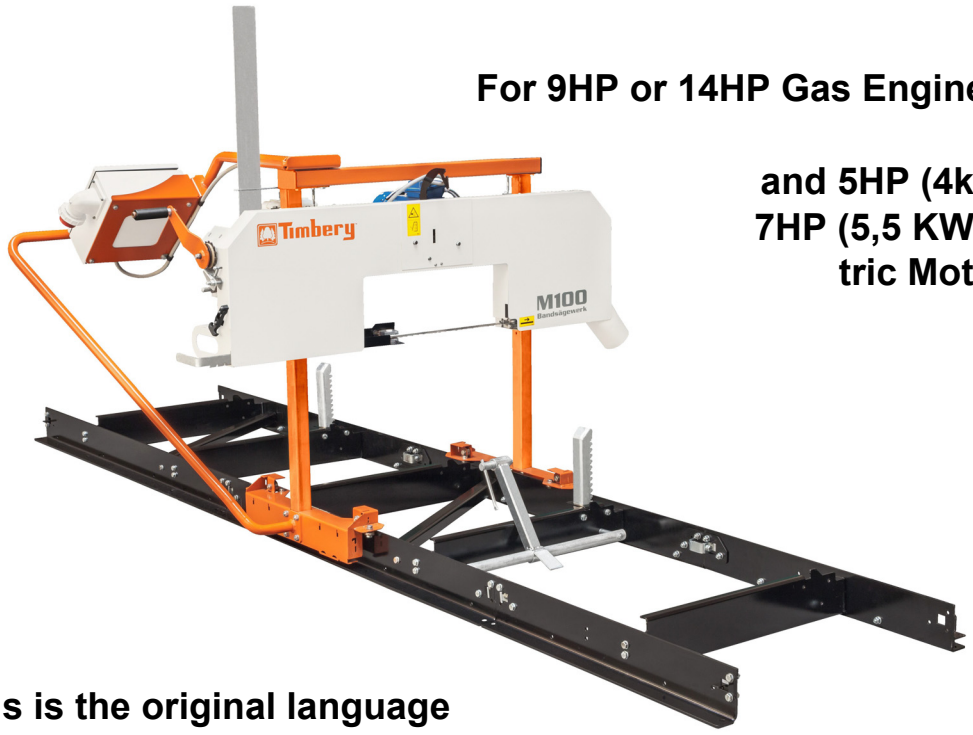
Operation and Parts Manual
Sawmill
M100E5
M100E7
M100G9
M100G14



For 9HP or 14HP Gas Engines

and 5HP (4kW) or 7HP (5,5 KW) Electric Motor

This is the original language for the manual

Manual Part Number: X200-1081

SAWMILL MANUFACTURED BY:

Timbery Sp.z.o.o.

ul. Nagórna 112

62-600 Koło

POLAND

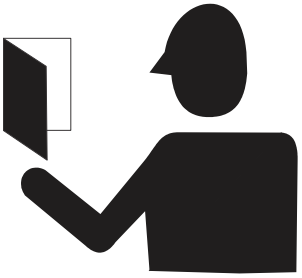
SECTION 1 INTRODUCTION

1.1 About this manual

Congratulations on your purchase of a TIMBERY M100 sawmill! When properly maintained and operated, your M100 sawmill should give you many years of dependable service.

This manual does not cover every possible operation and safety issues that may occur while using this sawmill. This manual covers some of the basic safety procedures relating to this sawmill and all National and local laws/regulations take precedence over this manual. Operators should follow those laws and regulations.

The information and instructions given in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.



CAUTION! Read this entire manual before operating the equipment. Take notice of all safety warnings throughout this manual and those posted on the equipment. Keep this manual with this equipment at all times, regardless of ownership.

CAUTION! The operator of the sawmill should get adequate training in the operation and adjustment of the machine.

Read all additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions.

Only adult (over 18 year old) persons who have read and understood the entire operator's manual should operate the sawmill. The sawmill is not intended for use by or around children.

The TIMBERY M100 sawmill is intended for sawing wood only. The sawmill must not be used for other purposes such as cutting ice, metal or any other materials.

CAUTION! It is always the owner's responsibility to comply with all applicable national and local laws, rules and regulations regarding the ownership, operation of your sawmill. All Timbery mill owners are encouraged to become thoroughly familiar with these applicable laws and comply

with them fully while using the mill.

1.2 Machine Nomenclature, electric sawmill

Machine Name	Version/Voltage[1]/ Power Code	Safety Standard Code S-CE Standard U-UL Standard
M100	EA5 EB5 EC5 EH5	S/U
M100	EA7 EB7 EC7 EH7	S/U

TABLE 1-1

[1] A-1x230V, B-3x230V, C-3x460V, H-3x400V

1.3 Machine Nomenclature, gas engine sawmill

Machine Name	Version/Power Code	Safety Standard Code S-CE Standard U-UL Standard
M100	G9	S/U
M100	G14	S/U

TABLE 1-2

1.4 Safety

The symbol,  , calls your attention to instructions concerning your personal safety.

Read and follow these instructions!

DANGER! Indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.

WARNING! Suggests a potentially hazardous situation which, if not avoided, may result in serious injury or death.

CAUTION! Refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury to persons or equipment damage.

NOTE: Informs people of important installation, operation, or maintenance information that is not hazard related.

Read all additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions!

Wear protective clothing

WARNING! Secure all loose clothing and jewelry before operating the sawmill. Failure to do so may result in serious injury or death.

WARNING! Always wear gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from area when coiling, carrying or changing a blade. Failure to do so may result in serious injury or death.

WARNING! Always wear eye, ear, respiration, and foot protection when operating or servicing the sawmill. Failure to do so may result in serious injury or death.

Keep sawmill and area around the sawmill clean

WARNING! Maintain a clean and clear path for all necessary movement around the mill and lumber stacking areas. Failure to do so may result in serious injury or death.

Handle fuel/lubricants with care

DANGER! never smoke, weld, grind or allow sparks near your engine or storage tanks, especially during times of fueling. Explosions

may occur. Failure to do so will result in serious injury or death.

DANGER! Never allow fuel to spill on a hot engine during fueling operations or otherwise. The hot temperature of your engine could induce a fire or explosion. Failure to do so will result in serious injury or death.

DANGER! Store gasoline away from sawdust and other flammable materials. Explosions may result. Failure to do so will result in serious injury or death.

Dispose of sawing by-products properly

CAUTION! Always properly dispose of all sawing by-products, including sawdust and other debris, coolant, oil, fuel, oil filters and fuel filters. Failure to do so may result in injury or equipment damage.

Safety for sawmill set-up

WARNING! Do not set up the mill on ground with more than a 10 degree incline. If setup on an incline is necessary, put blocks under one side of the mill or dig out areas for the legs to keep mill level. Failure to do so may result in serious injury or death.

Check sawmill before operation

DANGER! Make sure all guards and covers are in place and secured before operating or towing the sawmill. Failure to do so will result in serious injury or death.

WARNING! Release the blade tension when the mill is not in use (for example at the end of a shift). Tension the blade again before starting the motor.

Keep all people away

DANGER! Keep all persons out of the path of moving equipment and

logs when operating sawmill or loading and turning logs. Failure to do so will result in serious injury or death.

DANGER! Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the engine or motor. Failure to do so will result in serious injury or death.

Keep hands away

DANGER! Always disengage the blade and shut off the sawmill engine before changing the blade. Failure to do so will result in serious injury or death.

DANGER! Always keep hands away from moving bandsaw blade. Failure to do so will result in serious injury or death.

DANGER! Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc. Always stay a safe distance from rotating members and make sure that loose clothing or long hair does not engage rotating members. Failure to do so will result in serious injury or death.

WARNING! Do not spin the blade wheels by hand. Failure to do so will result in serious injury or death.

WARNING! Always keep clear of exiting sawdust. Keep hands, feet, and any other objects away from the sawdust chute when operating sawmill. Failure to do so may result in serious injury or death.

WARNING! Never clean the blade or the blade wheels with a brush or a scraper during sawmill operation.

WARNING! Before installation of the blade, inspect it for damage and cracks. Use only properly sharpened blades. Always handle the blade with extreme caution. Use suitable carrier equipment for transporting the blades.

Safety for gas engine operation

DANGER! The exhaust gases of your engine are poisonous. Operate your engine/machine only in well ventilated areas. Failure to do so will result in serious injury or death.

DANGER! Leaking fuel or oil could contact hot surfaces and ignite into flames. Never operate an engine with a fuel or oil leak. Failure to do so will result in serious injury or death.

WARNING! Engine components can become very hot during operation. Avoid contact with any part of a hot engine especially during and following operation. Contact with hot engine components can cause serious burns. never touch or perform service functions on a hot engine. Allow the engine to cool sufficiently before beginning any service function. Failure to do so will result in serious injury or death.

WARNING! Do not operate engine without proper and operational spark arrester/muffler. Sparks from the engine could cause explosions. Failure to do so mayresult in serious injury or death.

Keep safety labels in good condition

WARNING! Always be sure that all safety decals are clean and readable. Replace all damaged safety decals to prevent personal injury or damage to the equipment. Contact your local distributor, or call your Customer Service Representative to order more decals.

WARNING! If replacing a component which has a safety decal affixed to it, make sure the new component also has the safety decal affixed.

See Table 1-3. Pictogram decals used to warn and inform the user about danger

in the sawmill.

TABLE 1-3

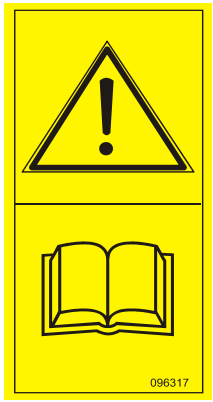
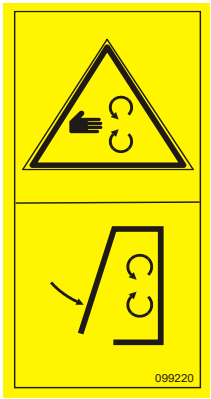
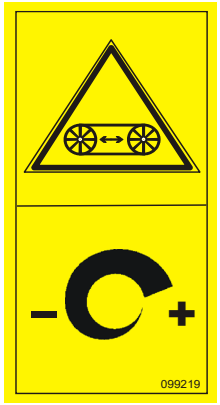
Decal View	W-M No.	Description
	096317	CAUTION! Read thoroughly the manual before operating the machine. Observe all safety instructions and rules when operating the sawmill.
	099220	CAUTION! Close all guards and covers before starting the machine.
	099219	Blade tension. Turning the bolt clockwise will increase the blade tension and turning the bolt counterclockwise will decrease the tension.

TABLE 1-3

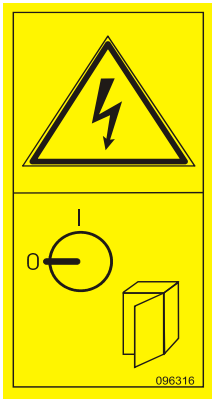
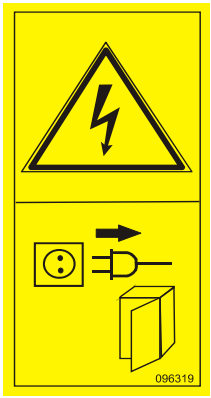
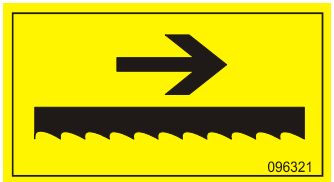
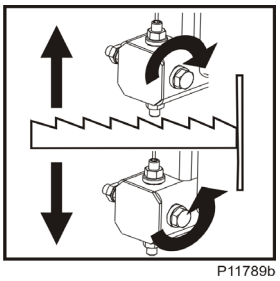
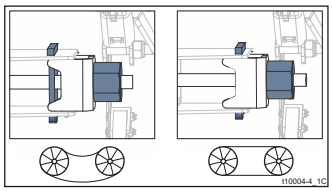
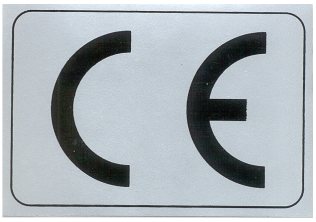
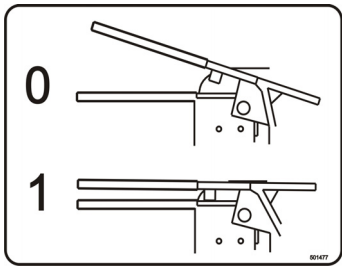
	099221	CAUTION! Keep all persons a safe distance away from work area when operating the machine.
	096316	CAUTION! Do not open or close the electric box when the switch **is not** in the “0” position.
	096319	CAUTION! Disconnect power supply before opening the box.
	096321	Blade movement direction

TABLE 1-3

	086099	CAUTION! Hot elements, keep your distance!
	S12004G	CAUTION! Always wear safety goggles when operating the sawmill!
	S12005G	CAUTION! Always wear protective ear muffs when operating the sawmill!
	501465	CAUTION! Always wear safety boots when operating the sawmill!

TABLE 1-3

	P11789	Aligning the blade on the wheels
	515084	Setting the blade tension indicator
	P85070	CE safety certification
	S20097	Motor rotation direction
	501477	Safety handle. The blade is stopped when the handle is released.

Use care when working with heavy logs

WARNING! Always make sure the log is clamped securely before sawing. Failure to do so may result in serious injury or death.

1.5 Major components

Major components of the Timbery M100 sawmill are shown in *FIG. 1-1 Major Components M100EH5S (CE Standard sawmill)*. These terms will be used throughout this manual.

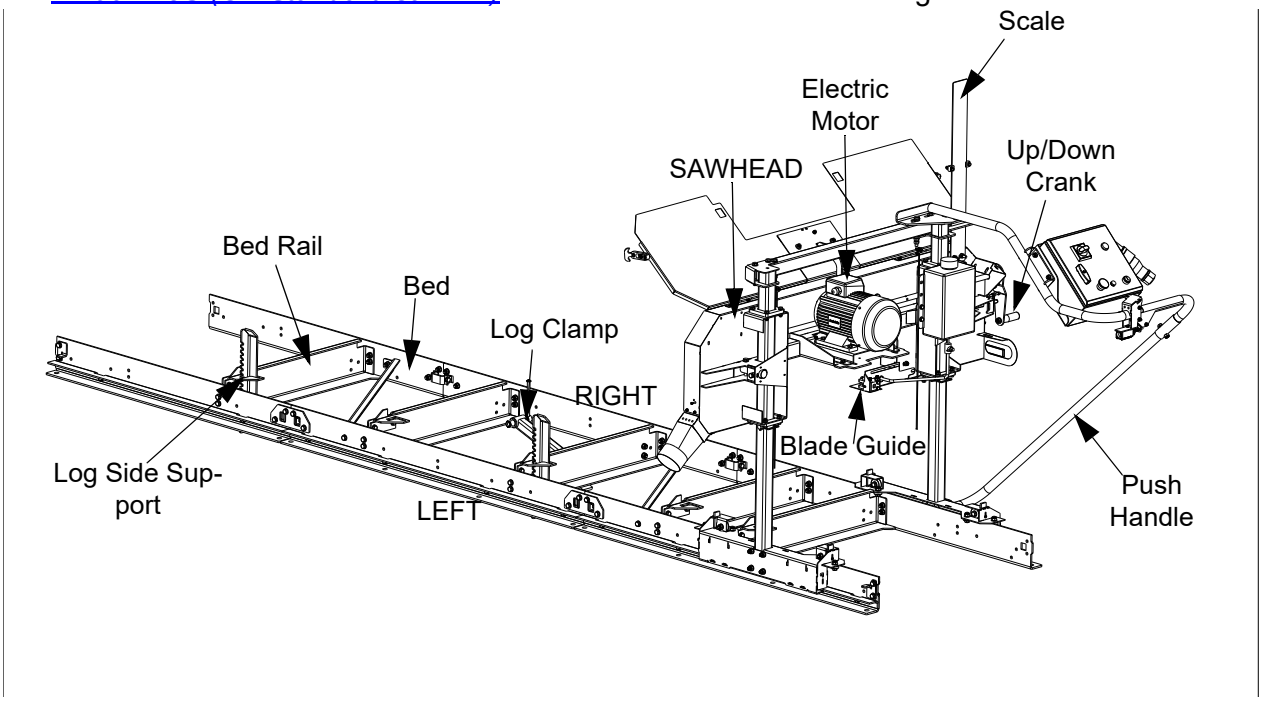


FIG. 1-1 MAJOR COMPONENTS M100EH5S (CE STANDARD SAWMILL)

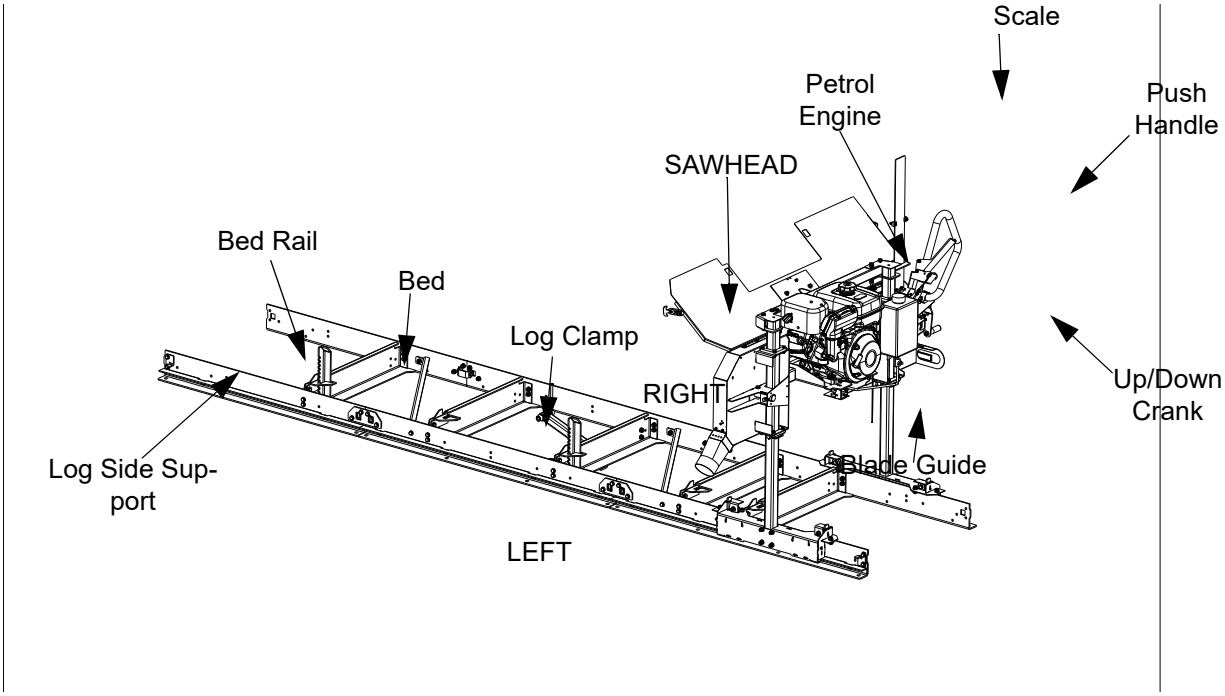


FIG. 1-2 MAJOR COMPONENTS M100G14

SECTION 2 MOUNTING PARTS SPECIFICATION

2.1 Mounting Parts of M100 Sawmills

Parts Specifications

	Part #	Description	E7/E10 motor	G9/G14 engine
1	T00089-1	Tube, Mast Horizontal	1	1
2	T00090-1	Post, Mast Left Side Complete	1	1
3	T00094-1	Post, Mast Right Complete	1	1
4	T00096-1	Member, Lower Mast Wldmt/Ptd	2	2
5	T00039-1	Plate, Safety Catch Rail	2	2
6	T00045-1	Plate, Safety Catch Rail	1	1
7	T00036-1	Bed Rail, Long	4	4
8	T00044-1	Bed Rail, Short	2	2
9	T00038-1	Bracket, Stiffener	2	2
10	T00037-1	Rail, Cross	5	5
11	500343-1	Tube, Clamp Main	1	1
12	507566-1	Tube, Clamp Post Weldment	1	1
13	T00058-1	Bracket, Scale Complete	1	1
14	512763-1	Handle, Complete Weldment	1	1
15	516231-1	Handle, Lower Part	1	1
16	507563	Clamp Acme Screw, Complete	1	1
17	T00043-1	Bracket, Side Support	5	5
18	T00051-1	Side Support, Short	2	2
19	T00041-1	Side Support, Long	2	2
20	T00033-1	Hook, Cover	1	1
21	T00048-1	Plate, Bed Coupler	4	4
22	T00049-1	Plate, Bed Rail Clamp	4	4
23	T00042-1	Plate, End Stop	2	2
24	X100-904	Tank, Water	1	1
25	X100-982	Tubing, Vinyl, 1/4x3/8x15	1	1
26	X200-983	Valve, Fastex 1/4" Strait Water	1	1
27	X100-904	Block, Plastic Scale Timbery	2	2
28	X100-378	Sweeper, Modular Track	2	2
29	T00040-1	Holder, Lift Paddle Cable	2	2
30	X100-1056	Cable Lift Paddle	2	2
31	014151	Pin	2	2
32	T00084-1	Sawdust Chute M100	1	1
33	516929	Lever	1	0
34	516201-1	Bracket	1	0
35	015479	Spring	1	0

36		Wrench, Blade Tensioner	1	1
37	F81082-5	Tie Wrap	6	6

Specifications of Fasteners

	Part #	Description	Qty.	Description
1	F81001-8	BOLT, M6x30-8.8-HEX HEAD FULL THREAD ZINC	2	Scale Bracket
2	F81002-11	BOLT, M8x20-8.8 CARRIAGE HEAD ZINC	2	
3	F81031-2	NUT, M6-8-B-HEX NYLON ZINC LOCK	2	
4	F81032-2	NUT, M8-8-B-HEX NYLON ZINC LOCK	2	
5	F81053-1	WASHER, 6,4 FLAT ZINC	4	
6	F81054-1	WASHER, 8,4-FLAT ZINC	2	
7	F81000-13	SCREW, H M5x10 8.8 CROSS RECESSED PAN HEAD	4	Sawdust Chute
8	F81030-2	NUT, M5-8-DIN 985 ZINC	4	
9	F81052-1	WASHER, 5,3 FLAT ZINC	4	
10	F81002-4	BOLT, M8x20-8.8-B-HEX HEAD FULL THREAD ZINC	2	Cover Latch
11	F81054-1	WASHER, 8,4-FLAT ZINC	2	
12	F81054-4	WASHER, 8,2 SPLIT LOCK ZINC	2	
13	F81002-4	BOLT, M8x20-8.8-B-HEX HEAD FULL THREAD ZINC	4	Water Tank
14	F81032-2	NUT, M8-8-B-HEX NYLON ZINC LOCK	4	
15	F81054-1	WASHER, 8,4-FLAT ZINC	8	
16	F81003-50	BOLT, M10x80 -8.8- HEX HEAD ZINC	4	Mast Assembly
17	F81003-91	BOLT, M10x100-8.8 HEX HEAD FULL THREAD ZINC	2	
18	F81001-56	BOLT, 8/M6x12-12.9 ISO-7379 SH SHOULDER	2	
19	F81033-1	NUT, M10-8-B -HEX NYLON ZINC LOCK	4	
20	F81033-3	NUT, M10-8-B-HEX ZINC	4	
21	F81055-1	WASHER, 10,5 FLAT ZINC	12	

22	F81001-8	BOLT, M6x30-8.8-HEX HEAD FULL THREAD ZINC	1	Operator's Handle Complete
23	F81001-9	BOLT, M6x60-8.8-HEX HEAD FULL THREAD ZINC	1	
24	F81001-63	BOLT, M6x70-8.8-HEX HEAD FULL THREAD ZINC	2	
25	F81003-4	BOLT, M10x50-8.8-HEX HEAD FULL THREAD ZINC	1	
26	F81031-1	NUT, M6-8-HEX ZINC	3	
27	F81031-2	NUT, M6-8-B-HEX NYLON ZINC LOCK	4	
28	F81033-1	NUT, M10-8-B -HEX NYLON ZINC LOCK	1	
29	F81053-1	WASHER, 6,4 FLAT ZINC	8	
30	F81055-1	WASHER, 10,5 FLAT ZINC	2	
31	F81053-11	WASHER, 6,5 SPECIAL FLAT ZINC	4	
32	F81003-2	BOLT, M10x30-5.8-HEX HEAD FULL THREAD ZINC	64	Bed Rail M100
33	F81003-50	BOLT, M10x80 -8.8- HEX HEAD ZINC	4	
34	F81033-1	NUT, M10-8-B -HEX NYLON ZINC LOCK	68	
35	F81055-1	WASHER, 10,5 FLAT ZINC	136	

SECTION 3 SETUP

3.1 Unpack the sawmill

The tools needed are:

- Strap cutters
- Large screwdriver
- Ratchet handle
- Ratchet extension bar (optional)
- Moving equipment (such as a forklift)

FIG. 3-1

FIG. 3-2

WARNING! Assemble the bed on firm, level ground. Fix the mill to the ground to prevent moving during operation. Failure to do so may cause the sawhead to tip, causing serious injury or death.

Leave enough room around the sawmill for operators, sawdust removal, log loading, and board removal.

FIG. 3-3

Remove all mounting hardware, mast and bed components prior to lifting the sawhead from the crate. *(See fig. 3-1 .)(See fig. 3-2 .)(See fig. 3-3 .)*

FIG. 3-4

Lift the sawhead by the mast brackets and set it aside. *(See fig. 3-4 .)*

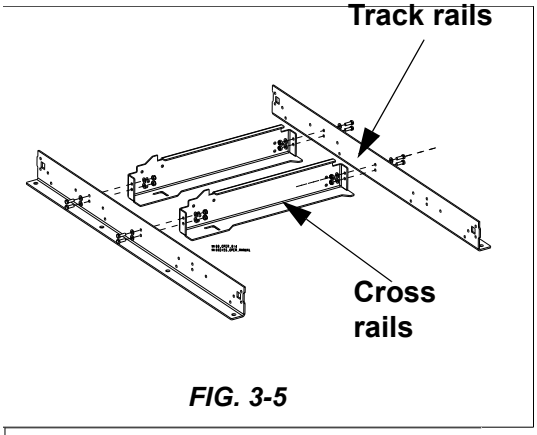


FIG. 3-5

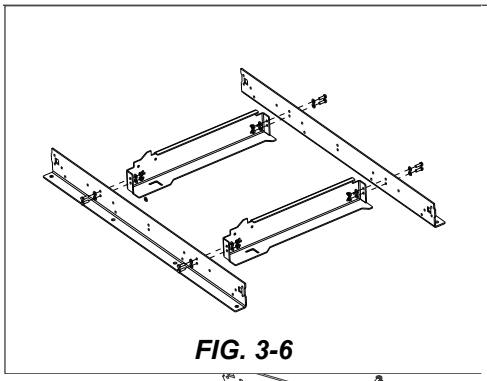


FIG. 3-6

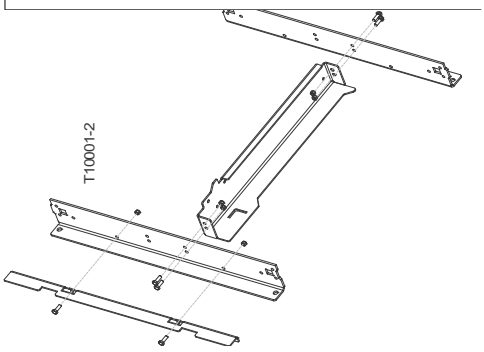


FIG. 3-7

3.2 Assemble the bed sections

The tools needed are:

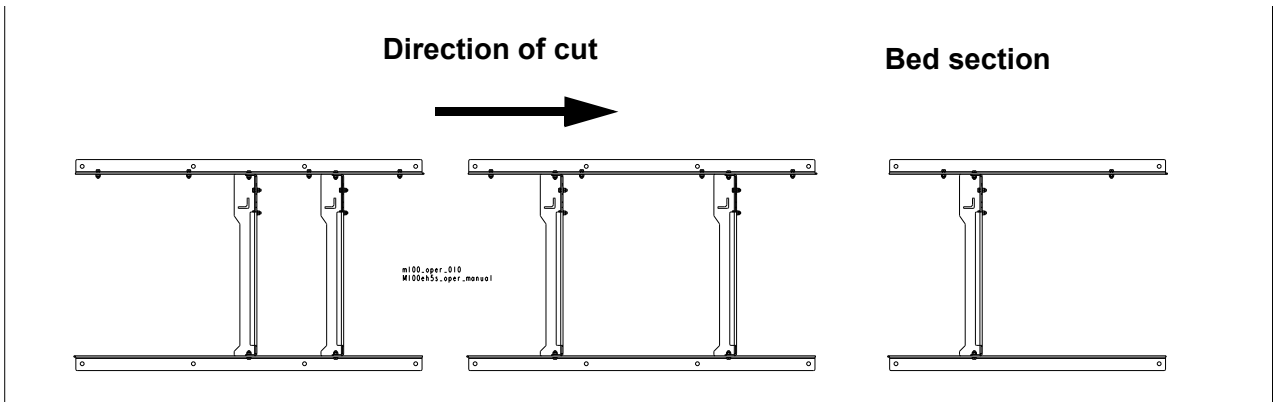
- Socket, 17mm
- Ratchet handle
- Ratchet extension bar (optional)
- Combination wrench, 17mm

WARNING! Assemble the bed on firm, level ground. Failure to do so may cause the sawhead to tip, causing serious injury or death.

Assemble both large bed sections using two track rails, two cross rails, and one cross member per section.*(See fig. 3-5 .)*

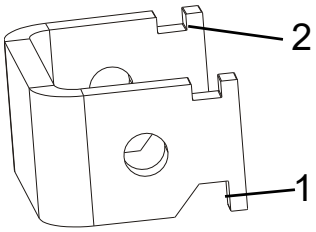
1. Attach the track rails to the cross rail. Make sure all of the cross rails face the same direction.
2. Mount the cross rails to track rails using M10x30 bolts, 10,5 Washers and M10 lock nuts.

Assemble the remaining track rails and cross rail in a similar fashion. *(See fig. 3-6 .)*, *(See fig. 3-7 .)*.



Connect the bed sections using a connecting plate, a clamp, and hardware. *(See fig. 3-9 .)*

Set the clamp in place by inserting the larger notch ① in first and tilting the clamp in then upward to catch the smaller notch ②.



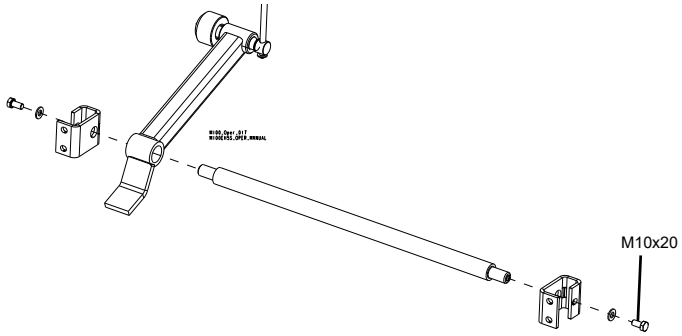
NOTE: Be sure the track rails of each bed section are aligned before tightening the bolts.

Repeat for the remaining 3 connections.

Optional bed extension sections may be added at this time, in the same manner as the standard bed sections.

Mount the cross member using M10x30 bolts, washers and nuts.*(See fig. 3-10 .)*

Assemble the log clamp:



Attach the log clamp in the middle of the bed. *(See fig. 3-11 .)*

Attach the log rest brackets and posts. **Do not tighten** until the bed is leveled. *(See fig. 3-12 .)*

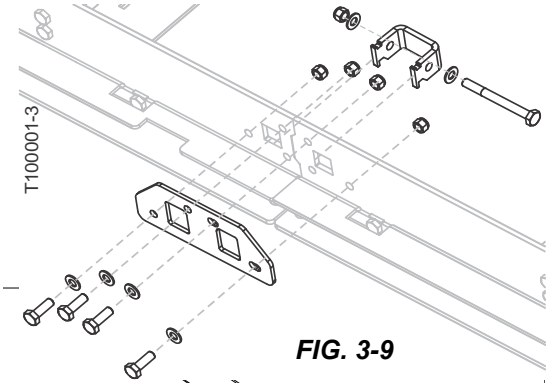


FIG. 3-9

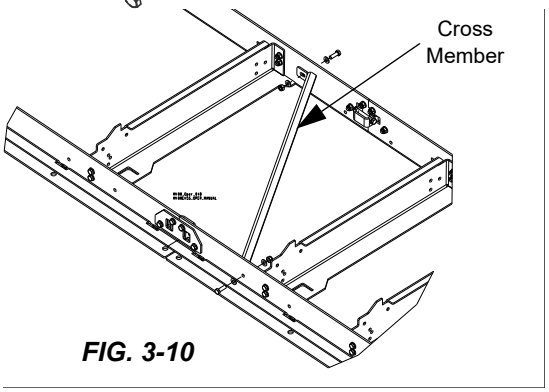


FIG. 3-10

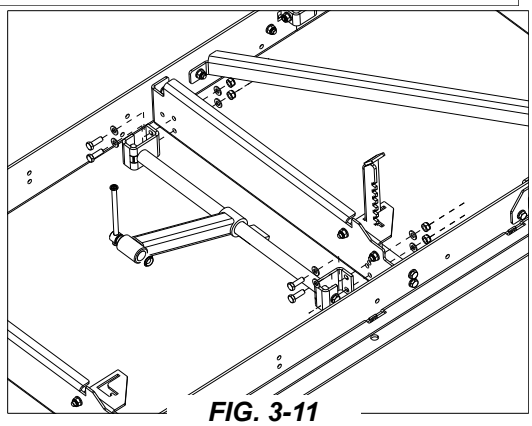


FIG. 3-11

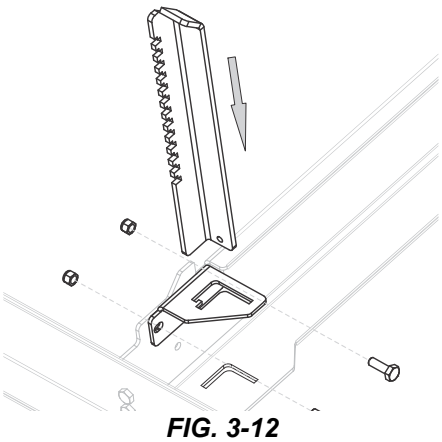


FIG. 3-12

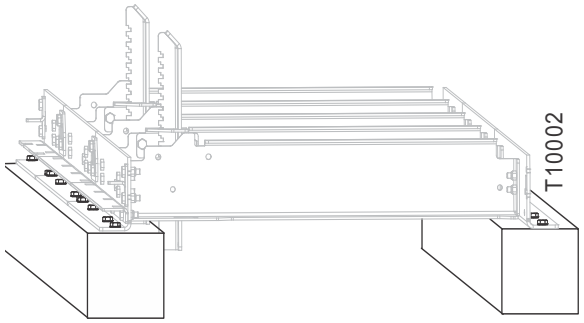


FIG. 3-13

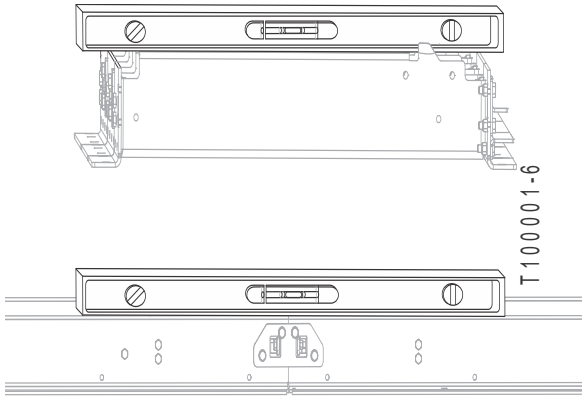


FIG. 3-14

FIG. 3-15

3.3 Level the bed

The tools needed are:

- Shims
- 4 foot level or laser level
- Lag bolts and washers
- Socket and ratchet for lag bolts
- Wooden skids, 4x4 or better

NOTE: It is important that the bed be level for the sawhead to travel smoothly over the rails.

Mount the saw bed on wooden skids for leveling and increasing the ground clearance. A straight 4x4" (100x100mm) or 4x6" (100x150mm) are an ideal size for the wooden skids. If the skids are not a solid one-piece section, make sure the seams of skids are offset from the seams of the bed frame. *(See fig. 3-13 .)*

Use a min. 4-foot (120cm) level (or laser level) to level the bed in all dimensions.*(See fig. 3-14 .)*

Adjust the bed for leveling by shimming under low spots.

When the bed is leveled, square up the log rests posts. *(See fig. 3-15 .)* Tighten the log rest bracket screws. *(See fig. 3-8 .)*

NOTE: Failure to square the log rest posts can result in poor cut quality.

Recheck saw bed for level!

3.4 Install the mast

Prepare the mast carriages

The sawhead carriages come mostly assembled from the factory.

Place 4 carriage bolts from the hardware kit through the inner side of the carriage. *(See fig. 3-16 .)* Place washers and nuts loosely on the bolts. **Do not tighten them at this time.**

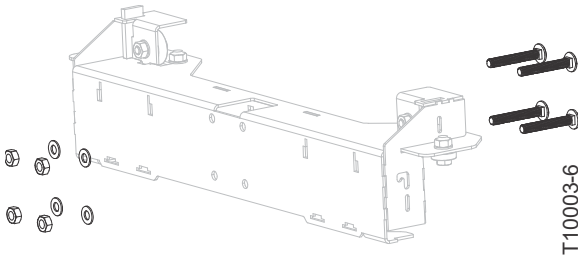


FIG. 3-16

Set the carriage on the rails. Insure that the rails fit between the two roller bearings on each side, and rest on the vertical bearing on each end of the carriages. The bearings are not preset, and must be adjusted at this time. Adjust the bearings now so that the carriage glides smoothly back and forth with little effort. *(See fig. 3-17 .)*

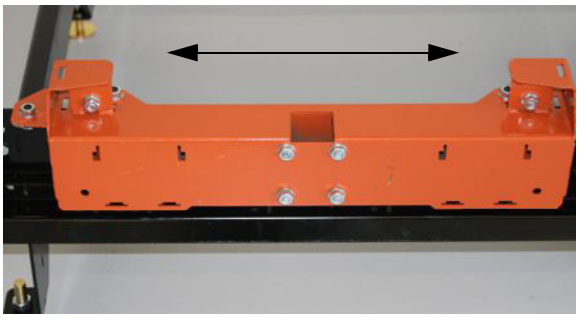


FIG. 3-17

Repeat on the opposite side of the saw bed.

Remove the carriages from the rails for further installation with the mast.

Prepare mast

Insert the mast cross member into the upright pieces, as shown in step ①.

Set the bolts in place as shown in step ②. **Do not tighten at this time.**

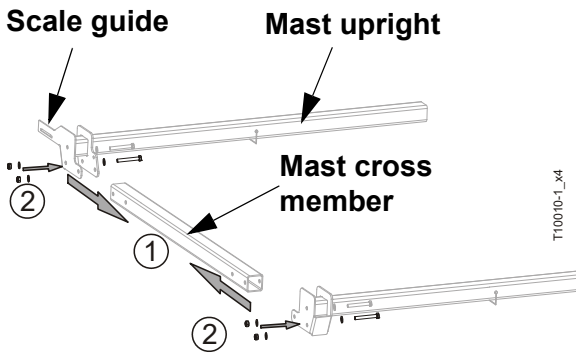


FIG. 3-18

Install the sawhead

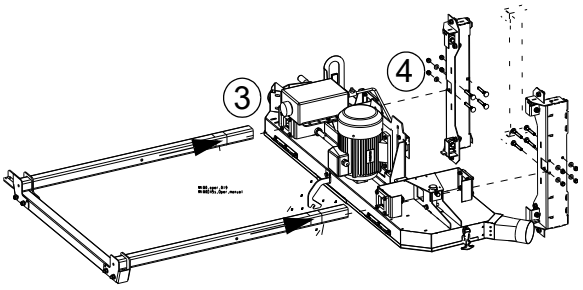


FIG. 3-19

Lay the sawhead flat on a raised surface.

Slip the mast through the sawhead as shown in step ③ .*(See fig. 3-19 .)* Ensure that the scale guide is on the same side as the operator's handle.

Slide the mast uprights all the way into the carriages as shown in step ④.

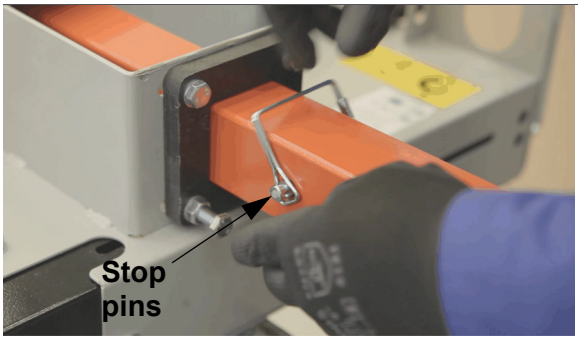


FIG. 3-20

Install the two head-locking stop pins, locking the sawhead in the **up** position.*(See fig. 3-20 .)* .

Tighten the carriage bolts to the mast. Then install the entire head and mast assembly on the bed rails. Make sure that the main roller bearings are still riding smoothly on the rail. The bearing can be slightly re-adjusted by loosening and re-tightening the bolts.

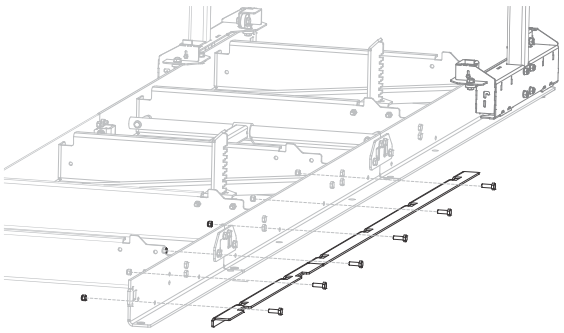


FIG. 3-21

When the carriage and mast are properly aligned, tighten or re-tighten *all* bolts in the mast uprights and the carriages.

With the sawhead at the head of the bed, (either end may be designated as the head) attach two lower segments of the catch rail. *(See fig. 3-21 .)*

Move the carriage toward the foot of the bed and install the last segment of the catch rail. *(See fig. 3-22 .)*

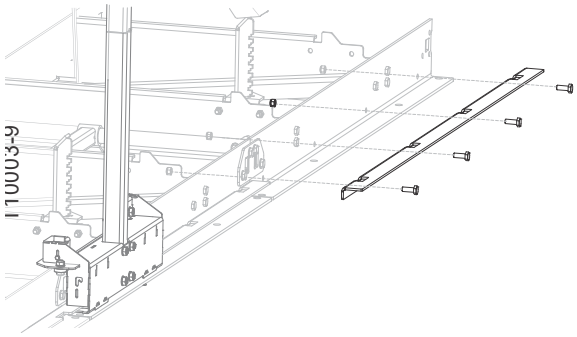


FIG. 3-22

Re-check the adjustment of the roller bearings. *(See fig. 3-17 .)*

3.5 Install the sweepers and saw head stops

The tools needed are:

- Socket, 17mm
- Ratchet handle
- Screwdriver
- Ratchet extension bar (optional)
- Combination wrench, 17mm

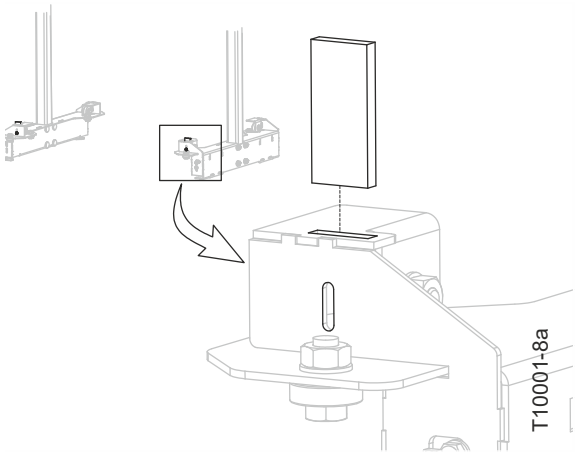


FIG. 3-23

Install the sawdust rail sweepers on the **front sides** of **both** carriages. Make sure that the sweepers contact the rails. *(See fig. 3-23 .)*

Stop blocks **must** be attached at **both ends, head and foot,** of the track rail to prevent the sawhead from sliding off the rails.

WARNING! Failure to apply stop blocks to both ends of the track rail may result in serious injury or equipment damage.

Attach the stop blocks on the outside surface of the bed section at the head of the bed. Tighten the nuts.

Repeat at the foot end of the rail.

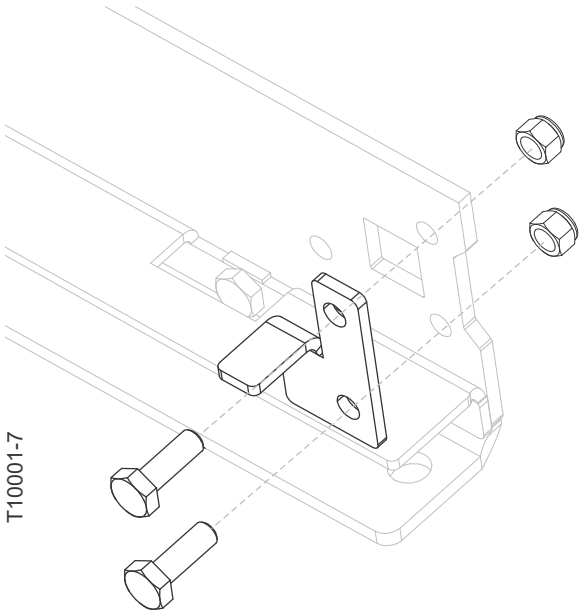


FIG. 3-24

3.6 Install the operator's handle

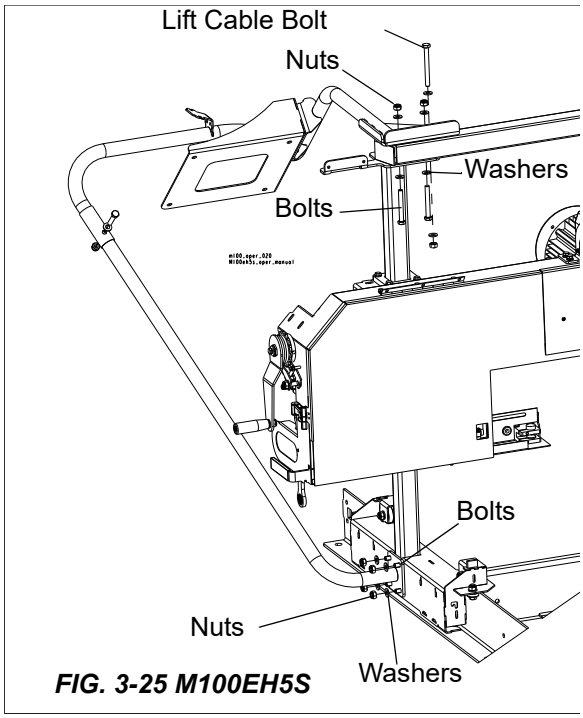


FIG. 3-25 M100EH5S

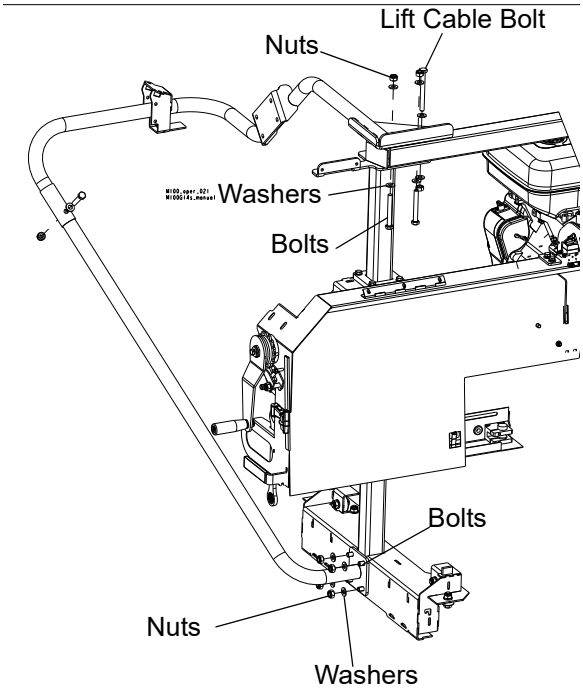


FIG. 3-26 M100G14S

Mount operator's handle using elements shown on the figures .*(See fig. 3-25 M100EH5S.)(See fig. 3-26 M100G14S.)*.

Lift cable bolt (M10x100) must be mounted inversely.

3.7 Install the Operator's Box and Safety Switch

Mount operator's box using M8X20 Carriage Head Bolts, washers and nuts. Mount the safety switch (sawmill with electric motor only). *(See fig. 3-27 .)*

Mount the operator's handle with spring using M6x70 bolts, washers and nuts. Adjust the handle bolt so it activates the safety switch when the operator's handle is pressed completely. *(See fig. 3-27 .)* *(See fig. 3-28 .)*.

Mount the e -stop button (sawmill with gas engine only). *(See fig. 3-29 .)*

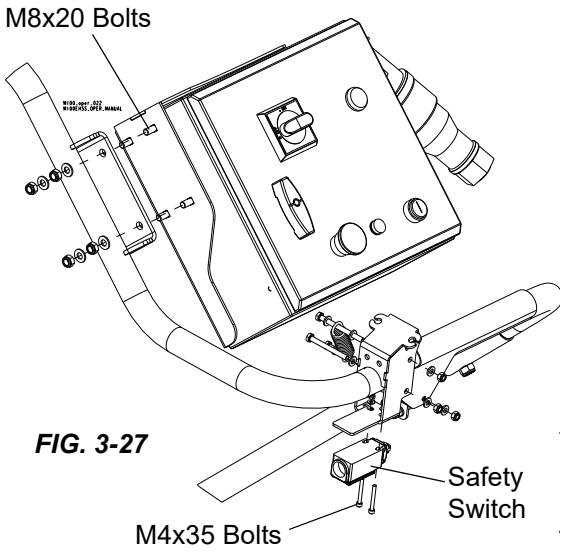


FIG. 3-27

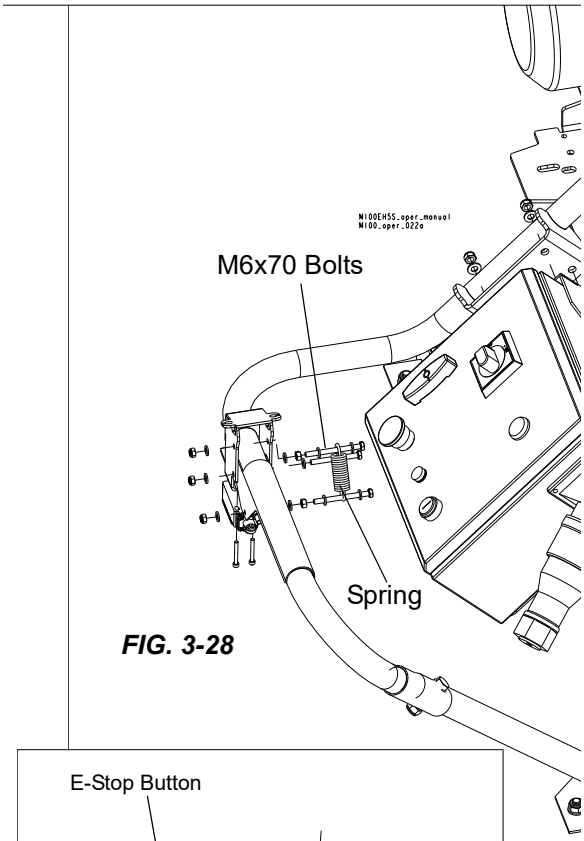


FIG. 3-28

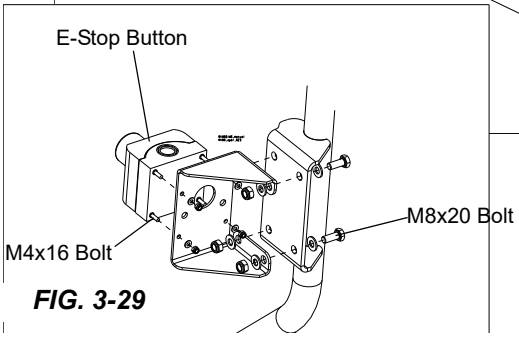


FIG. 3-29

3.8 Install the throttle cable (sawmill with gas engine only)

The tools needed are:

- Socket, 10mm
- Combination wrench, 10mm
- Small adjustable wrench
- Ratchet handle

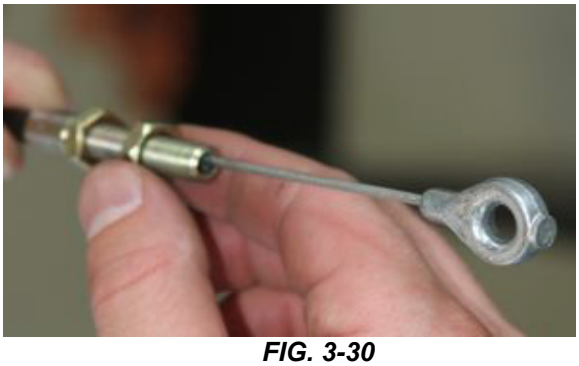


FIG. 3-30

The throttle cable was attached to the operator's handle. *(See fig. 3-30 .)* The cable has an attaching eye and two adjustment nuts. *(See fig. 3-30 .)*

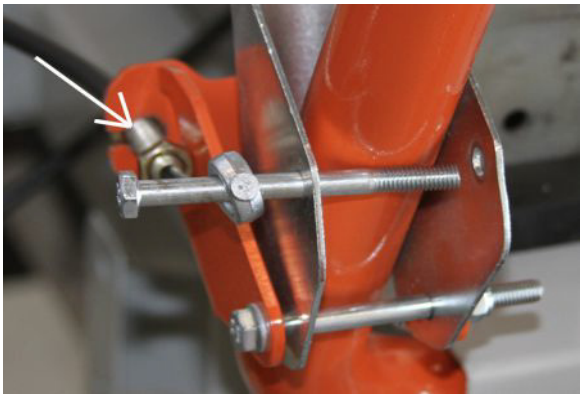


FIG. 3-31

Thread the throttle cable though the bracket on the operator's handle by unthreading the upper adjustment nut and slipping the bare cable through the bracket. Return the adjustment nut to the cable fitting. *(See fig. 3-31 .)*

Remove the bolt and its two nuts on the throttle handle. Thread the cable eye through the bolt .*(See fig. 3-32 .)*

FIG. 3-32

Return the inner set nut and tighten the outer nut on the throttle handle. *(See fig. 3-33 .)*

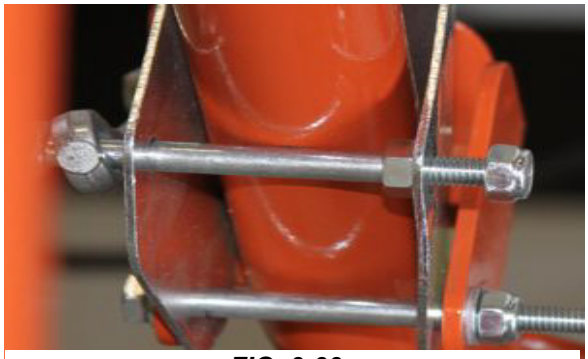


FIG. 3-33

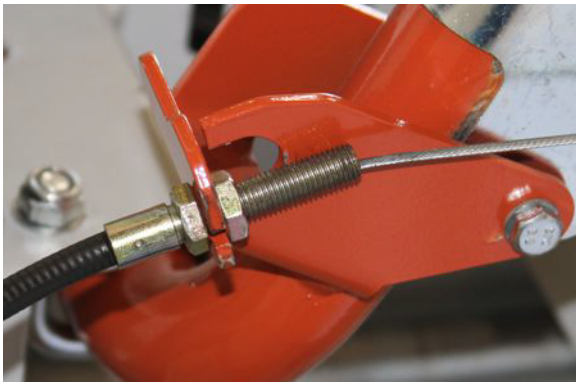


FIG. 3-34

Tighten the throttle cable in the bracket with an adjustable wrench. *(See fig. 3-34 .)*

The throttle should be adjusted **after** the Timbery M100 is fully assembled and ready for use. *See "Drive belt adjustment."*

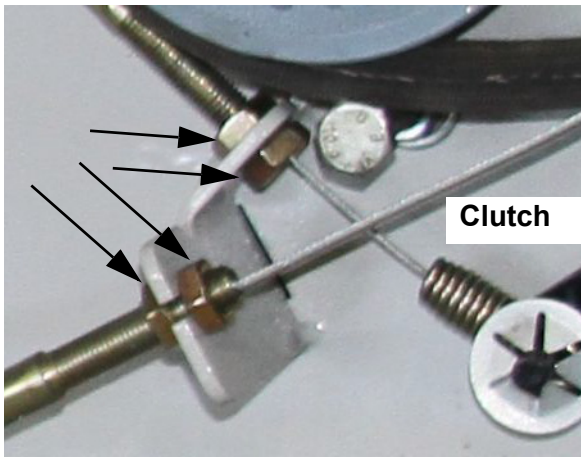


FIG. 3-35

In addition to the throttle handle adjustment, the throttle cable can also be adjusted at the clutch*(See fig. 3-35 .)* and at the engine itself. *(See fig. 3-36 Viewed from the top.)*

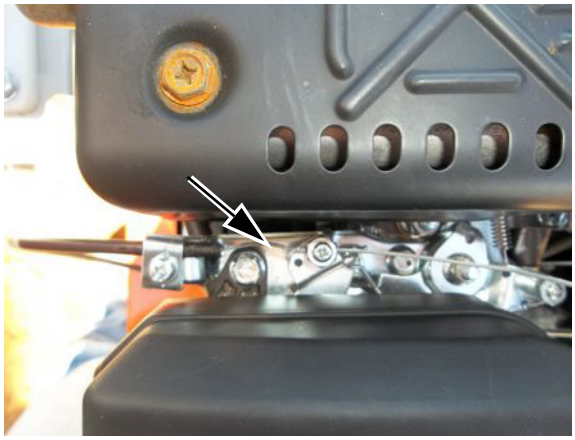


FIG. 3-36 VIEWED FROM THE TOP

3.9 Assemble the up/down crank

The tools needed are:

- Combination wrench, 19mm
- Small adjustable wrench
- Hex drive, 3mm
- Wire cutters

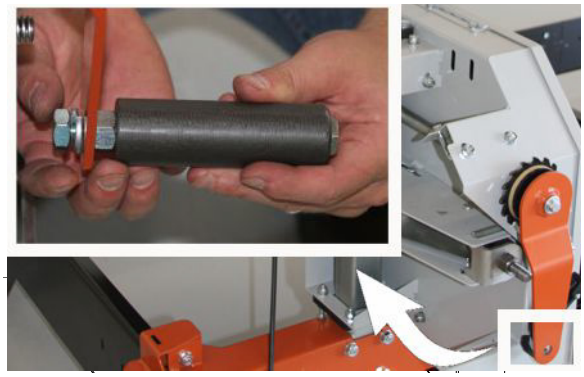


FIG. 3-37

Bolt on the crank handle. Make sure that the lock washer is in place between the flat washer and bolt head. *(See fig. 3-37 .)*

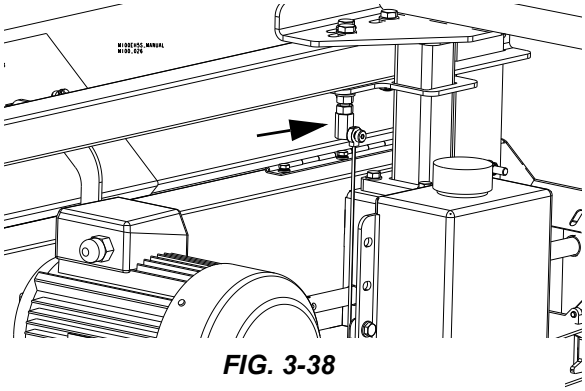


FIG. 3-38

Attach the lift cables from the hardware kit to the bracket on the mast upright. *(See fig. 3-38 .)*

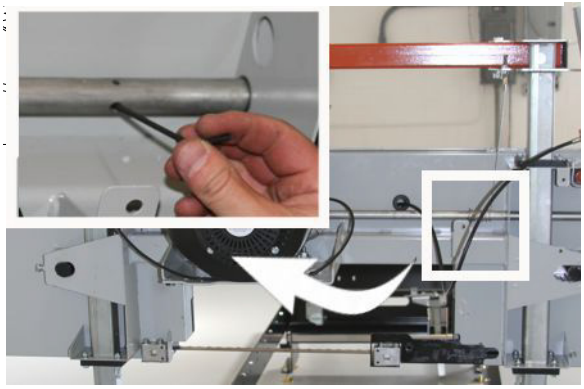


FIG. 3-39

Back out the set screw from the crank shaft with the 3mm hex wrench. *(See fig. 3-39 .)*

FIG. 3-40

Thread the lift cable through the hole in the crank shaft. *(See fig. 3-40 .)*

FIG. 3-41

The cable should come through shaft about 1/8" (3mm). If to much of the cable is pulled through the shaft it will rub on the back of the saw head. Loctite™ or equivalent should be added to the set screw. Return the set screw and tighten it. *(See fig. 3-41 .)*

Repeat this procedure on the left side of the sawhead.

Leave room for adjustment up or down.

NOTE: For ease of adjustment, set the left side anchor bolt nuts in approximately the same position as the right side.

Remove the two head-locking stop pins, locking the sawhead in the **down** position

3.10 Install sawhead cover latch and scales

The tools needed are:

- Socket, 13mm, 10mm
- Combination wrench, 13mm, 10mm
- Safety equipment, especially gloves, for blade handling

Place the latch hook into the top center of the saw head with the fasteners provided. *(See fig. 3-42 .)*

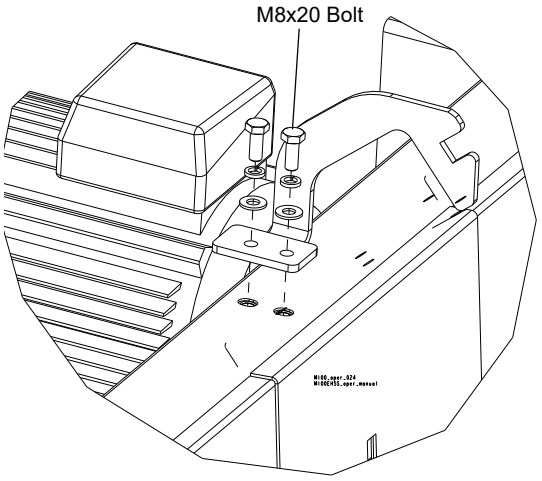


FIG. 3-42

Install the cutting scale. The scale is mounted in slots directly in front of the operator.

Install the scale through the bracket on the mast and *loosely* secure with carriage bolts (inserted from the inside of the sawhead), with washers and nuts on the exterior. *(See fig. 3-43 .)*

See *Section 4.2 Sawmill adjustments* to set the blade tension and level the scale.

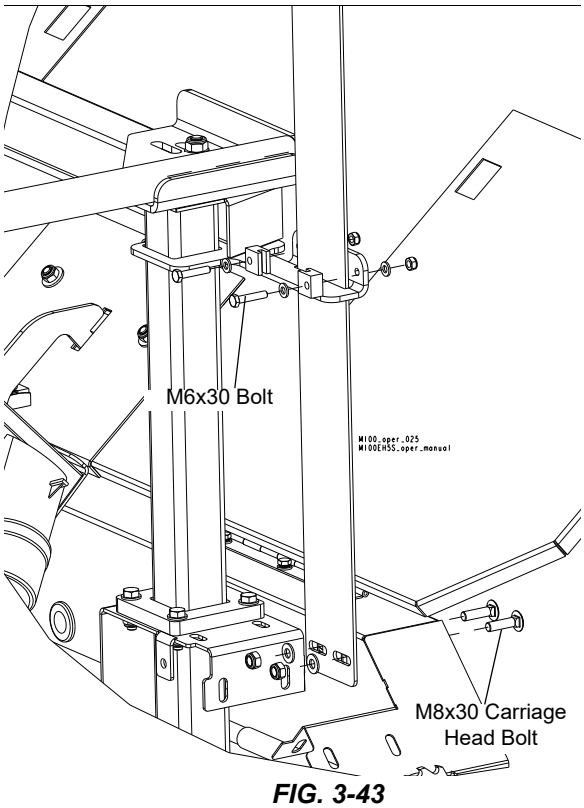


FIG. 3-43

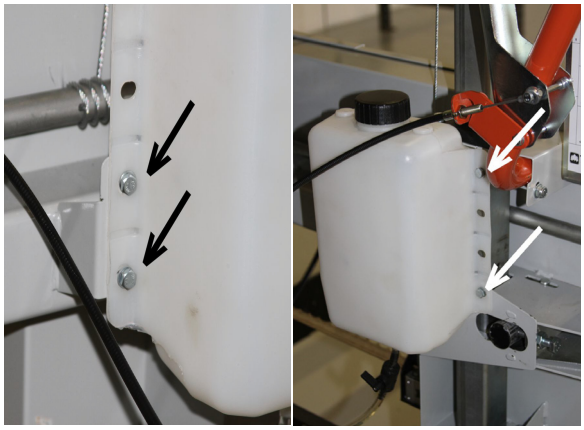


FIG. 3-44

FIG. 3-45

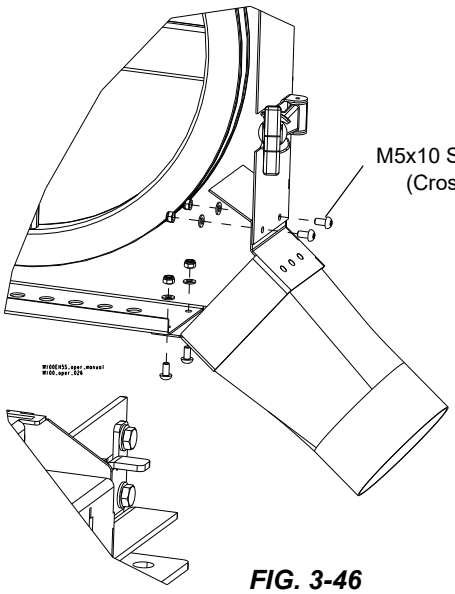


FIG. 3-46

3.11 Install the lube water tank

The tools needed are:

- Socket, 10mm
- Combination wrench, 10mm

Fasten the lube water tank to the sawhead with the four bolts and nuts provided in the hardware kit. *(See fig. 3-44 .)*

Thread the lube water tube through the grommet next to the right blade guide.*(See fig. 3-45 .)*

3.12 Install the dust chute

The tools needed are:

- Socket, 8mm
- Cross Screwdriver

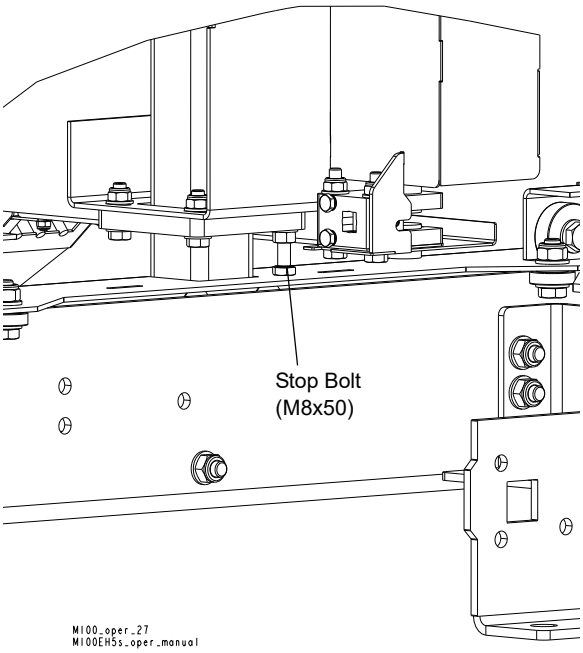
Fasten the dust chute to the sawhead with the three screws and nuts provided in the hardware kit. *(See fig. 3-46 .)*

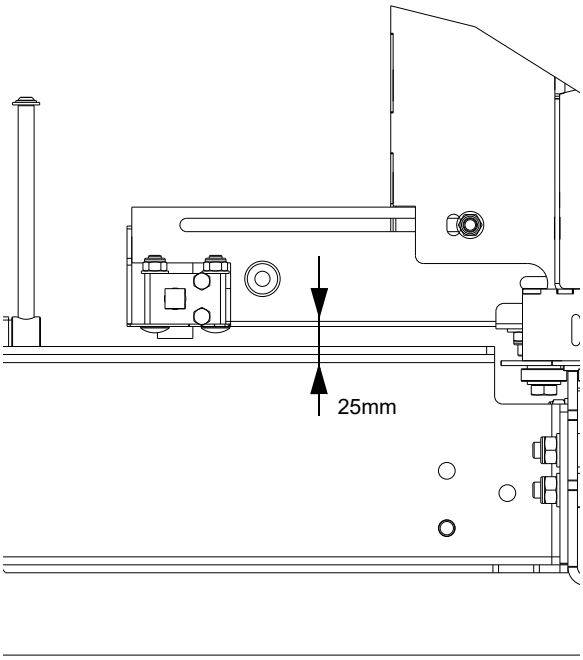
3.13 Adjust the stop bolt of the saw head.

The tools needed are:

- Combination wrench, 13mm

Adjust the saw head stop bolt so that the saw head stops moving at its lower travel limit, at the height of 25 mm above the bed.





SECTION 4 OPERATION

Safety First!

DANGER! Make sure that the engine is off before performing any maintenance. Failure to do so will result in serious injury or death.

DANGER! Keep all persons out of the path of moving equipment and logs when operating sawmill or loading and turning logs. Failure to do so will result in serious injury or death.

WARNING! Secure all loose clothing and jewelry before operating the sawmill. Failure to do so may result in serious injury or death.

WARNING! Always wear eye, ear, respiration, and foot protection when operating or servicing the sawmill. Failure to do so may result in serious injury or death.

WARNING! Always keep clear of exiting sawdust. Keep hands, feet, and any other objects away from the sawdust chute when operating sawmill. Failure to do so may result in serious injury or death.

WARNING! Assemble the bed on firm, level ground. Failure to do so may cause the sawhead to tip, resulting in serious injury or death. If using the sawmill stationary it is recommended to fasten the sawmill to the floor.

WARNING! In case of a blade or drive belt brake, wait until all rotating parts are completely stop. Failure to do so may result in serious injury.

CAUTION! Release the blade tension when the mill is not in use (for example at the end of a shift). Tension the blade again before starting the motor.

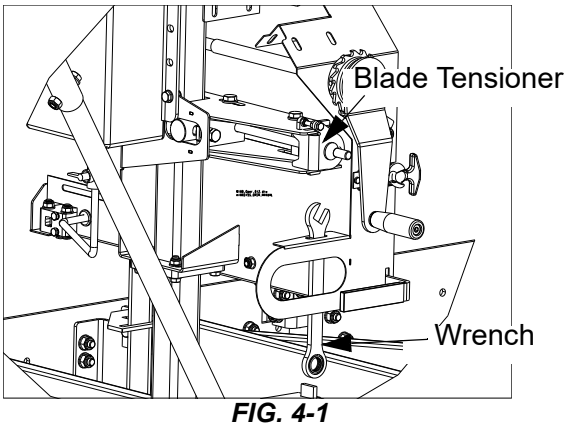


FIG. 4-1

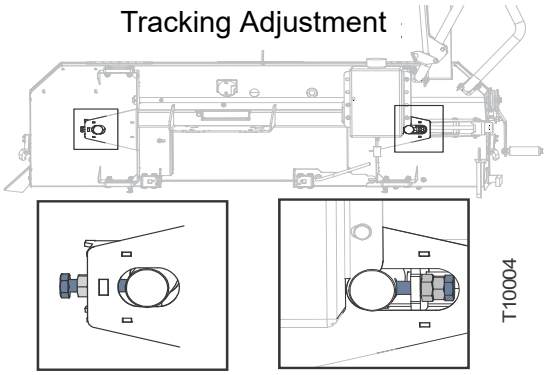


FIG. 4-2

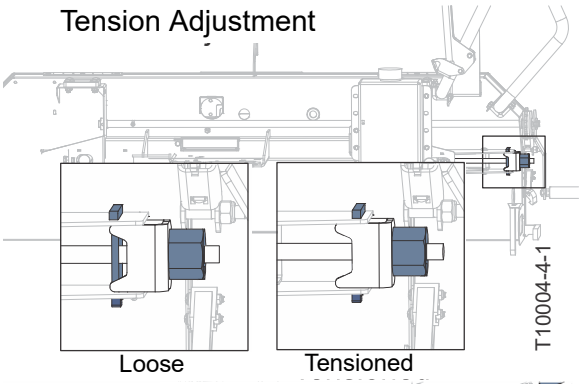


FIG. 4-3

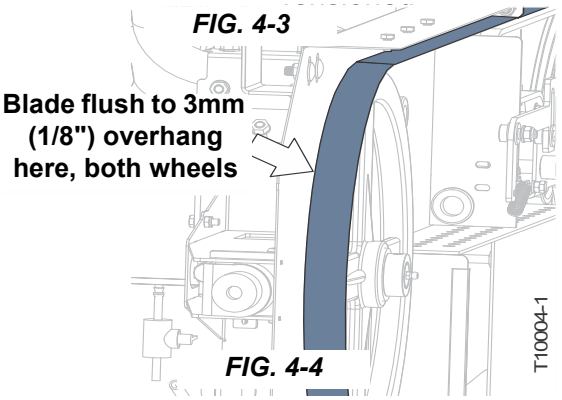


FIG. 4-4

4.1 Set-up

Clear the area. Inspect the sawing site for debris or uneven surfaces that may become a trip hazard. Ensure that eye, ear, and respiration protection are readily available. Ensure that the operator is wearing foot protection and proper work clothing.

Check engine oil levels. See the engine manual for proper amount for your engine.

Ensure the gas tank and water tanks are full.

The machine can be lifted with a forklift only. The forklift must be rated for at least 4 T (8818 lb).

It is necessary to dismount the saw head before lifting the sawmill.

The illumination at the operator's position should be at least 300lx.

Under roof, the sawmill can be operated with the sawdust collection system only.

The sawmill can't be operated outdoor when it is raining/snowing and in case of rain/snow the sawmill must be stored under roof or indoor.

It is not allowed to use the sawmill with gas/diesel engine indoor. When using this sawmill type outdoor it is allowed to work without sawdust collection system connected. We recommend to setup sawmill in the way that operator position be down the wind. It will separate the operator from sawdust and engine exhaust gases.

4.2 Sawmill adjustments

Tension the blade

On the side of the saw head, there is a wrench for setting the wheels for proper tension. *(See fig. 3-1 .)*

Turn the blade tensioning nut until the tensioning plate will be hidden behind the housing. *(See fig. 4-2 .)*

Blade tracking

When tensioned properly, check the tracking of the blade by spinning the wheel a few times by hand. Ensure the back of the blade remains approximately flush to 3mm (1/8") of overhang at the rear edge of the wheels

NOTE: To spin the wheels in the electric mill it is necessary to loosen the motor brake. To do this, open the blade cover first and then set the key switch to "H" position.

On the back of each side of the sawhead, adjustment bolts are available for tracking the blade. Loosen the set nuts on the adjustment bolt and move the wheel until it is properly aligned. *(See fig. 4-3 .)*

The blade should track straight without moving in or out from the final setting, and the blade remains flush to 3mm (1/8 inch) overhang to the rear edge of the wheel. *(See fig. 4-4 .)*

When the blade tracks straight, tighten the rear set nuts.

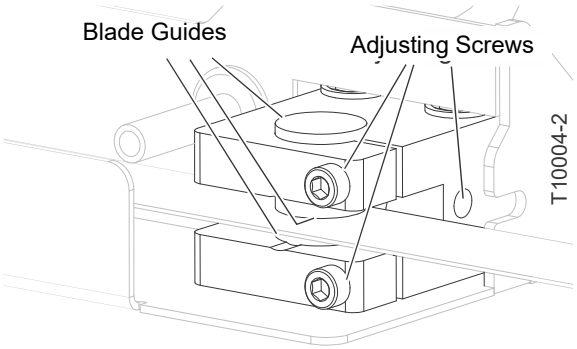


FIG. 4-5

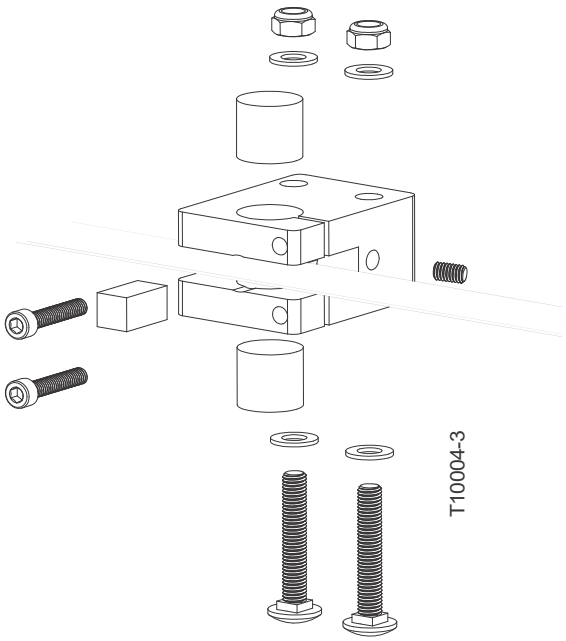


FIG. 4-6

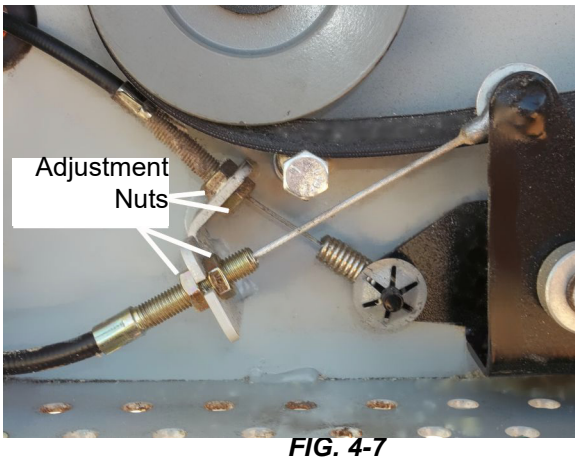


FIG. 4-7

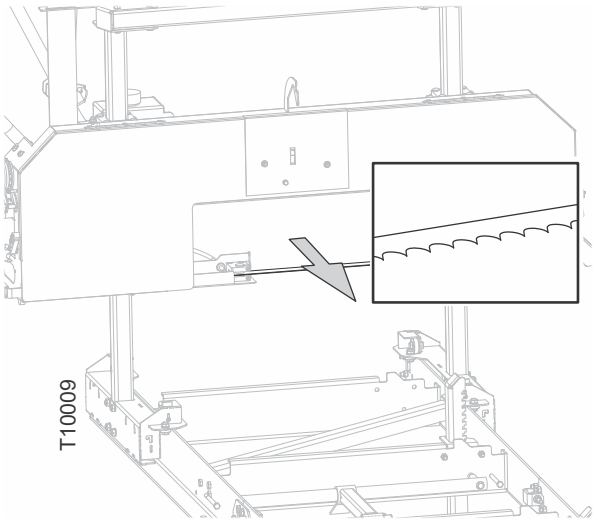


FIG. 4-8

Blade guides

Check the ceramic blade guides for the proper setting. The two round ceramic guides should hover over and under the blade between 0.010 - 0.012 inches (approximately the thickness of business card). The adjustment bolts for the top and bottom guides face the foot of the sawmill. *(See fig. 4-5 .)*

A square ceramic guide lies in the middle of the blade guide assembly. This guide should be positioned approximately 1/8 inch from blade back. Use the set screw on the side of the blade guide assembly to position the square guide. *(See fig. 4-6 .)*

Set both blade guide assemblies on each side of the blade in this manner.

Drive belt adjustment

The idler pulley for the drive belt is adjustable by lengthening or shortening the throttle cables. This will also affect the engine throttle.

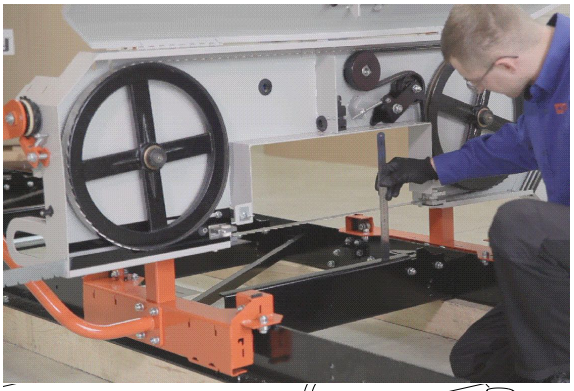
The ideal setting occurs when the throttle handle is completely depressed, the engine should run full out, and the blade drive wheel is fully engaged. Conversely, when the throttle handle is released, the engine should revert to idle, and the blade drive wheel stop turning. *(See fig. 4-2 .)*

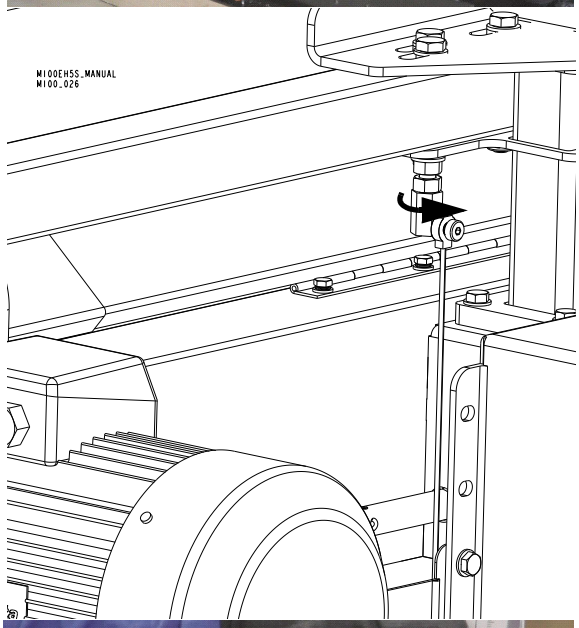
Changing blades

DANGER! Make sure that the engine is off before changing blades. Failure to do so will result in serious injury or death.

WARNING! Always wear

gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from area when coiling, carrying, or changing a blade. Failure to do so may result in serious injury.





Turn the blade tension nut to release the blade tension until the blade is loose in the blade housing. Lift the blade out of the blade housing.

WARNING! Coiled blades are under tension. Use caution when uncoiling a blade. Failure to do so may result in serious injury.

WARNING! In case of the blade brake, wait min 30 seconds until all rotating parts are completely stop.

When installing a blade, make sure the teeth are pointing the direction of cut. *(See fig. 4-2 .)* Install the blade loosely around the wheels. Perform the adjustments according to sections *Tension the blade*, *Blade tracking*, and .

FIG. 4-9

Blade straightness

Ensure that the blade is parallel to the bed. This can be accomplished by measuring the blade at both ends of the sawhead.

Measure the blade from **a tooth pointing down** on

both sides of the sawhead. Pull the adjustable blade guide arm all the way out before measuring.

Adjust the sawhead from the cable bolts of the sawhead up/down assembly.

If adjustments are necessary, **raise the low side**. This will ensure that the cable bolt does not run out of thread for the nuts.

Blade height scale

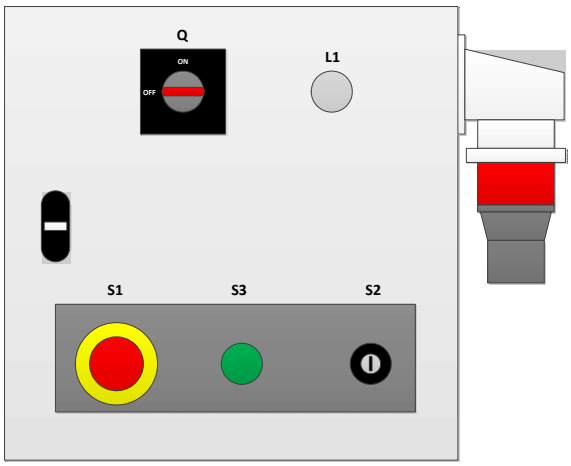
Ensure that the blade is parallel to the bed. *See "Blade straightness."*

Measure the blade from **a tooth pointing down** to the mill bed surface. Raise or lower the sawhead to get an accurate measurement. Note that measurement.

Adjust the blade scale until it matches the blade-to-bed measurement. When the scale and the blade-to-bed measurements are the same, tighten the bolts of the scale.

4.3 Electric powered M100

The M-100 is available in an electric powered version.



DANGER! Make sure all electrical installation, service and/or maintenance work is performed by a qualified electrician and is in accordance with applicable electrical codes.

DANGER! Hazardous voltage can cause shock, burns, or death. Shut off and lock out

power before performing service in any area of this machine. Do not restore power until all access panels are replaced and secured.

WARNING! Always disconnect and lockout power before performing any service to the sawmill. Failure to do so may result in serious injury.

CAUTION! If at any time you need to immediately stop the blade motor, press the emergency stop button located on the control box

Control Overview:

Q - Main Power Switch

L1 - Power ON Control Light

S1 - Emergency Stop Button

S2 - Key Switch ("M" Position-Motor Power On,

"H" Position-Motor Brake Off-used for blade tracking, "0" position-Motor Power Off)

S3 Motor START Button

CAUTION: A certified electrician should install the proper electrical outlet on the wall or ceiling at mid travel of the mill. The circuit should be wired with 2,5mm^2 or larger wire.

DESCRIPTION

Power:	5 Horsepower
RPM:	2885 RPM
Voltage:	400 Volts, Three Phases, 50 Hz, *4,1kW 9A*
Duty:	CONTINUOUS

CAUTION: It is recommended that a 30mA Ground Fault Interrupter (GFI) be used.

The additional maintenance procedures for the electric sawmill are listed below:

- Always unplug the power cord when unattended.
- Keep water away from the motor and controls; never operate in a wet environment.
- Blow sawdust out of the motor on a regular basis.
- There is the F1 motor switch in the electric box. If this switch is activated, wait few minutes and reset it manually. If switch is activated again you are probably sawing too fast.

The motor's life can be shorten by abuse, improper wire size from the electrical service entrance, improper cleaning, and wet storage and/or operating conditions therefore such conditions will void the motors warranty.

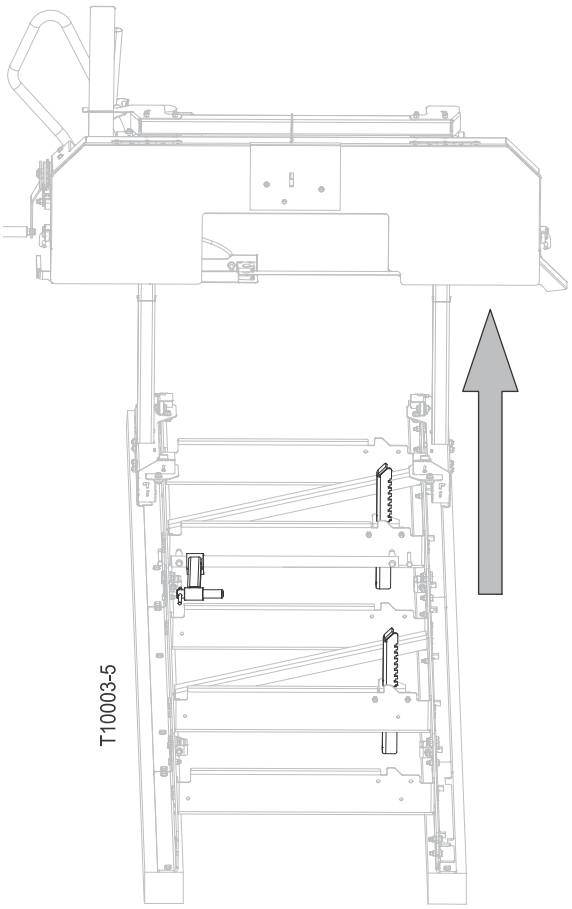


FIG. 4-10

4.4 Normal sawing operations

Loading logs

Move the sawhead to the head of the mill.

CAUTION! Before loading a log, be sure the sawhead is moved far enough toward the mill head so the log does not hit it. Failure to do so may result in machine damage.

Adjust the log clamp all the way down and move it toward the loading side of the sawmill frame. *(See fig. 4-10 .)*

CAUTION! Be sure the log clamp is adjusted out of the path of the log before loading a log onto the bed. Failure to do so may result in machine damage.

Raise the side log supports on the sawmill bed to prevent the log from falling off the side of the bed.

Normal sawing

Use the blade height scale to determine where to begin your first cut. Set the blade to the desired height with the up/down crank.

CAUTION! Make sure that the blade will clear all side log supports and the log clamp. Failure to do so may result in machine damage.

Move the blade guide arm to adjust the outer blade guide to clear the widest section of the log by about 25mm (1"). *(See fig. 4-11 .)*

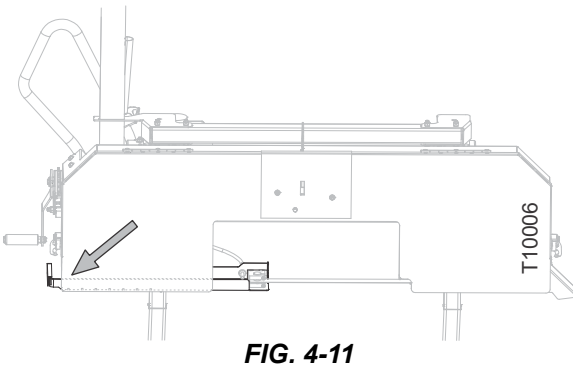


FIG. 4-11

Gas engine option

Start the engine per the engine manual's instructions.

Engage the throttle lever to start the blade spinning.

Electric Motor Option

Set the Main Power Switch to "ON" position. Set the key switch to "M" position, press and hold the safety handle. Press START button.

Open the water lube value for water to exit the water tank. *(See fig. 4-12 .)*

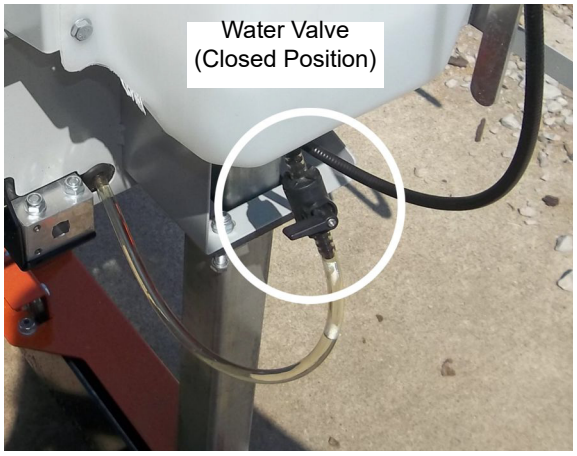


FIG. 4-12

Initially, feed the blade into the log slowly. Once the blade completely enters the log, increase the feed rate as desired. Always try to cut at the fastest speed that will keep an accurate cut. Cutting too slowly will waste blade life and lower production!

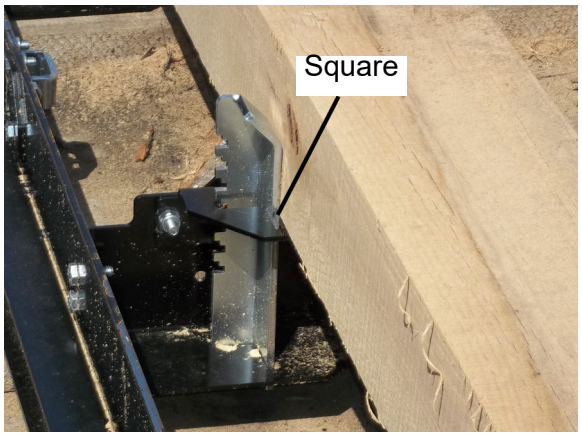


FIG. 4-13

FIG. 4-14

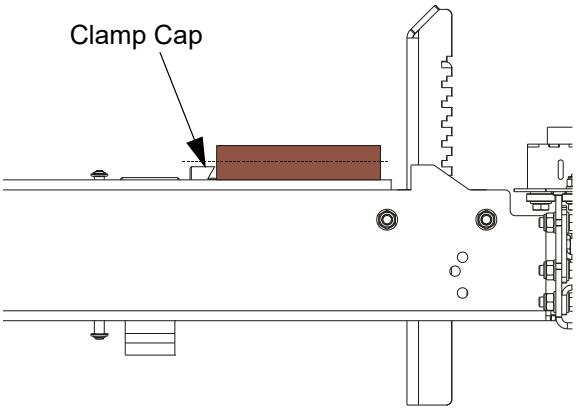


FIG. 4-15

WARNING! **Never back up while the running blade is in the log. The blade can dislodge from the wheels. Turn off the engine. Failure to do so may result in serious injury.**

Near the end of the log, slow down the feed rate. When the teeth exit the end of the log, disengage the throttle lever. Remove the slab that you have just cut from the log.

Repeat until the first side of the log is cut as desired. Set aside the usable flitches (boards with bark on one or both sides). You can edge them on the mill later.

Remove the clamps and turn the log 90 or 180 degrees. Make sure the flat on the log is placed flat against side supports if turned 90 degrees. *(See fig. 4-13 .)* Make sure it is placed on bed rails if turned 180 degrees.

CAUTION! The last cut must be higher that 25mm. Any lower that 25mm may result in equipment damage or injury.
The last cut should be done using the clamp cap. *(See fig. 4-15 .)*

Repeat the steps used to cut the first side of the log until the log is square. Cut boards from the remaining cant by adjusting the blade height for the thickness of boards that you want. *(See fig. 4-14 .)*

4.5 Troubleshooting

DANGER! Before performing service on the mill, turn off the engine and remove the key. If the moving parts are activated, serious injury or death will result.

PROBLEM	CAUSE	SOLUTION
Blades Dull Quickly	Dirty logs	Clean or debark logs, especially on entry side of the cut
	When grinding teeth, heating too much and causing teeth to soften	Grind just enough metal to restore sharpness to the teeth. Use water/coolant while sharpening blade
	Poor sharpening techniques	Make sure the tip is being sharpened completely.
Blades Break Prematurely	Rubber belts on blade wheels worn to a point that blade contacts metal pulley - look for shiny spots on edge of wheels	Change blade wheel belts
	Tension too tight	Tension blade to recommended specifications (*See "Tension the blade."*)
Blade Does Not Track Right on Drive Wheel	Cant adjustment is incorrect	Readjust (*See "Blade tracking."*)
	Flat/worn belts	Replace belts
Drive Belts Wear Prematurely or Jump	Engine/motor and drive pulleys out of alignment	Align pulleys

Boards thick or thin on ends or middle of board.	Stress in log which causes log to not lay flat on the bed.	After log has been squared, take equal cuts off opposing sides. Take a board off the top. Turn the log 180 degrees. Take a board off. Repeat, keeping the heart in the middle of the cant, until making it your last cut.
	Set in teeth.	Resharpen and reset blade.
	Bed rails misaligned.	Realign sawmill.
Height adjustment jumps or stutters when moving up or down.	Up/down cable improperly adjusted.	Adjust up/down cable.
	Vertical wear pads are too tight.	Adjust pads.
	Up/down cable loose.	Replace/adjust cable.
Lumber is not square	Vertical log supports not square to bed	Adjust log supports.
	Blade not parallel to bed rails	Adjust bed rails parallel to blade.
	Sawdust or bark between cant and bed rails	Remove particles
	Tooth set problems	Resharpen and reset blade
Sawdust builds up on track	Excessive oiling	Use white lithium grease
	Track sweepers worn	Adjust sweepers to firmly contact track
	Track is sticky	Clean track with solvent and apply silicone spray

Wavy cuts	Excessive feed	Slow feed rate
	Improperly sharpened blade (This will be the problem 99% of the time!)	Resharpen blade
	Blade guides improperly adjusted	Adjust blade guides.
	Sap buildup on blade	Use water lube.
	Tooth set problem	Resharpen and reset blade

SECTION 5 SPECIFICATION

5.1 Belt Sizes

See Table 5-1. Belt sizes for the M100 are shown below.

Description	Belt Size
Motor Drive Belt	*(See SECTION 7 SAWHEAD.)*
Blade Pulley Belts	

TABLE 5-1

5.2 Cutting Capacity

See Table 5-2. The log size capacities of the M100 sawmills are listed below.

	Max. Diameter	Max. Length
M100	66 cm	3,55 m

TABLE 5-2

5.3 Blade

See Table 5-3. The blade specification of the M100 sawmills is listed below.

	Thickness	Length
M100	0.90mm (0.035") 1 mm (0.039") 1.07 mm (0.042") 1.14mm (0.045")	3340-3360 mm (131,5"-132")

TABLE 5-3

5.4 Overall Dimensions and Weight

See Table 5-4. The overall dimensions of the Timbery M100 sawmills are listed below.

Model	Length	Width	Height	Weight Sawmill with 3 Bed Sections
M100E5S	4286mm	1919mm (electric)	1722mm	277 kg
M100G14	4286mm	1815 (gas engine)	1740mm	259 kg

TABLE 5-4

See Table 5-5. The overall dimensions of the Timbery M100 sawmills with standard frame is shown below.

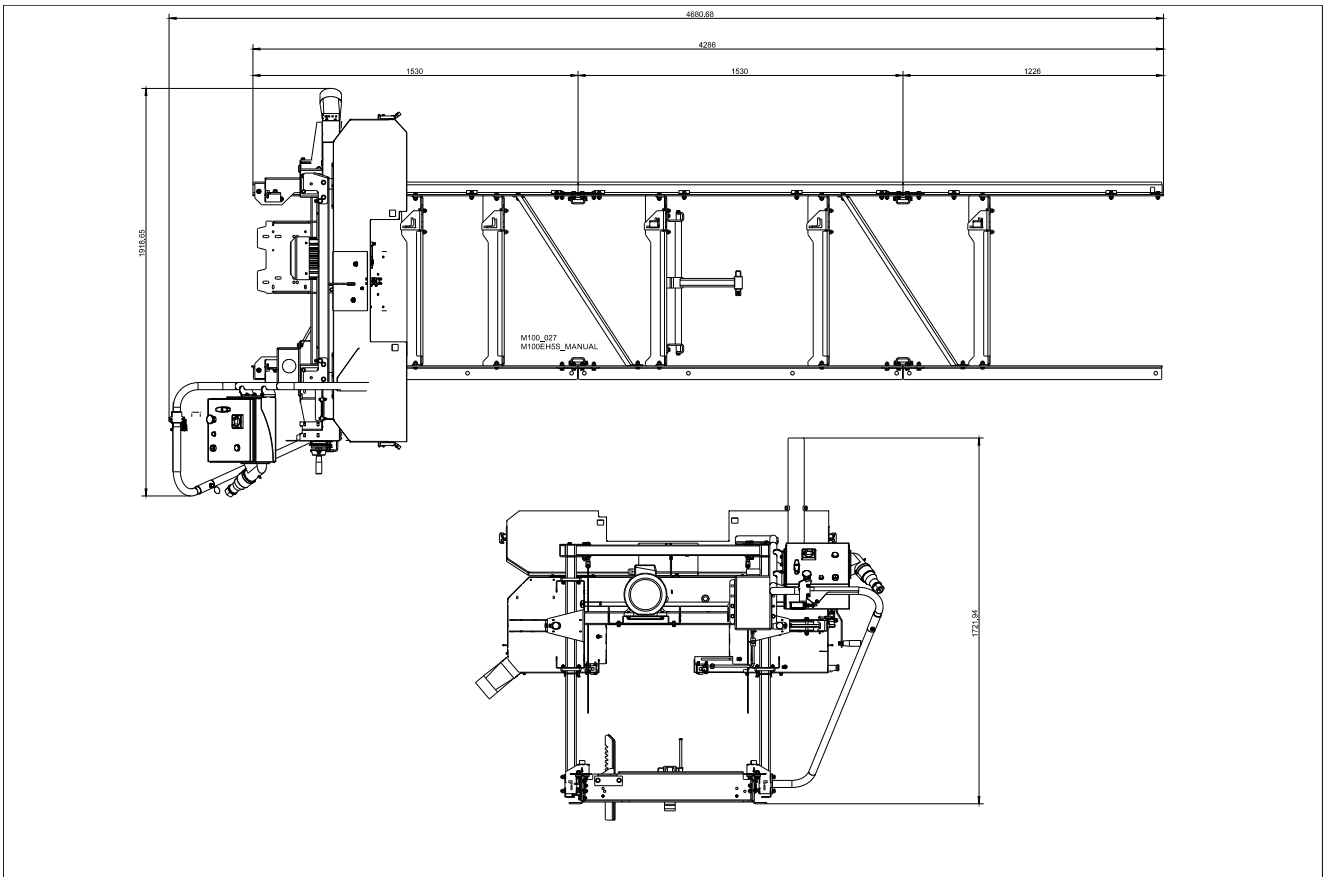


FIGURE 5-5 M100EH5S (CE STANDARD)

See Table 5-6. The overall dimensions of the Timbery M100 sawmills with standard frame is shown below.

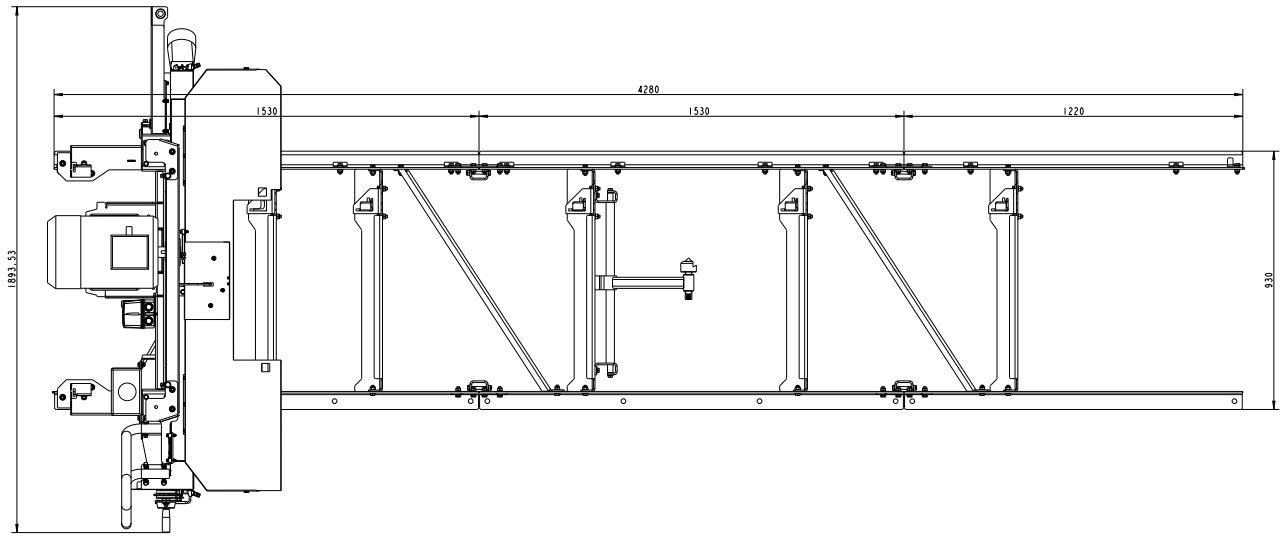


FIGURE 5-6 M100EH7

5.5 Engine/Motor Specifications

See Table 5-7. The power options available for the M100 sawmill are listed below.

Engine/Motor Type	Manufacturer	Model Number	Specifications
4 kW Electric Motor M100E5S	Tamel, Poland	PSg 100L2 HM	3 x 400V, 50 Hz 8,2 A at 400V 2885 RPM
5.5 kW Electric Motor M100E7S	Indukta, Poland	Sg 132 S-2A HM	3 x 400V, 50 Hz 10,4 A at 400V 2910 RPM
9 HP Gas Engine M100G9S	Subaru, Japan	EX27 Premium	265cm^3 4000RPM
14 HP Gas Engine M100G14S	Subaru, Japan	EX40 Premium	404cm^3 3600RPM

TABLE 5-7

5.6 Noise Level

See Table 5-8. The average level of noise is given in table below[1][2].

	Noise Level
M100E5S Electric Motor	93 dB (A)
M100G9S Gas Engine	83,5 dB (A)

TABLE 5-8

IMPORTANT! The total value of hand-arm vibration the operator may be exposed to does not exceed 2.5 m/s^2. The highest root mean square value of weighted acceleration to which the whole operator's body is subjected does not exceed 0.5 m/s^2.

---

1. The noise level measurement was taken in accordance with PN-EN ISO 3746 Standard. The noise exposure level given above concerns an 8-hour work day. Value for associated uncertainty K=4dB.
2. The figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include the characteristics of the work room and the other sources of noise etc. i.e. the number of machines and other adjacent processes. Also the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

5.7 Sawdust Extractor Specifications

CAUTION! Always turn on the dust extractor before starting the machine.

See Table 5-9. The dust extractor specifications are given below [1].

Airflow	1200 m^3/h 3937ft^3/h
Inlet diameter	100 mm (5.9”)
Motor power	1,5 kW
Number of sacks	1 pcs
Sack capacity	0,25 m^3 (8.8 $ft)^3$
Weight	110 kg (242.5 lb)
Pressure drop	1,5 kPa (0.22 psi) [1]
Recommended conveying air velocity in the duct	20 m/s 65.6 ft/s

TABLE 5-9

[1] The pressure drop between the inlet of the capture device and the connection to the CADES should be maximum 1,5 kPa (for the nominal air flow rate). If the pressure drop exceeds 1,5 kPa the machine might not be compatible with conventional CADES.

IMPORTANT! The dust extractor hoses must be grounded or made with materials not accumulating electrostatic charge.

CAUTION! Always turn on the dust extractor before starting the machine

IMPORTANT! The total value of hand-arm vibration the operator may be exposed to does not exceed 2.5 m/s2. The highest root mean square value of weighted acceleration to which the whole operator’s body is subjected does not exceed 0.5 m/s2.

1. External chip and dust extraction equipment with fixed installations are dealt with in EN 12779:2016-04

SECTION 6 MAINTENANCE

WARNING! Shut down the sawmill and allow all moving parts to come to a complete stop before removing any guards and covers. Failure to do so may result in serious injury or death.

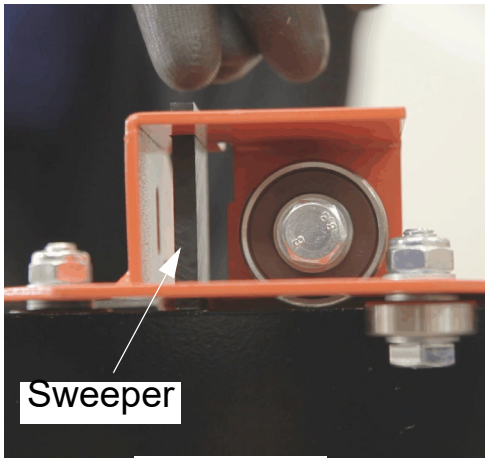


FIG. 6-1

6.1 Continuous maintenance

Rails, rollers, and sweepers

Proper maintenance of the sawmill carriage rollers and rails is critical for smooth operation of the sawmill. Prevent corrosion that causes pitting and scaling on the rail surfaces which results in rough cuts or jerky feed movement.

FIG. 6-2

CAUTION! Keep track rails free of rust. Formation of rust on the track rail can cause rapid deterioration of the track rail's surface.

Lubricate the rails by wiping them with white lithium grease. Lubrication will help protect the rails from corrosive elements such as rain and/or moisture from nearby bodies of saltwater (if applicable). This lubrication is essential to maintaining the integrity of the rails and rollers and to achieve long service life.

Ensure that the sweepers are in contact with the rails, and that they are not clogged with sawdust. *(See fig. 6-1 .)*

Clean rails to remove any sawdust and sap buildup **after every use**. Use a light-grade sandpaper or emery cloth to sand off any rust or other adhering particles from the rails. *(See fig. 6-2 .)*

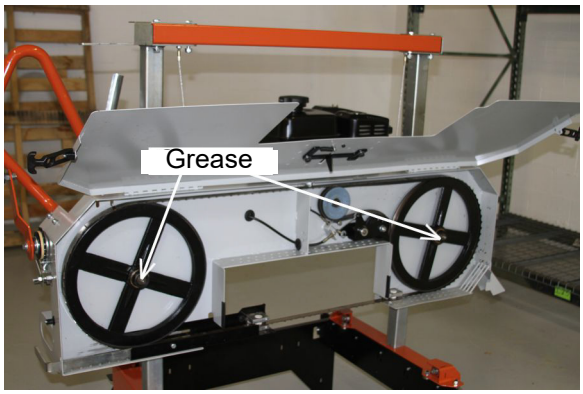


FIG. 6-3

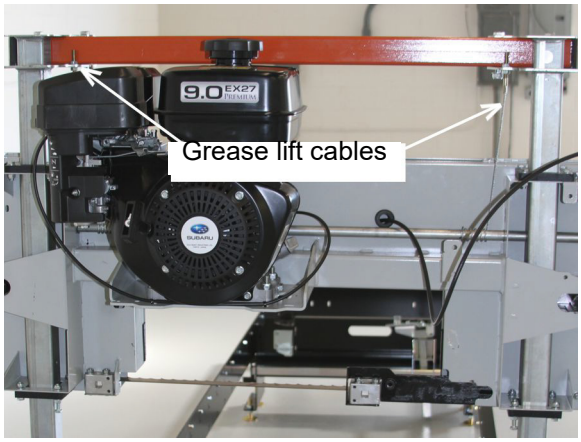


FIG. 6-4

FIG. 6-5

6.2 General maintenance

Daily (8 hours of operation)

- Check the engine oil. (See engine manual.)
- Grease the blade wheel bearings with good quality chassis grease. *(See fig. 6-3 .)*
- Clean rails, carriages, and sweepers.
- Inspect the mill for any defective part.

Weekly (40 hours of operation)

- Remove sawdust from the track roller housings and lubricate the rail sweepers with white lithium grease.
- Open the blade wheel housing cover and brush any sawdust buildup from the housing.

Monthly (160 hours of operation)

- Grease the lift cables on both sides of the sawhead with white lithium grease. *(See fig. 6-4 .)*

As needed

- Keep the threads on the up/down crank oiled, but be careful not to get any oil or grease on the winch brake pad (dark disk). *(See fig. 6-5 .)*

6.3 Engine/motor maintenance

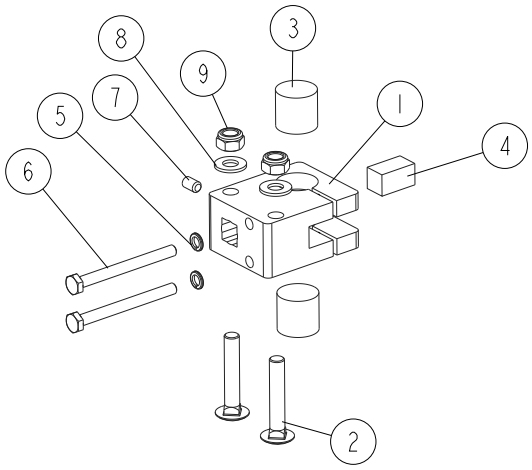
Refer to the manufacturer's engine/motor manuals for maintenance.

SECTION 7 SAWHEAD

IMPORTANT! It is strongly recommended that only original spare parts be used.

7.1 Blade Guide Assembly, Idle Side

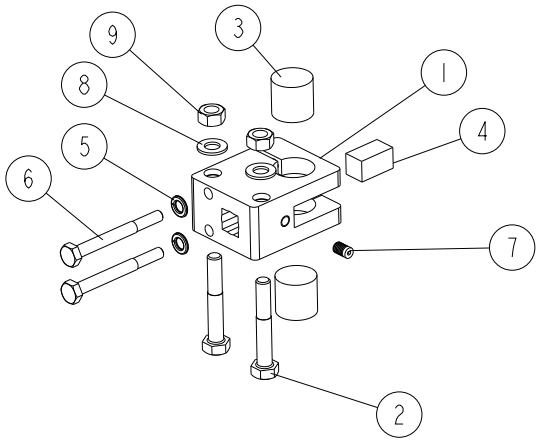
MI00_030
MI00EH5S_Manual



REF .	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	BLADE GUIDE ASSEMBLY, RIGHT	**T00418**	**1**	
1	BLOCK, BLADE GUIDE T100	X100-977	1	
2	BOLT M8X45 (DIN 603)	F81002-95	2	
3	CERAMIC, 7/8 DIA X .825 LONG	X200-433	2	
4	CERAMIC, .49 SQ X .88 LONG	X200-434	1	
5	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	2	
6	BOLT, M6X65-8.8 HEX HEAD ZINC	F81001-81	2	
7	SCREW, SET	F81001-26	1	
8	WASHER, 8.4 FLAT ZINC	F81054-1	2	
9	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2	

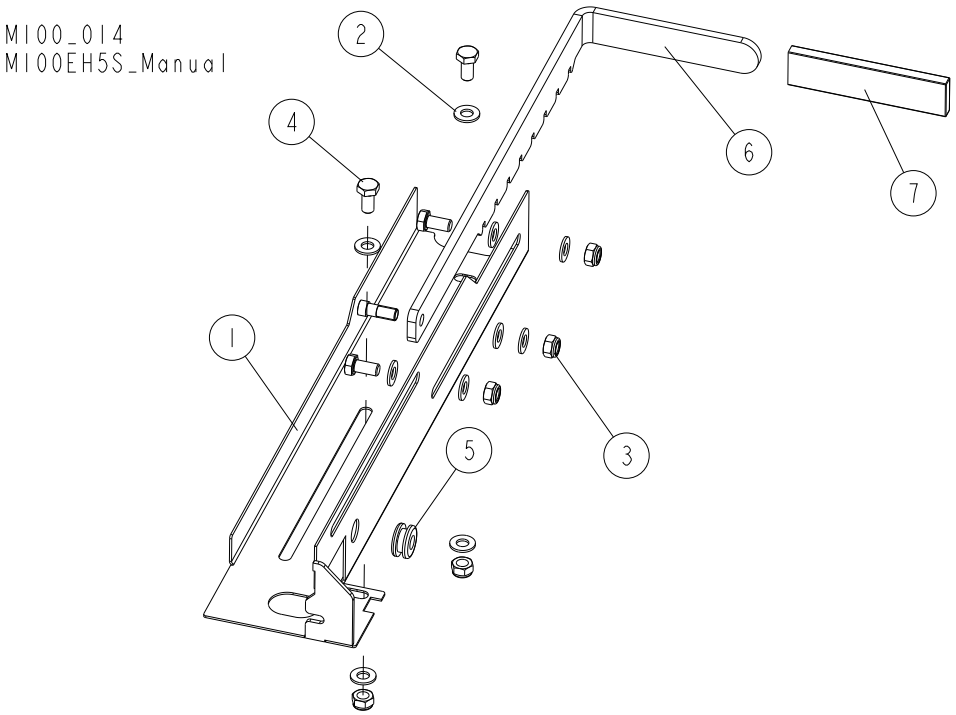
7.2 Blade Guide Assembly - Drive Side

M100_016
M100EH5S_Manual



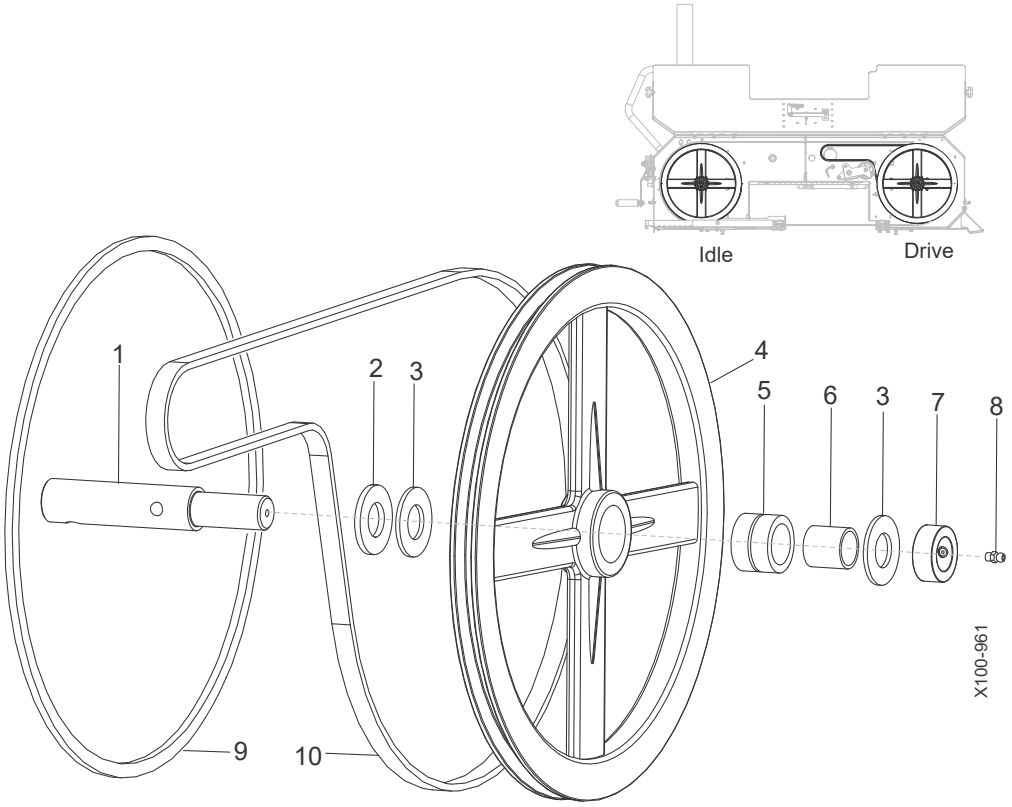
REF.	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	Assy, Blade Guide Drive Side	**T00417**	**1**	
1	BLOCK, BLADE GUIDE T100	X100-977	1	
2	BOLT M8X50 GR5(8.8) HH ZINC	F81002-10	2	
3	CERAMIC, 7/8 DIA X .825 LONG	X200-433	2	
4	CERAMIC, .49 SQ X .88 LONG	X200-434	1	
5	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	2	
6	BOLT, M6X65-8.8 HEX HEAD ZINC	F81001-81	2	
7	SCREW, SET	F81001-26	1	
8	WASHER, 8.4 FLAT ZINC	F81054-1	2	
9	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2	

7.3 Sliding Blade Guide Arm Assembly



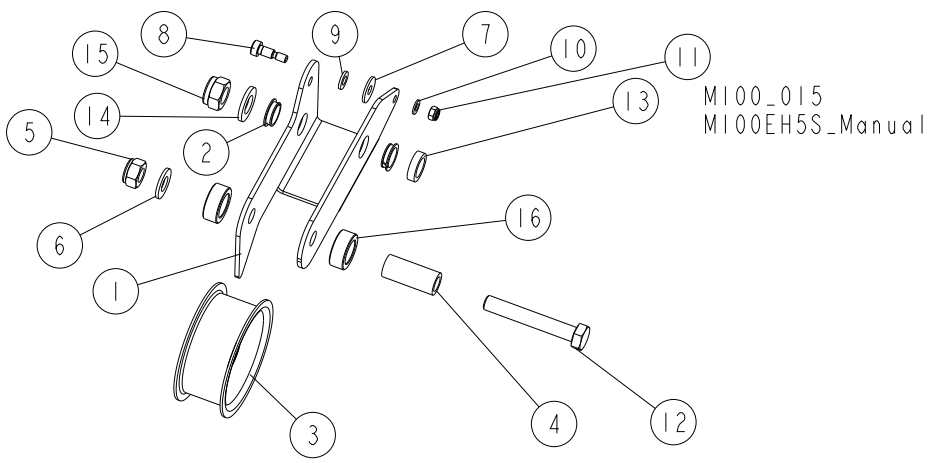
REF	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	ARM, SLIDING BLADE GUIDE ASSY	**T00052**	**1**	
1	GUIDE, SLIDING WLDMT/PTD	T00053-1	1	
2	WASHER, 8.4 FLAT ZINC	F81054-1	6	
3	WASHER, 10.5 FLAT ZINC	F81055-1	2	
4	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	5	
5	BOLT, M8X16 -8.8-B-HEX HEAD FULL THREAD ZINC	F81002-20	2	
6	GROMMET, RUBBER 3/8 ID	025248	1	
7	LEVER, BLADE GUIDE	T00056-1	1	
8	COVER, LT15 GRIP LOG CLAMP	086875	1	
9	BOLT, M8 X 20 CARRIAGE HEAD ZINC	F81002-11	2	

7.4 Band Wheel Assembly



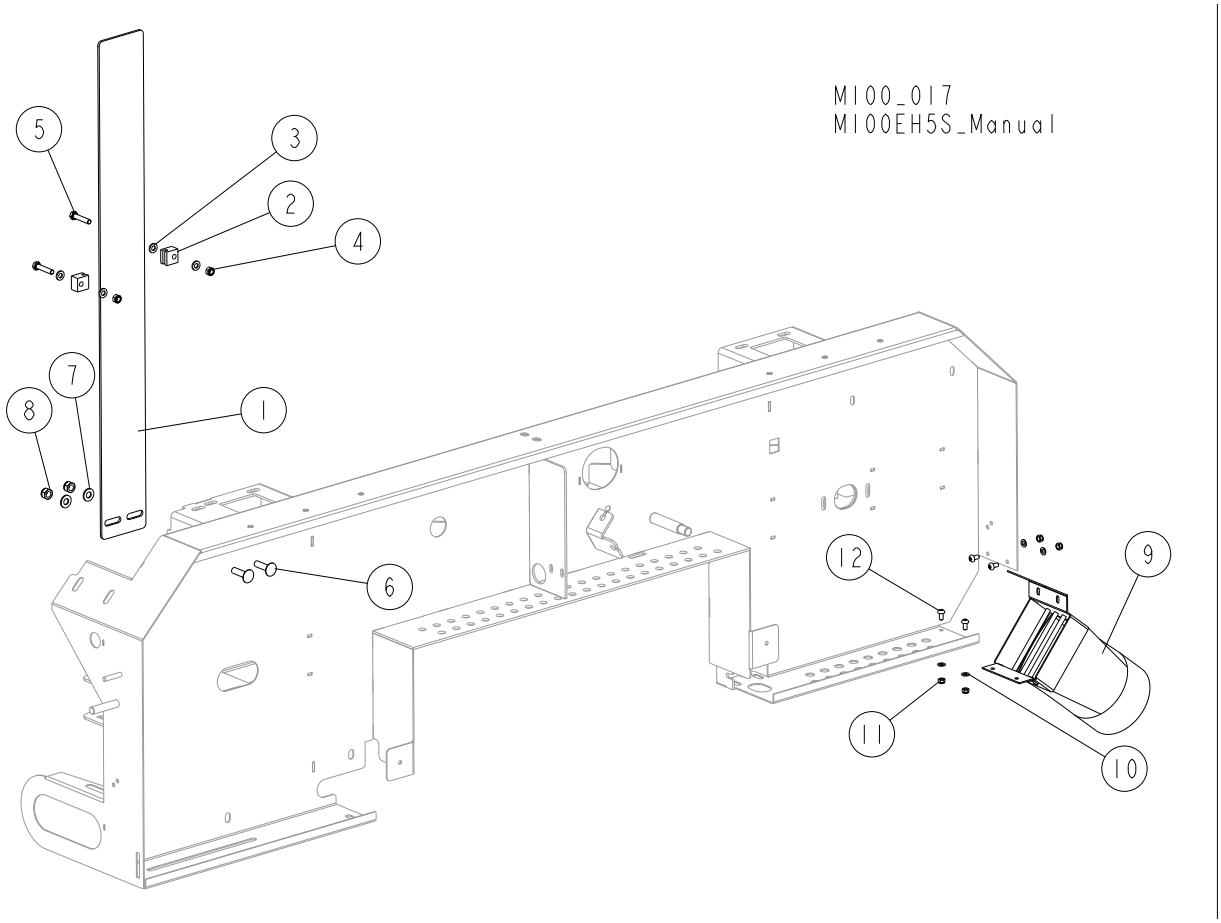
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	BAND WHEEL ASSEMBLY	**X100-961**	2	
1	Spindle, Blade Wheel	**X100-301**	1	
2	Washer, 1IDX2 OD x 3/16	**X100-337**	1	
3	Washer, Thrust, 1/8 x 1 x 2	**X200-909**	2	
4	Sheave, Bandwheel, 15 3/8 OD	**X100-303**	1	
5	Bearing, Needle 30mm ID x 42mm OD x 30mm	**X200-1035**	1	
6	Race, Inner 25mm ID x 30mm OD x 30mm	**X200-1036**	1	
7	Collar, 25mm Lock	**X100-912**	1	
8	Fitting, Grease, M6 Straight	**086280**	1	
9	**BELT, B47.4 (IDLE SIDE)**	**X100-900**	1	
10	**BELT, B69 CARLISLE SUPER II (DRIVE SIDE)**	**X100-905**	1	

7.5 Clutch Assembly



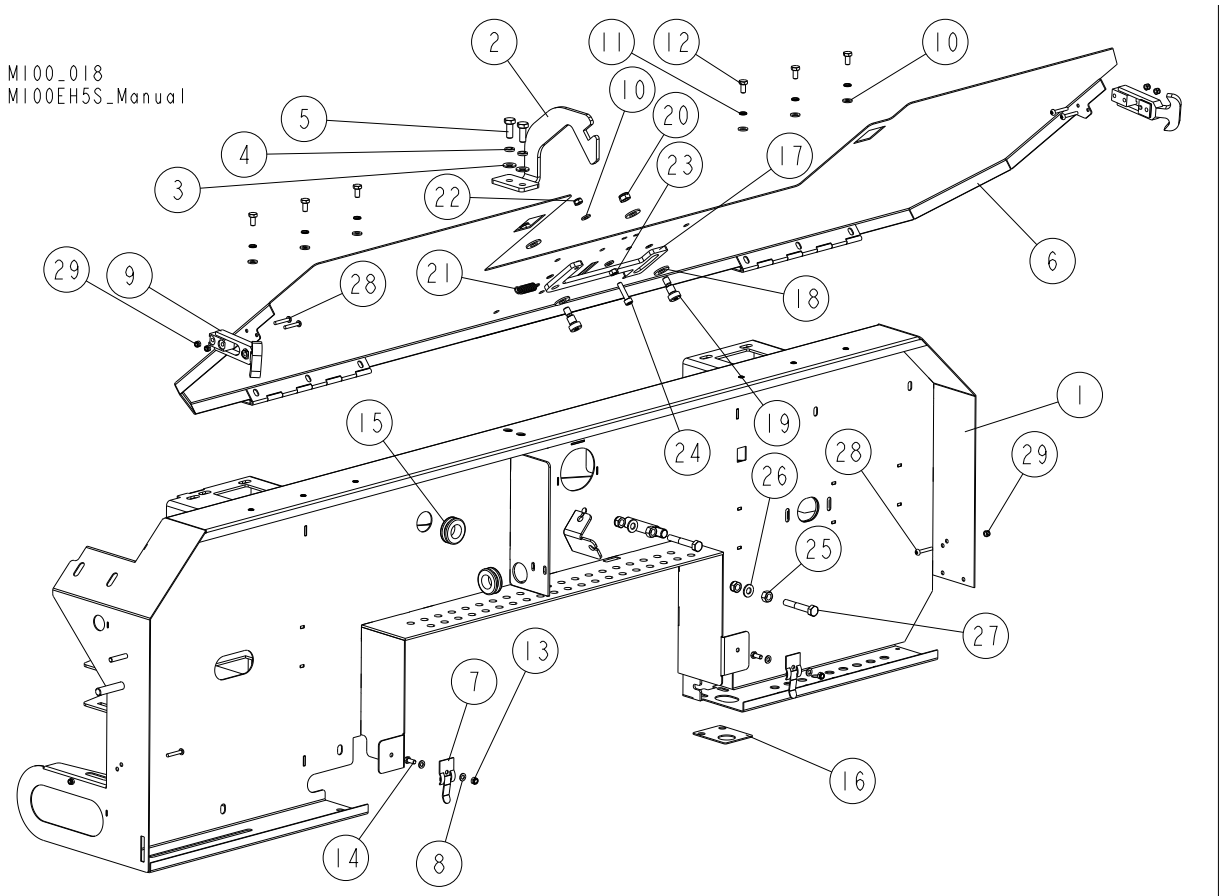
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	CLUTCH ASSEMBLY	**T00075**	**1**	
1	ARM, CLUTCH	T00074-1	1	
2	BEARING, CLIP	T00400	2	
3	PULLEY, IDLER 5/8X2 3/4	X200-906	1	
4	BUSHING, CLUTCH IDLER	X100-390	1	
5	NUT, M10 HEX NYLON LOCK	F81033-1	1	
6	WASHER,. 10,5 FLAT ZINC	F81055-1	1	
7	WASHER, 6.5 FLAT ZINC	F81053-11	1	
8	BOLT, 6/M5X10-12.9 ISO-7379 SHC	F81000-17	1	
9	WASHER, 6.4 FLAT ZINC	F81053-1	1	
10	WASHER, 5.3 FLAT ZINC	F81052-1	1	
11	WASHER, M5-8-ZINC DIN985	F81030-2	1	
12	BOLT, M10X65-8.8 HEX HEAD ZINC	F81003-67	1	
13	WASHER, FLAT, M14 BOLT, ZINC	F81057-2	1	
14	WASHER, 13-FLAT ZINC	F81056-1	1	
15	NUT, M12 8 HEX NYLON ZINC LOCK	F81034-2	1	
16	BUSHING, 16.3/25-10 PTD	088550-1	2	

7.6 Scale and Sawdust Chute



REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	SCALE BRACKET, COMPLETE	**T00057**	**1**	
1	BRACKET, SCALE	T00058-1	1	
2	BRACKET, M100 SCALE STIFFENER	T00412	2	
3	WASHER, 6.4 FLAT ZINC	F81053-1	4	
4	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	2	
5	BOLT, M6x30-8.8-HEX HEAD ZINC	F81001-8	2	
6	BOLT, M8x20-8.8 Fe/Zn5, PN-M/82406	F81002-11	2	
7	WASHER, 8.4 FLAT ZINC	F81054-1	2	
8	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	2	
	SAWDUST CHUTE, M100 COMPLETE	**T00085**	**1**	
9	CHUTE, SAWDUST M100	T00084-1	1	
10	WASHER, 5.3 FLAT ZINC	F81052-1	4	
11	NUT, M5-8-ZINC DIN985	F81030-2	4	
12	SCREW, M5X10-8.8-CROSS RECESSED PAN HEAD	F81000-13	4	

7.7 Sawhead Cover

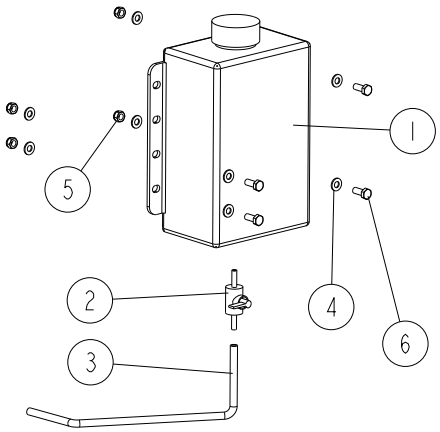


REF.	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	SAWHEAD WELDMENT	**T00087**	**1**	
1	SAWHEAD, M100 WLDMT/PTD.	T00088-1	1	
	COVER LATCH ASSEMBLY	**T00032**	**1**	
2	HOOK, COVER	T00033-1	1	
3	WASHER, 8.4 FLAT ZINC	F81054-1	2	
4	WASHER 8,2 FE/ZN9	F81054-4	2	
5	BOLT,M8X20-5.8 HEX HEAD FULL THREAD ZINC	F81002-1	2	
6	COVER, SAWHEAD FRONT COMPLETE	T00028-1	1	
7	LATCH, VIBRATION COVER	X100-999	2	
8	WASHER, 5.3 FLAT ZINC	F81052-1	16	
9	WASHER, 6.4 FLAT ZINC	F81053-1	8	
10	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	6	
11	BOLT, M6X12-8.8 HEX HEAD FULL THREAD ZIN	F81001-7	6	
12	NUT, M5-8-FE/ZN5 DIN985	F81030-2	10	
13	BOLT, M5 X 12-5.8-FE/ZN5, PN-M/82105	F81000-5	10	
14	GROMMET, RUBBER 3/4 ID	025247	2	
15	PAD, BLADE GUIDE	T00070	1	
16	BOLT, 10/M8 X 12-12.9 ISO-7379	F81003-62	2	
17	WASHER, 10.5 FLAT ZINC	F81055-1	4	
18	PAWL, LOCKING PTD	090643-1	1	

REF.	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
19	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4	
20	SPRING, 1.6X12X38 EXTENSION	092208	1	
21	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	1	
22	NUT, M6-8 HEX ZINC	F81031-1	1	
23	SCREW, M6X25 -8.8-FE/ZN5 HEX SOCKET HEAD	F81001-41	1	
24	NUT, M8-8-B HEX ZINC	F81032-1	2	
25	WASHER, 8.4 FLAT ZINC	F81054-1	2	
26	BOLT M8X50 GR5(8.8) HH ZINC	F81002-10	2	
27	LATCH, FLEXIBLE DRAW	014829	2	

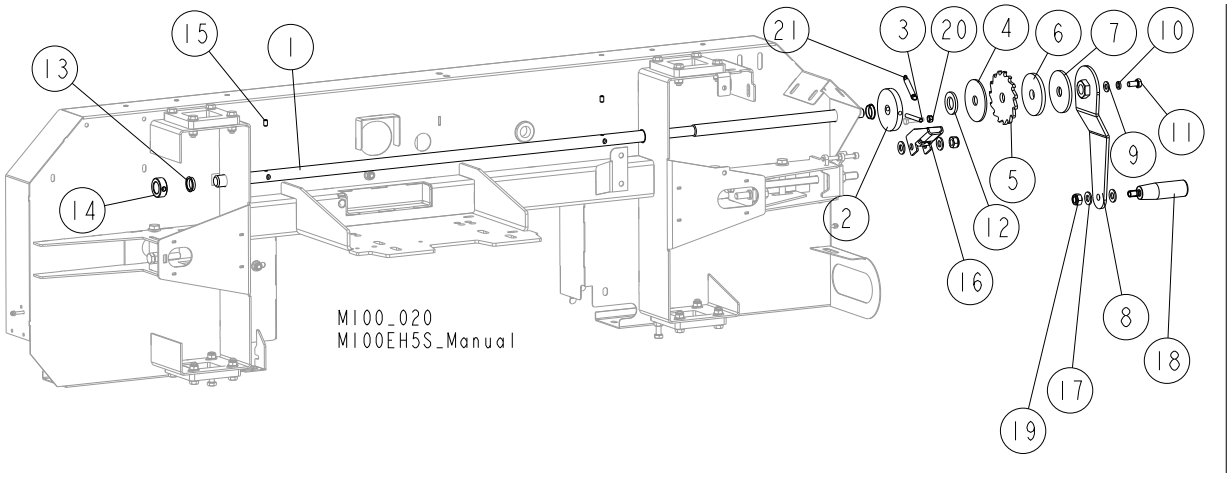
7.8 Water Tank

M100_019
M100EH5S_Manual



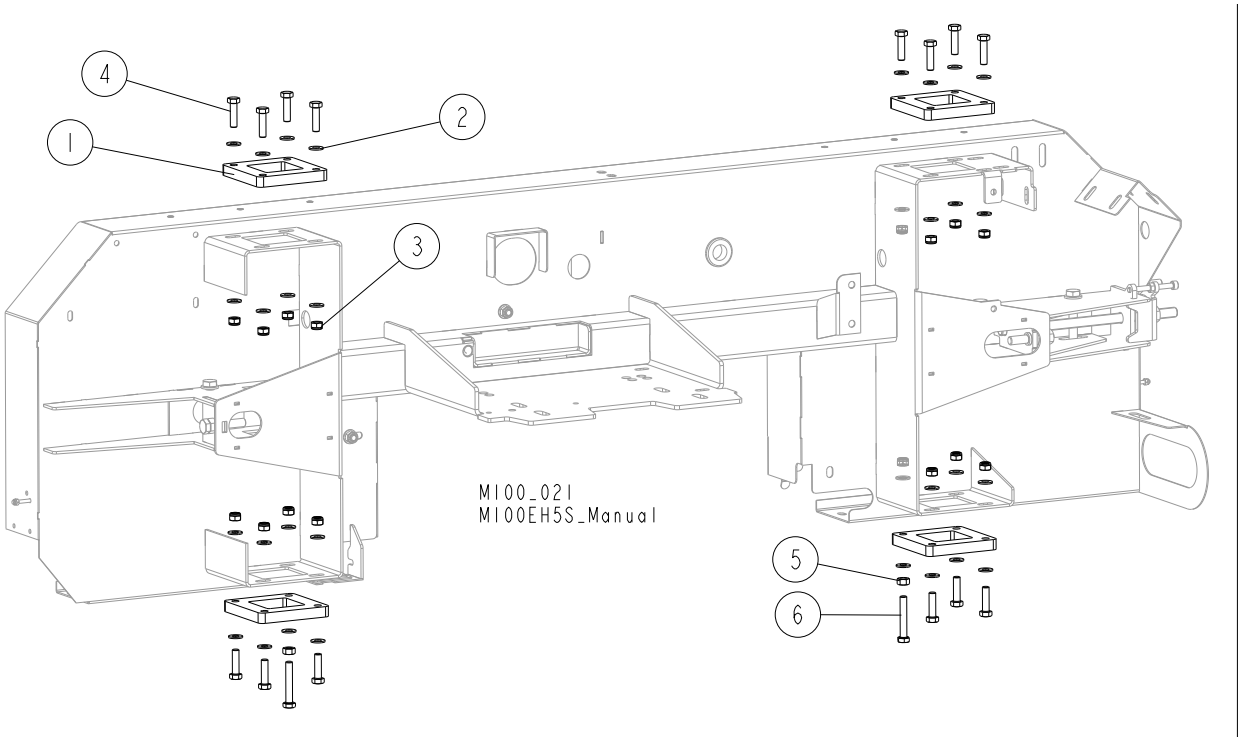
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	WATER TANK ASSEMBLY, M100	**T00082**	**1**	
1	TANK, WATER	X100-904	1	
2	VALVE, FASTEX 1/4" STRAIT WATER	X200-983	1	
3	TUBING, VINYL, 1/4X3/8X15	X100-982	1	
4	WASHER, 8.4 FLAT ZINC	F81054-1	8	
5	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	4	
6	BOLT, M8X20 5.8 HEX HEAD FULL THREAD ZINC	F81002-1	4	

7.9 Up/Down Drive Assembly



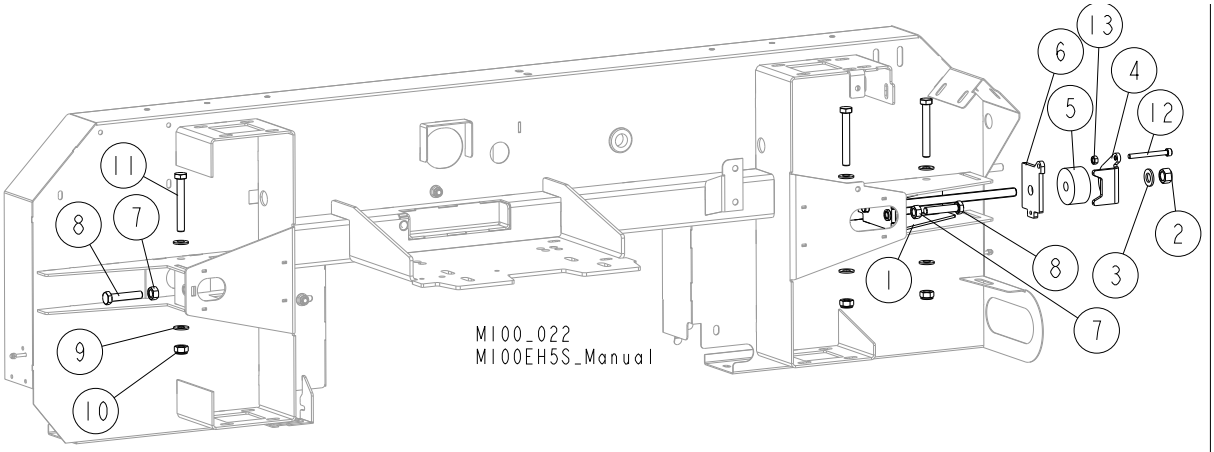
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	UP/DOWN DRIVE ASSEMBLY	**T00035**	**1**	
	UP/DOWN DRIVE SHAFT ASSEMBLY	**T00018**	**1**	
1	SHAFT, WINCH	X100-314	1	
2	WASHER, CLUTCH	X100-1041	1	
3	PIN, 6X50 ROLL	F81045-1	1	
4	PAD, WINCH FRICTION	X200-373	1	
5	WHEEL, WINCH RATCHET	X200-374	1	
6	PAD, WINCH SPRING	X200-451	1	
7	WASHER, WINCH	X200-372	1	
8	ARM, UP/DOWN DRIVE CRANK WLDMT	T00076-1	1	
9	WASHER, 8.4 FLAT ZINC	F81054-1	1	
10	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	1	
11	BOLT, M8X16-8.8-B-ZINC	F81002-20	1	
12	WASHER, 21 FLAT ZINC	F81059-2	1	
13	BUSHING BRONZE 3/4X7/8	X100-1073	3	
14	COLLAR, 3/4 ID X 1 1/4OD X 1/2 LG	P04146	1	
15	SCREW M6X10-45H ZINC SET	F81001-26	2	
16	PAWL, UP/DOWN DRIVE	T00108-1	1	
17	WASHER, 10,5 FLAT ZINC	F81055-1	4	
18	KNOB, CRANK HANDLE L=85 M10, RO11-M10.	086338	1	
19	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	2	
20	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	1	
21	SPRING, B66	X200-992	1	

7.10 Up/Down Slides



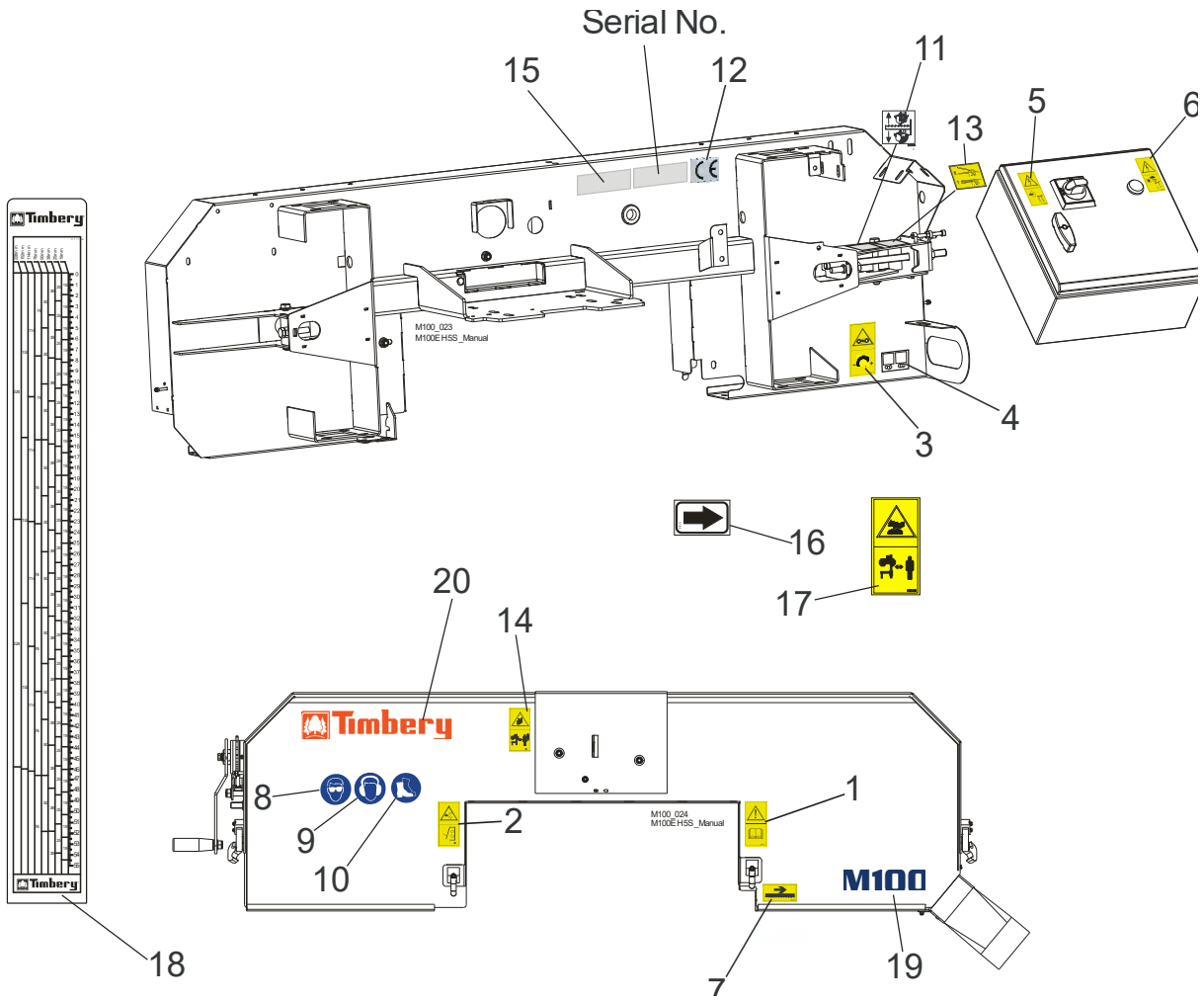
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	UP/DOWN SLIDE ASSEMBLY	**T00050**	**1**	
1	BLOCK, VERTICAL SLIDE GUIDE	X100-327	4	
2	WASHER, 8.4 FLAT ZINC	F81054-1	32	
3	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	16	
4	BOLT, M8X30-5.8-B-HEX HEAD FULL THREAD ZINC	F81002-2	14	
5	NUT, M8-8-B-HEX ZINC	F81032-1	2	
6	BOLT, M8X50 -8.8- HEX HEAD FULL THREAD ZINC	F81002-19	2	

7.11 Blade Tensioner Assembly



REF.	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	BLADE TENSIONER ASSEMBLY	**T00060**	**1**	
1	TENSIONER, BLADE WLDMT/PTD	T00061-1	1	
2	NUT, TR12X3	T00347-1	1	
3	WASHER, 13 FLAT ZINC	F81056-1	1	
4	BRACKET TENSION SPRING	T00066-1	1	
5	SPRING, URETHANE, 1/2 X 1.75 X 1	X100-907	1	
6	WASHER, TENSION SPRING	T00068-1	1	
7	NUT, M10-8-B-FE	F81033-3	2	
8	BOLT, M10X50MM HEX HEAD FULL THREAD ZINC	F81003-4	2	
9	WASHER, 10.5 FLAT ZINC	F81055-1	6	
10	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	3	
11	BOLT, M10X75-8.8 HEX HEAD ZINC	F81003-15	3	
12	BOLT, M6X40-8.8 HEX HEAD FULL THREAD ZINC	F81001-5	1	
13	NUT, M6-8 HEX ZINC	F81031-1	1	
14	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	1	
15	**WRENCH, 19MM COMBINATION RATCHET**	**T00423**	**1**	

7.12 Decals

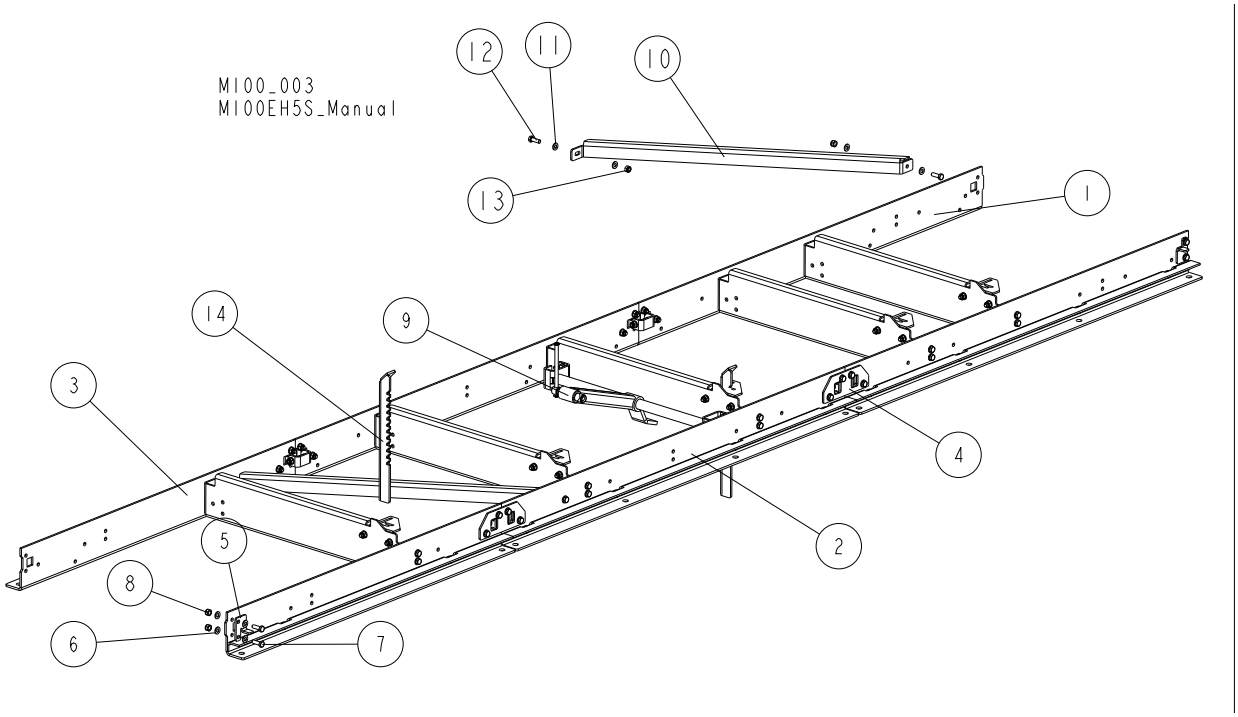


REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	DECALS ASSEMBLY, TIMBERY M100	**T00413**	**1**	
1	DECAL, READ OPERATOR'S MANUAL (PICTOGRAM)	096317	1	
2	DECAL, SAWMILL COVERS CAUTION (PICTOGRAM)	099220	1	
3	DECAL, BLADE TENSION (PICTOGRAM),	099219	1	
4	DECAL, BLADE TENSION ADJUSTMENT	515084	1	
5	DECAL, HIGH VOLTAGE IN ELECTRIC BOX (AC SAWMILL ONLY)	096316	1	
6	DECAL, DISCONNECT POWER SUPPLY BEFOR OPENING THE ELECTRIC BOX (AC SAWMILL ONLY)	096319	1	
7	DECAL, BLADE MOVEMENT DIRECTION (PICTOGRAM)	096321	1	
8	DECAL, EYE PROTECTION WARNING (PICTOGRAM)	S12004G	1	
9	DECAL, EAR PROTECTION WARNING (PICTOGRAM)	S12005G	1	
10	DECAL, USE SAFETY BOOTS (PICTOGRAM)	501465	1	
11	DECAL, BLADE ALIGNMENT (PICTOGRAM)	P11789	1	
12	DECAL, CE CERTIFIED SAWMILL	P85070	1	
13	DECAL, SAFETY HANDLE	501477	1	
14	DECAL, KEEP AWAY DANGER, PICTOGRAM	099221	1	
15	DECAL, MULTILINGUAL SAWMILL NAME	515085	1	
16	DECAL, MOTOR ROTATION DIRECTION (AC SAWMILL ONLY)	s20097	1	

REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
17	DECAL, HOT ELEMENTS, KEEP YOUR DISTANCE (DC SAWMILL ONLY)	086099	1	
18	DECAL, SCALE, MILLIMETRE	511196	1	
19	DECAL, M100	X100-983	1	
20	DECAL, TIMBERY	X200-985	1	

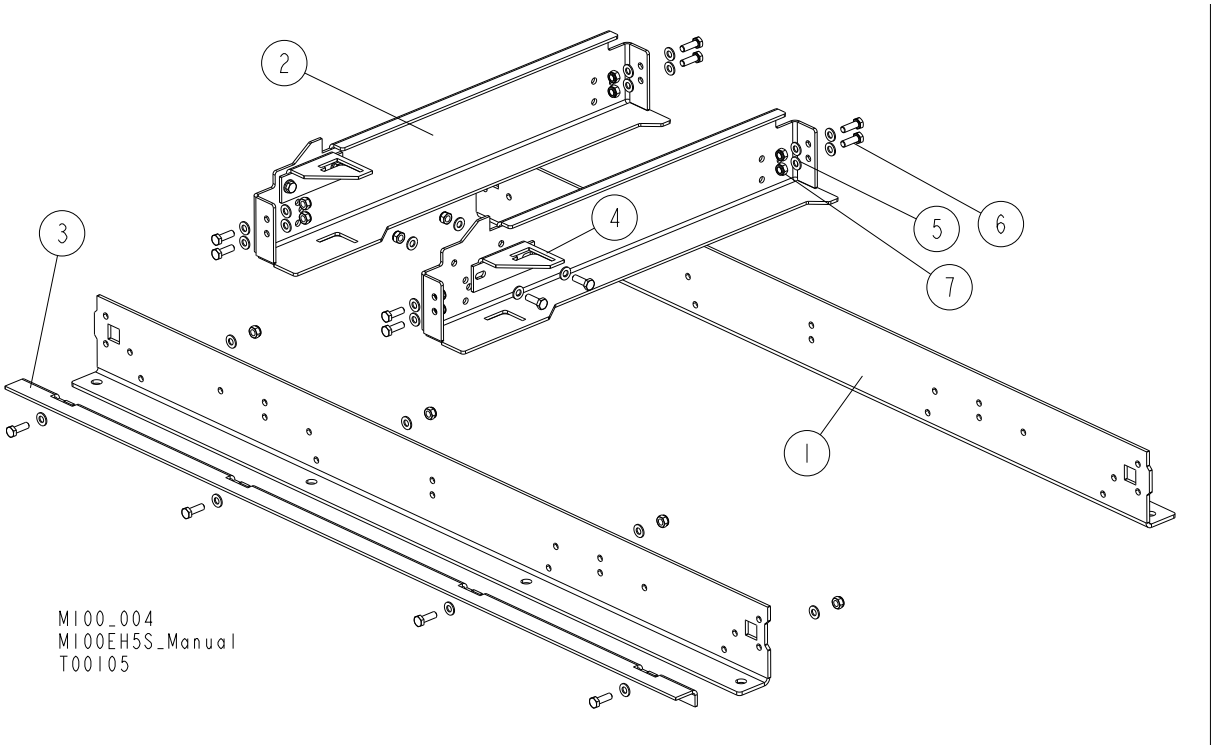
SECTION 8 BED RAIL AND MAST ASSEMBLY

8.1 Bed Rails



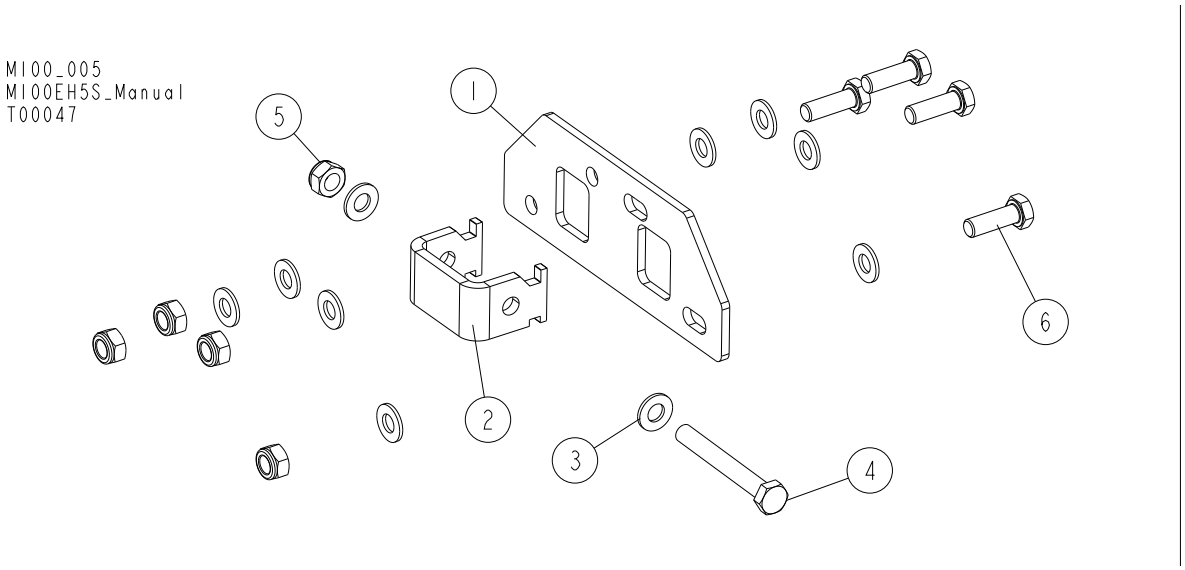
REF.	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	BED RAIL, M100 COMPLETE	**T00003**	**1**	
1	BED SECTION, M100 *See section 8.2*	T00105	1	
2	BED SECTION, M100 *See section 8.2*	T00067	1	
3	BED SECTION, FRONT M100 *See section 8.2*	T00046	1	
4	COUPLER, COMPLETE M100 *See section 8.3*	T00047	4	
	END STOP PLATE - COMPLETE	**T00080**	**2**	
5	PLATE, END STOP	T00042-1	1	
6	WASHER, 10.5 FLAT ZINC	F81055-1	4	
7	BOLT, M10X30 5.8 HEX HEAD FULL THREAD ZINC	F81003-2	2	
8	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	2	
9	CLAMP, M100 COMPLETE LOG *See section 7.5*	T00034	1	
	CROSS BRACE PLATE, COMPLETE	**T00104**	**2**	
10	PLATE, CROSS BRACE	T00038-1	1	
11	WASHER, 10,5 FLAT ZINC	F81055-1	4	
12	BOLT, M10X30 5.8 HEX HEAD FULL THREAD ZINC	F81003-2	2	
13	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	2	
14	SUPPORT, SIDE	T00041-1	2	

8.2 Bed Section



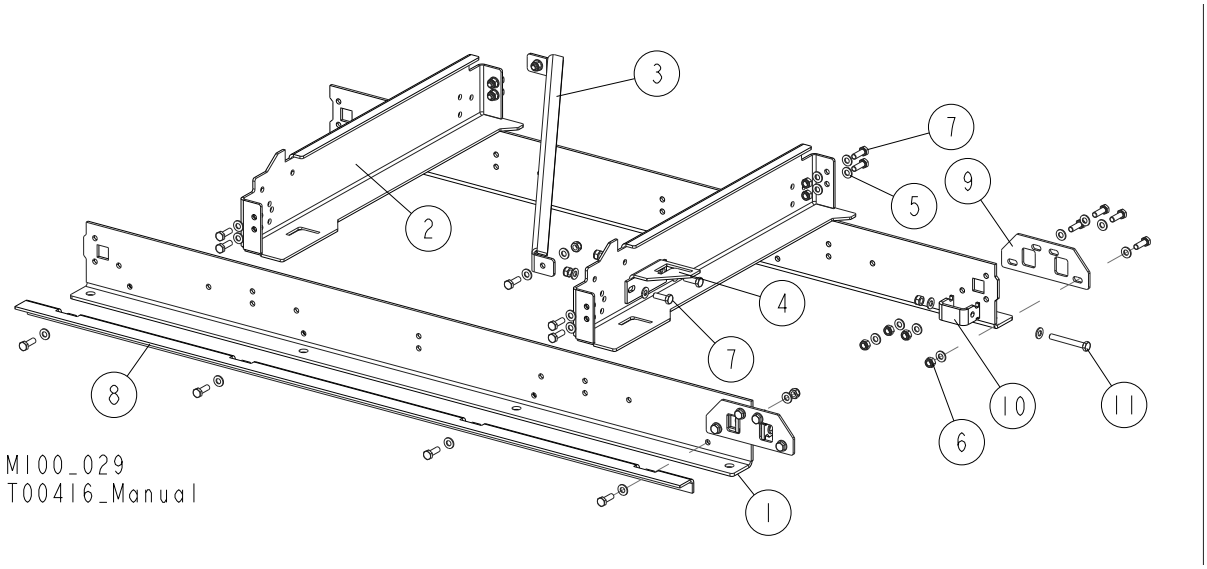
REF.	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	BED SECTION, M100	**T00105**	**1/0/0**	
	BED SECTION, M100	**T00067**	**0/1/0**	
	BED SECTION, M100	**T00046**	**0/0/1**	
1	RAIL, BED LONG	T00036-1	2/2/0	
	RAIL, BED SHORT	T00044-1	0/0/2	
2	PLATE, CROSS BRACE	T00037-1	2/2/1	
3	PLATE, SAFETY CATCH RAIL	T00039-1	1/1/0	
	PLATE, SAFETY CATCH RAIL	T00045-1	0/0/1	
4	BRACKET, SIDE SUPPORT	T00043-1	2	
5	WASHER, 10,5 FLAT ZINC	F81055-1	32/32/16	
6	BOLT, M10X30 5.8 HEX HEAD FULL THREAD ZINC	F81003-2	16/16/8	
7	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	16/16/8	

8.3 Bed Coupler



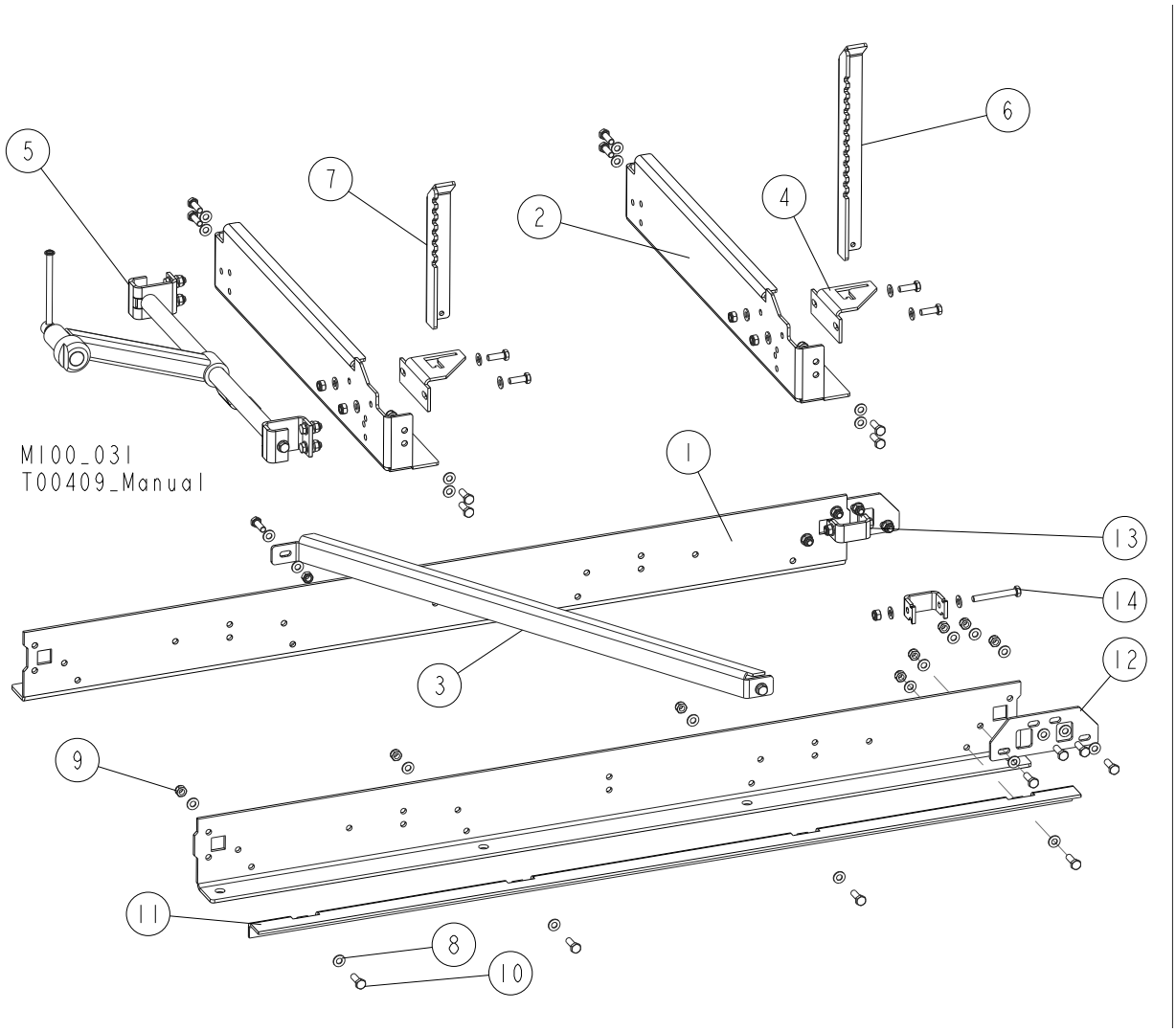
REF.	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	BED COUPLER, M100 COMPLETE	**T00047**	**1**	
1	PLATE, BED COUPLER	T00048-1	1	
2	PLATE, BED RAIL CLAMP	T00049-1	1	
3	WASHER, 10,5 FLAT ZINC	F81055-1	10	
4	BOLT, M10X80-8.8-HEX HEAD ZINC	F81003-50	1	
5	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	5	
6	BOLT, M10X30 5.8 HEX HEAD FULL THREAD ZINC	F81003-2	4	

8.4 M100-EXT Bed Extension



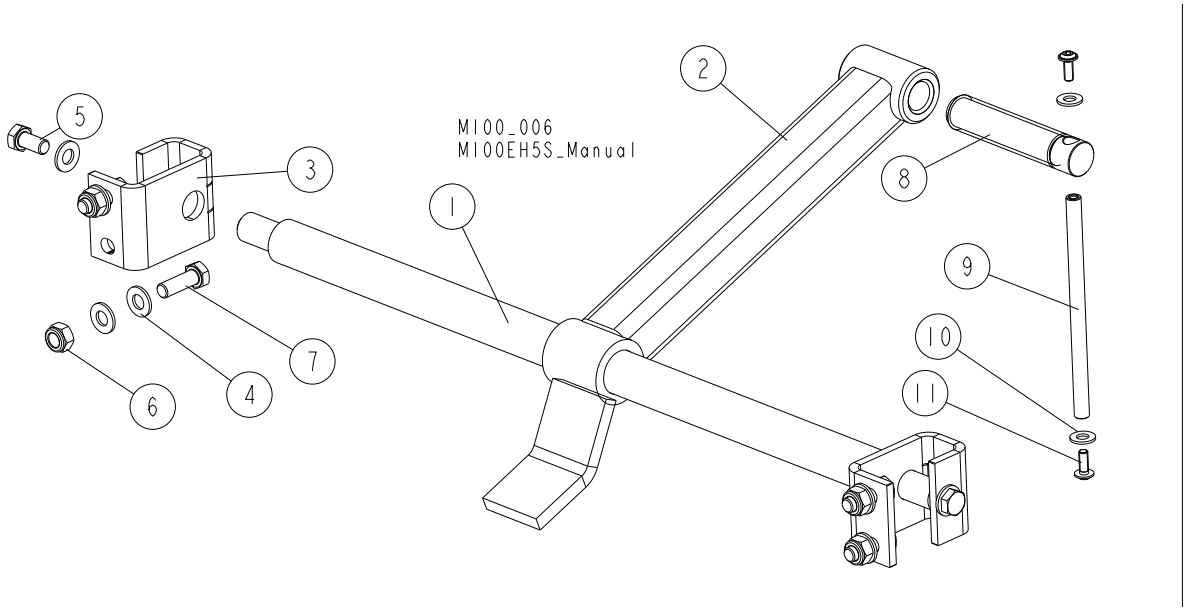
REF.	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	M100 BED EXTENSION	**T00416**	**1**	
1	RAIL, TRACK - LONG	T00036-1	2	
2	RAIL, CROSS	T00037-1	2	
3	BRACKET, STIFFENER	T00038-1	1	
4	BRACKET, SIDE SUPPORT	T00043-1	1	
5	WASHER, 10.5 FLAT ZINC	F81055-1	52	
6	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	26	
7	BOLT, M10X30 5.8 HEX HEAD FULL THREAD ZINC	F81003-2	24	
8	ANGLE, LONG TRACK RAIL	T00039-1	1	
9	PLATE, TRACK RAIL CONNECTION	T00048-1	2	
10	BRACKET, TRACK RAIL CONNECTION	T00049-1	2	
11	BOLT, M10X80-8.8 HEX HEAD ZINC	F81003-50	2	

8.5 M100-EXT-SET Bed Extension



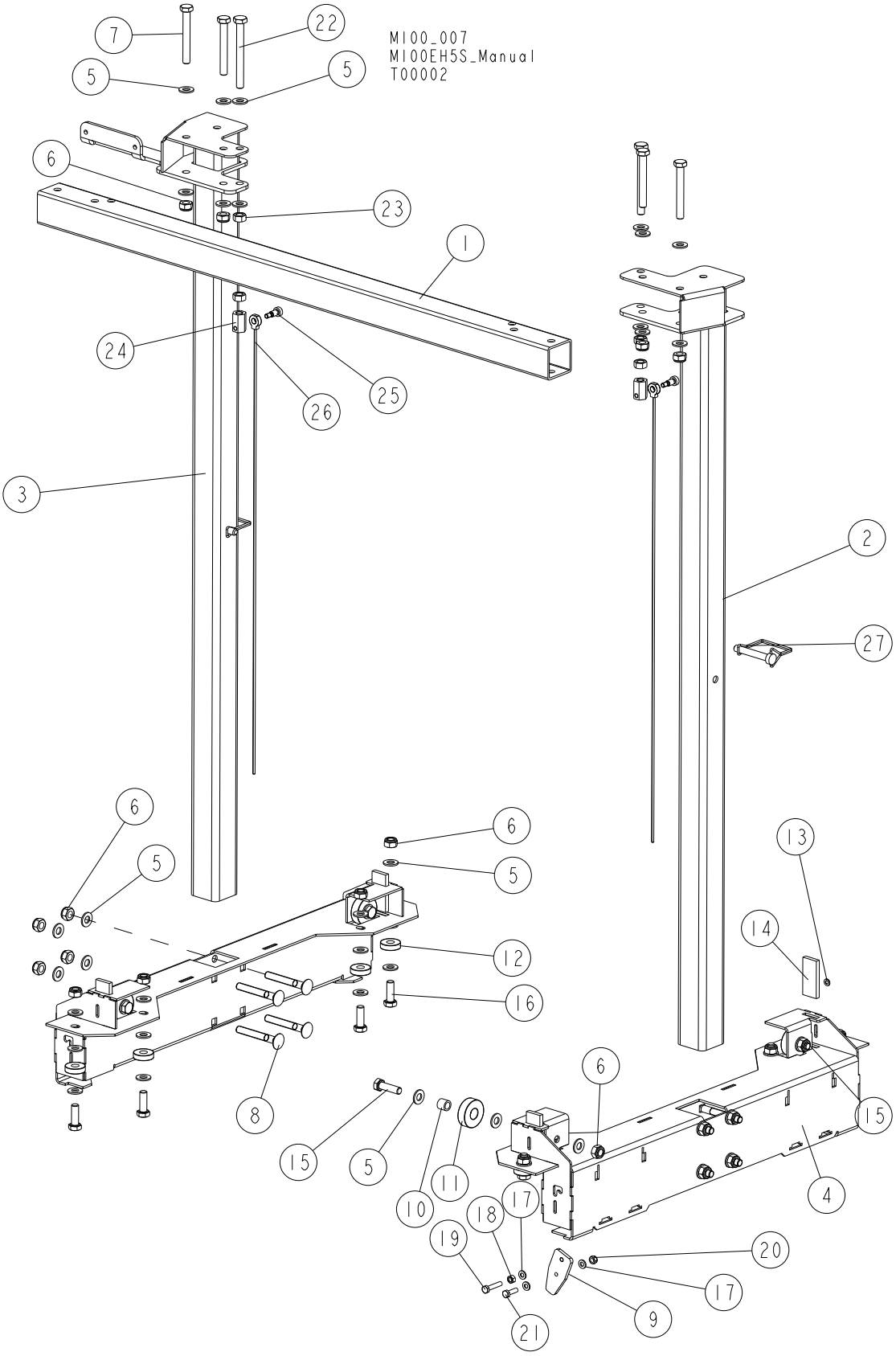
REF.	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	M100-EXT-SET	**T00409**	**1**	
1	RAIL, TRACK - LONG	T00036-1	2	
2	RAIL, CROSS	T00037-1	2	
3	BRACKET, STIFFENER	T00038-1	1	
4	BRACKET, SIDE SUPPORT	T00043-1	2	
5	CLAMP, M100 LOG - COMPLETE	T00034	1	
6	SUPPORT, SIDE	T00041-1	1	
7	SUPPORT, SIDE - SHORT	T00051-1	1	
8	WASHER, 10.5 FLAT ZINC	F81055-1	56	
9	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	28	
10	BOLT, M10X30-5.8 HEX HEAD FULL THREAD ZINC	F81003-2	26	
11	ANGLE, LONG TRACK RAIL	T00039-1	1	
12	PLATE, TRACK RAIL CONNECTION	T00048-1	2	
13	BRACKET, TRACK RAIL CONNECTION	T00049-1	2	
14	BOLT, M10 X 80-8.8 HEX HEAD ZINC	F81003-50	2	

8.6 Log Clamp



REF.	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	LOG CLAMP, M100 COMPLETE	**T00034**	**1**	
1	TUBE, CLAMP MAIN	500343-1	1	
2	TUBE WELDMENT, CLAMP POST	507566-1	1	
3	BRACKET, CLAMP MOUNTING M100	T00106-1	2	
4	WASHER, 10,5 FLAT ZINC	F81055-1	10	
5	BOLT, M10X20-5.8 HEX HEAD FULL THREAD ZINC	F81003-1	2	
6	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	4	
7	BOLT, M10X30 5.8 HEX HEAD FULL THREAD ZINC	F81003-2	4	
	ACME CLAMP SCREW, COMPLETE	**507563**	**1**	
8	SCREW, ACME CLAMP	507463	1	
	SCREW HANDLE ROD ASSEMBLY	**511924**	**1**	
9	ROD, SCREW HANDLE	511923-1	1	
10	WASHER, 8.4 FLAT ZINC	F81054-1	2	
11	BOLT, M6X16 BN 11252 "BOSSARD".	F81001-24	2	
12	CAP, MOUNTING	T00414	1	

8.7 Mast Assembly

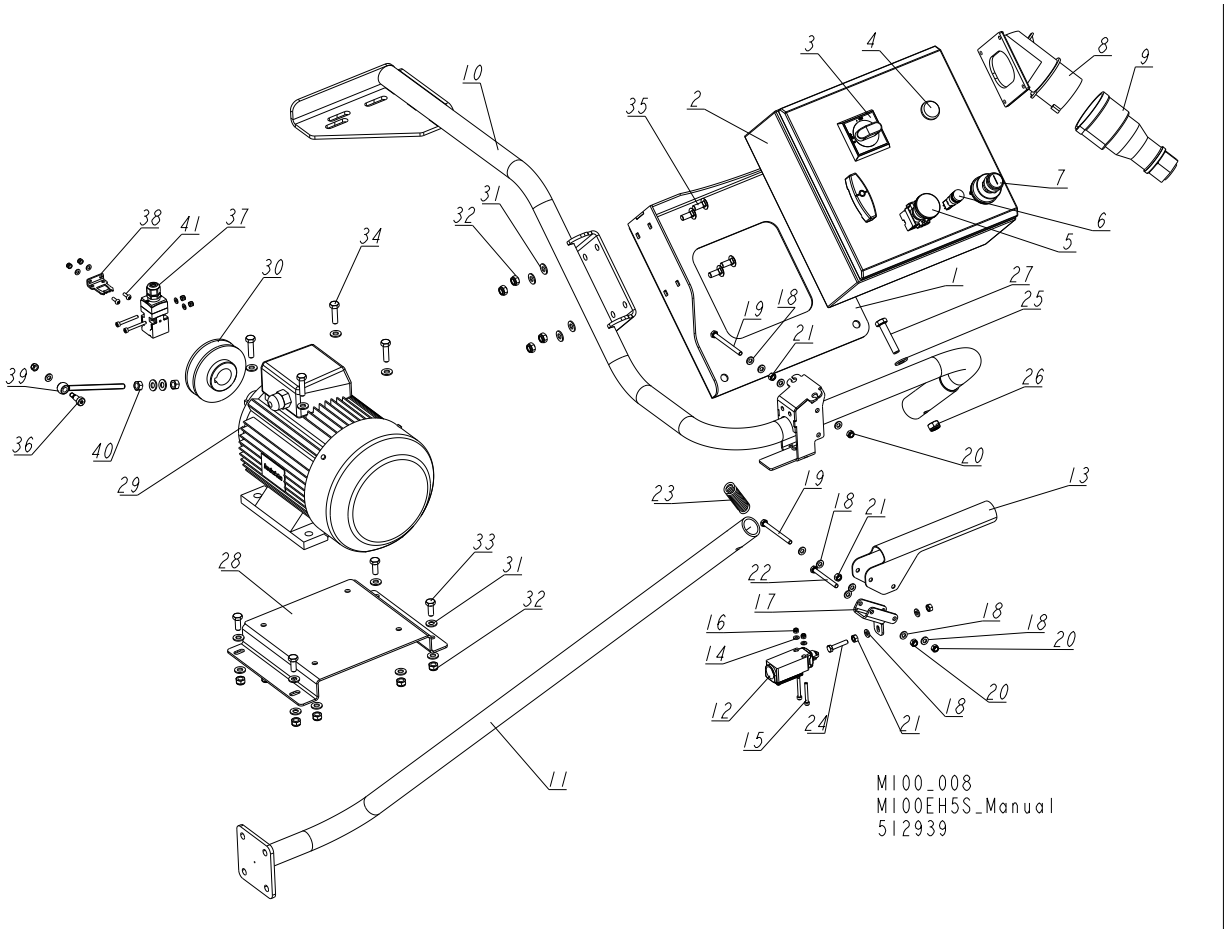


REF.	DESCRIPTION (* Indicates Parts Available In Assemblies Only)	PART #	QTY	
	MAST ASSEMBLY	**T00002**	**1**	
1	TUBE, MAST HORIZONTAL	T00089-1	1	
2	POST, MAST LEFT SIDE COMPLETE	T00090-1	1	
3	POST, MAST RIGHT SIDE COMPLETE	T00094-1	1	
4	MEMBER, LOWER MAST WLDMT/PTD	T00096-1	2	
5	WASHER, 10.5 FLAT ZINC	F81055-1	56	
6	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	24	
7	BOLT, M10 X 80 -8.8- FE/ZN5 HEX HEAD	F81003-50	4	
8	BOLT, M10X75-8.8 CARRIAGE HEAD ZINC	F81003-107	8	
9	COVER PLATE	T00102-1	1	
10	BUSHING, CARRIAGE WHEEL	X200-348	4	
11	BEARING, LLU 6302	X200-957	4	
12	BEARING, LLU 6200	X200-903	8	
13	WASHER, M5, FLAT ZINC	F81052-1	2	
14	SWEEPER, MODULAR TRACK	X100-378	4	
15	BOLT,M10X35-8.8 HEX HEAD FULL THREAD ZIN	F81003-17	4	
16	BOLT,M10X30-5.8 HEX HEAD FULL THREA	F81003-2	8	
17	WASHER, M6, FLAT,ZINC	F81053-1	3	
18	NUT, M6, HEXAGON,FREE, GRADE 5(8.8)ZINC	F81031-1	1	
19	BOLT, M6X30 5.8 HEX HEAD FULL THREAD	F81001-13	1	
20	NUT,M6-8-B HEX,NYLON LOCK ZINC, NUT	F81031-2	1	
21	BOLT, M6X20MM, HH, FULL THREAD, ZINC	F81001-2	1	
22	BOLT, M10X100-8.8 ZINC	F81003-91	2	
23	NUT, M10-8-B-FE	F81033-3	4	
24	HOLDER, LIFT PADDLE CABLE	T00040-1	2	
25	BOLT, 8/M6X12-12.9 ISO 7379 SHOULDER	F81001-56	2	
26	CABLE LIFT PADDLE 27.25	X100-1056	2	
27	PIN, 3/8 X 2 1/4 SQ WIRE LOCK	014151	2	

SECTION 9

9.1 ELECTRIC ENGINE OPTIONS

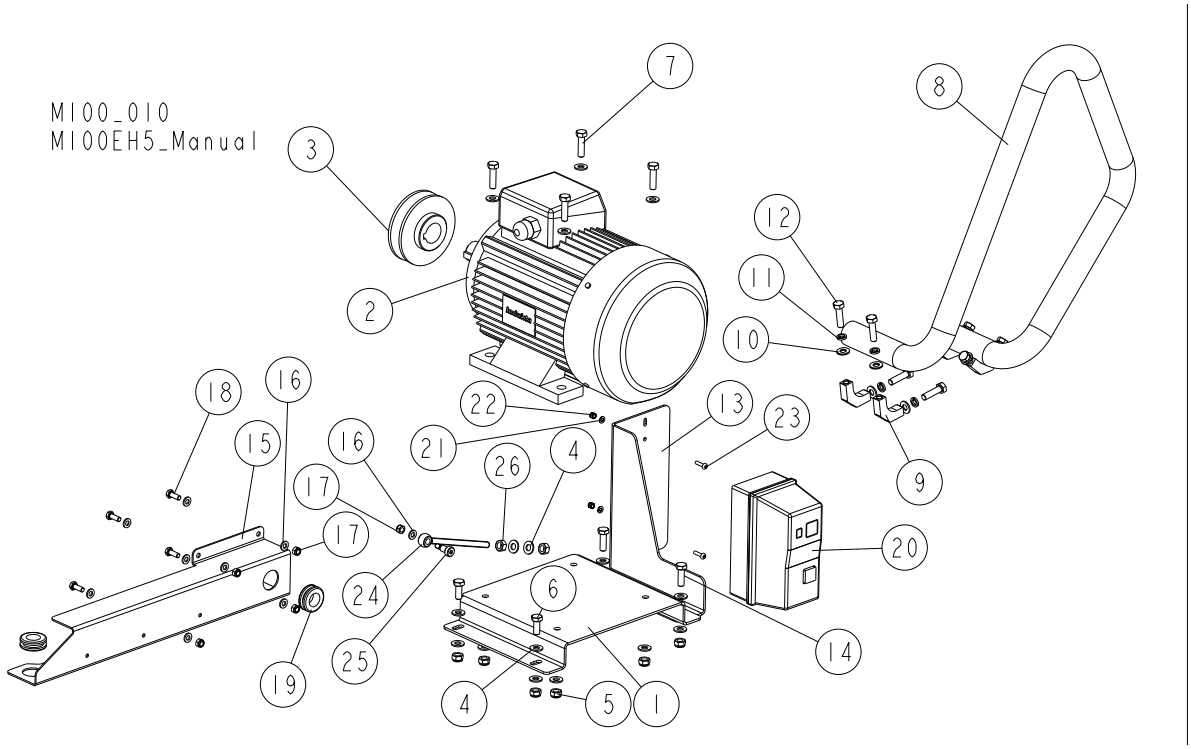
9.2 Motor Assembly, EH5S



REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	MOTOR ASSEMBLY, TIMBERY 400 V M100EH5S	**512939**	**1**	
1	PLATE, CONTROL BOX TIMBERY	512784-1	1	
	ELECTRIC BOX, M100E5	**512938**	**1**	
	ELECTRIC BOX XC100 - 400V	**511564**	**1**	
2	COVER, SAREL S83002/300X300X150	092627	1	
3	KNOB, SWITCH ABB	088265-1	1	
4	LIGHT, M22 BLUE LED 24V CONTROL	090448	1	
5	SWITCH, XB4 BS542 EMERGENCY	086556	1	
6	LIGHT, XB6 AV 3BB CONTROL	087348	1	
7	SWITCH, KEY	P04350	1	
8	PLUG, 16A 5P 778152-6 PCE.	E85239	1	
9	SOCKET, 16A 5P 2152-6TT PCE. PLUG-IN	E85240	1	
10	HANDLE, WELDMENT COMPLETE	512763-1	1	
11	HANDLE, LOWER PART	516231-1	1	
12	SWITCH, GLCB01C LIMIT	100910	1	
13	LEVER	516929-1	1	
14	WASHER, 4.3 FLAT ZINC	F81051-2	6	
15	SCREW, M4X35 8.8 HEX SOCKET HEAD CAP	F81011-34	4	

REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
16	NUT, M4-8-HEX NYLON ZINC LOCK	F81029-1	6	
17	BRACKET	516201-1	1	
18	WASHER, 6.4 FLAT ZINC	F81053-1	13	
19	BOLT, M6X70 8.8 HEX HEAD FULL THREAD ZINC	F81001-63	2	
20	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	4	
21	NUT, M6 8 HEX ZINC	F81031-1	4	
22	BOLT, M6X60-8.8-HEX HEAD FULL THREAD ZINC	F81001-9	1	
23	SPRING, 3/4X2 7/8X12GA	015479	1	
24	BOLT, M6X30-8.8-HEX HEAD FULL THREAD ZINC	F81001-8	1	
25	WASHER,10,5 FLAT ZINC	F81055-1	1	
26	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	1	
27	BOLT, M10X50-8.8-HEX HEAD FULL THREAD ZINC	F81003-4	1	
28	PLATE, MOTOR MOUNTING	T00110-1	1	
29	MOTOR, PSG 100L2 HM	512117	1	
30	PULLEY, F05934	512848-1	1	
31	WASHER, 8.4 FLAT ZINC	F81054-1	22	
32	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	12	
33	BOLT, M8X20 5.8 HEX HEAD FULL THREAD ZINC	F81002-1	4	
34	BOLT, M8X30-5.8-B-HEX HEAD FULL THREAD ZINC	F81002-2	4	
35	BOLT, M8X20-8.8-CARRIAGE HEAD	F81002-11	4	
36	BOLT, 8/M6X12-12.9 ISO 7379 SH SHOULDER	F81001-56	1	
37	SWITCH, AZ17-11ZRK EMERGENCY	094232	1	
38	KEY, AZ 17/170-B5 SAFETY SWITCH	094422	1	
39	BOLT, M8X120 8,8 DIN444 EYE	F81002-64	1	
40	NUT, M8-8-B-HEX ZINC	F81032-1	2	
41	SCREW, M4X12-5.8-B-CROSS RECESSED PAN HEAD	F81011-43	2	

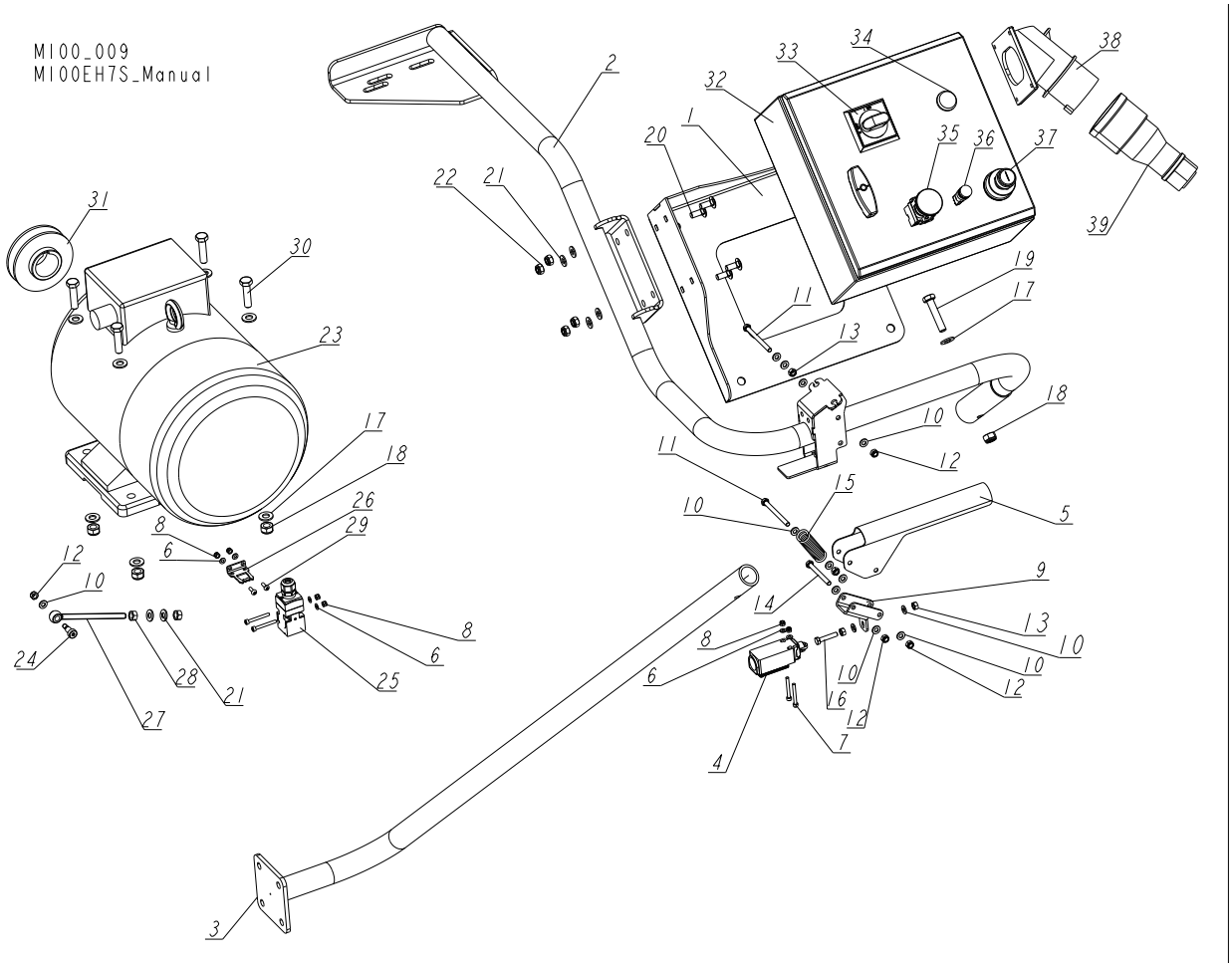
9.3 Motor Assembly EH5



REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	MOTOR ASSEMBLY, TIMBERY 400 V M100EH5	**512939-3**	**1**	
1	PLATE, MOTOR MOUNTING	T00110-1	1	
2	MOTOR, PSG 100L2	512948	1	
3	PULLEY, F05934	512848-1	1	
4	WASHER, 8.4 FLAT ZINC	F81054-1	18	
5	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	8	
6	BOLT, M8X20 5.8 HEX HEAD FULL THREAD ZINC	F81002-1	2	
7	BOLT, M8X30-5.8-B-HEX HEAD FULL THREAD ZINC	F81002-2	4	
	HANDLE, M100 COMPLETE - AFRICA	**T00113**	**1**	
8	TUBE, HANDLE PTD - AFRICA	T00119-1	1	
9	CLAMP, TUBE	T00407-1	4	
10	WASHER 8.4 FLAT ZINC	F81054-1	8	
11	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	8	
12	BOLT, M8X30-5.8-B-HEX HEAD FULL THREAD ZINC	F81002-2	8	
13	PLATE, STARTER MOUNTING	T00117-1	1	
14	BOLT, M8X25-8.8-B-HEX HEAD FULL THREAD ZINC	F81002-5	2	
15	GUARD, ELECTRIC WIRE	T00116-1	1	
16	WASHER, 6.4 FLAT ZINC	F81053-1	9	
17	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	5	
18	BOLT, M6X16-8.8-HEX HEAD FULL THREAD ZINC	F81001-15	4	
19	GROMMET, RUBBER 3/4 ID	025247	2	
20	STARTER, LE1M35Q710 DIRECT-ON-LINE	100596	1	
21	WASHER, 4.3 FLAT ZINC	F81051-2	2	
22	NUT, M4-8-HEX NYLON ZINC LOCK	F81029-1	2	
23	SCREW, M4X16 5.8-B ZINC CROSS RECESSED PAN HEAD	F81011-42	2	
24	BOLT, M8X120 8,8 DIN444 EYE	F81002-64	1	

REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
25	BOLT, 8/M6X12-12.9 ISO 7379 SH SHOULDER	F81001-56	1	
26	NUT, M8-8-B-HEX ZINC	F81032-1	2	

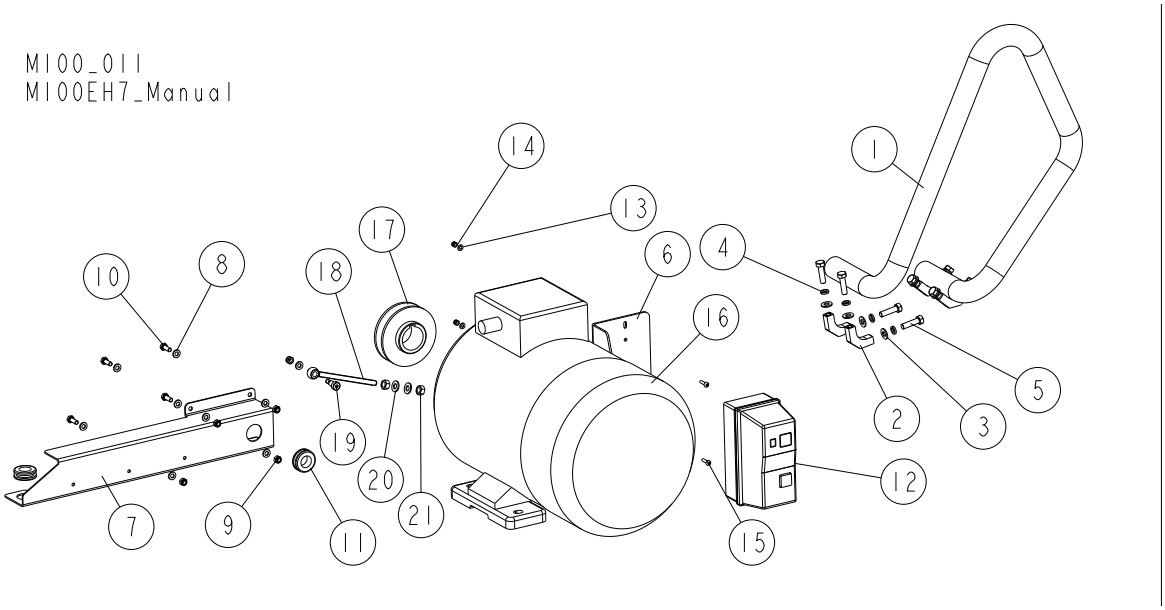
9.4 Motor Assembly EH7S



REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	MOTOR ASSEMBLY, M100EH7S	**T00404**	**1**	
1	PLATE, CONTROL BOX TIMBERY	512784-1	1	
2	HANDLE, WELDMENT COMPLETE	512763-1	1	
3	HANDLE, LOWER PART	516231-1	1	
4	SWITCH, GLCB01C LIMIT	100910	1	
5	LEVER	516929-1	1	
6	WASHER, 4.3 FLAT ZINC	F81051-2	6	
7	SCREW, M4X35 8.8 ZINC HEX SOCKET HEAD CAP	F81011-34	4	
8	NUT, M4-8-HEX NYLON ZINC LOCK	F81029-1	6	
9	BRACKET	516201-1	1	
10	WASHER, 6.4 FLAT ZINC	F81053-1	13	
11	BOLT M6X70 8.8 HEX HEAD FULL THREAD ZINC	F81001-63	2	
12	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	4	
13	NUT, M6 8 HEX ZINC	F81031-1	4	
14	BOLT, M6X60-8.8-HEX HEAD FULL THREAD ZINC	F81001-9	1	
15	SPRING, 3/4X2 7/8X12GA	015479	1	
16	BOLT, M6X30-8.8-HEX HEAD FULL THREAD ZINC	F81001-8	1	
17	WASHER, 10,5 FLAT ZINC	F81055-1	9	
18	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	5	
19	BOLT, M10X50-8.8-HEX HEAD FULL THREAD ZINC	F81003-4	1	

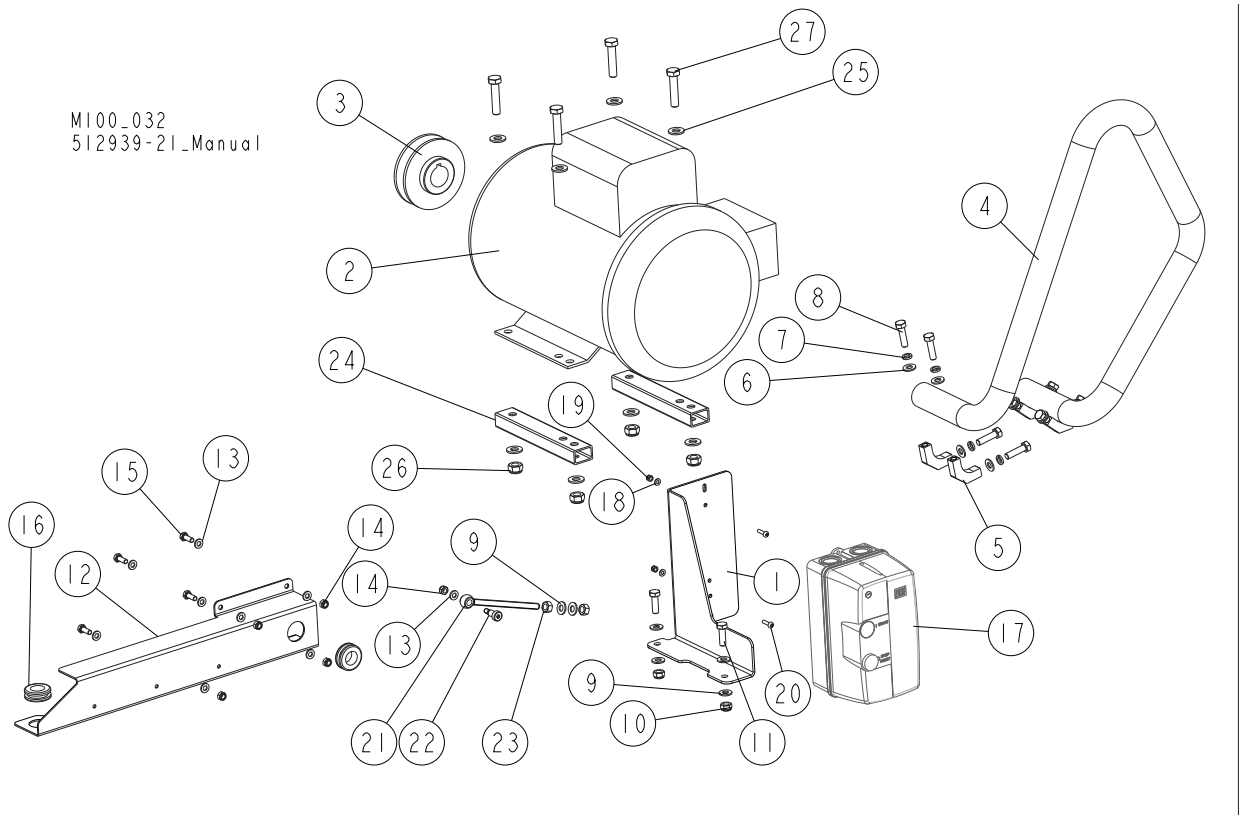
REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
20	BOLT, M8X20-8.8-CARRIAGE HEAD ZINC	F81002-11	4	
21	WASHER, 8.4 FLAT ZINC	F81054-1	6	
22	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	4	
23	MOTOR, SG 132 S-2 HM 3X400V 50HZ - 5,5KW	502186	1	
24	BOLT, 8/M6X12-12.9 ISO 7379 SH SHOULDER	F81001-56	1	
25	SWITCH, AZ17-11ZRK SAFETY	094232	1	
26	KEY, AZ 17/170-B5 SAFETY SWITCH	094422	1	
27	BOLT, M8X120 8,8 DIN444 EYE	F81002-64	1	
28	NUT, M8-8-B-HEX ZINC	F81032-1	2	
29	SCREW, M4X12-5.8-B-ZINC CROSS RECESSED PAN HEAD	F81011-43	2	
30	BOLT, M10X40-8.8 HEX HEAD FULL THREAD ZINC	F81003-16	4	
31	PULLEY, F05934	T00406-1	1	
	ELECTRIC BOX, M100E7	**512979**	**1**	
	ELECTRIC BOX, XC100 - 400V	**511564**	**1**	
32	COVER, SAREL S83002/300X300X150	092627	1	
33	KNOB, ABB SWITCH	088265-1	1	
34	LIGHT, M22 BLUE LED 24V CONTROL	090448	1	
35	SWITCH, XB4 BS542 EMERGENCY	086556	1	
36	LIGHT, XB6 AV 3BB CONTROL	087348	1	
37	SWITCH, KEY	P04350	1	
38	PLUG, 16A 5P 778152-6 PCE.	E85239	1	
39	SOCKET, 16A 5P 2152-6TT PCE PLUG-IN	E85240	1	

9.5 Motor Assembly EH7



REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	MOTOR ASSEMBLY, TIMBERY 400 V M100EH5	**T00404-3**	**1**	
	HANDLE, M100 COMPLETE - AFRICA	**T00113**	**1**	
1	TUBE, HANDLE PTD	T00119-1	1	
2	CLAMP, TUBE	T00407-1	4	
3	WASHER, 8.4 FLAT ZINC	F81054-1	8	
4	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	8	
5	BOLT, M8X30-5.8-B-HEX HEAD FULL THREAD ZINC	F81002-2	8	
6	PLATE, STARTER MOUNTING	T00117-1	1	
7	GUARD, ELECTRIC WIRE	T00116-1	1	
8	WASHER, 6.4 FLAT ZINC	F81053-1	9	
9	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	5	
10	BOLT, M6X16-8.8-HEX HEAD FULL THREAD ZINC	F81001-15	4	
11	GROMMET, RUBBER 3/4 ID	025247	2	
12	STARTER, LE1M35Q710 DIRECT-ON-LINE	100596	1	
13	WASHER, 4.3 FLAT ZINC	F81051-2	2	
14	NUT, M4-8-HEX NYLON ZINC LOCK.	F81029-1	2	
15	SCREW, M4X16 5.8-B ZINC CROSS RECESSED PAN HEAD	F81011-42	2	
16	MOTOR, 1LA7130-2AA60-Z 5,5KW,400V,50HZ	095785	1	
17	PULLEY, F05934	T00406-1	1	
18	BOLT, M8X120 8,8 DIN444 EYE	F81002-64	1	
19	BOLT, 8/M6X12-12.9 ISO 7379 SH SHOULDER	F81001-56	1	
20	WASHER 8.4 FLAT ZINC	F81054-1	2	
21	NUT, M8-8-B-HEX ZINC	F81032-1	2	

9.6 Motor Assembly EA5

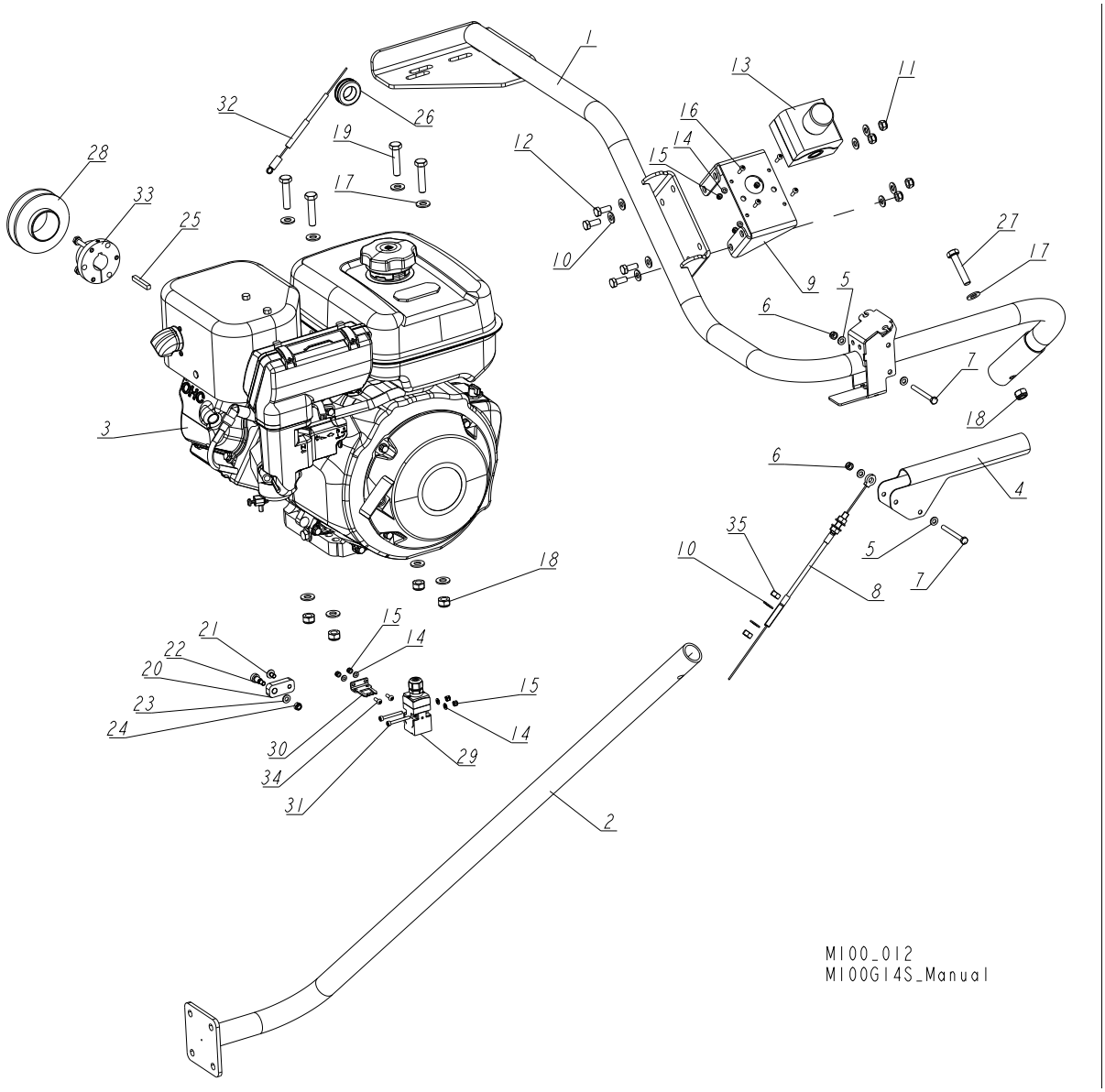


REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	MOTOR ASSEMBLY, TIMBERY 230 V M100EA5	**512939-21**	**1**	
1	PLATE, STARTER MOUNTING	T00117-1	1	
2	MOTOR, 5HP 3600RPM 230V 1PH 184T TEFC	X100-1078	1	
3	PULLEY TIMBERY M100	517703-1	1	
	HANDLE, M100 COMPLETE - AFRICA	**T00113**	**1**	
4	TUBE, HANDLE PTD	T00119-1	1	
5	CLAMP, TUBE	T00407-1	4	
6	WASHER, 8.4 FLAT ZINC	F81054-1	8	
7	WASHER 8,2 FE/ZN9	F81054-4	8	
8	BOLT, M8X30-5.8 HEX HEAD FULL THREAD ZINC	F81002-2	8	
9	WASHER, 8.4 FLAT ZINC	F81054-1	6	
10	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2	
11	BOLT, M8X25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	2	
12	GUARD, ELECTRIC WIRE	T00116-1	1	
13	WASHER, 6.4 FLAT ZINC	F81053-1	9	
14	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	5	
15	BOLT, M6 X 16 8.8 HEX HEAD FULL THREAD ZINC	F81001-15	4	
16	GROMMET, RUBBER 3/4 ID	025247	2	
17	STARTER DLW-25 D24 P65-R33	517343-2	1	
18	WASHER 4,3 FLAT ZINC	F81051-2	2	
19	NUT, M4-B HEX NYLON ZINC LOCK	F81029-1	2	
20	SCREW, M4X16 5,8-B CROSS RECESSED PAN HEAD	F81011-42	2	
21	BOLT, M8X120 8,8 DIN444 EYE	F81002-64	1	

REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
22	BOLT, 8/M6X12-12.9 ISO 7379 SH SHOULDER	F81001-56	1	
23	NUT, M8-8-B HEX ZINC	F81032-1	2	
24	PLATE, M100 MOTOR	T00419-1	2	
25	WASHER, 10.5 FLAT ZINC	F81055-1	8	
26	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4	
27	BOLT, M10X45-8.8 HEX HEAD FULL THREAD ZINC	F81003-3	4	

SECTION 10 GAS ENGINE ASSEMBLY

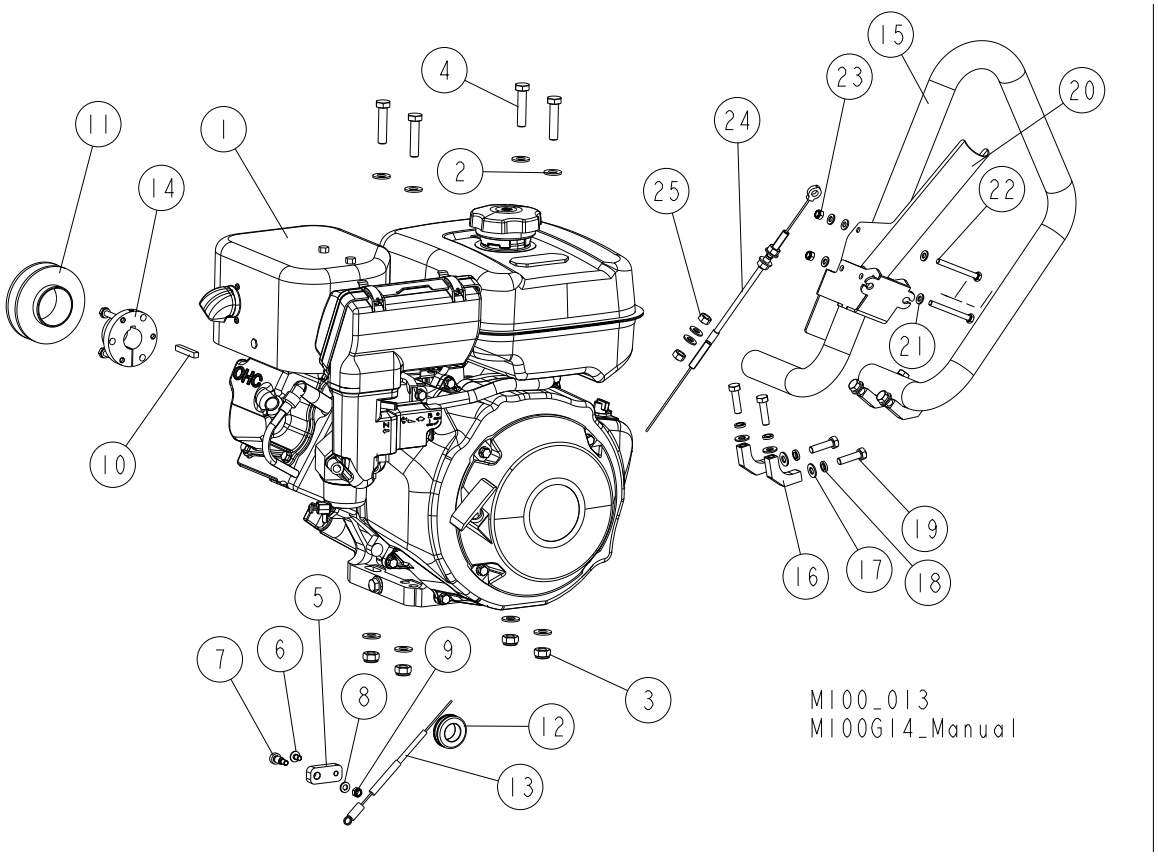
10.1 Gas Engine Assembly G14S, G9S



REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	GAS ENGINE ASSEMBLY, M100 14 HP	**T00402**	**1/0**	
	GAS ENGINE ASSEMBLY, M100 9 HP	**T00120**	**0/1**	
1	HANDLE, TIMBERY WELDMENT COMPLETE	512763-1	1	
2	HANDLE, LOWER PART	516231-1	1	
3	GAS ENGINE, 14 HP	508456	1/0	
	GAS ENGINE, 9 HP	T00079	0/1	
4	LEVER	516929-1	1	
5	WASHER, 6.4 FLAT ZINC	F81053-1	5	
6	NUT, M6-8-B-HEX NYLON LOCK ZINC	F81031-2	2	
7	BOLT, M6X60-8.8-HEX HEAD FULL THREAD ZINC	F81001-9	2	
8	CABLE, M100 GAS	T00401	1	

REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
9	BRACKET, EMERGENCY SWITCH	512980-1	1	
10	WASHER, 8.4 FLAT ZINC	F81054-1	12	
11	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	4	
12	BOLT, M8X20 5.8 HEX HEAD FULL THREAD ZINC	F81002-1	4	
13	SWITCH, M22-PV/KCO2 EMERGENCY	094726	1	
14	WASHER, 4.3 FLAT ZINC	F81051-2	8	
15	NUT, M4-8-HEX NYLON ZINC LOCK	F81029-1	8	
16	SCREW, M4X16 5.8-B ZINC CROSS RECESSED PAN HEAD	F81011-42	4	
17	WASHER, 10,5 FLAT ZINC	F81055-1	9	
18	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	5	
19	BOLT, M10X45 HEX HEAD FULL THREAD ZINC	F81003-3	4	
	LINK, BELT TENSIONER CABLE	**514446**	**1**	
20	PLATE, BELT TENSIONER CABLE LINK COUPLING	514445-1	1	
21	BOLT, M6X10 BN 11252 "BOSSARD".	F81001-57	1	
22	BOLT, 8/M6X12-12.9 ISO 7379 SH SHOULDER	F81001-56	1	
23	WASHER, 6.4 FLAT ZINC	F81053-1	1	
24	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	1	
25	KEY, 1/4 X 1 11/16	S04124	1	
26	GROMMET, 22MMDIA. RUBBER	087400	1	
27	BOLT, M10X50-8.8-HEX HEAD FULL THREAD ZINC	F81003-4	1	
28	SHEAVE, M100 - GAS ENGINE	X100-1062	1	
29	SWITCH, AZ17-11ZRK SAFETY	094232	1	
30	KEY, AZ 17/170-B5 SAFETY SWITCH	094422	1	
31	SCREW, M4X35 8.8 HEX SOCKET HEAD CAP ZINC	F81011-34	2	
32	CABLE, M100 THROTTLE	X100-391	1	
33	BUSHING, SHX1	039202	1	
34	SCREW, M4X12-5.8-B-ZINC CROSS RECESSED PAN HEAD	F81011-43	2	
35	NUT, M8-8-B-HEX ZINC	F81032-1	4	

10.2 Gas Engine G14, G9



REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
	GAS ENGINE, M100 14 HP	**T00402-3**	**1/0**	
	GAS ENGINE, M100 9 HP	**T00120-3**	**0/1**	
1	GAS ENGINE, 14 KM	508456	1/0	
	GAS ENGINE, 9 KM	T00079	0/1	
2	WASHER, 10,5 FLAT ZINC	F81055-1	8	
3	NUT, M10 HEX NYLON ZINC LOCK	F81033-1	4	
4	BOLT, M10X45 HEX HEAD FULL THREAD ZINC	F81003-3	4	
	LINK, BELT TENSIONER CABLE	**514446**	**1**	
5	PLATE, BELT TENSIONER CABLE LINK COUPLING	514445-1	1	
6	BOLT, M6X10 BN 11252 "BOSSARD".	F81001-57	1	
7	BOLT, 8/M6X12-12.9 ISO 7379 SH SHOULDER	F81001-56	1	
8	WASHER, 6.4 FLAT ZINC	F81053-1	1	
9	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	1	
10	KEY, 1/4 X 1 11/16	S04124	1	
11	SHEAVE, M100 - GAS ENGINE	X100-1062	1	
12	GROMMET, 22MM DIA. RUBBER	087400	1	
13	CABLE, M100 THROTTLE	X100-391	1	
14	BUSHING, SHX1	039202	1	
15	TUBE, HANDLE WLDMT/PTD - AFRICA	T00112-1	1	
16	CLAMP, TUBE	T00407-1	4	
17	WASHER, 8.4 FLAT ZINC	F81054-1	12	
18	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	8	

REF	DESCRIPTION (♦ Indicates Parts Available in Assemblies Only)	PART #	QTY.	
19	BOLT, M8X30-5.8-B-HEX HEAD FULL THREAD ZINC	F81002-2	8	
20	LEVER	516929-1	1	
21	WASHER, 6.4 FLAT ZINC	F81053-1	5	
22	BOLT, M6X60-8.8-HEX HEAD FULL THREAD ZINC	F81001-9	2	
23	NUT, M6-8-B-HEX NYLON ZINC LOCK	F81031-2	2	
24	CABLE, M100 THROTTLE	T00408	1	
25	NUT, M8-8-B-HEX ZINC	F81032-1	4	

SECTION 11 SAFETY DEVICES INSPECTION

11.1 Safety Devices Inspection (CE version only)

M100 – Safety Devices Inspection

Safety devices on the M100 machine which must be checked before every shift:

- Safety handle and its circuit inspection
- Blade cover safety switches and its circuit inspection.

1. Safety handle and its circuit inspection

- Press and hold the safety handle;
- Turn on the blade motor;
- Release the safety handle. The blade motor should be stopped.
- Press and hold the safety handle. The blade motor should remain stopped.

2. Blade cover safety switch and its circuits inspection

- Press and hold the safety handle;
- Turn on the blade motor;
- Open blade housing cover;
- The blade motor should be stopped;
- Try to start the motor. The blade motor should remain stopped.
- Close the blade housing cover;
- The blade motor should remain stopped until it is restarted with the START button.

SECTION 12 SERVICE

For service, please contact your local dealer.

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SECTION 13 MOTOR BRAKE

13.1 Maintenance/repair

Wear of spring − applied brakes

INTORQ spring − applied brakes are wear−resistant and designed for long maintenance intervals. The friction lining and the mechanical brake components are subject to function−related wear. For safe and trouble−free operation, the brake must be checked and readjusted at regular intervals, and, if necessary, be replaced. The following table describes different causes of wear and their effects on the components of the spring−applied brake. For calculating the service life of rotor and brake and determining the maintenance intervals to be observed, the relevant factors of influence must be quantified. The most important factors are the friction work, initial speed of braking and the operating frequency. If several of the causes of wear indicated for the friction lining occur in an application at the same time, the influencing factors must be added for calculating the wear.

Inspections

To ensure safe and trouble−free operation, spring−applied brakes must be checked and maintained at regular intervals. Servicing can be made easier if good accessability of the brakes is provided in the plant. This must be considered when installing the drives in the plant. Primarily, the necessary maintenance intervals for industrial brakes result from the load during operation. When calculating the maintenance interval, all causes for wear must be taken into account.If the brakes are not maintained, failures, production outages or plant damages may be the result. Thus, a maintenance concept adapted to the operating conditions and loads of the brake must be developed for every application. The maintenance intervals and maintenance work listed in the following table must be scheduled for the spring−applied INTORQ brake.

Maintenance intervals

Service brakes	■ according to service life calculation ■ otherwise every six months ■ after 4000 operating hours at the latest

TABLE 13-1.

13.2 Maintenance

IMPORTANT! Brakes with defective armature plates, cheese head screws, springs or flanges must be replaced completely.

Please observe the following for inspections and maintenance operations:

- Remove impurities through oil and grease using brake cleaning agents, if necessary, replace brake after finding out the cause of the contamination. Dirt deposits in the air gap between stator and armature plate impair the function of the brake and must be removed.
- After replacing the rotor, the original braking torque will not be reached until the run−in operation of the friction surfaces has been completed. After replacing the rotor, run−in armature plates and flanges have an increased initial rate of wear.

Checking the rotor thickness

DANGER! The motor must not be running when checking the rotor thickness.

- Remove the motor cover and seal ring (if mounted).
- Measure the rotor thickness with a caliper gauge. On brakes with friction plates, observe edging on outer diameter of friction plate.
- Compare measured rotor thickness with minimally permissible rotor thickness *See Table 12-2*
- Replace the complete rotor if necessary.

Check air gap

- Measure the air gap "$s_{Lü}$" between armature plate and rotor using a feeler gauge (see chapter 3.3).
- Compare the measured air gap to the maximum permissible air gap "$s_{Lümax.}$" (see table below).
- If necessary, adjust air gap to "$s_{Lürated}$".

Brake Type	sLürated +0.1mm -0.05mm	sLümax Service Brake	Max. adjustment permissible wear	Rotor thickness		Excess of the adjuster nut $h_{Emax.}$ [mm]
				min. [1] [mm]	max. [mm]	
INTORQ BFK458-25	0,4 mm (1/64”)	1,0 mm (3/64”)	4,0 mm (5/32”)	12 mm (15/32”)	16 mm (5/8”)	17 mm (43/64”)

TABLE 12-2

EC declaration of conformity

according to EC Machinery Directive 2006/42/EC, Annex II, 1.A

Manufacturer: Timbery Sp z o.o.; Nagórna 112; 62-600 Koło, Poland

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Following machine in our delivered version complies with the appropriate essential safety and health requirements of the EC Machinery Directive 2006/42/EC based on its design and type, as brought into circulation by us. In case of alteration of the machine, not agreed by us, this declaration is no longer valid.

We, the undersigned herewith declare, that:

Designation of the machine:	**SAWMILL**
Type:	M100 series
No. of manufacturer:	……..
Is in conformity with the following EC directives:	EC Machinery Directive 2006/42/EC EC Electromagnetic Compatibility Directive 2014/30/EU
And is in conformity with the following Harmonized Standards:	PN-EN ISO 12100:2012 PN-EN 1807-2:2013 PN-EN ISO 14120:2016-03 PN-EN 349+A1:2010 PN-EN ISO 13849-1:2016-02 PN-EN 60204-1:2010 PN-EN ISO 13857:2010
Notified Body according to annex IV :	INSTYTUT TECHNOLOGII DREWNA Centrum Certyfikacji Wyrobów Przemysłu Drzewnego Winiarska 1, 60-654 Poznań
Notification No	1583
Responsible for:	EC type examination
EC type-examination certificate no.	0476/2016
Responsible for Technical Documentation:	Radosław Adamkiewicz / Product Manager Timbery Sp. z o.o. 62-600 Koło, Nagórna 112, Poland Tel. +48 63 26 26 047
Place/Date/Authorized Signature:	Koło, 28.01.2016 Radosław Adamkiewicz
Title:	Product Manager