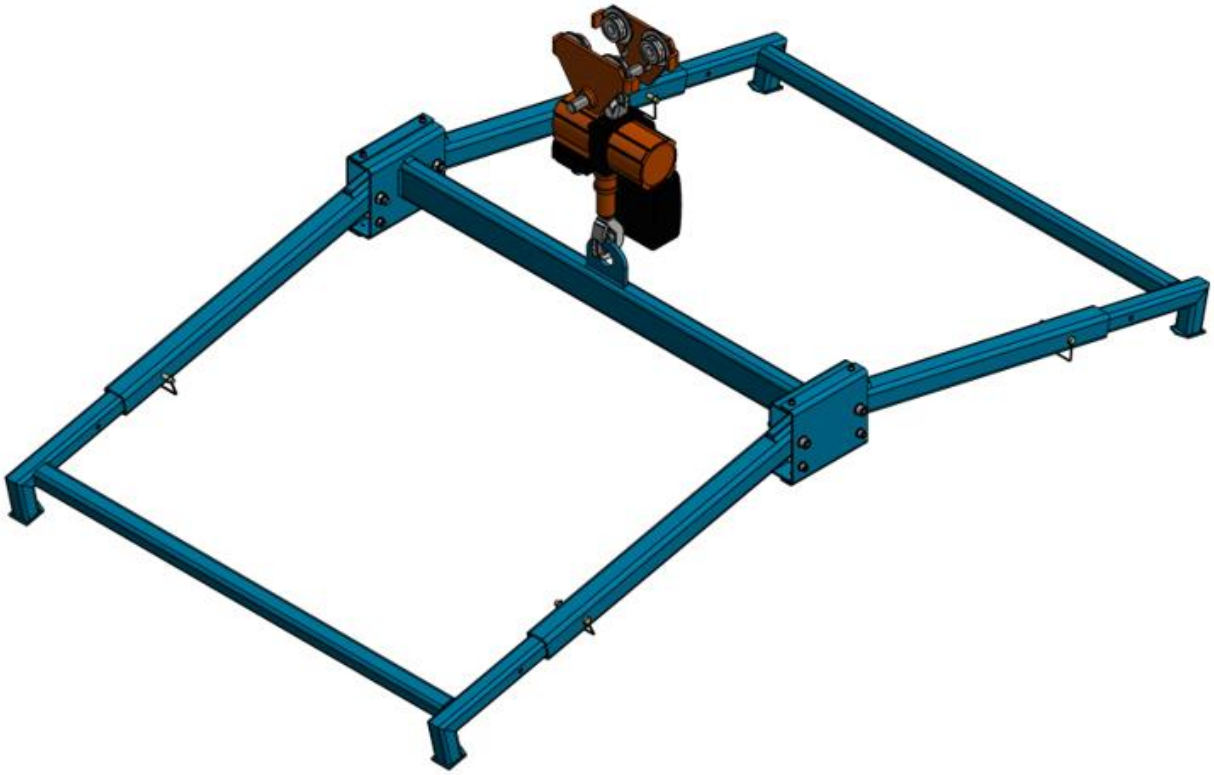
SPIDA MACHINERY
A MULTINAIL COMPANY

Framer Lifting Clamp



OPERATION & MAINTENANCE MANUAL

WARNING

This machine ***must only*** be used by personnel who have been properly instructed in all aspects of the machine's safe operation.

Operators ***must*** also wear the recommended personal protective clothing and have thoroughly read and understood this manual.

Serial Plates

All enquiries should be directed to:
SM2012 Ltd - Known as SPIDA Machinery

Australia free phone 1800 146 110

America free phone 1888 262 9476

NZ free phone 0800 SPIDAS or +64 7 579 5010

Below is a copy of the serial plate displayed on the back of the machine

1 Contents

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2 Overview

The Frame Lifting Clamp is designed to lift and move completed frames.

The Frame Lifting Clamp must be used per the standard operating procedures set out in this manual. Any actions carried out which are not contained in this manual are not endorsed by Spida Machinery, and cannot be warranted.

All operators should read and then sign the register of this manual before operating the Frame Lifting Clamp to ensure they are thoroughly familiar with the machine capabilities, limitations and to ensure correct operating procedures are adhered too.

Only those operators that have received training on the correct operation of the Frame Lifting Clamp are deemed competent and qualifies to operate the machine.

The Frame Lifting Clamp test procedures must be performed at installation and after any maintenance, adjustment, repair or modification of the machine. The test procedure is available on request.

The competent operator must also regularly perform the recommended maintenance procedures and checks detailed in this manual.

All electrical wiring must be set as to not allow their movement through any areas of adjacent machinery that could cause them to be damaged or severed.

This manual offers many safety tips, but its purpose is not to provide instruction in all the skills and techniques required to manufacture timber frames safety and efficiently.

Due to improvements in design and performance during production, in some cases there may be minor discrepancies between the actual machine and the illustrations and text in this manual.

Note: See Toho HH-B Series Electric Chain Hoist manual for further information on the Chain Hoist.

3 Specifications

Table 1, Frame Lifting Clamp Specifications

Overall Width	2140 - 3340 mm
Minimum Height (Chain fully retracted)	1130 mm
Overall Length	1535 mm
Weight	145 kg
Material clamping Size Limit	2000 – 3200mm
Material Weight Limit	800 kg
Support Beam Width Limit	65 – 200mm wide
Electrical Supply	Single phase/240V/50Hz
Chain Hoist	HH-B Series Electric Chain Hoist

Specifications may change without notice

4 Installation

4.1 Handling & Transport

- Box all additional parts and secure with the machine
- Using a single fork truck, lift the machine package underneath using the forklift spaces provided
- Once on the truck, tightly strap the machine.
- Do **not** place any loads on top of the machine
- The machine should be kept free from road grime and rain, and should be covered at all times while being transported

The Frame Lifting Clamp will be delivered in large component form and will require assembly on site by trained personnel. Due care and attention should be given whilst unpacking the components from their packaging materials. Any damage caused whilst in transit should be noted immediately and Spida Machinery informed. Refer to section 3 specifications for weights of individual components when selecting Manual Handling Equipment required, prior to positioning them on the selected site.

4.2 Installation

- It is advisable to forklift the machine package as close to the final assembly point as possible to reduce manual lifting
- The final operating position of the machine must be free from any rubbish or impediments
- There must be good lighting in the installation area to allow proper positioning of the machine
- The installation of the support beam is to be carried out by the customer, and needs to be centered above the framing line. The width of the support beam must be within the given specifications. (See Section 3)
- The installation of the Chain Hoist is as per specifications in the Toho HH-B Series Electric Chain Hoist manual.
- Electrical commissioning to be to local standards and be performed by a qualified electrician

The site selected for the Frame Lifting Clamp will depend on the location of the framing line. The area chosen should be clean and free of water or possible flooding. The area on which the framework sits must be as even and horizontal as possible.

The final operating position of the machine should be free of all rubbish or impediments, with general access to all possible areas of the Frame Lifting Clamp for the ease of loading and unloading frames of varying sizes.

Check that all safety equipment is functioning properly.

5 Safety

This section is provided as a guide only, it is the responsibility of the employer to ensure compliance with the relevant Health and Safety Regulations applicable to them at the time.

5.1 Young Persons

No person under the age of 15 should be allowed to operate or assist with the operation of machinery.

5.2 Long Hair and Loose clothing

Any long hair or loose clothing must be fully contained to eliminate the risk of entanglement with machinery.

PROTECTIVE SAFETY CLOTHING AND EQUIPMENT MUST BE WORN; INCLUDING:

Eyewear

Hearing protection

Respirator or Dust mask

Protective Clothing

Safety footwear

5.3 Cleaning and Maintenance of Machinery

For safe and reliable use, machinery should be regularly cleaned and maintained. During cleaning and maintenance, the Frame Lifting Clamp must be isolated from all sources of energy and locked out to prevent unexpected operation.

5.4 Training and Supervision of Frame Lifting Clamp Operators

No person should be expected or allowed to operate the Frame Lifting Clamp until they have been fully trained and authorised to do so. They must be familiar with:

- Actual and potential hazards and appropriate controls.
- Correct use and adjustment of guards.
- Emergency procedures.
- How the Frame Lifting Clamp works.
- Checks to perform prior to starting.
- How to recognise potential faults.
- Location of controls and how to Stop and Start the Frame Lifting Clamp.

5.5 Responsibilities of Frame Lifting Clamp Operators

Operators should:

- Check the Frame Lifting Clamp prior to use and during operation to ensure it is in sound operating order.
- Report immediately any defects noted to their supervisor.
- Use any, and all safety equipment provided.
- Not operate any machinery if under the influence of drugs or alcohol, consult a physician or pharmacist if unsure of any medication.

5.6 Operating Speeds and Vibration

Machinery should be operated within its designed limitations and for its designed use only, any unfamiliar noise, vibration or failure should be investigated and remedied promptly.

5.7 Machinery Stability and Location

The Frame Lifting Clamp and Chain Hoist should be securely fastened to the support beam to prevent unwanted movement or failure. Location should provide access all around for maintenance and cleaning. Lighting must be adequate to allow operator to clearly see controls and work pieces but not glaring or blinding.

Consideration should be given to the operators work area for product flow and to minimise repetitive actions and unnecessary movement.

An exclusion zone should be maintained around the Frame Lifting Clamp to prevent persons not directly involved with the operation of the machine from reaching any part of the machine. This exclusion zone should be the same as the exclusion zone for the framing line, as any work done using the Frame Lifting Clamp should be within the framing line.

5.8 Electrical Safety

Electrical wiring must be installed and maintained by a suitably qualified person in accordance with relevant regulations.

5.9 Isolation, hold cards and lock out devices

There should be procedures for isolating and locking out the Frame Lifting Clamp, for purposes of maintenance and to prevent unintended use should a fault have been identified.

5.10 Noise control

The normal operation noise of some machines will be more than permitted noise exposure levels. Employers must ensure adequate hearing protection is available and is used by all persons in the affected area.

5.11 Manual Handling

Manual handling should be avoided where possible, use of mechanical lifting and assisting equipment is recommended. Consider using forklifts, hoists, and trolleys to eliminate lifting and carrying components.

5.12 Recommended Service Interval

It is recommended that for optimal performance, the Frame Lifting Clamp should be serviced every 6 months.
It is also recommended that a service log be kept, as a reminder of when the next service should be due. Spida Machinery performs service runs on a regular basis throughout NZ; however, should the need arise for an early service, or should a service need to be booked in advance, please advise Spida Machinery accordingly.

WARNING! Do not operate the Frame Lifting Clamp without having received the proper instruction in operation and safety from this manual.

WARNING! It is recommended that the employers maintain training records demonstrating the competencies of each employee

Safe Operation

NOTE: The Frame Lifting Clamp is to be operated in accordance with this manual. Deviation from this specified operation may result in incorrect cutting, measuring or injury.

5.13 User Warnings

- The electrical wiring should be set so that it does not move through the cutting/pressing area of adjacent machinery.
- All machine and components should be inspected upon delivery and at weekly intervals for looseness, fracture, bends, sharp edges or surfaces and any other condition that may contribute to a human mishap or further deterioration of the machine. We suggest a log be kept for this purpose.
- When broken, damaged, or loose parts (or any condition that may represent a hazard) are observed, corrective action should be taken immediately. Inadequate attention to maintain the machine can cause the premature failure of these parts. We suggest this information also be logged.
- The electrical boxes should be locked at all times to avoid casual entry by unauthorized persons, as touching live surfaces is hazardous.
- Split, broken, warped, twisted or material with excessive wane should be avoided or used with caution because of the greater possibility of the material not being held securely during manufacturing processes.
- The machine is not to be used for any other purpose than the lifting and moving of frames.
- Keep hands out of moving parts on the machine. Operators should be instructed not to extend fingers or limbs into or beyond the vicinity of the warning labels. The danger here is obvious – fingers in these areas will risk mutilation.
- Be sure the machine is completely free of foreign objects, and that all guards are in place before connection to electrical supply.
- Any guards removed for maintenance or adjustments **must** be replaced before the machine is put back into service.
- Exceeding the capabilities of the machine will void the warranty and could lead to a serious injury.
- All Operators should read and then sign the register of this manual before operating the Frame Lifting Clamp to ensure they are thoroughly familiar with the machine capabilities and limitations and to ensure correct operating procedures are adhered to.
- Failure to perform the daily and weekly service checks as per the schedule may result in serious machine damage or a severe accident.

WARNING! This machine must only be operated by personnel who have been properly instructed in all aspects of the machine's safe operation. They must also be wearing the recommended protective clothing and have thoroughly read and understood this operation and service manual.

5.14 Manual Handling

The following is not a comprehensive list. Manual lifting has the potential to be hazardous; so, for a full description of material handling please refer to lifting standards, techniques, and your own company policies.

- Ensure material supply is via forklift or other support mechanism
- Ensure correct lifting techniques are adopted to transfer material to infeed of cutting line
- Suggest use of trolleys or bench at required height and location to minimize handling and twisting
- Ensure required PPE is worn
- Ensure correct and appropriate lifting techniques are used
- Suggest the setup of a material supply via gravity roller transfer system
- Avoid twisting torso when moving pre-cut members from transfer system to pressing surface of table
- Only lift components of weight which you assess to be within your limit
- Use machinery (forklift) for material decreed to be too heavy or ask for assistance from another worker

5.15 General

Table 2, General Hazards

POTENTIAL HAZARDS	SAFE WORK PROCEDURE
Safety	Ask questions if you have any doubts about doing the work safely. Check and adjust all safety devices daily.
Poor Guarding	Ensure all guards are fitted correctly and are adequately guarding moving parts. Make sure guards are in position and in good working order. Do not operate machine without guards.
Poor Housekeeping	Inspect Frame Lifting Clamp and surrounding areas for obstructions and defects. Remove built-up debris from around machine, electrical leads, and power points.
Electrical Faults	Inspect electrical leads for damage.
Inoperable Safety Switches	Check that start/stop and emergency stop buttons operate effectively.
Incorrect Accessories	Use only the accessories designed for each specific application
Foreign Objects	Check that foreign objects and maintenance tools etc. are removed from the machine before using the machine.
Defective/Damaged parts	Any identified defects must be reported and actioned prior to use of the Frame Lifting Clamp.

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5.16 Operation

Table 3, Operational Hazards

POTENTIAL HAZARDS	SAFE WORK PROCEDURE
Slip, Trip & Falls	Avoid awkward operations and hand positions where a sudden slip could cause your hand or part of your body to move into the line of travel. Electric power cords should be above head level or in the floor in such a way that they are not trip hazards. Floor areas should be level and non-slip. Clean up any spills immediately
Workplace	Use good lighting so that the work piece and machine controls can be seen clearly. Position or shade light sources so they do not shine in the operators' eyes or cause glare and reflections. Ensure that the floor space around the equipment is sufficient to allow the operator to process his work without bumping into other staff or equipment. Keep the work area free of clutter, clean, well swept and well lit.
Housekeeping	Clean built up debris from around the machine, electrical leads, and power points
Defects	Report all defects to the supervisor
Personal Protection	Wear safety glasses or a face shield. Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to in the work area. Wear dust masks when required. Do not wear gloves when operating this machine. Do not wear loose clothing, work gloves, neckties, rings, bracelets or other jewellery that can become entangled with moving parts
Machine Guarding	Make sure all guards are fastened in position. The machine MUST NOT be operated with any of the guards removed. The machine is fitted with steel guards.
Improper Use	Only use the machine for what it has been designed for.
Material Defects	Inspect stock for nails or other foreign materials before clamping. Use only material that the machine has been designed to accommodate.
Operator Technique	Do not impede the movement of the Frame Lifting Clamp while in use. Ensure any body parts, clothing, or work tools do not get in the way of moving parts. Only prepare to lift material once the Frame Lifting Clamp is in position and has come to a complete halt. Do not attempt to release the clamp until the material is in position. Be aware of hazards when moving the clamp along the support beam.
Hit by projectiles	The Frame Lifting Clamp must be electrically isolated before attempting to clear blockages or material jams. Do not use fingers to remove items which have become entangled in movable parts.

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5.17 Maintenance

Table 4, Maintenance Hazards

POTENTIAL HAZARDS	SAFE WORK PROCEDURE
Cleaning and maintenance preparation	Ensure the Frame Lifting Clamp motor is off, and isolate power to the machine before inspecting, changing, cleaning, adjusting or repairing a machine. Do not use compressed air to remove sawdust etc. from machines or clothing.
Operational Buttons	Make sure that Operational buttons are in good working condition and within easy convenient reach of an operator. Buttons should be protected so that accidental contact will not upset the machine.
Emergency Stop Buttons	Make sure that Emergency Stop buttons are in good working condition and within easy convenient reach of an operator.
Incorrect electrical isolation of machine	Machine must be switched off and isolated from the power at the Main Power Isolation switch, before maintenance or cleaning
Incorrect tools	Use Correct tools for the job to minimise personal injury and damage to the machine
Guarding	Ensure Guards are fitted correctly, adjusted and in good working order.

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5.18 Recommendations

That the operator is trained, on induction of the dangers of accessing the machine operating area.

The electrical system is to be serviced, by a qualified electrician only.

That all operators are walked through the operators' manual and all potential hazards are identified.

That good housekeeping is maintained at all times to avoid the risk of slips, trips or falls.

That approved eye and hearing protection is used at all times when operating the machine.

That approved dust masks and safety footwear are worn at all times when operating the machine.

That if the machine is not operating as efficiently as specified, the operator notify their supervisor who in turn takes appropriate action and eliminate the problem if possible.

All guards and safety devices are not to be removed.

It is recommended that a visual exclusion zone be marked on the floor on a one metre (1000mm) perimeter surrounding the working area of the machine. To identify the work space to pedestrians.

WARNING! This machine must only be operated by personnel who have been properly instructed in all aspects of the machine's safe operation. They must also be wearing the recommended protective clothing and have thoroughly read and understood this operation and service manual.

6 Operating Controls

All electrical operating controls for this machine are located on the Electric Chain Hoist. Please see Toho HH-B Series Electric Chain Hoist manual for further information.

WARNING! Do not operate the Frame Lifting Clamp without the correct knowledge and function of each of the controls.

7 Operation

NOTE: The Frame Lifting Clamp is to be operated in accordance with this manual. Deviation from this specified operation may result in defective products or injury.

Further information on the operating instructions of specifically the Chain Hoist can be found in the Toho HH-B Series Electric Chain Hoist manual.

7.1 Machine Set-up

Before operations commence, the operator must ensure that the Frame Lifting Clamp has been set-up correctly.

To set-up the machine:

- Ensure that the safety guards are secured and correctly positioned.
- Complete a visual inspection of potential hazards near the proximity of the machine.
- Check that there are no obstructions either to any moving parts; between the Frame Lifting Clamp and any adjacent machining area; or further down the framing line.
- Ensure the Chain Hoist is sitting correctly on the support beam, and that the chains are untwisted and free to move. (See operations manual for further information).
- Ensure Frame Lifting Clamp is securely attached to the Chain Hoist.
- Complete all safety checks required

Once the Frame Lifting Clamp and the surrounding area are satisfactorily clear, the Frame Lifting Clamp can be switched on.

7.2 General Operation

A standard pendant controller is used to control the Chain Hoist, and by proxy, the Frame Lifting Clamp.

1. Move the Frame Lifting Clamp until it is above the intended material to be lifted.
2. Lower the Frame Lifting Clamp, until the clamp is in line with the material, both vertically and horizontally. (See Figure 1)
3. Modify (if required) the arms of the Frame Lifting Clamp to suit the size of the material. Simply remove the pins from each arm; move the arms in/out until the clamp is touching the outside of the material; then replace the pins into the holes in the arms that suit the size required. (The holes are set to suit standard frame sizes between 2000mm and 3200mm. (See Figure 2).
4. Check again that the clamp is lined up with the material, is sitting level, and is at the correct width.
5. Ensure there are no obstacles in the way, then raise the Frame Lifting Clamp. The arms pull in as the Clamp lifts, effectively clamping the material uniformly. Raise the material until it is above the level of any items that will impede lateral movement. Do not lift the material higher than is necessary.
6. Move the Frame Lifting Clamp along the support beam until the material is in position above its intended resting place, being careful of hazards while moving down the line.
7. Ensure there are no obstacles in the way of the descent. Then lower the material, adjusting the material to the correct lateral positioning, before placing the material to rest.
8. As the material comes to rest, the clamps will self-release. Once the material is in its intended position, release the pins to move the arms back out to an extended arm position.
9. Raise the clamp back up, out of the way, to its home position.

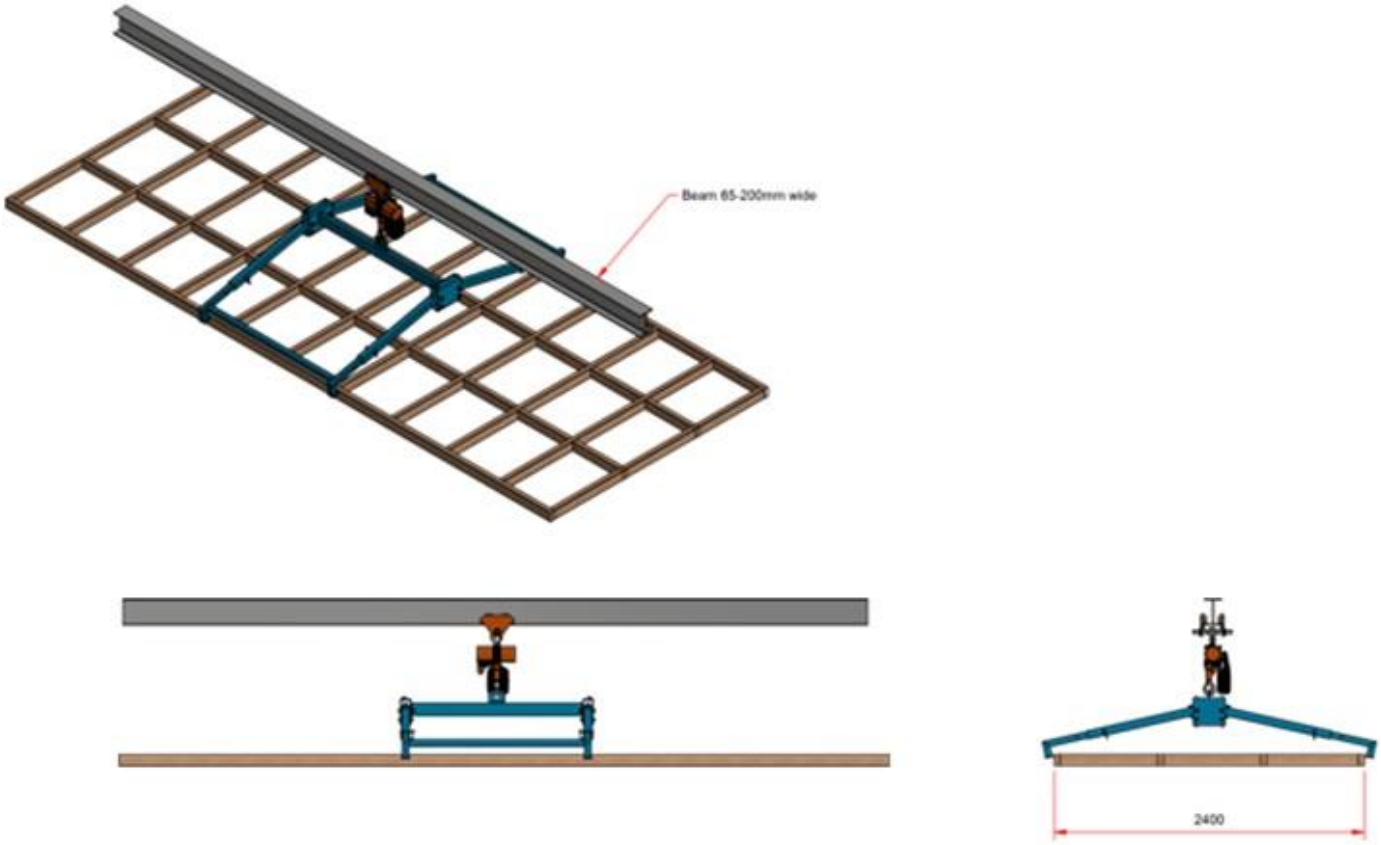

Figure 1, Locating Clamp

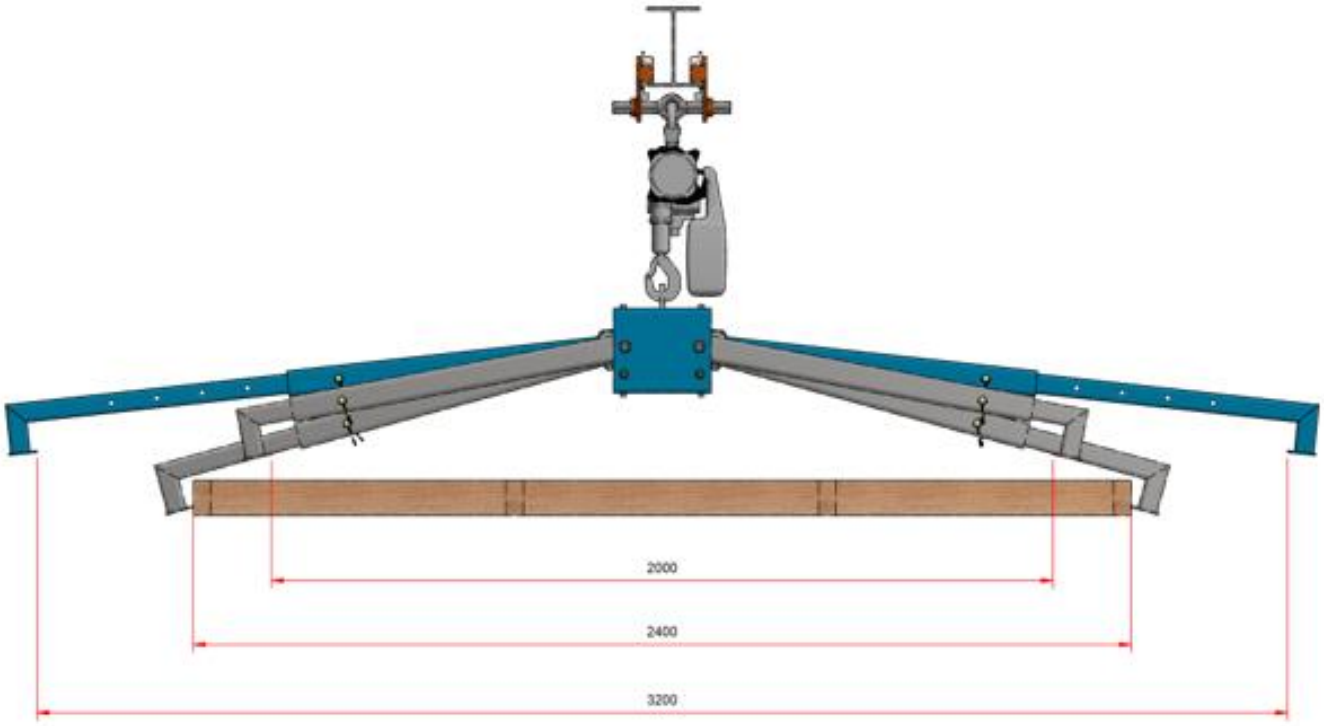

Figure 2, Clamp extensions

In all instances, the operators must:

- Stay aware of people/items when moving the Frame Lifting Clamp both vertically and horizontally to avoid collisions.
- Ensure nothing gets in the way of moving parts/material.
- Keep the Frame Lifting Clamp at/above the home position when not in use. This home position should be at least above the level of any machine/item/person in the workshop, to avoid potential collisions/hazards.
- Switch off the Frame Lifting Clamp when not in use, or when performing maintenance.

7.3 End of Operations

Once operations are complete, ensure that the Frame Lifting Clamp is raised to the home position, is switched off and any foreign tools/equipment are removed.

WARNING! Do not attempt to load more than one frame at once

8 Parts Identification

8.1 Frame Lifting Clamp Assembly

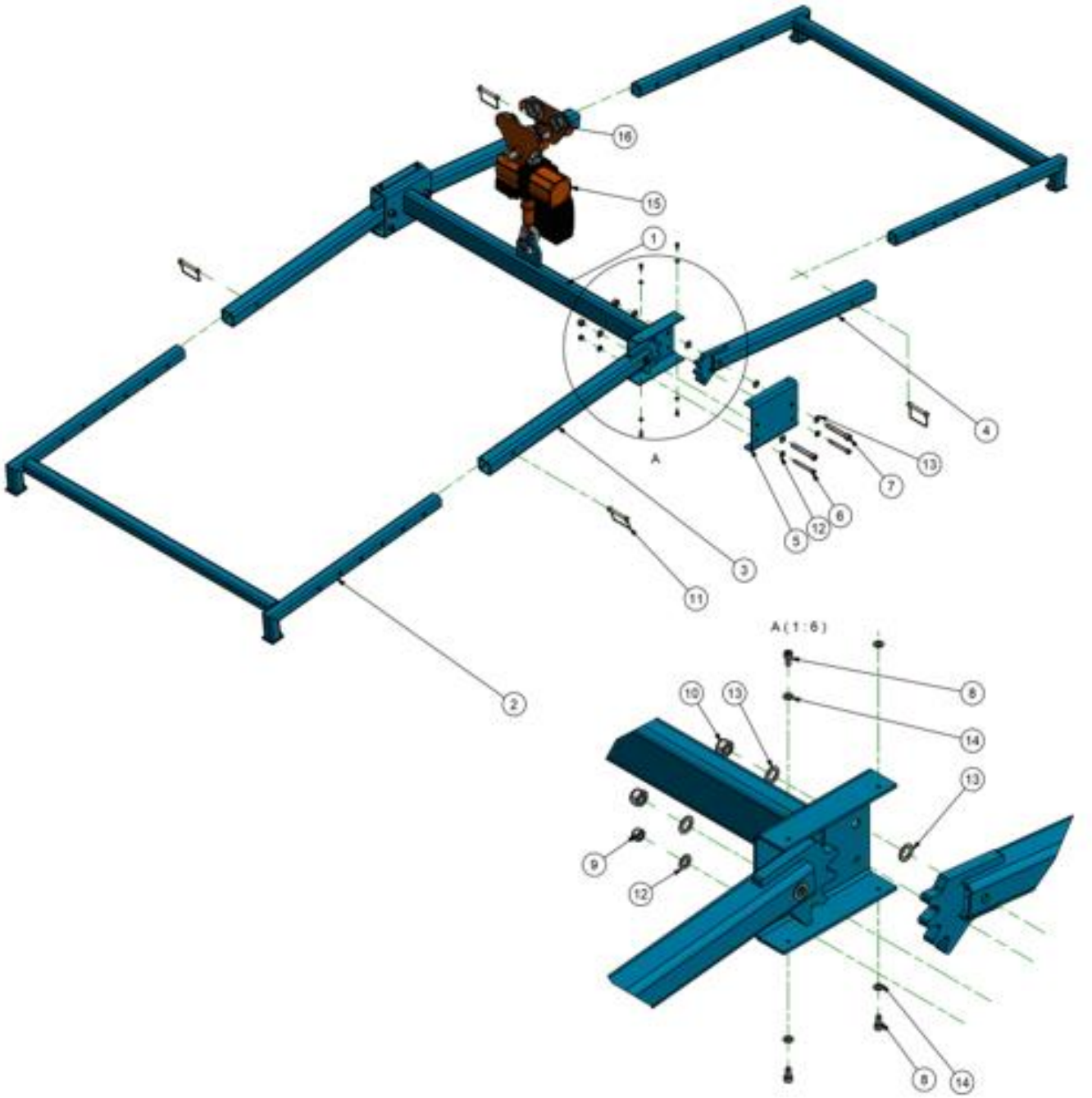

Figure 3, Top level assembly

Table 5, Top level assembly bill of materials

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1403001	Lifting Spar
2	2	1403002	Clamping Frame
3	2	1403003	Pivoting Arm 1
4	2	1403004	Pivoting Arm 2
5	2	1403005	Arm Retainer
6	4	HWCSM12100	Hex Socket Head Cap Screw M12x100
7	4	HWCSM16110	Hex Socket Head Cap Screw M16x110
8	8	HWCSM816	Hex Socket Head Cap Screw M8x16
9	4	HWNNM12	M12 Nyloc Nut - Zinc
10	4	HWNNM16	M16 Nyloc Nut - Zinc
11	4	HWSPS5039	Shaft Locking Pin #5039
12	8	HWWFM12	Flat washer M12
13	16	HWWFM16	Flat Washer M16x1.6
14	8	HWWFM8	Flat Washer M8
15	1	PEH100	Electric Chain Hoist 1T
16	1	PPT310HK	Girder Trolley 1T

8.2 HH-B Series Electric Chain Hoist

Please refer to the Toho HH-B Series Electric Chain Hoist manual for a parts list of the Chain Hoist.

9 Maintenance

If a part is damaged substantially, or if anything covered in this maintenance section cannot be fixed by general maintenance; then do not use the Frame Lifting Clamp and contact a supervisor, maintenance engineer, or Spida Machinery.

Table 6, Maintenance intervals

Check	Day	Week	Month	½ Year
Chains tensioned	x			
Work area is clear	x			
Emergency stop working	x			
Clean Frame Lifting Clamp of any build up	x			
Noises or Vibrations	x			
Keep chains clean and oiled		x		
Oil/grease pivots and hinges		x		
Motors running smoothly			x	
Loose or damaged bolts			x	
Check pins			x	
Grease arms			x	
Maintain Frame Lifting Clamp				x

Please refer to the Toho HH-B Series Electric Chain Hoist manual for further maintenance information on the Chain Hoist.

Failure to perform these checks as per schedule indicated in Table 6 may result in severe damage or a serious accident. **If a part is damaged substantially, or if anything covered in this maintenance section cannot be fixed by general maintenance; then do not use the Frame Lifting Clamp and contact a supervisor, maintenance engineer, or Spida Machinery.**

Table 6

WARNING! Electrical power supply must be isolated from machinery and appropriate danger tagging in place whenever any maintenance is being performed on machinery. Any defects, which are found on inspection should be rectified immediately and reported to the supervisor for appropriate action.

9.1 Chains tensioned

Chain Hoist chains needs to be correctly tensioned and straight on Chain Hoist roller to avoid any sideways tracking. See Toho HH-B Series Electric Chain Hoist manual for further information.

9.2 Keep work area clean and tidy

Ensure that the area surrounding the Frame Lifting Clamp is free of trip hazards, unnecessary tools, or other debris. There should be no reason for passers-by to approach or pass near the CSS Vector Frame Lifting Clamp while it is in use.

9.3 Emergency stops

Check the emergency stop is working and that it stops the machine when activated. This test should be performed before using the machine, at least once a day.

Check operational controls are working, and that they function as designed. Inspect these other controls at regular intervals.

9.4 Noises or Vibrations

Take note of any unusual noises or vibrations. Do not operate the Frame Lifting Clamp if the cause of any vibrations or unusual noises cannot be found.

9.5 Keep Chains Clean and Oiled

The chains that lift the Frame Lifting Clamp should be able to move up and down easily, without additional noise or effort. See Toho HH-B Series Electric Chain Hoist manual for further information.

9.6 Oil/Grease Pivots

All pivots and hinges must be oiled/greased regularly.

9.7 Motors

The motor should stop and start with no issues, and should easily move the Chain Hoist along the support beam and/or move the chain up and down. See Toho HH-B Series Electric Chain Hoist manual for further information.

9.8 Loose Fasteners and Fixings

Check for loose, missing, or damaged bolts in all areas. Tighten or replace where necessary.

9.9 Arm Pins

The pins that hold the arms in place should be checked monthly for potential issues. If the pins are bent or damaged in any way they should be replaced immediately.

9.10 Lubricate Sliders

The arm sections that slide against one another while extending and retracting, need to be oiled once a month.

9.11 Maintain Frame Lifting Clamp

Check all major operating components for wear, fatigue, and alignment. Adjust, tighten, or replace components as required.

Do not use the Frame Lifting Clamp if it is damaged significantly or if it is not working correctly, and all other mentioned maintenance is not applicable.

10 Foreseeable Misuse

Through experience, SPIDA's technical staff have listed (in order of occurrence) the most common misuses of the machinery by operators, the symptoms that result and the rectification required to address the misuse and return the machine to optimal working order.

Table 7, Common misuse issues

MISUSE	SYMPTOM	RECTIFICATION REQUIRED
Lack of cleaning	Moving parts stiff/stuck Arm pins stuck/cannot be reinserted Clamping ability reduced Lifting ability reduced Motor tripping out or overloaded	- Maintain Chain Hoist as per TOHO manual - Clean Frame Lifting Clamp, especially joints, pin holes, and moving parts - Remove any large pieces of debris, and clean out any dirt. - Clean, check, and service motors.
Lack of care	Arms not moving in and out, or up and down, correctly Pins bent or broken/arms unable to be held at the correct length Chain hoist not moving along beam correctly Frame Lifting Clamp not moving up and down correctly Frame Lifting Clamp not clamping correctly	- Repair Chain Hoist as per TOHO operations manual - Repair or replace any damaged, loose, or missing parts. - Remove any loose or unnecessary objects. - Re-calibrate parts as required. - Note, if possible, how each part was mistreated, and train operators to prevent additional misuse of these and other parts. - Contact Spida Machinery in the event of a major issue

Any other misuse and resultant damage of the machine is deemed non-foreseeable as its occurrence is not consistent.

11 Trouble Shooting

Table 8, Trouble shooting

TROUBLE	PROBABLE CAUSES	CORRECTION
Arms stuck/not moving in or out/not staying in place	Pins bent/broken	Remove and replace bent/broken pins
	Pin holes misshapen	Smooth pin holes. Replace arm if required
	Arms misaligned/broken	Re-align/repair/or replace parts as required
Motor tripping out	Chain Hoist obstructed	Clear any obstruction
	Chain jammed	Check chain for any damage or obstruction clear or replace chain if necessary
Frame Lifting Clamp not clamping	Arm joints damaged	Repair/replace parts as required
	Arms not staying in place	See above for probable causes and corrections
	Arm ends damaged	Repair/replace parts as required
Frame Lifting Clamp not lifting	Chain Hoist damaged/broken	See TOHO operations manual. Repair/replace as required
	Too much weight on Frame Lifting Clamp	Ensure only one frame is being lifted. Ensure frame is within provided weight limit. (See Section 3, Specifications for limits).
Chain Hoist not moving along support beam	Motor tripping out	See above for probable causes and corrections
	Obstruction of either Chain Hoist or Frame Lifting Clamp	Clear any obstruction
	Other Chain Hoist Maintenance issue	See TOHO operations manual

12 Distributor & Repairer Contacts

12.1 Agent/Distributor

Company Name: _____

Contact Person: _____

Ph.: _____ Fax: _____

Mobile: _____ Email: _____

12.2 Automation Repairs

Company Name: _____

Address: _____

Contact Person: _____

Ph.: _____ Fax: _____

Mobile: _____ Email: _____

12.3 Mechanical Repairs

Company Name: _____

Address: _____

Contact Person: _____

Ph.: _____ Fax: _____

Mobile: _____ Email: _____

13 Warranty

SM2012 Ltd, SPIDA Machinery, Tauranga, New Zealand, warrants the equipment listed below to the initial purchaser of the equipment only against defective workmanship and materials only, for a period of twelve (12) months from the date of shipment from SPIDA's factory, subject to the following conditions:

1. SPIDA extends the original manufacturer's warranty to SPIDA on buy-in items such as motors, saw blades and air cylinders or other such buy-in items but does not add its warranty herein described to such items.

2. This warranty only applies if:
   a. The attached copy of this warranty is signed by the initial purchaser and returned to SPIDA's address shown above within 14 days of shipment of the goods from SPIDA's factory.
   b. The equipment is installed by SPIDA or its licensed installer.
   c. Regular routine maintenance has been carried out on equipment in accordance with instructions in manual provided by SPIDA and proper housing and shelter provided for the equipment.
   d. The equipment is operated by competent personnel in accordance with the operating instructions set out in the manual provided by SPIDA and not otherwise.
   e. The equipment has not been subjected to alterations or repairs or dismantling without prior written approval of SPIDA. Any parts returned to SPIDA either for repair or consideration of a warranty claim consequent to an authorisation to dismantle must be shipped prepaid.
   f. SPIDA may, at its option, either repair or replace the defective part upon inspection at the site of the equipment where originally installed. The warranty does not cover the cost of freight, Labour or traveling for the removal or replacement of the defective parts,
   g. This warranty does not apply to any deterioration due to average wear and tear or normal use or exposure.
   h. In all warranty matters, including any question of whether this warranty applies to any claim, the decision of SPIDA is final,

This warranty is the only warranty made by SPIDA as the manufacturer and is expressly in lieu of and excludes all other warranties, conditions, representations and terms expressed or implied, statutory or otherwise, except any implied by law and which by law cannot be excluded. Neither SPIDA or its agents or servants will be liable in any way for any consequential loss, damage or injury including any loss of use, profits or contracts.

The law applicable to this warranty shall be the law of New Zealand and the parties hereto submit to the exclusive jurisdiction of the Courts of New Zealand.

Machinery/Equipment

The item bearing the following serial plate:

_____

Date of Shipment: _____

Signed by: _____

Name: _____

Position: _____

Acceptance of Warranty

I acknowledge and accept the contents of this warranty.

Signed by: _____

Name: _____

Company: _____

Position: _____

Date: _____

14 Training Certificate

Instructor: _____

Company: _____

I declare that:

- I have trained the person names below ("the trainee") in the safe operation of the machinery/equipment detailed in the training manual.
- The trainee has demonstrated an understanding of the safe operation of the machinery/equipment.
- The trainee has indicated the he/she has read and understood this training manual.

Signed: _____

Date: _____

Trainee: _____

Company: _____

Position: _____

I declare that:

- I have received instruction from the person named above ("the instructor") for the safe operation of the machinery/equipment detailed in this training manual.
- All information in this training manual was demonstrated and explained by the instructor.
- I have thoroughly read and understood this training manual.

Signed: _____

Date: _____

Witnessed by:

Name: _____

Company: _____

Signed: _____

Date: _____