the authority to remove the hoist from service.

5.2 Daily inspection

Item	Method	Discard criteria	Remedy
Name plate	Check visually	Every description should be clear and visible.	Replace the name plate.
Function		Face the hand chain wheel side of the hoist, pull hand chain clockwise to raise the load and pull hand chain counter clockwise to lower the load. The clicking sound of the pawl when load is being raised indicates normal operation..	Repair or replace as necessary.
Hook	Check visually	No wear, deformation or damage, and the swivels should rotate freely.	Replace
Hook latches	Check visually	No deformation and harmful flaws.	Replace the part.
Load chain	Check visually	No obvious rust or corrosion. Lubrication must be on surface.	Oil the load chain, replace the load chain.
Other	Check visually	No missing nuts and/or split pins. No flaws or damages on the hoist surface. No missing and/or twist chain stopper.	Replace the parts.

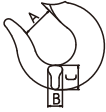
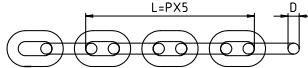
5.3 Periodic inspection

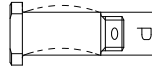
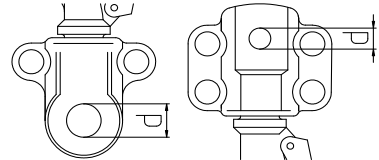
Periodic inspection shall be made at the interval shown below and should the given procedures.

NORMAL (Normal use): Six monthly inspection


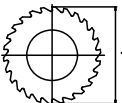
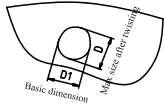
HEAVY (Frequent use): Quarterly inspection

SEVERE (Excessively frequent use): Monthly inspection

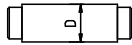
Item	Method	Discard criteria	Remedy																							
1. Hook assembly 1.1 Stretch and wear 	Measure	Measure the dimension A when new. <table border="1"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="3">B (mm)</th> <th colspan="2">C (mm)</th> </tr> <tr> <th>Normal</th> <th>Standard</th> <th>Discard</th> <th>Standard</th> <th>Discard</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>25.5</td> <td>10</td> <td>≤9.5</td> <td>13.9</td> <td>≤13.2</td> </tr> <tr> <td>0.5</td> <td>25.5</td> <td>10.5</td> <td>≤9.5</td> <td>16</td> <td>≤15.2</td> </tr> </tbody> </table> *These values are nominal since the dimension is not controlled to a tolerance. The A dimension should be measured when the hook is new. The A dimension should not be greater than 1.05 times that measured and recorded at the time of purchase.	Capacity (t)	B (mm)			C (mm)		Normal	Standard	Discard	Standard	Discard	0.25	25.5	10	≤9.5	13.9	≤13.2	0.5	25.5	10.5	≤9.5	16	≤15.2	Replace
Capacity (t)	B (mm)			C (mm)																						
	Normal	Standard	Discard	Standard	Discard																					
0.25	25.5	10	≤9.5	13.9	≤13.2																					
0.5	25.5	10.5	≤9.5	16	≤15.2																					
1.2 Flaw	Check visually	Should be free from significant rust, weld splatter, deep nick, or gouges.	Replace																							
1.3 Rotate	Check visually and function	Should rotate freely with no roughness.	Replace																							
1.4 Hook yoke	Check visually and function	Should not slack or miss rivets, nuts or bolts.	Replace																							
1.5 Hook latch	Check visually	Proper positioning and smooth working.	Replace																							
2. Load chain 2.1 Wear 	Measure	<table border="1"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="2">L (mm)</th> <th colspan="2">D (mm)</th> </tr> <tr> <th>Standard</th> <th>Discard</th> <th>Standard</th> <th>Discard</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>60</td> <td>≥62</td> <td>4</td> <td>≤3.6</td> </tr> <tr> <td>0.5</td> <td>75</td> <td>≥77.4</td> <td>5</td> <td>≤4.5</td> </tr> </tbody> </table>	Capacity (t)	L (mm)		D (mm)		Standard	Discard	Standard	Discard	0.25	60	≥62	4	≤3.6	0.5	75	≥77.4	5	≤4.5	Replace				
Capacity (t)	L (mm)			D (mm)																						
	Standard	Discard	Standard	Discard																						
0.25	60	≥62	4	≤3.6																						
0.5	75	≥77.4	5	≤4.5																						

2.2 Flaws, deformations	Check visually	Should be free from twist or harmful flaw.	Replace																			
2.3 Rust	Check visually	Should be free from obvious rust.	Remove rust, oil the chain																			
Item	Method	Discard criteria	Remedy																			
3. Bottom hook pin 3.1 Twist, deformations 	Check visually, measure	Replace the hook pin if there is obvious deformation, and the screw thread of hook pin should be free of flaw and deformation. Measure <table border="1"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="2">D (mm)</th> </tr> <tr> <th>Standard</th> <th>Discard</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>5</td> <td>≤4.6</td> </tr> <tr> <td>0.5</td> <td>6</td> <td>≤5.6</td> </tr> </tbody> </table>	Capacity (t)	D (mm)		Standard	Discard	0.25	5	≤4.6	0.5	6	≤5.6	Replace								
Capacity (t)	D (mm)																					
	Standard	Discard																				
0.25	5	≤4.6																				
0.5	6	≤5.6																				
3.2 Rust	Check visually	Should be free from obvious rust.	Remove rust, oil the pin																			
4. Top/Bottom hook pin hole 4.1 Deformations 	Measure	<table border="1"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="4">Diameter (mm)</th> </tr> <tr> <th colspan="2">Bottom hook pin hole</th> <th colspan="2">Top hook pin hole</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>5.5</td> <td>≥5.9</td> <td>9</td> <td>≥9.4</td> </tr> <tr> <td>0.5</td> <td>6.5</td> <td>≥7</td> <td>10.5</td> <td>≥11</td> </tr> </tbody> </table>	Capacity (t)	Diameter (mm)				Bottom hook pin hole		Top hook pin hole		0.25	5.5	≥5.9	9	≥9.4	0.5	6.5	≥7	10.5	≥11	Replace hook assembly
Capacity (t)	Diameter (mm)																					
	Bottom hook pin hole		Top hook pin hole																			
0.25	5.5	≥5.9	9	≥9.4																		
0.5	6.5	≥7	10.5	≥11																		



5. Broke system			Remove rust, oil the parts, or replace.											
5.1 Rust	Check visually	All parts should be free from rust.												
5.2 Flaw on friction disc	Check visually	Should be free from harmful flaw.	Replace											
5.3 Wear on friction disc	Measure	<table border="1"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="2">Thickness of friction disk (H)</th> </tr> <tr> <th>Standard</th> <th>Discard</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>3mm</td> <td>≤2.5mm</td> </tr> <tr> <td>0.5</td> <td>1.5mm</td> <td>≤1.2mm</td> </tr> </tbody> </table>	Capacity (t)	Thickness of friction disk (H)		Standard	Discard	0.25	3mm	≤2.5mm	0.5	1.5mm	≤1.2mm	Replace
Capacity (t)	Thickness of friction disk (H)													
	Standard	Discard												
0.25	3mm	≤2.5mm												
0.5	1.5mm	≤1.2mm												
5.4 Flatness of friction disc	Check clearance with gauge.	Clearance should be uniform. Internal part should not be thicker than external part.	Replace											
5.5 Pawl 	Check visually	Should be free from wear on the surface.	Replace											
5.6 Pawl spring	Check visually	Should be free from deformation	Replace											
5.7 Ratchet disc 	Measure	<table border="1"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="2">A dimension (mm)</th> </tr> <tr> <th>Standard</th> <th>Discard</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>43</td> <td>≤41.5mm</td> </tr> <tr> <td>0.5</td> <td>55</td> <td>≤53mm</td> </tr> </tbody> </table>	Capacity (t)	A dimension (mm)		Standard	Discard	0.25	43	≤41.5mm	0.5	55	≤53mm	Replace
Capacity (t)	A dimension (mm)													
	Standard	Discard												
0.25	43	≤41.5mm												
0.5	55	≤53mm												
6. Lifting system														
6.1 Load sheave	Check visually	Should be free from large wear or deformation.	Replace											
6.2 Gear	Check visually	Tooth should be free from large wear or flaw.	Replace											
6.2 Gear box	Check visually	Should be free from wear or deformation.	Replace											
6.3 Hand wheel	Check visually	No large wear or no deformation on the surface of hand chain pocket. Turn and check if it touches the cover.	Replace											
7. Body														
7.1 Top hook pin hole on the side plate 		<table border="1"> <thead> <tr> <th rowspan="2">Capacity (t)</th> <th colspan="2">Measure the dimension D</th> </tr> <tr> <th>D1 (Standard)</th> <th>D (Discard)</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>8.2</td> <td>≤8.6mm</td> </tr> <tr> <td>0.5</td> <td>10.3</td> <td>≤10.8mm</td> </tr> </tbody> </table>	Capacity (t)	Measure the dimension D		D1 (Standard)	D (Discard)	0.25	8.2	≤8.6mm	0.5	10.3	≤10.8mm	Replace
Capacity (t)	Measure the dimension D													
	D1 (Standard)	D (Discard)												
0.25	8.2	≤8.6mm												
0.5	10.3	≤10.8mm												



7.2 Top hook pin 	Measure	<table border="1"> <thead> <tr> <th>Capacity(t)</th> <th>Measure the external diameter of the top hook pin</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>≤7.5mm</td> </tr> <tr> <td>0.5</td> <td>≤9.5mm</td> </tr> </tbody> </table>	Capacity(t)	Measure the external diameter of the top hook pin	0.25	≤7.5mm	0.5	≤9.5mm	Replace
Capacity(t)	Measure the external diameter of the top hook pin								
0.25	≤7.5mm								
0.5	≤9.5mm								
7.3 Guide plate	Check visually	Should be free from wear or deformation.	Replace						
7.4 Chain stopper ring	Check visually	Should be free from wear or deformation.	Replace						
8. Function									
8.1 Lifting and lowering	Lift and lower a light load.	No abnormal difficulty in lifting and lowering.	Overhaul and service.						
8.2 Brake	Lift and lower a light load.	Confirm that none of the problems listed below occur during lifting and lower: (1) Lifting impossible. (2) Load slips down slowly. (3) Load falls when the operator releases the hand lever.	Overhaul and service.						

6. MAINTENANCE

6.1 General

Incorrect maintenance may result in serious bodily injury or death. Only trained and competent personnel could maintain this equipment.



After performing any maintenance on the hoist, always test the hoist according to this manual before returning to service.



- (1) Always take care hand or clothes will not be caught in a chain, idle sheave or other moving parts.
- (2) Never operate the hoist when maintenance.
- (3) Always inspect all the items if abnormal difficulty in lifting and lowering.
- (4) Never perform maintenance on the hoist while it is supporting a load.
- (5) Always wipe off all dirt and water.
- (6) Always store the hoist in dry and clean place.

6.2 Lubrication

Make sure to lubricate load chain, hook latches, top/bottom hook pin and hook yoke, etc.. Load chain is one of the important parts of a hoist, it is should be lubricated well with machine oil.



- (1) Lubricate load chain weekly, or more frequently, depending on severity of service.
- (2) Lubricate load chain more frequently than normal in a corrosive environment.

Notes: Recommended lubricant of this product is lithic grease #3.



7. TROUBLESHOOTING

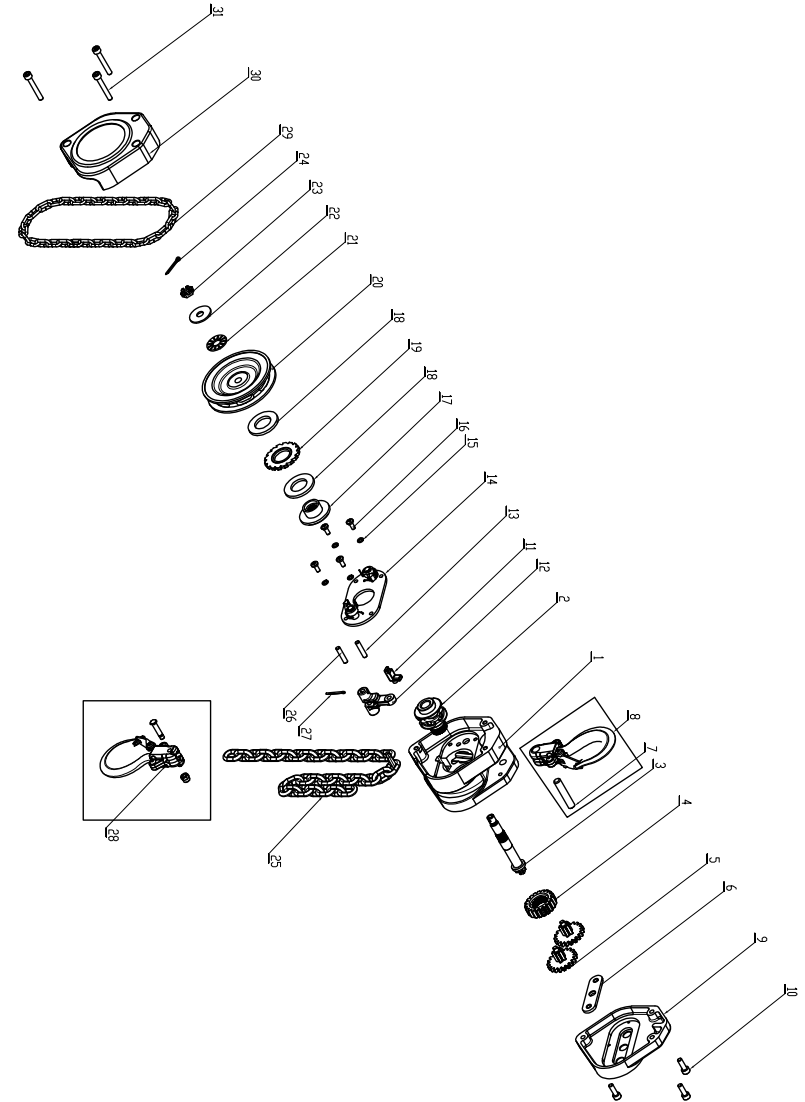
Trouble	Cause and explanation	Remedy
The pawl makes the proper clicking sound but fails to lift the load.	Worn friction plates. When used at high frequency without performing maintenance regularly, the friction plates will wear down. This will create gaps between the friction disc and hand wheel and cause the brake to slip.	Disassemble and replace the friction plates.
The pawl produces absolutely no sound and fails to lift the load.	The pawl has been improperly assembled. If the pawl is assembled facing the other way, or otherwise assembled incorrectly, it will not cleanly mesh with the ratchet disc.	Disassemble and then reassemble parts correctly.
	The pawl is not moving smoothly. Unless maintenance is performed regularly, dirt will adhere to the grease on the pawl and pawl shaft. Movement will become sluggish and the pawl will remain stuck in the kicked out position.	Disassemble and then reassemble parts correctly.
The chain is tight when lifting, even without a load. (A squeaking noise can be heard at times.)	Worn gear teeth or worn bearing. Unless maintenance is performed regularly, greased parts will dry, resulting in wear and damaged, and improper meshing of gears.	Disassemble and replace the pinion, load gear, gear case, side plate and ball bearing.
Improper lowering or the chain is extremely tight when lowering.	The brake is too tight. Due to shock during work, or because the load was left suspended for a long period of time, the brake tightened.	Free the brakes forcibly by jerking the hand chain.
	The brake is rusted. Unless maintenance is performed regularly, rusting will occur.	Disassemble and replace parts where necessary.
The hoist drops the load when the instant lowering is started.	The braking surface is dirty. During assembly, the braking surface must be wiped cleaned of dirt.	Disassemble and then reassemble parts correctly.
	The braking surface is oily. The braking surface must not be allowed to become soiled with grease or machine oil because it is a dry-type brake.	Disassemble and then reassemble parts. Do not oil or grease the braking surface or friction plates.
Load slipping	The braking surface is oily. The braking surface must not be allowed to become soiled with grease or machine oil because it is a dry-type brake.	Disassemble and then reassemble parts. Do not oil or grease the braking surface or friction plates.
	The braking surface is dirty. During assembly, the braking surface must be wiped cleaned of dirt.	Disassemble and then reassemble parts correctly.



8. PARTS LIST

8.1 Exploded View Drawing

HT ALU SERIES CHAIN HOIST 0.25T-0.5T





8.2 Parts list

No.	Parts Name	No.	Parts Name
1	Body	17	Brake seat
2	Load sheave	18	Friction disc
3	Drive shaft	19	Ratchet disc
4	Splined gear	20	Hand chain wheel
5	Disc gear assembly	21	Thrust bearing
6	Fixed plate	22	Washer
7	Top hook shaft	23	Hexagon castle nut
8	Top hook assembly	24	Split pin
9	Gear case assembly	25	Load chain
10	Hexagon head screw	26	Tail chain pin
11	Stripper	27	Split pin
12	End anchor	28	Bottom hook assembly
13	Tail chain pin	29	Hand chain
14	Brake side plate	30	Hand chain cover
15	Spring washer	31	Hexagon head screw
16	Screw		

EG VERKLARING VAN OVEREENSTEMMING
DÉCLARATION DE CONFORMITÉ
DECLARATION OF CONFORMITY
EG-KONFORMITÄTSEKLRÄRUNG



Naam van fabrikant
Nom du fabricant
Business name of the manufacturer
Firmenbezeichnung des Herstellers

VABOTEC Bvba

Serie nummer-Numero de serie
Serialnumber-Serienummer

Adres van de Fabrikant
l'adresse du fabricant
Address of the manufacturer
Adresse des Herstellers

Starrenhoflaan 33
2950 Kapellen
Antwerpen
Belgium

- HIERBIJ VERKLAREN WIJ DAT HET PRODUCT AAN ALLE GESTELDE EISEN, CONFORM DE MACHINERICHTLIJNEN **2006/42/EG** VOLDOET.
- Par la présente nous déclarons que le produit mentionné ci-dessous est conforme à tous les exigences de la Directive Machine **2006/42/CE**.
- Hereby we declare that the product listed below complies with all requirements of the Machinery Directive **2006/42 / EC**.
- Hiermit erklären wir, dass die unten aufgeführten Produkt alle Anforderungen der Maschinenrichtlinie **2006/42 / EG** entspricht.

Technisch dossier houder
Titulaire de la Fiche technique
Compiled the technical file:
Complet technische Datenblatt ersteller

VABOTEC Bvba

Getest in overeenstemming met de volgende norm:

Productnaam
Nom du produit
Product name
Produktbezeichnung

HANDKETINGTAKEL
PALAN à MAIN
HAND CHAIN HOIST
HANDKETTENZUG

Testé conformément aux normes ci-dessous:
Tested in accordance with below standards
Ent spreken folgenden Normen geprüft

EN13157:2004+A1

Commerciële naam
Nom commercial
Commercial name
Handelsbezeichnung



Datum
Date
Date
Datum

4/05/2023
Kapellen



Director
Patrick Van Bogget

Model-Modèle-Model-Modell

HT0025 ALU
HT0050 ALU
250kg & 500kg

Nota-Note-Note-Hinweis.

Deze verklaring verliest haar geldigheid, wanneer technische en operationele veranderingen op het apparaat worden gemaakt zonder de toestemming van de fabrikant.

Cette déclaration devient invalide, si des modifications techniques ou opérationnelles sont introduits sans le consentement des fabricants.

This declaration becomes invalid, if technical or operational modifications are introduced without the manufacturers consent.

Diese Erklärung verliert ihre Gültigkeit, sollten ohne die Zustimmung des Herstellers technische oder betriebsbezogene Veränderungen am Gerät vorgenommen werden.

SWL

Type-Type-Type-Typ

PRO-LIFT HT ALU