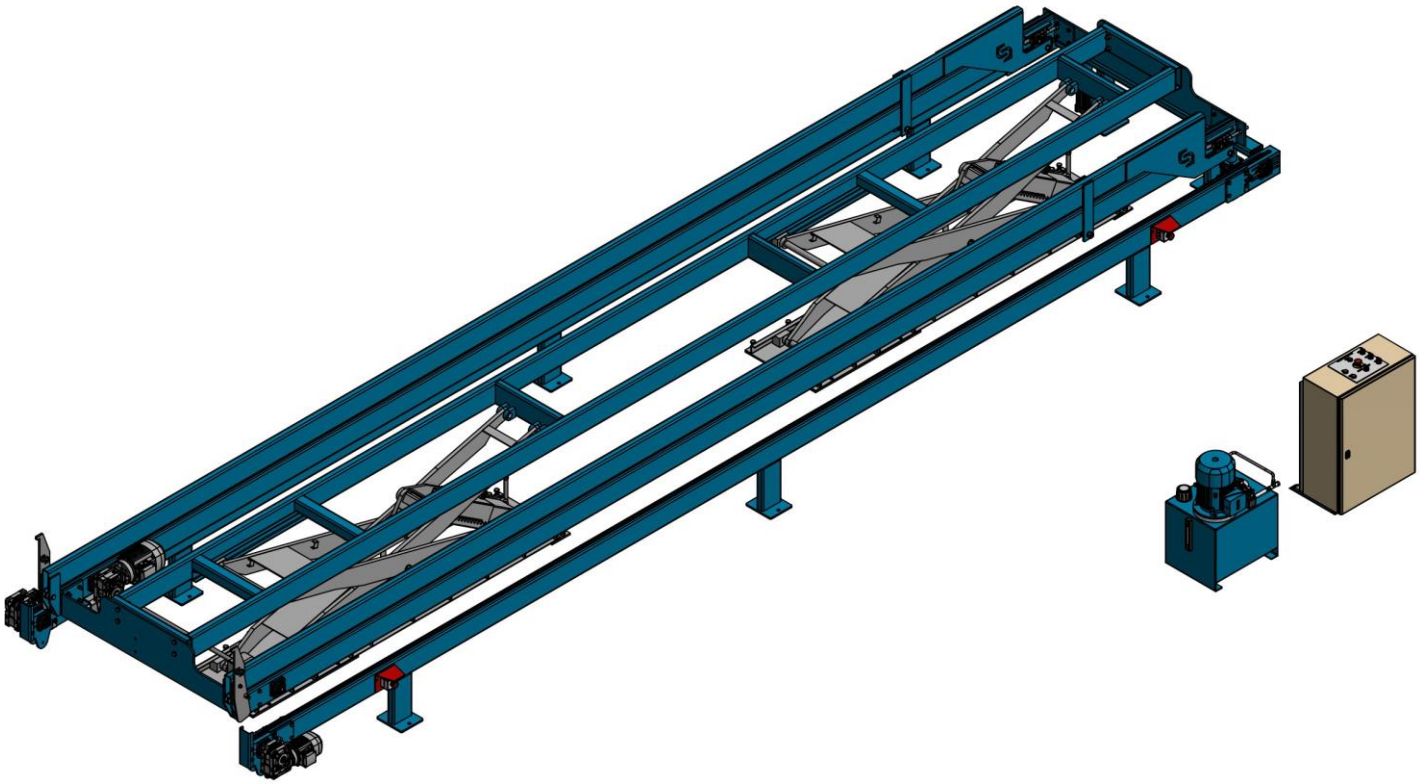
SPIDA MACHINERY
A MULTINAIL COMPANY

# Wall stacker



# OPERATION & MAINTENACE 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:
SPIDA Machinery Ltd

Australia free phone 1800 146 110

America free phone 1888 262 9476

NZ free phone 0800 SPIDAS or +64 7 343 7915

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

# 1 Contents

## Tables



## Figures

# 2 Overview

The Spida Wall Stacker is designed to transport timber wall frame assemblies from the conveyor systems and stack the frames on a packing or wrapping station ready to be transported to a job site.

The Wall Stacker 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 (SM2012 Ltd) and cannot be warranted.

All operators should read and then sign the register of this manual before operating the Wall Stacker 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 Wall Stacker are deemed competent and qualifies to operate the machine.

The Wall Stacker 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 (at least every three months but more often if used continuously) the recommended maintenance procedures and checks detailed in this manual.

Al pneumatic lines must be set as to not allow its movement through the nailing area of adjacent machinery.

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.

# 3 Specifications

*Table 1, Wall Stacker Specifications*

| | |
|---|---|
| **Overall Width** | 2200mm |
| **Overall Height** | 470 - 2000mm |
| **Overall Length** | 8200mm |
| **Weight** | 1600 kg |
| **Operational Noise** | 40 dB |
| **Air Supply** | 7-8 Bar |
| **Hydraulic Oil** | 70L |
| **Electrical Supply** | 3.75kW, 380-480V, 48-68 Hz, 6A |

**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 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 Spida Wall Stacker will be delivered in large component form and will require assembly on site by trained personnel. Due care and attention should be made whilst unpacking of the components from their packaging materials. Any damage caused whilst in transit should be noted immediately and Spida Machinery (SM2012) informed. Refer to section 3 specifications for weights of individual components for selection of Manual Handling Equipment 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 ground on which the machine rests must not vary by more than 30mm over a 12m x 2m area
- Wall Stacker, once level, machine should be bolted to the floor through holes provided.
- Electrical commissioning to be to local standards and be performed by a qualified electrician

The site selected for the Spida Wall Stacker will depend on the ground. The ground chosen should be a clean and free of water or possible flooding. The area on which the framework sits must be as even and horizontal as possible. This can be achieved by packing the feet. There should be no twist to the framework when the feet have been packed to take the ground into account.

The final operating position of the machine should be free of all rubbish or impediments with general access to all areas of the Wall Stacker.

With the machine in position, a qualified engineer should be used to connect the pneumatic components to the machine and adjust the air pressure to the required setting. (refer to 3 Specifications for pressure settings)

Check all pneumatic hoses and connectors to ensure that the fittings haven't worked loose during transportation of the machine. Re-tighten all fittings that appear to be leaking. If leaking persists undo the fittings, apply a sealing compound to the joints in question. Re-tighten the fitting. (any serious leaking problems during the warranty period should be reported to Spida Machinery 2012

Ltd). Check the air pressure in the system is sufficient to operate the machine. (refer to 3 Specifications for pressure settings).

To check the air pressure, turn the compressor on and allow the pressure to build up. When the controls are activated, normal pressure should read 7-8 bar or 700- 800 kPa. All maximum pressures are factory set and should not be changed.

Check that all safety equipment is functioning properly.

# 5 Safety

This Spida Wall Stacker is built for providing an efficient and safe means of stacking wall frame assemblies up to 6m in length. The Spida Wall Stacker must only be used for the purpose specified above and must be set up, maintained and operated in accordance with the instructions contained in this manual and the best standards of industrial machinery practice.

This Spida Wall Stacker will perform better and have a longer life if it is operated with care and given regular maintenance and inspections.

PROTECTIVE SAFETY CLOTHING AND EQUIPMENT MUST BE WORN; INCLUDING:

**Eyewear**

**Hearing protection**

**Respirator or Dust mask**

**Protective Clothing**

The Spida Wall Stacker must only be operated by personnel who have been properly instructed in all aspects of the Spida Wall Stacker safe operation.

Each member of the factory personnel shall be instructed in the safe use of the Spida Wall Stacker using this manual as a guideline and shall sign a copy of this manual to indicate that he or she has been instructed in the safe operation of the Spida Wall Stacker and have thoroughly read and understood this Manual and any other additional information that has been supplied.

A copy of this manual will be placed in the personnel file of each employee that receives instruction on the Spida Wall Stacker.

A second copy will be made available to each employee for his or her reference.

This manual is intended as a guide for safe operation of the Spida Wall Stacker by the operator. The operator should not consider this manual as all-inclusive.

Should you have any questions on the Spida Wall Stacker contact SPIDA Machinery (SM2012 Ltd).

- Protective clothing is to be worn at all times whilst operating this machine. The machine has several moving components which may snag any loose ill-fitting clothing resulting in possible injury. Keep hands away from all moving parts.
- Stay alert at all times of any human movement around the machine. Know where your co-workers are when you are operating the machine!
- Use the correct operating procedure to switch the machine off when it is not in use
- Before the commencement of work:
    - Carry out a general inspection of the machine for loose fittings, fasteners and damage to the pneumatic air lines.
    - Check all safety systems and equipment are work properly
    - Ensure that the machine is not vibrating or making unusual noises
- When shutting the machine down after each shift remove any foreign objects such as tools, discarded nails etc.
- Long hair should not be worn around the machinery. Wear appropriate hat or hair net, which will cover loose hair in accordance with OHS regulations.

- All maintenance should be carried out (where possible) with the compressed air and electrical supply isolated.
- The operator shall be suitably trained in accordance with this manual[1].
- Any person under the influence of alcohol or any drugs which would impair the operator's normal functions shall **not** operate the machine[2].
- It is the responsibility of the competent operator to prevent any other person from coming into the operators work area whilst the machine is in use.
- Observe and obey all warning decals and labels.

When initially locating the machine in the factory production area, due care and attention should be given to a clear working area around the machine and the movement of timber into and away from the working area. Operation of the machine should be confined to competent trained personnel only, (Ensure they sign the Operation/Maintenance Manual) who are responsible for routine inspection of components and ensuring that the machine is not in an unsafe condition.

**Notes:**

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

2 Consult a doctor or a pharmacist if you are on or taking any medication that you are unsure about.

**WARNING!** Do not operate the Spida Wall Stacker without having received the proper instruction in operation and safety from this manual.

# 6 Operating Controls

Before attempting to operate the Spida Wall Stacker, familiarise yourself with the location and function of each control.

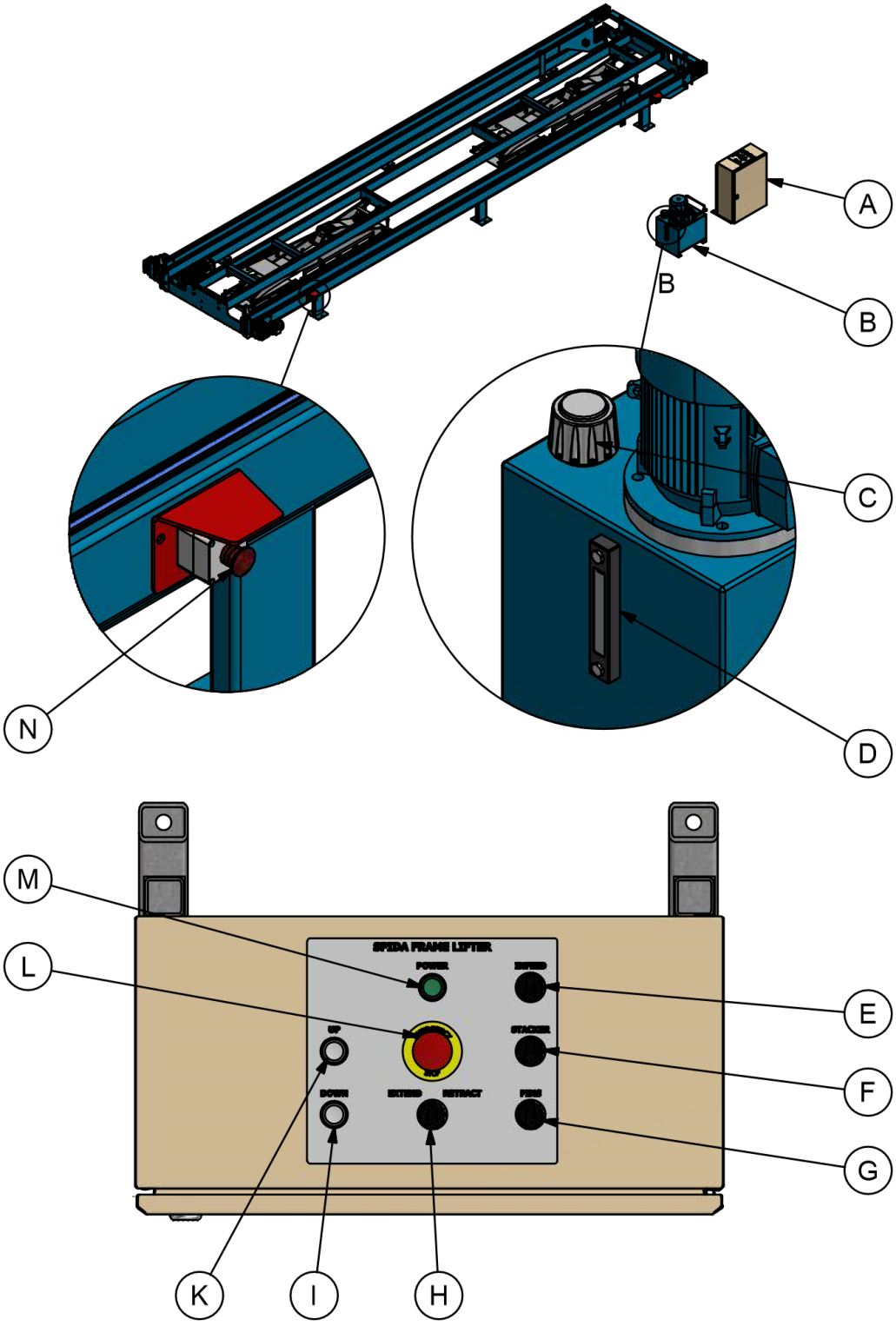



*Figure 1, Wall Stacker control locations*

*Table 2, Control functions see **Error! Reference source not found.***

| Control | Name | Function |
|---|---|---|
| A | Main control panel | Location of main controls |
| B | Hydraulic power pack | Pump and motor location |
| C | Oil cap | Location to re-full hydraulic tank |
| D | Oil level gauge | Shows quantity of hydraulic oil in tank |
| E | Infeed | Controls conveyor infeed to stacker (if required) |
| F | Stacker | Controls stacker outfeed (if required) |
| G | Pins | Stopper pins up/down |
| H | Extend/Retract | Boom out/in |
| I | Down | Stacker down |
| K | Up | Stacker up |
| L | Emergency Stop | Shuts of machine |
| M | Power | Light – lit if power is on |
| N | Emergency Stop | Shuts off machine |

**WARNING!** Do not operate Wall Stacker without the correct knowledge and function of each of the controls.

# 7 Operation

NOTE: The Spida Wall Stacker is to be operated in accordance with this manual. Deviation from this specified operation may result in damage to machine or injury.

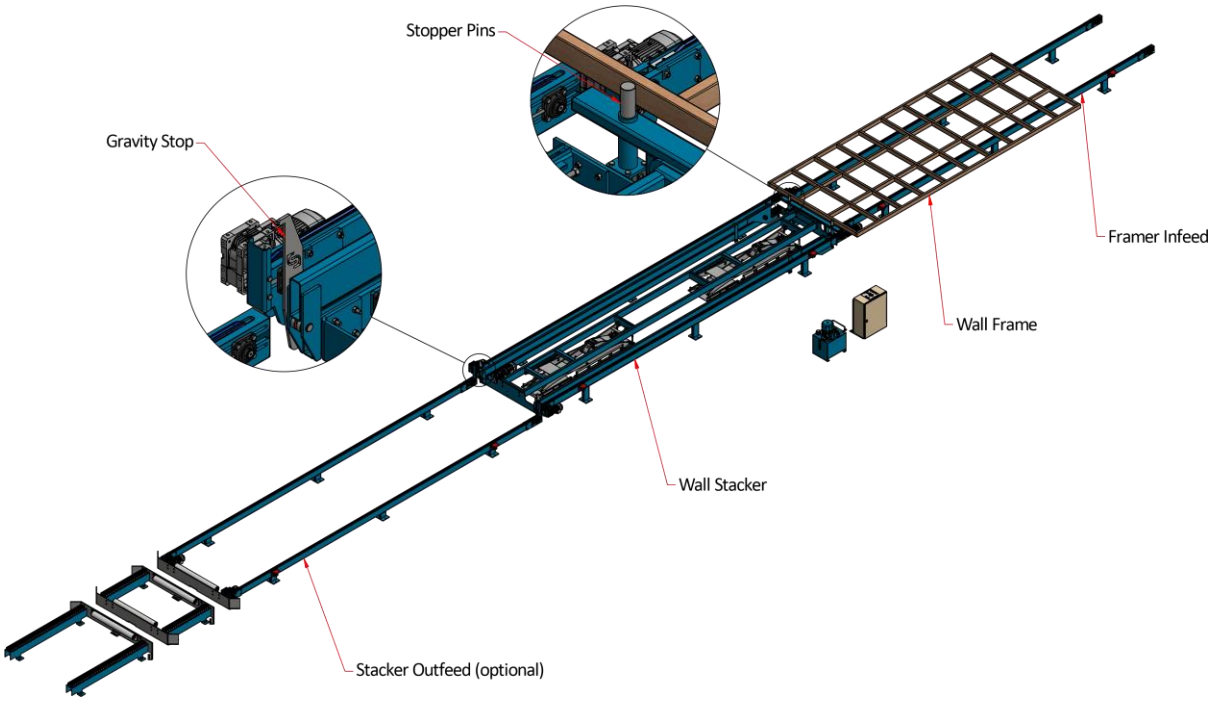



*Figure 2, Typical Wall Stacker configuration.*

## 7.1 Main Control Panel

The green light on the main control panel will be lit when machine is operational.

### 7.1.1 Infeed Control

Optional extra. The Infeed switch is used to control the infeed conveyor, allowing the operator the switch the infeed off while the stopper pins are up.

### 7.1.2 Outfeed Control

Optional extra. Using the stacker switch an outfeed conveyor can be controlled, once frames are stacked this toggle switch can be used to control the conveyor in forward or reverse.

### 7.1.3 Stopper Pins

The stopper pins can be toggled to the up or down position these pins prevent the next frame in line from entering the stacker frame while the stacker is lifting or boom is extending. The control software will prevent the pins from going down while the stacker is lifting or boom is in use.

### 7.1.4 Boom Control

The boom is controlled by using the Extend/Retract switch on the main control panel. The boom has sensor to prevent over extension or retraction.

### 7.1.5 Stacker Up and Down

The vertical motion of stacker is controlled using the Up and Down button on the main control panel.

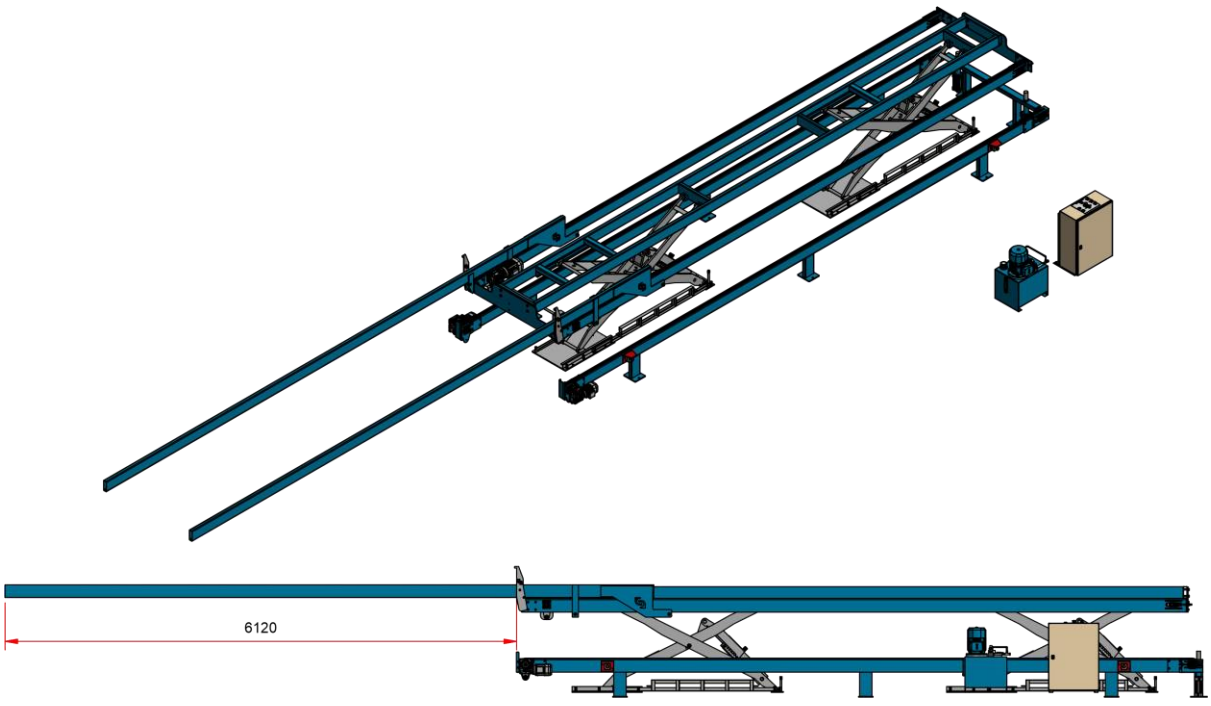



*Figure 3, Wall stacker in up and extended position*

## 7.2 General Operation

- As wall frame enters the stacker
- Before next the next frame can enter the stacker apply the stopper pins, unless more than one frame is being stacked in this layer. Multiple frames can be stacked per layer if total length of frames does not exceed 6 meters.
- When frame hits stopper at end of stacker the lifting procedure can begin
- Stacker is lifted to the appropriate height. High enough to clear the stoppers if this is the first frame in a stack or high enough to clear any existing stack.
- Boom is extended the until frame clears the gravity stops and gravity stops pop back up
- Stacker is lowered to the appropriate height, down to the outfeed or next frame if a stack has already been made
- Boom can be retracted; the gravity stops will prevent the frame from returning and will drop onto the stack
- Lower the stacker once boom has retracted
- Stopper pin can now be lowered allowing another frame to be stacked.

## 7.3 Hydraulic Power Pack

The hydraulic power pack houses the motor and pump that facilitates the up and down motion of the stacker. On the side of the tank is a gauge showing the amount of hydraulic oil in the tank, this must be checked regularly. The tank holds 70 litres of hydraulic oil.

## 7.4 Isolation

In an emergency, the machine can be shut down using the emergency stop buttons, one is located on the main control panel and others located on the side chain conveyors. The machine must be isolated for both air and electricity when any maintenance is to be performed.

# 8 Parts Identification

## 8.1 Top Level Assembly

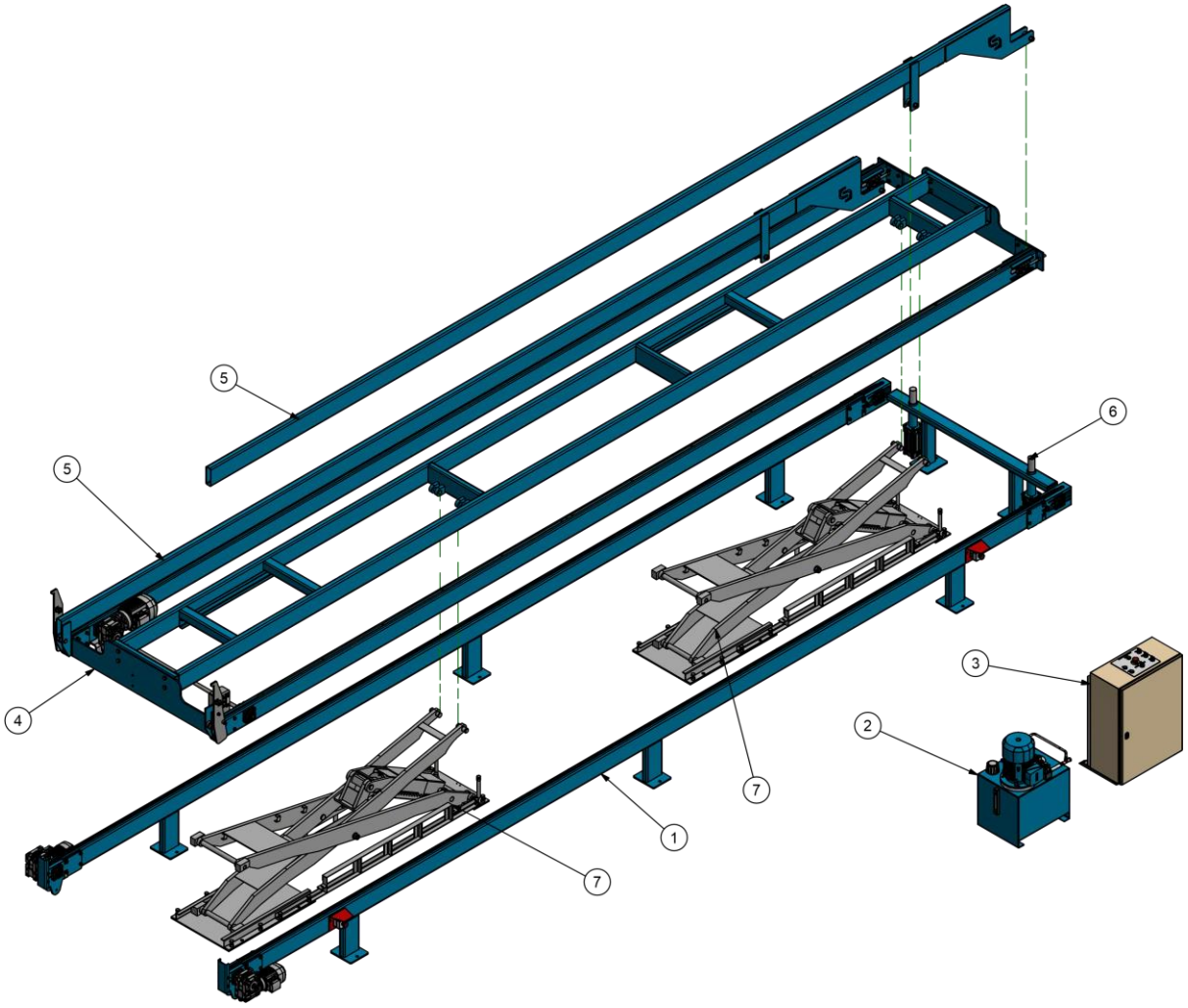



*Figure 4, Top level assembly*

*Table 3, Top level assembly bill of materials*

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|---|---|---|---|
| **1** | 1 | 1001000 - 8 | Chain Conveyor - 8m |
| **2** | 1 | 1401800 | Truss/Frame Lifter Hydraulic Power Pack |
| **3** | 1 | 1402001 | Lifter Control Box |
| **4** | 1 | 1402100 | Boom Bottom Assembly |
| **5** | 2 | 1402200 | Boom -Top assembly |
| **6** | 1 | 1402300 | Conveyor Pneumatic Stopper |
| **7** | 2 | PL-P35 | PL-P35 Scissor Lift - No platform |

## 8.2 Frame Assembly

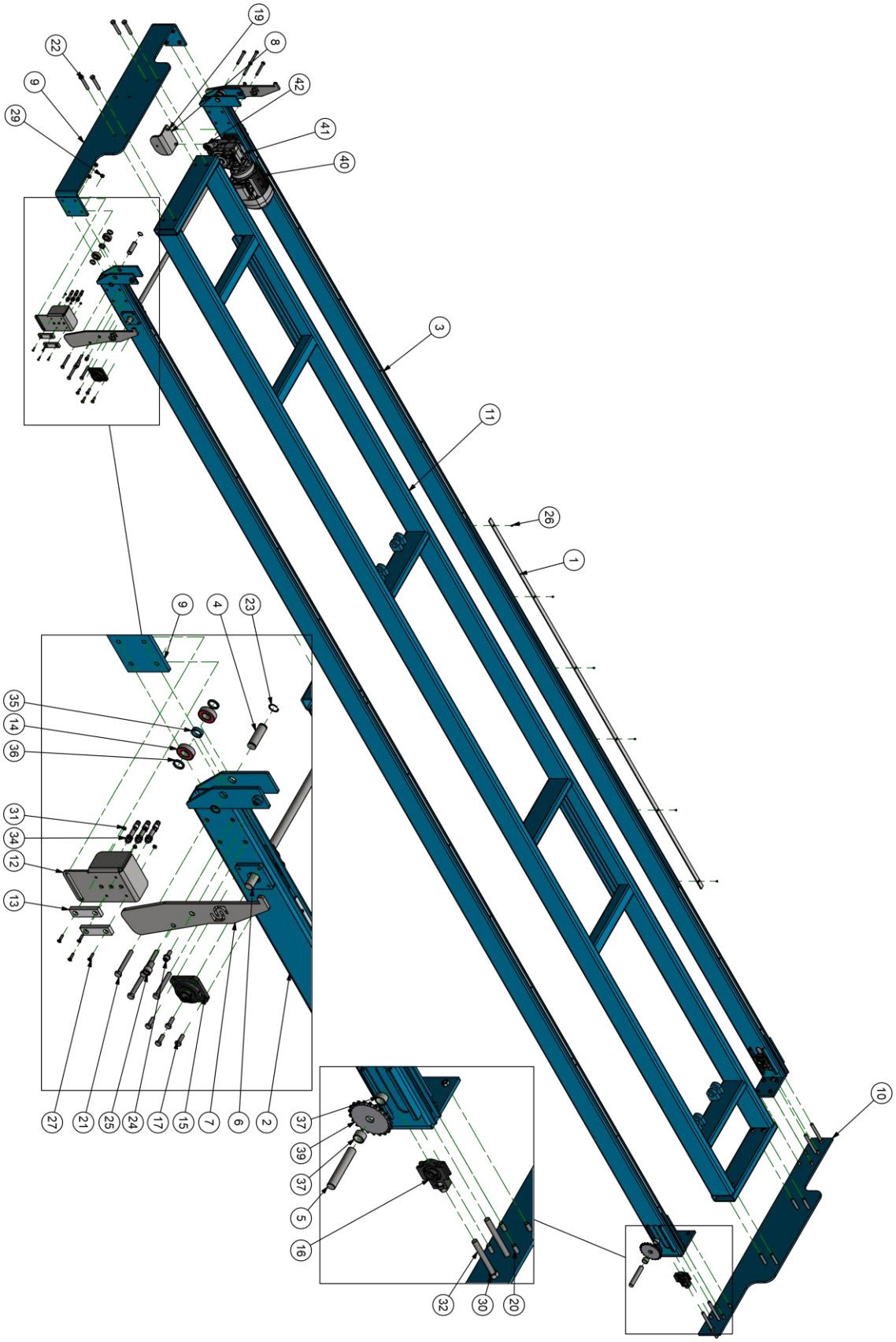



*Figure 5, Frame assembly*

*Table 4, Frame assembly bill of materials*

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|---|---|---|---|
| **1** | 6 | 1001009 | Wear strip |
| **2** | 1 | 1402101 L | Boom - Bottom (welded) assembly |
| **3** | 1 | 1402101 R | Boom - Bottom (welded) assembly |
| **4** | 2 | 1402103 | Boom bearing shaft |
| **5** | 2 | 1402104 | Idler shaft |
| **6** | 1 | 1402105 | Drive shaft |
| **7** | 2 | 1402107 | Stopper profile |
| **8** | 1 | 1402108 | Torque arm bracket |
| **9** | 1 | 1402109 | Front spreader |
| **10** | 1 | 1402110 | Back Spreader |
| **11** | 1 | 1402111 | Scissor Lift Frame |
| **12** | 1 | 1402112 | Sensor Mount/Guard |
| **13** | 2 | 1402113 | Sensor Guard |
| **14** | 4 | BRG6205DD | Bearing 52 x 25 x 15 |
| **15** | 4 | BRGUCF205-25 | 4 bolt flange bearing 25mm |
| **16** | 4 | BRGUCT205-25 | Take up unit 25mm UCT205 |
| **17** | 16 | HWBHM1030 | Hex bolt M10x30 |
| **18** | 1 | HWBHM1045 | Hex bolt M10x45 |
| **19** | 2 | HWBHM1225 | Hex bolt M12x25 |
| **20** | 8 | HWBHM1240 | Hex bolt M12x40 |
| **21** | 8 | HWBHM1290 | Hex bolt M12x90 |
| **22** | 8 | HWBHM1690 | Hex Bolt M16x90 |
| **23** | 4 | HWCCXM25 | Circlip 25mm |
| **24** | 2 | HWCSM1025 | Hex Socket Head Cap Screw M10x25 |
| **25** | 2 | HWCSM1625 | Hex Socket Head Cap Screw M16x25 |
| **26** | 28 | HWCSM58CS | Hex Socket CSK Head Screw M5x8 |
| **27** | 4 | HWCSM625CS | Hex Socket CSK Head Screw M6x25 |
| **28** | 1 | HWNHM10 | Hex nut M10 |
| **29** | 16 | HWNHM12 | Hex nut M12 |
| **30** | 24 | HWNHM16 | Hex nut M16 |
| **31** | 4 | HWNHM6 | Hex nut M6 |
| **32** | 4 | HWTRM16 | Threaded rod |
| **33** | 2 | HWWFM10 | Washer Flat M10 |
| **34** | 3 | IME12-04BPSZCOS | SICK, Proximity Sensor |
| **35** | 20.000 mm | RMSBP25H | Black pipe 33.7x4 |
| **36** | 20.000 mm | RMSBP25H | Black pipe 33.7x4 |
| **37** | 160.000 mm | RMSBP25H | Black pipe 33.7x4 |
| **38** | 2 | TRCH12B1 | Roller Chain 12B1 |
| **39** | 4 | TRCH12B1-21T-25-08 | Plate Sprocket 12B 21T 25 Dia. bore |
| **40** | 1 | TREMBN90S4230400-50B14 | 1.1 kW Motor |
| **41** | 1 | TRGBW63U30P90B14B8 | W63 Gearbox - 30:1 |
| **42** | 1 | TRTAW63 | W63 Torque arm |

## 8.3 Boom Assembly

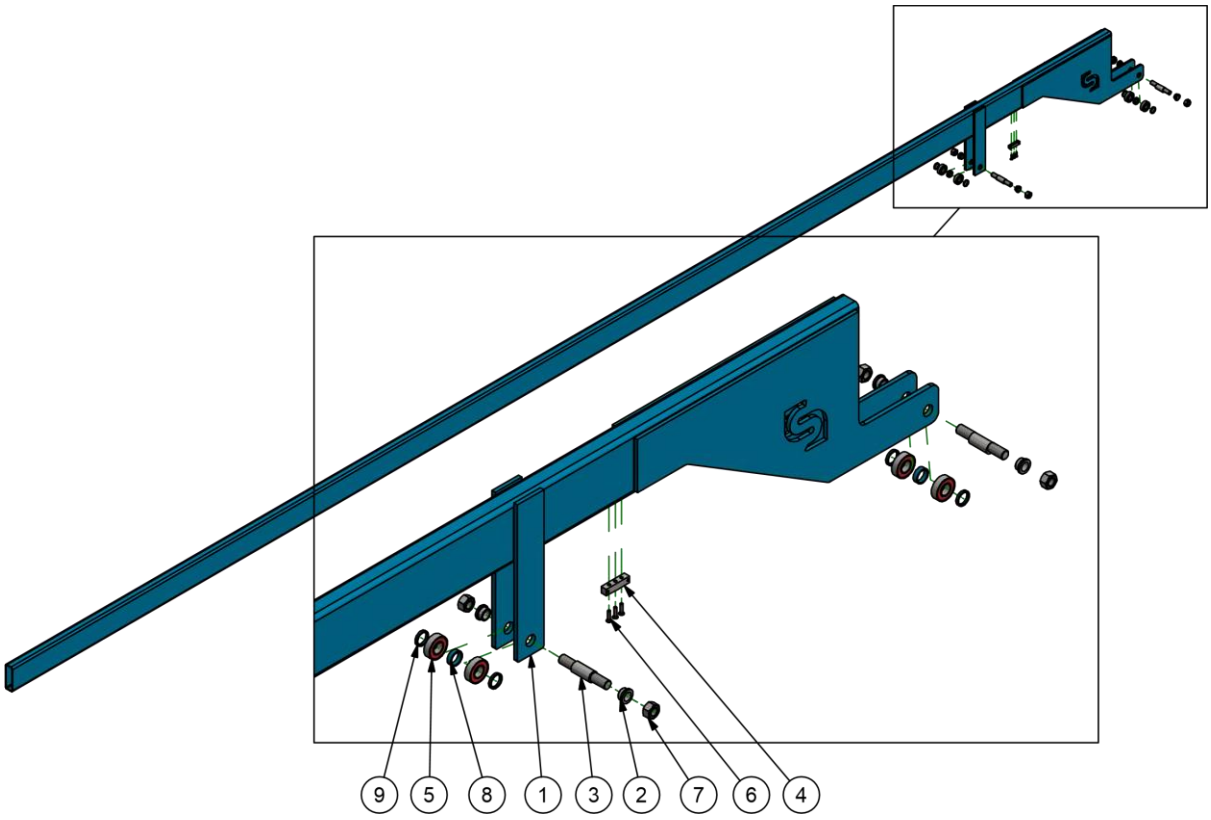



*Figure 6, Boom Assembly*

*Table 5, Boom assembly bill of materials*

| ITEM | QTY | LENGTH | PART NUMBER | DESCRIPTION |
|---|---|---|---|---|
| **1** | 1 | 1 | 1402201 | Boom - Top (welded) assembly |
| **2** | 4 | 1 | 1402202 | Eccentric shaft collar |
| **3** | 2 | 1 | 1402203 | Eccentric bearing shaft |
| **4** | 1 | 1 | 1402204 | Chain Attachment Plate |
| **5** | 4 | 1 | BRG6205DD | Bearing 52 x 25 x 15 |
| **6** | 3 | 1 | HWCSM625CS | Hex Socket CSK Head Screw M6x25 |
| **7** | 4 | 1 | HWNHM20 | Hex Nut M20 |
| **8** | 2 | 10.000 mm | RMSBP25H | Black pipe 33.7x4 |
| **9** | 4 | 5.000 mm | RMSBP25H | Black pipe 33.7x4 |

## 8.4 Stop Assembly

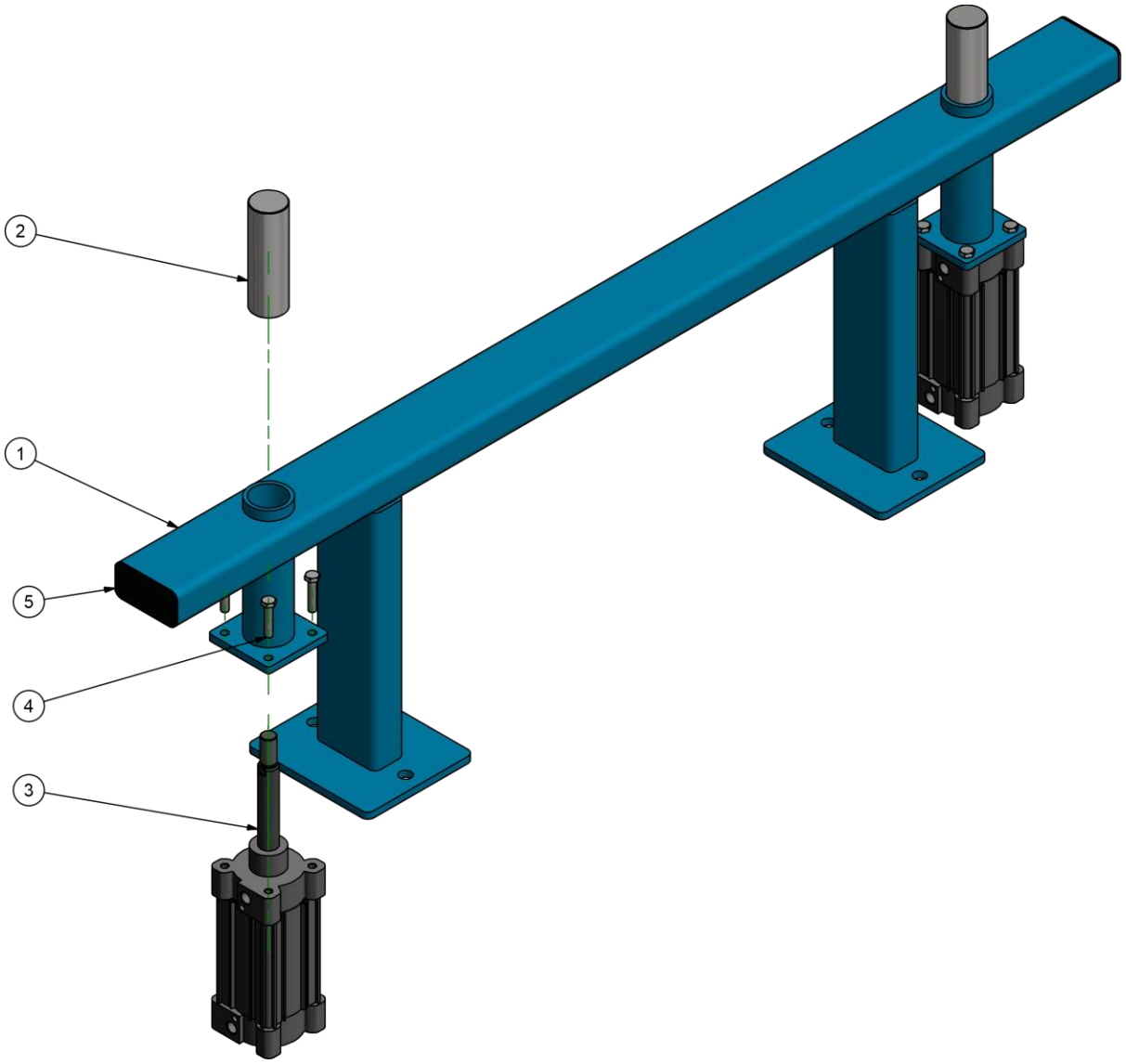



*Figure 7, Stopper assembly*

*Table 6, stopper assembly bill of materials*

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|---|---|---|---|
| **1** | 1 | 1402306 | Stopper mount |
| **2** | 2 | 1402307 | Pusher rod |
| **3** | 2 | ACCP96SDB80-100C | CP96S_C/CP96SD_C-ISO Cylinder |
| **4** | 8 | HWBHM1045 | Hex bolt M10x45 |
| **5** | 2 | HWPPRHS10050 | End cap RHS 100x50x5 |

# 9 Maintenance

Before attempting any maintenance on the Wall Stacker, isolate from air and electrical supply.

*Table 7, Maintenance intervals*

| Check | Day | Week | Month | ½ Year |
|---|---|---|---|---|
| Chains tensioned | x | | | |
| Check that work area is clear | x | | | |
| Check emergency stops | x | | | |
| Check proximity sensors | x | | | |
| Clean Wall Stacker of any build up | x | | | |
| Noises or Vibrations | x | | | |
| Keep chains clean and oiled | | x | | |
| Oil/grease pivots and hinges | | x | | |
| Check oil level in tank | | x | | |
| Air supply pressure | | x | | |
| Check for lose bolts | | | x | |
| Lubricate sliders | | | x | |
| Floor bolts for tightness | | | | x |
| Replace Hydraulic Oil | | | | x |

## 9.1 Chains tensioned

Conveyor chains and boom chains needs to be correctly tensioned and straight on roller to avoid any sideways tracking. Belt can be tensioned or straightened using the tensioning blocks located end of lifter. (See chain conveyor manual for operating procedures and maintenance on Spida chain conveyors).

## 9.2 Keep work area clean and tidy

Check the work area around the lifter is tidy and moving parts free from any build up or dust and grime, clean as necessary.

## 9.3 Emergency stops

Emergency stops should stop the machine, regularly check that the emergency stops are functional and stop the machines as they should.

## 9.4 Proximity Stops

Check proximity sensors are free and clear of any build-up of dust and securely fastened, sensor malfunctions will prevent the boom from extending/retracting. The gap between the face of the sensors and boom should be 1.5 – 2.5mm.

## 9.5 Noises or Vibrations

If any unusual noises or vibrations are noticed, shut the machine down and contact your supervisor or maintenance engineer to rectify the cause. Failure to fix any problem could cause major damage to machine or injury to the operator.

## 9.6 Keep Chains Clean and Oiled

The Spida Wall Stacker is supplied with Spida Chain Conveyors as standard. See chain conveyor manual for operating procedures and maintenance on Spida chain conveyors.

## 9.7 Oil/Grease Pivots

All pivots and hinges must be oiled/greased regularly.

## 9.8 Check hydraulic oil level

Regularly check the hydraulic oil tank level and top up if necessary, check for any leaks or damage on rams and hydraulic lines.

## 9.9 Air Supply

Air pressure should be maintained at 600-800 kPa take measures to ensure air quality, such as by installing an aftercooler, air dryer, or water separator. Do not use compressed air that contains chemicals, synthetic oils including organic solvents, salt or corrosive gases, etc., as it can cause damage or a malfunction. When synthetic oil is used for the compressor oil, depending on the type of synthetic oil used, or on the conditions of use, there may be adverse effects on the resin of the pneumatic equipment or on the seals if the oil is flowed out to the outlet side, so the mounting of a main line filter is recommended.

## 9.10 Lubricate Sliders

The upper and lower UHMW sliders in the scissor lift mechanism need to be oiled once a month.

## 9.11 Loose Fasteners and Fixings

Check for loose bolts especially on guards, cover and floor fixing. Tighten where necessary.

## 9.12 Replace Hydraulic Oil

The hydraulic oil must be replaced once a year. The oil level should be kept as full as possible. The machine should be put in the lowest position when replacing the hydraulic oil

# 10 Safe Operation

## 10.1 User Warnings

- All machine and components should be inspected upon delivery and at weekly intervals for looseness, fracture, bends, sharp edges or surfaces.
- Failure to perform the daily and weekly service checks as per the schedule may result in serious machine damage or a severe accident.
- 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.
- Split, broken, warped, twisted or timber with excessive wane should be avoided or used with caution because of the greater possibility of the timber not being transported securely.
- The machine is not to be used for any other purpose than the transporting of timber frame assemblies.
- Keep hands out of moving parts on the machine. Operators should be instructed not to extend fingers or limbs into the vicinity of the sensing or lifting areas. Be sure the machine is completely free of foreign objects and that any guards are in place before connection to electrical and air 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 Wall Stacker to ensure they are thoroughly familiar with the machine capabilities and limitations and to ensure correct operating procedures are adhered too.

## 10.2 General

*Table 8, General Hazards*

| POTENTIAL HAZARDS | SAFE WORK PROCEEDURE |
|---|---|
| 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 blade, nip points and moving parts. Make sure guards are in position and in good working order. Do not operate machine without guards. |
| Poor Housekeeping | Inspect Wall Stacker and surrounding areas for obstructions and defects. Remove built-up sawdust from around machine, electrical leads and power points. |
| 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. |

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.

## 10.3 Operation

*Table 9, Operational Hazards*

| POTENTIAL HAZARDS | SAFE WORK PROCEEDURE |
|---|---|
| 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 any moving parts. 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 spill 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 sawdust 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. |
| Material Defects | Inspect frames for nails or other foreign materials before transporting. Use only material designed for the machine. |
| Operator Technique | Do not remove frames from the stacker until the boom has been returned to its home position. |
| Hit by projectiles | Wall Stacker must be pneumatically and electronically isolated before attempting to clear blockages or timber jams. Any small off cut should be removed using a push stick which has been properly constructed. |

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.

## 10.4 Maintenance

*Table 10, Maintenance Hazards*

| POTENTIAL HAZARDS | SAFE WORK PROCEEDURE |
|---|---|
| Cleaning and maintenance preparation | Turn the air and electricity off at the main isolators and use the hole in the switch to lock the switch off before discussing, inspecting, changing, cleaning, adjusting or repairing a machine. Do not use compressed air to remove sawdust etc. from machines or clothing. |
| Stop/Start Buttons | Make sure that Start and Stop buttons are in good working condition and within easy convenient reach of an operator. Start buttons should be protected so that accidental contact will not start the machine. |
| Incorrect electrical isolation of machine | Machine must be switched off and locked out (pneumatically isolated) before maintenance or cleaning |
| Incorrect tools | Use Correct tools for the job to minimise personal injury and damage to the machine |
| Stalled boom | Isolate air/electricity before attempting to free a stalled boom or conveyor |
| Guarding | Ensure Guards are fitted correctly, adjusted and in good working order. |

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.

# 11 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 11, Common misuse issues*

| MISUSE | SYMTOM | RECTIFICATION REQUIRED |
|---|---|---|
| Too many frames on stacker | Frames not getting stacked | Be sure that if stacking multiple frames, total length of frame must not exceed 6m or gravity stops will not push frames off |
| Stopper not up | Frames riding onto stacker exceeding maximum total length of 6m or under stacker when stacker is in up position | Remember to have the stopper pin in up position to prevent frame from entering stacker |

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

# 12 Trouble Shooting

*Table 12, Trouble shooting*

| TROUBLE | PROBABLE CAUSES | CORRECTION |
|---|---|---|
| **Boom over extending /retracting** | Proximity sensors not working | Check sensors for damage, replace if necessary<br>Check gap of sensor off boom no greater than 2mm |
| **Motors tripping out** | Boom obstructed<br>Chain jammed | Clear any obstruction<br>Check chain for any damage or obstruction clear or replace chain if necessary |
| **Stacker not lifting** | Hydraulic pump/motor failure<br>Hydraulic oil leak | Check hydraulic power pack for damage<br>Check for any oil leaks and hydraulic oil level |

# 13 Distributor & Repairer Contacts

## 13.1 Agent/Distributor

Company Name: _____

Contact Person: _____

Ph.: _____ Fax: _____

Mobile: _____ Email: _____

## 13.2 Automation Repairs

Company Name: _____

Address: _____

Contact Person: _____

Ph.: _____ Fax: _____

Mobile: _____ Email: _____

## 13.3 Mechanical Repairs

Company Name: _____

Address: _____

Contact Person: _____

Ph.: _____ Fax: _____

Mobile: _____ Email: _____

# 14 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: _____

# 15 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:** _____