

# mottimaster<sup>®</sup> S

## Operation and maintenance manual

**REPARK**  
WWW.REPARK.LV



**HOLMET**  
Challenging Metals



## Table of contents

1. GENERAL INFORMATION .....	3
2. EC DECLARATION OF CONFORMITY .....	4
3. OPERATION AND MAINTENANCE MANUAL .....	5
4. TRANSPORTING, OPERATING AND STORING.....	6
Transporting .....	6
Storing.....	6
Commencing operation .....	6
Operating the machine .....	7
Starting the machine.....	7
Reversing the machine .....	7
Stopping the machine.....	8
5. MAINTENANCE AND ADJUSTMENT INSTRUCTIONS.....	9
Maintenance targets .....	9
Daily maintenance.....	9
Lubrication points .....	9
Adjusting blade clearance .....	10
Detaching the counter blade.....	10
Detaching the cutting blades .....	10
6. CONVEYOR .....	11
Belt adjustment .....	11
Detaching the conveyor .....	11
7. SAFETY INSTRUCTIONS.....	12



# 1. GENERAL INFORMATION

## To the operator:

This device was designed and manufactured for processing firewood. Mottimaster S simultaneously cuts and splits wood . The maximum diameter of wood to be processed is 22 cm.

With hard wood types, such as oak, rowan, beech, maple or similar, the maximum diameter is 15 cm. The length of the processed firewood can be adjusted to 25, 33, 40, 50 and 60 cm. Do not adjust the length while the machine is running.

Before operating the device, the operator must study these instructions concerning the machine's structure, operation and maintenance. The device will perform safely and at optimal capacity when it is used in accordance with the instructions in this manual.

The device is intended for outdoor use in conditions between -30 °C and +30 °C. Do not wash the device with a pressure washer. If sufficient care is exercised, the machine can be washed by splashing water on it.



These instructions were prepared to help the operator to remember the principles of safe operation.



Important: After reading this manual, store it in a safe place for subsequent use. Should you lose this manual, immediately order a new copy from the manufacturer.

## 2. EC DECLARATION OF CONFORMITY

HOLMET OY

Keskikankaantie 27, FI-15860 HOLLOLA, FINLAND hereby declares that the machine Mottimaster S that has been brought to the market conforms to the Machinery Directive 98/37/EC, to related amendments and to the applicable national decrees (Government Decree 1314/1994). The following unified standards have been applied to the design of the machinery: SFS-EN ISO 12100.

Hollola, 1 April 2011

---

Reima Niemeläinen  
Factory Manager

### 3. OPERATION AND MAINTENANCE MANUAL

In this manual, safety-related issues are indicated with the following symbols.

#### **Warning symbol**



The text highlighted by this symbol always includes a safety-related warning. Study the text carefully.

#### **General caution symbol**



The text highlighted by this symbol always includes information related to the safe operation and maintenance of the device. Study the text carefully.

## **4. TRANSPORTING, OPERATING AND STORING**

### ***Transporting***

The machine can be transported with the conveyor raised in the transport position. The machine must not be towed on public roads, unless it is registered.

The conveyor must always be locked to the machine's body with a mechanical lock. Transporting the machine by means of the winch or with the conveyor lowered is strictly prohibited. If necessary, the device can also be lifted by the lifting lug.

The machine weighs 630 kg.

### ***Storing***

The device can be stored outdoors. For longer periods of storage, it is advisable to clean and lubricate the machine and to cover it appropriately. Careful storage ensures that the machine lasts longer and is easier to take back into use. When operation is initiated after a period of storage, the machine must be subjected to an inspection, and any possible snow and ice must be removed before starting the device. Special attention must be paid to the conveyor belt. Ensure that the belt has not frozen to the base.

### ***Commencing operation***

Before beginning operation, study this operation and maintenance manual carefully.

Ensure that all guards (7 pcs) are in place.

Ensure that the machine's screws are properly tightened.

Lubricate the machine according to the instructions.

The machine can be powered by mains electricity or by a sufficiently powerful generator. The generator's output must be suitable for the device. If necessary, ask the manufacturer for advice on how to connect a suitable generator to the device. When the machine is in operation, it must be level and supported by its wheels, the front wheel and the rear support.



## ***Operating the machine***

Position the device on a sturdy, solid base and ensure that it cannot move.

Before commencing operation, ensure that all guards are in place and all bolts and nuts have been tightened. Before use, the operator must study this operation manual. The operator must ensure that no children or other unauthorised people can access the working area during operation. The use of protective gloves is recommended when operating the machine. Ensure that the clearance between the cutting blade and the counter blades is no more than 2 mm. Feed timber into the machine through the opening in the side by means of the feed roller. If necessary, you can split the wood into four pieces by turning it 90° between cuts.

If the conveyor stops, switch off the machine and check the correct tension of the conveyor belt according to the instructions.

During operation, ensure that the wood chips generated by the splitting process do not get near the chains by regularly removing the wood chips that accumulate under the machine.

Neglecting to do so may damage the chain or sprocket. When feeding the last piece of wood and where it is shorter than the length of the feed opening guard, release your grip on the wood when it is being cut. The piece of wood may be pressed against the upper section of the guard.

## **Starting the machine**

Turn the power switch to the ON position and press the START button to start the machine.

## **Reversing the machine**

Reversing the machine is necessary, for example, if the machine gets jammed or it fails to cut the wood properly. Before reversing the device, clear the conveyor of any possible wood as it may damage the equipment.

- With the device stopped, turn the power switch ON and press the REVERSE button. The device will only run in reverse for as long as the REVERSE button is pressed.
- When the device is running, press the STOP button and then hold down the REVERSE button.

## Stopping the machine

Press the emergency stop button or the stop button.



The conveyor moves 15 to 20 cm after the emergency stop button or the stop button has been pressed.

In overload situations, the machine stops because the motor's circuit breaker trips. If this occurs, wait approximately five minutes for the machine to cool down and for the circuit breaker to return to normal status. The circuit breaker is restored automatically. If the circuit breaker does not trip normally and the machine slowly stalls to a halt, check the following:

- If you are using ceramic disposable fuses, are all the fuses in the fuse panel intact? You can check this by replacing the old fuses with ones that you know are operational. Please note that poor fuse contact prevents the machine from operating. If necessary, contact the manufacturer or a professional electrician for assistance.
- The device requires 3 x 16A fuses. If ceramic fuses are used, the fuses must have a slow tripping time.
- If you are using automatic fuses, have the fuse panel fuses tripped?
- Does the electrical system in your building have sufficient capacity? If several suitable electrical sockets are available, try the one closest to the switchboard. If the device works, there is something wrong with the electrical system. Contact a professional electrician.
- The electrical cord you are using may be insufficient. If the conducting distance is long (over 20 metres), the conductor surface must be increased.
- If your electrical system features fault current protection, it will most likely trip because the Mottimaster S includes a short circuit motor. If your electrical system includes fault current protection, contact an electrician to remedy the problem.

In other situations or when you need information on the above problems, contact the manufacturer. If wood begins to pile up inside the machine, the machine must be stopped before clearing the blockage.

## 5. MAINTENANCE AND ADJUSTMENT INSTRUCTIONS

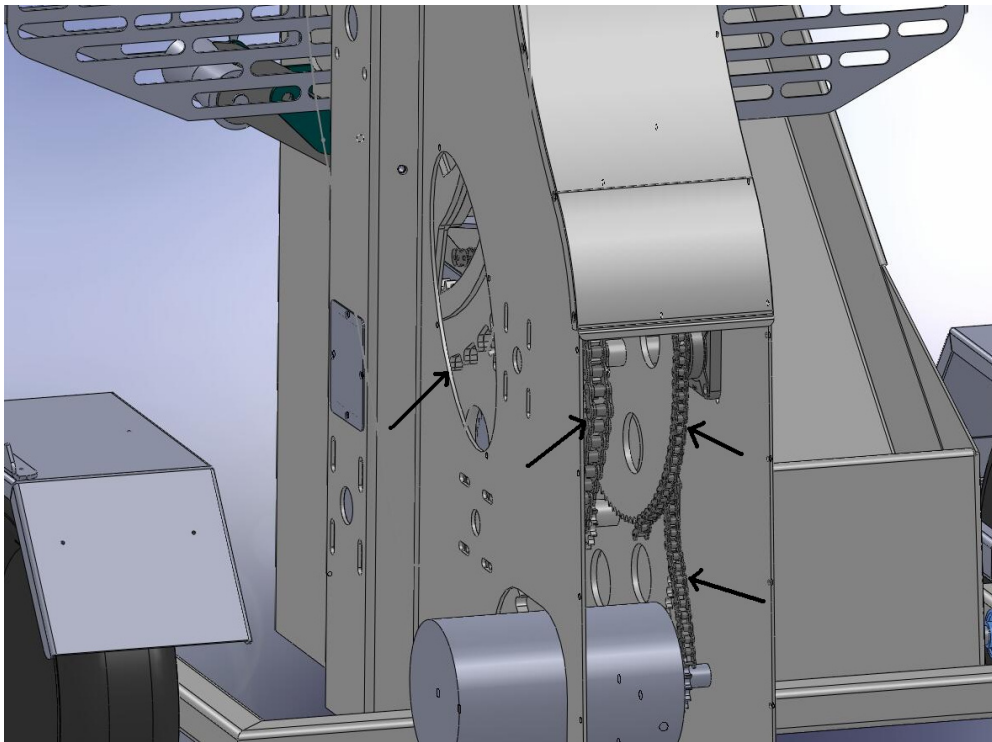
### ***Maintenance targets***



Disconnect the electrical cord from the socket before performing any maintenance, adjustment or repair measures.

### ***Daily maintenance***

In private use, roller chains must be lubricated twice a year or once every 100 hours of use. Always check the chain tension before commencing work. The chains can be adjusted by moving the gear shafts. Spray Vaseline or another suitable lubricant should be used for lubrication.



### ***Lubrication points***

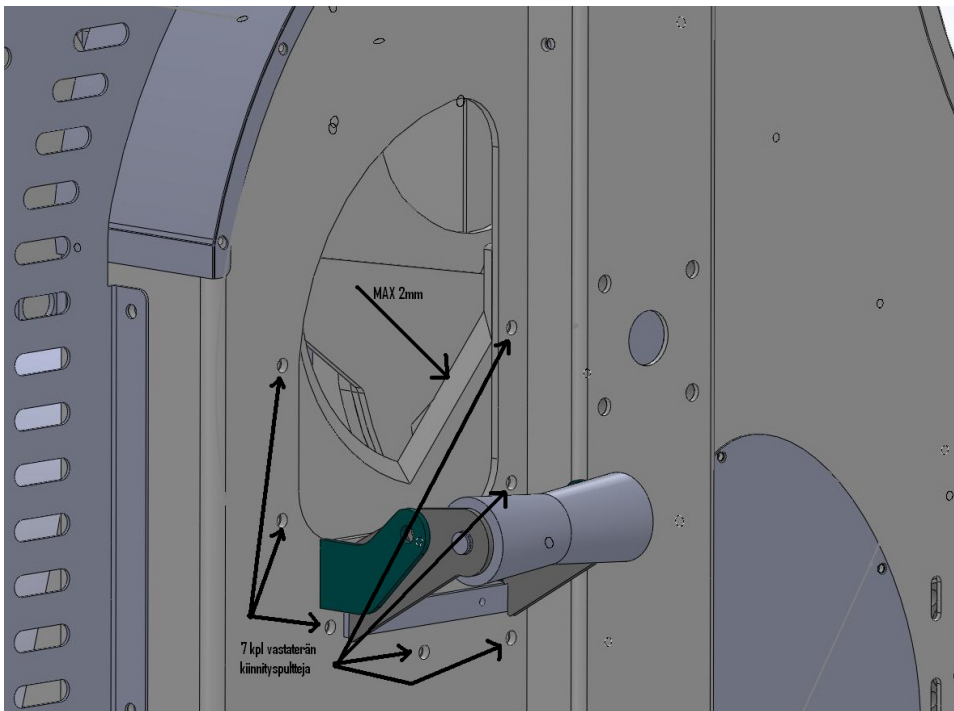
The device bearings are permanently lubricated, so they do not require lubrication. If the machine is subjected to particularly heavy use, it may be necessary to lubricate the bearings. However, this is only necessary in exceptional conditions, for example, when the machine is rented out constantly.

## ***Adjusting blade clearance***

In order to ensure sufficient work safety and cutting power, the clearance between the cutting blade and counter blade must always be less than 2 mm. Dull blades must be sharpened and worn out blades must always be replaced with new ones.

If the blade clearance suddenly increases, first check bolt tightness and machine condition. The optimal way to sharpen the blades is to use an angle grinder equipped with a small lamellar disc. The blades can also be sharpened by sending them to the manufacturer.

If the blade clearance is less than 2 mm, the clearance does not need to be adjusted.



## ***Detaching the counter blade***

The counter blade can be detached from the machine by opening the seven bolts that fasten the blade to the machine's body. The blade wheel must be in the correct position in order for the bolts to be removed without removing the blade wheel.

Position the blade wheel correctly by rotating the device with the electrical motor. Then, press the emergency stop button and disconnect the electrical cord from the socket. Once this is done, you can run the machine manually by opening the maintenance hatch and rotating a suitable shaft to get the blade wheel in the correct position. Removal of the counter blade is only necessary when the blade is worn out. Once the feed guard has been removed, the counter blade can be sharpened with a small angle grinder. If you have doubts about your ability to do this, send the machine to the manufacturer for servicing.

## ***Detaching the cutting blades***

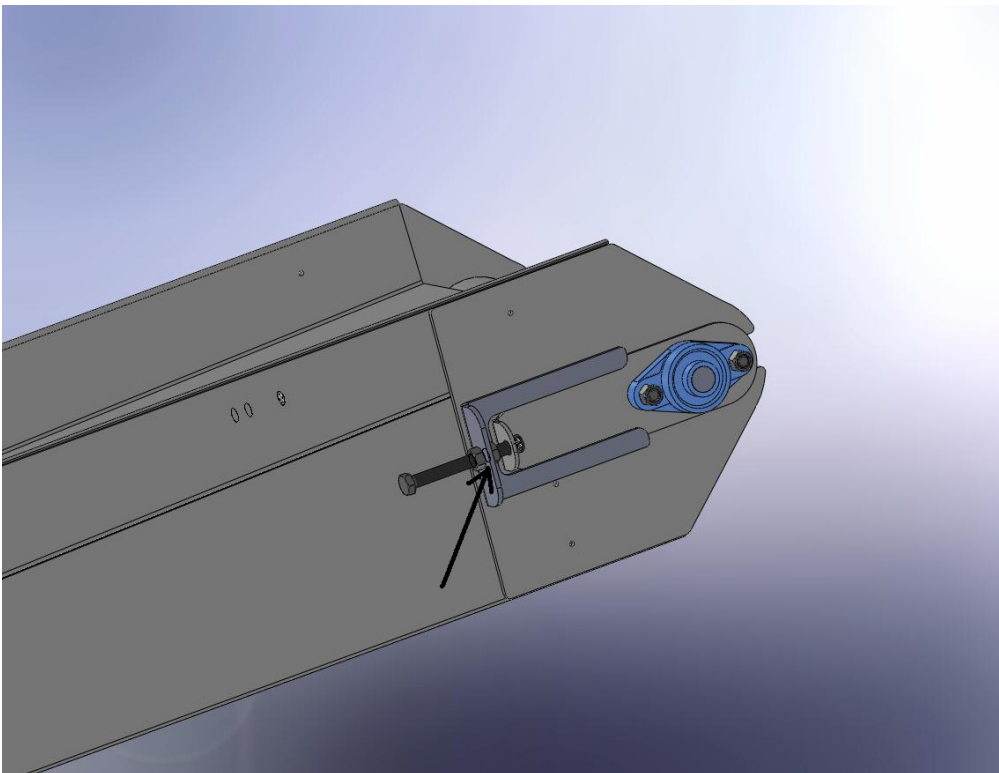
To replace the cutting blades, remove the entire blade wheel. The blade wheel must be replaced by the manufacturer.

## 6. CONVEYOR

### ***Belt adjustment***

It is recommended that the tension and path of the belt is checked each time before operating the machine. This extends the belt's lifespan. Correct belt tension is important. If the belt is loose, it wears out rapidly. On the other hand, an excessively tight belt wears out the conveyor bearings quicker than normal.

The conveyor belt can be adjusted by tightening or loosening the bolts at the end of the conveyor. The belt tension is correct when you can stop the belt with your hand whilst the conveyor is running. To ensure belt durability, it is important that the belt's path is correctly aligned in the conveyor. If the belt travels to the left (viewed from the end of the conveyor), tighten the left-hand bolt or loosen the right-hand bolt slightly. If the belt travels to the right, do the opposite.



### ***Detaching the conveyor***

It is only necessary to remove the conveyor if its mechanical structure has been damaged.

The conveyor belt can be removed and replaced with a new one with the conveyor still attached to the machine.

To remove the belt, run the machine until you see the seam in the belt. Open the bolts holding the belt together and remove the belt. Remember to adjust the new belt.

## 7. SAFETY INSTRUCTIONS

Do not operate the machine or provide it to a third party before the intended operator has been introduced to the operation and safety instructions.

When feeding the last piece of wood and when the piece is shorter than the length of the feed opening guard, release your grip on the wood when it is being cut. The piece of wood may be pressed against the upper section of the guard.

Beware of the rotating blade. Never insert your hand into the feed opening or inside the machine.

Disconnect the electrical cord for maintenance and adjustment measures.

Do not remove guards unless they need to be detached for maintenance.

Do not allow children, animals or unauthorised people near the machine. The blade may move even when the machine is not running and cause serious injury.

Always check that bolts are tight when commencing operation.

Before use, check the condition of electrical cords, housings and buttons. If they are damaged, do not connect the machine to the electrical network.

Assume a stable stance when feeding wood into the machine.

At the moment of cutting, the wood must be pressed against the counter blades and the feed support.

Operate the machine on a solid and even surface. Keep the work area clean.

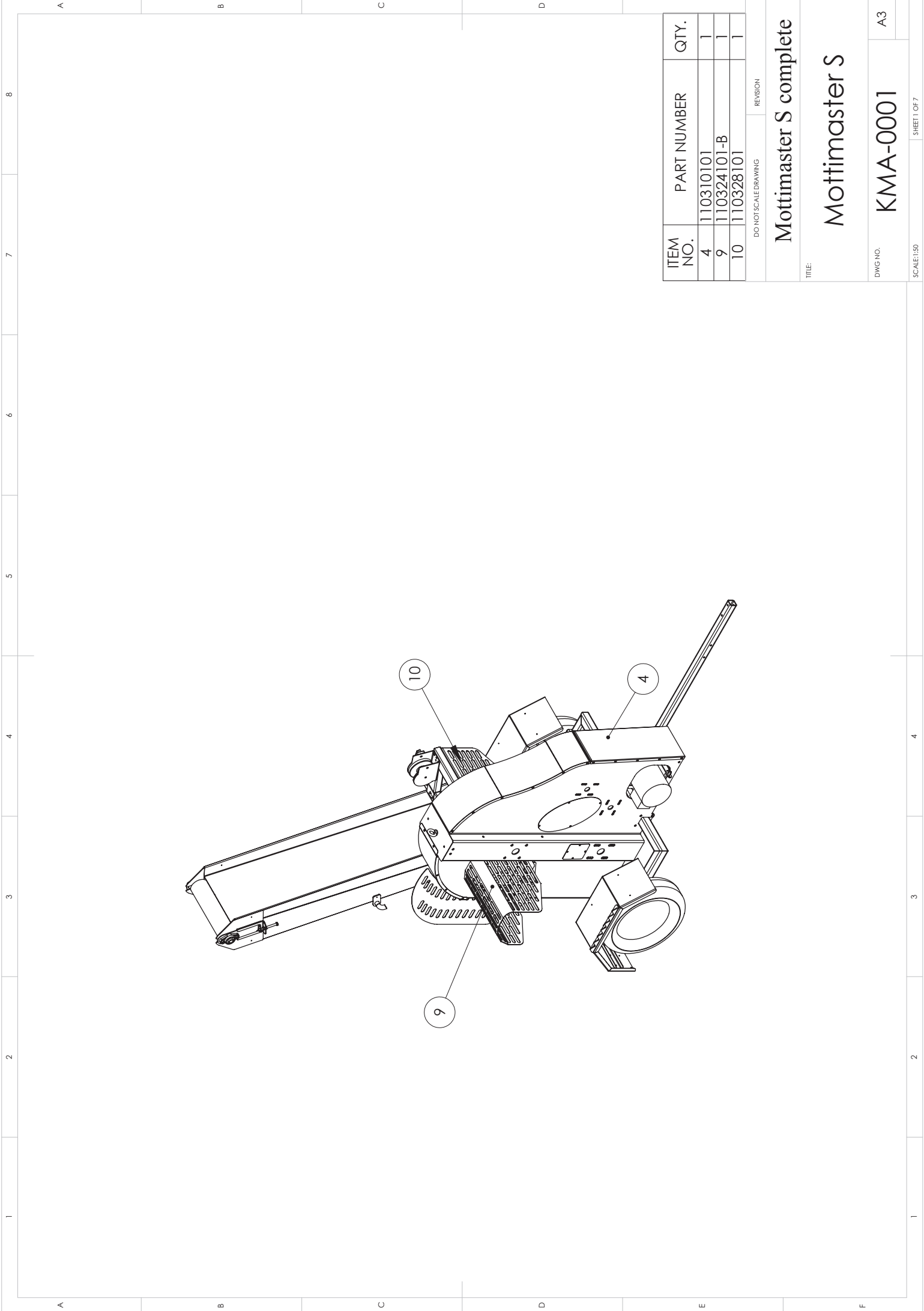
Clear the underside of the machine sufficiently often to ensure that the chips do not get caught in the roller chains.

When moving the machine, the conveyor must be in the transport position.

Exercise extreme caution when transporting the machine on bumpy roads.

Do not transport the machine on public roads.

The maximum towing speed in closed areas is 40 km/h.



ITEM NO.	PART NUMBER	QTY.
4	110310101	1
9	110324101-B	1
10	110328101	1

DO NOT SCALE	DRAWING	REVISION
--------------	---------	----------

Mottimaster S complete

TITLE:

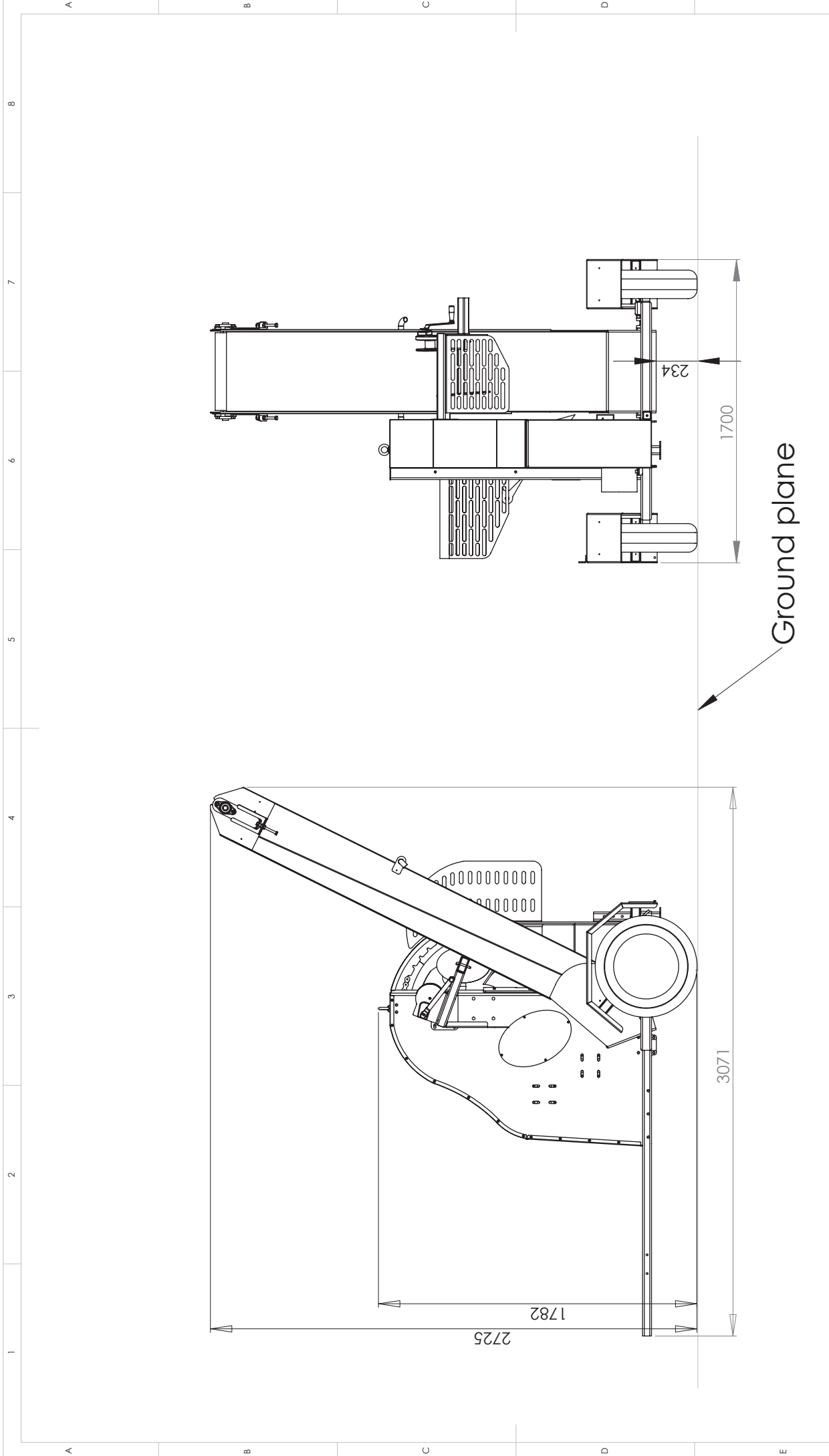
Mottimaster S

DWG NO. KMA-0001 A3

SCALE: 1:50 SHEET 1 OF 7

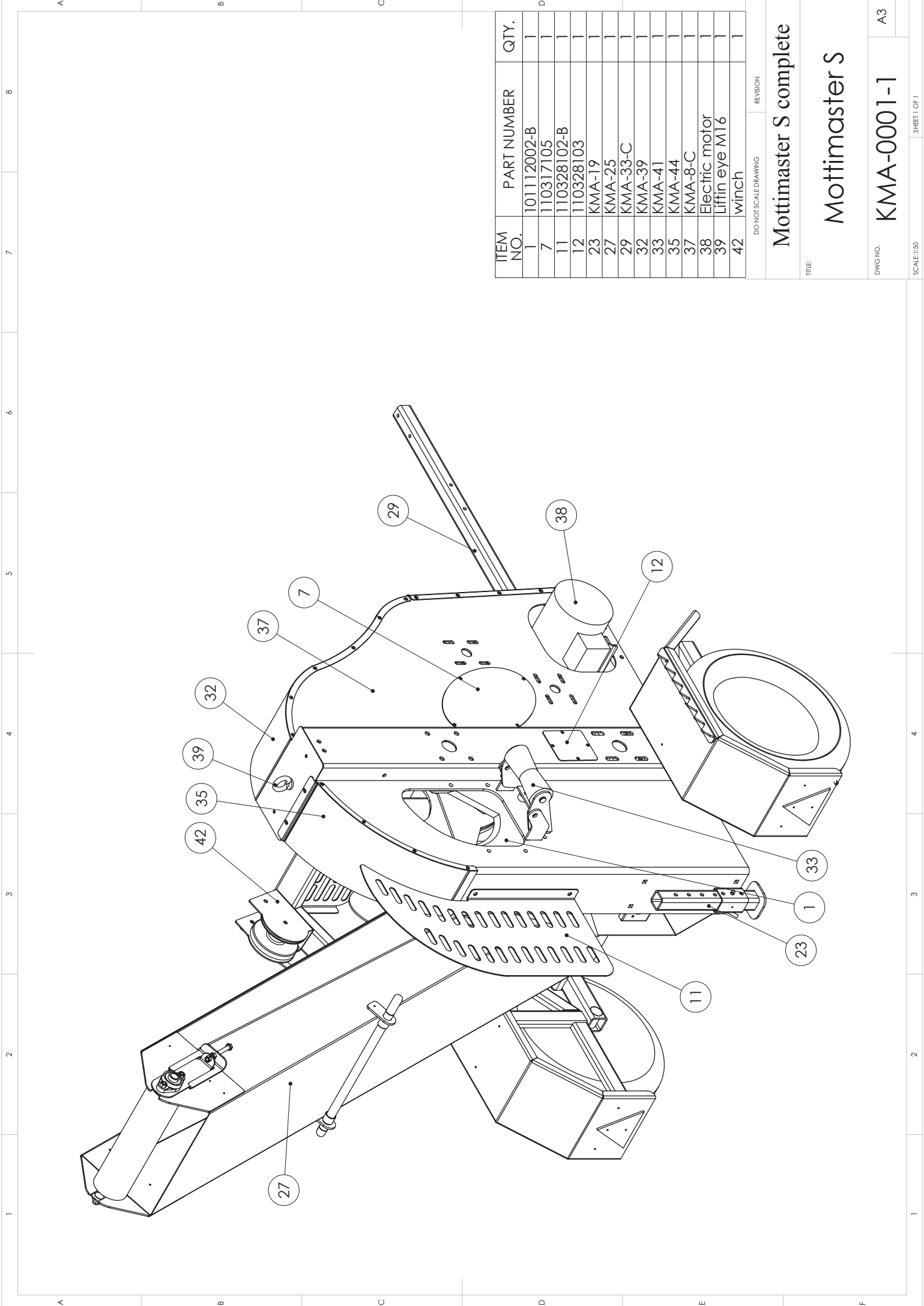






DO NOT SCALE DRAWING	REVISION
Overall dimensions	
TITLE:	
Mottimaster S	
DWG NO.	A3
KMA-0001 -	
WEIGHT:	620 kg
SHEET 3 OF 7	





ITEM NO.	PART NUMBER	QTY.
1	10112002-B	1
7	110317105	1
11	110328102-B	1
12	110328103	1
23	KMA-19	1
27	KMA-25	1
29	KMA-33-C	1
32	KMA-39	1
33	KMA-41	1
35	KMA-44	1
37	KMA-8-C	1
38	Electric motor	1
39	Liftin eye M16	1
42	winch	1

DO NOT SCALE DRAWING

REVISION

Mottimaster S complete

TITLE:

Mottimaster S

DWG NO.

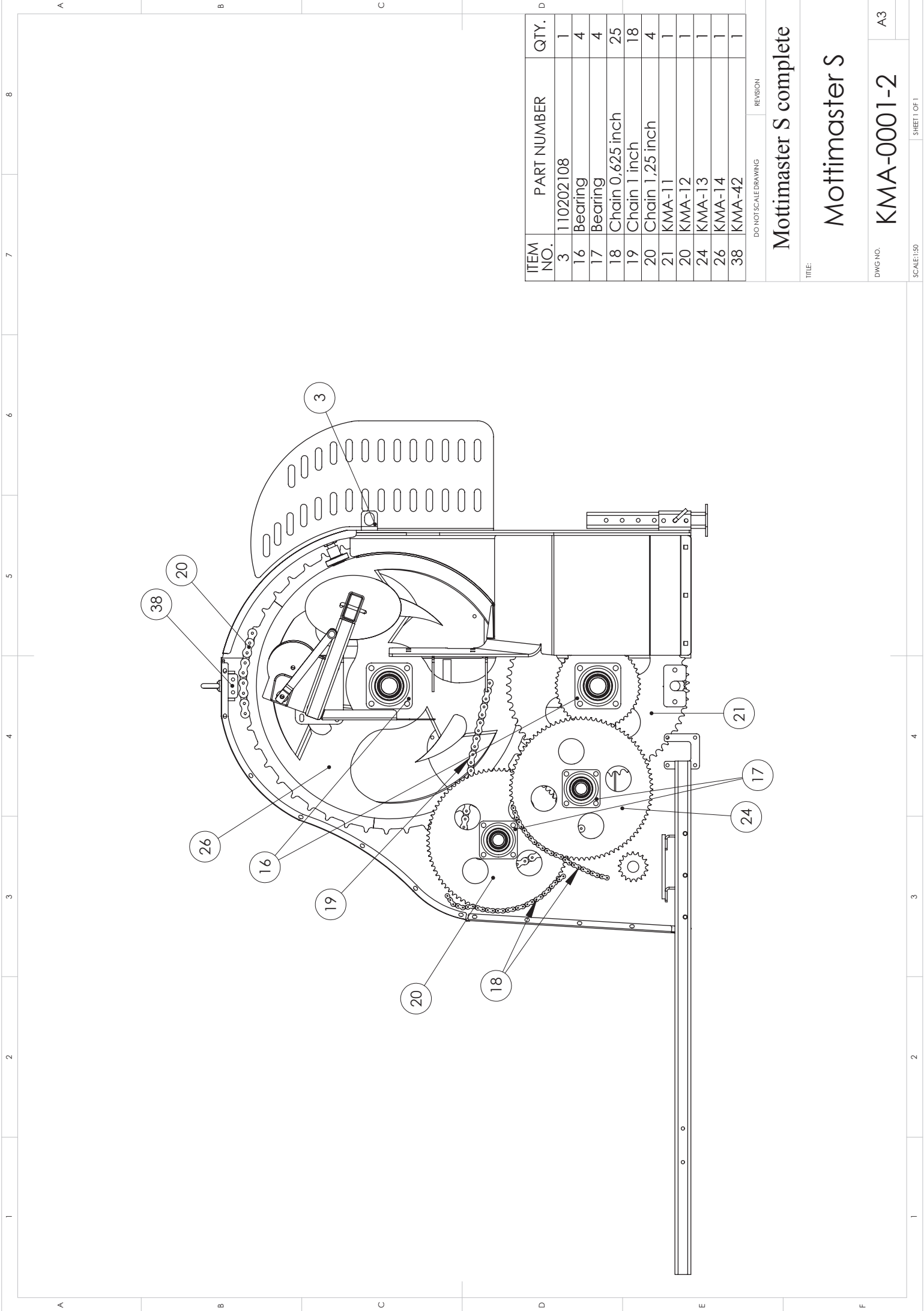
KMA-0001-1

A3

SCALE:1:50

SHEET 1 OF 1





ITEM NO.	PART NUMBER	QTY.
3	110202108	1
16	Bearing	4
17	Bearing	4
18	Chain 0,625 inch	25
19	Chain 1 inch	18
20	Chain 1,25 inch	4
21	KMA-11	1
20	KMA-12	1
24	KMA-13	1
26	KMA-14	1
38	KMA-42	1

DO NOT SCALE	DRAWING	REVISION
--------------	---------	----------

Mottimaster S complete

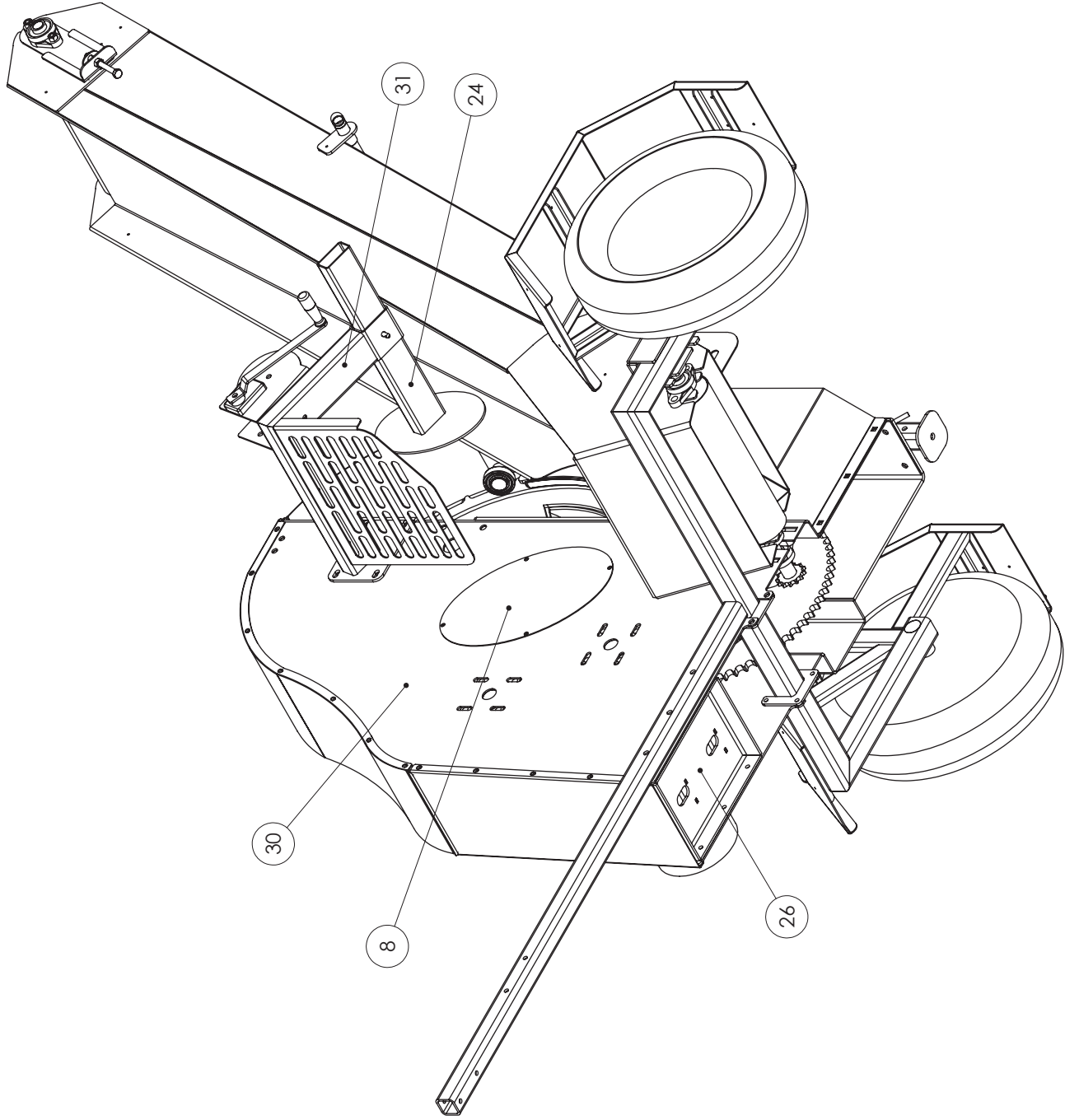
TITLE:

Mottimaster S

DWG NO. KMA-0001-2 A3

SCALE:1:50 SHEET 1 OF 1





ITEM NO.	PART NUMBER	QTY.
8	110317106	1
24	KMA-21	1
26	KMA-24	1
30	KMA-36	1
31	KMA-38	1

DO NOT SCALE DRAWING

REVISION

Mottimaster S complete

TITLE:

Mottimaster S

DWG NO.

KMA-0001-3

A3

SCALE:1:50

SHEET 1 OF 1









**HOLMET**  
*Challenging Metals*