2026

Fabriweld CORPORATION

OPERATIONS MANUAL

FSC-100W Stacking Conveyor

SERIAL #: 347200-100W

Contents

WARRANTY START-UP INFORMATION

IMPORTANT: Warranty cannot be activated until this form is received. Please complete and return.

CUSTOMER INFORMATION

Customer Name: _____

Company Name: _____

Address: _____

Phone: _____

Fax: _____

E-mail: _____

Federal ID No.: *(US customers only)* _____

PRODUCT INFORMATION

Purchased From (Dealer): _____

Model No.: _____ Serial No.: _____

Engine Model: _____ Serial No.: _____

Hour Meter Reading: _____

Purchase Date: _____

Signing Officer (Print): _____

Signature: _____

Date (MM/DD/YYYY): _____

Please complete this form and send it to:

Fabriweld Corporation

405 Industrial Pkwy

Norwalk, OH 37013 USA

Phone: 1 (419) 663-0279

Fax: 1 (419) 663-3010

www.fabriweld.com

405 INDUSTRIAL PARKWAY, NORWALK, OHIO, 44857
PH: 419.663.0279 FAX: 419.663.3010

January 2025

Warranty Policy

General Procedure

Warranty claims must be sent to Fabriweld Corporation Service Department. Warranty Claim Form (Enclosure 3) must be completed, whereby one failur e of s pecific machine must be listed on the warranty form; Fabriweld Corporation supplies a separate warranty claim number for each claim. The warranty claim number must be indicated on any correspondence and on any part affected by warranty. Serial numbers must be provided for all major components replaced, such as gear boxes, hydraulic pumps, motors, electronic components, etc. Serial numbers must be provided for the original as well as the replacement part.

Failure of Hydraulic components or gear boxes require that oil samples be taken prior to repair and made available if requested by Fabriweld Corporation.

Note:

- Any warranty authority resides with the Fabriweld Corporation Product Support Manager
- One claim per failure, per machine
- Each product division has the right to request additional documentation up to 120 days from claim settlement. Request could include service reports, photos, inspection forms, part failure forms, etc.

Pre-Authorization Requirements

Certain repairs and claims require pre-authorization. The Customer is responsible for obtaining and documenting pre-authorization when required. Pre-authorization does not exempt the Customer from complying with warranty provisions outlined in this manual, including documentation of labor hours. Photographs in hard copy or digital form may be required to substantiate any claim.

The Claim Pre-Authorization Form (Enclosure 4) must be submitted via e-mail to the responsible FSC Conveyors Product Support Manager or the Warranty Department @ service@fscconveyors.com for approval. Once the pre-authorization is approved, the Customer will receive detailed instructions on how to continue the process of filing the claim. The claim must be submitted within 30 days of receiving approval.

The following situations require pre-authorization:

a) Accident claims: Any condition that could have contributed to personal injury or property damage

b) Machine modification: Welding, painting, fabrication

c) After-warranty repairs: Repairs made to any machine that is beyond the parameters of the warranty by months or hours

E-mail: info@fabriweld.com

www.fabriweld.com

Warranty Periods

New machines

- The machine warranty period is 12 months from commissioning or 1,000 operating hours; whichever occurs first.
- 24 months from commission or 2,000 operating hours, whichever comes first, warranty is available at an additional cost.
- The engine warranty is covered by the engine manufacturer. The engine must be registered through the manufacturers' website before the machine is commissioned into service.
- Hydraulics, electronics, and other components are covered by the manufacturer, but handled by FSC Conveyors.

Machine Parts

- Parts are warranted for 12 months or 1000 hours, whichever comes first. FSC Conveyors may request the defective part be returned. Return of the part must be completed within 30 days of request.
- Parts replaced under warranty, while the machine is in the standard warranty period, take on the remainder of the machine warranty. If the part fails a second time, it takes on the original warranty of the part replaced.
- The engine and all hydraulic components do not fall under the 12 month/1000 hours; they are covered under the manufacturer of the parts' warranty separately.
- The warranty includes parts only.

Workmanship:

- Workmanship such as welding, fabrication, machining, and assembly is covered for 12 months from commissioning or 1,000 operating hours; whichever occurs first.
- 24 months from commission or 2,000 operating hours, whichever comes first, warranty is available at an additional cost.
- Labor is reimbursed at a maximum rate of $125/hour

4.2 Warranty Exclusions

The following parts, fluids, services, or failures are not covered by this warranty:

a) Adjustments to bring the machine performance beyond specified standards

b) Regular maintenance and adjustments required (tightening nuts, bolts, fittings, bulbs, etc.)

c) Adjustments to correct prior improper or incomplete Customer adjustments or adjustments that are prohibited in a publication

d) Performance tolerance levels within ± 10% of published specifications

e) Replacing or adding fuel, Hydraulic and lubricating oil, grease and anti-freeze, air/filter inserts and replacement parts as the result of normal maintenance requirements, normal use, and/or wear and tear

f) Failure of attachments or components that were not supplied by the manufacturer

g) Damage caused by non-authorized conversion or modification

h) Failure of or subsequent damage to original parts caused by the use of non-genuine parts

i) Damage due to the use of contaminated or improper lubricants, anti-freeze, or fuel

j) Failures resulting from improper application, operation, maintenance, or repair practices

k) Damage resulting from improper or non-adherence to maintenance procedures schedules during the warranty period

l) Damage resulting from negligence, accidents, or damage caused by abuse, misuse, vandalism, theft, fire, or natural disaster

m) Any consequential costs such as downtime, commercial loss, lost wages etc., as well as replacement costs such as leasing, renting etc.

n) Costs incurred due to application issues or incorrect work performed

o) Towing, hauling, loading, unloading, and any transportation costs

p) Freight costs or storage costs

q) Mileage, bridge, and road tolls

r) Expenses such as meal or entertainment costs

s) Transport damage or loss

t) Repairs required as the result of improper handling, storage, or protection

u) Costs for non-authorized work

v) Engines are warranted directly by the manufacturer of the specific engine

w) Parts damaged due to chemical, electro-chemical, or similar effects (Machines forwarded outside the USA or Canada); Machines having an Hour meter which was tampered with

Note:

- All maintenance must be performed according to the Maintenance Manual to avoid warranty claim denial.
- Maintenance costs are the responsibility of the Customer.

4.2.1 Non-Warrantable Parts

Fabriweld Products: Engine, tires, conveyor rollers, batteries, conveyor belts (Except vulcanization), hopper flashing, lights, bulbs and any wear or maintenance parts.

4.3 Warranty Coverage

The Customer should consult the FSC Conveyors Product Support Manager responsible for analysis of the failure and suggested remedies on machines. The primary goal of consultation is to solve the problem by phone with the Customer's service personnel, establish an estimate of repair time, and get the machine back in service promptly.

Note:

Do not disassemble complete assemblies such as Hydraulic motors and pumps, water pumps, gearboxes, etc., while the machine is within the parameters of warranty. Assemblies should be replaced not repaired (Exception: Disassembly instructed by the Product Support Manager responsible).

4.4 Estimated Repair Times

Fabriweld Corporation does not obligate their customers to estimate times of repair, but it does expect trained and well-equipped technicians to perform the warranty repair in a time close to the estimate established during consultation with the responsible Product Support Manager.

4.5 Warranty Procedure

1.) If necessary, fill out and submit the pre-authorization form (Enclosure 4) to service@fscconveyors.com.

2.) Complete the Warranty Claim Form (Enclosure 3)and submit to service@fscconveyors.com. If pre-authorization was necessary for your claim and got approved, send your approved pre-authorization form along with the warranty claim form.

3.) Follow instructions given by FSC/Fabriweld Product Support Manager

NOTE: By submitting a warranty claim form or a pre-authorization form, you are agreeing to the terms in this agreement documents. Any questions or concerns may be directed to service@fscconveyors.com

Enclosure 3:

FSC Conveyors A FABRIWELD COMPANY	**Warranty Claim**	FSC Conveyors 405 Industrial Pkwy, Norwalk, OH, 44857 Phone (419)663-0279 | Fax (419)663-3010 www.fabriweld.com	S

Customer:			**Warranty No.**				
Street:			Machine Model:				
City/State/Zip:			Serial Number:				
			Start-Up Date:				
Engine Model:			Machine Operating Hours:				
Engine Serial#:			Failiure Date:				
Year of Manufacture:			Failure Repaired On:				
Original Machine Part?: Y N			Spare Part?: Y N				
	Description Delivered Part	**Delivered Part No.**	**Part Mounted Serial No.**	**QTY**	**Part Failed Hours**	**Invoice #**	**Price $**
	Description Failed Part	**Failed Part No.**	**Part Failed Serial No.**			**Date**	
1							
2							
3							
4							
5							

Short descriptions of reasons of failure and probable casue as per sections 1-5:

Enclosure:	Receipt ☐	Photos ☐	Service & Repair Report ☐
Date of Warranty Claim:		Applicant:	

Fabriweld Reserves the right to make changes or modifications to all Fabriweld products at any time without incurring obligation to make similar changes or modifications to previosuly sold machines.

Enclosure 4

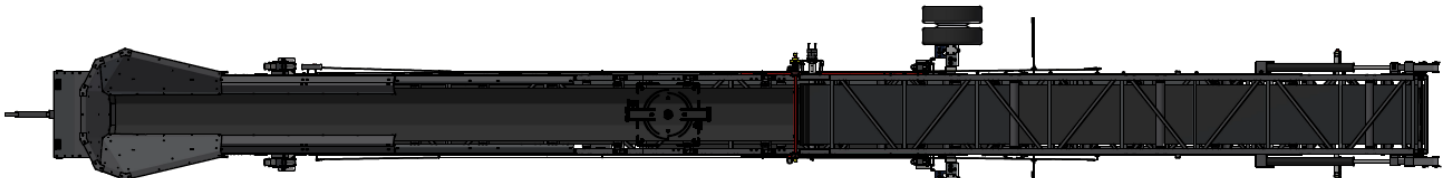
FSC Conveyors	**Claim Pre-Authorization**	FSC Conveyors 405 Industrial Pkwy, Norwalk, OH, 44857 Phone (419)663-0279 | Fax (419)663-3010 www.fabriweld.com

Customer:					
Street:					
City/State/Zip:					
Contact Person					
Phone No.					
Repair Completed: **YES** **NO**	Failure Date:	Repair Date:			
Machine Model:	Serial No:	Start-Up Date:			
FAILED COMPONENTS					
Part No.	Descriptions	Qty	Invoice No	Price EA	Price Extended
REPAIR ESTIMATE:					
Labor Hrs _____@_____ =_____		Misc. Expenses _____			
Travel Hrs _____@_____ =_____		Policy Request Total _____			
Parts Total _____@_____ =_____		Current Warranty Rate $ _____			
Detailed Explanation of Failures:					
Claim Pre-Authorization is subject to Warranty Terms and Conditions stated in the Fabriweld Corporation Product Support Manual. Claim Pre-Authorization is valid for 30 days from authorization date. Approved copy must be sent in with the Warranty Claim. Third party invoices must be provided with misc. expenses.					
FOR INTERNAL USE ONLY					
TYPE OF CLAIM		Approval Amount:	Specific Terms:		
☐Policy	% ___	Parts % _____			
☐Warranty	% ___	Labor Hrs. _____			
☐Sales	% ___	Travel Hrs. _____			
☐Labor/Travel	% ___	Misc. $ _____			
☐Customer Part	% ___	Product Support Manager _____			
☐Other	% ___	Date: _____			
Comments:					

ORIENTATION

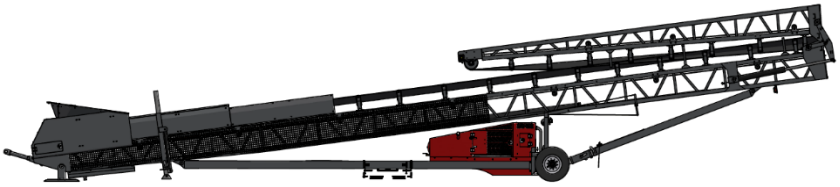
LEFT

BACK Front

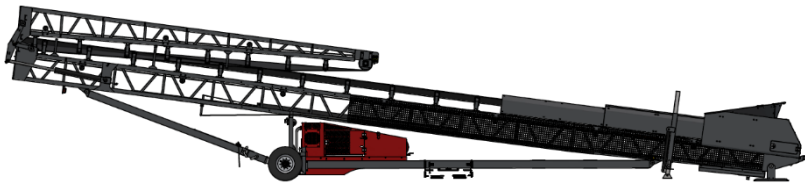


RIGHT

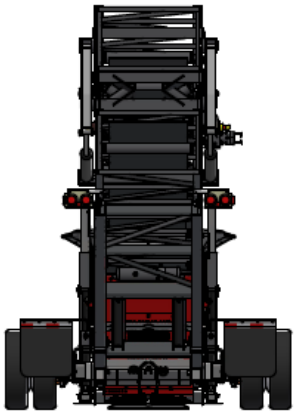
ALL VIEW



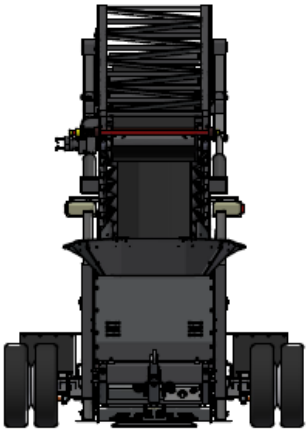
Right



Left



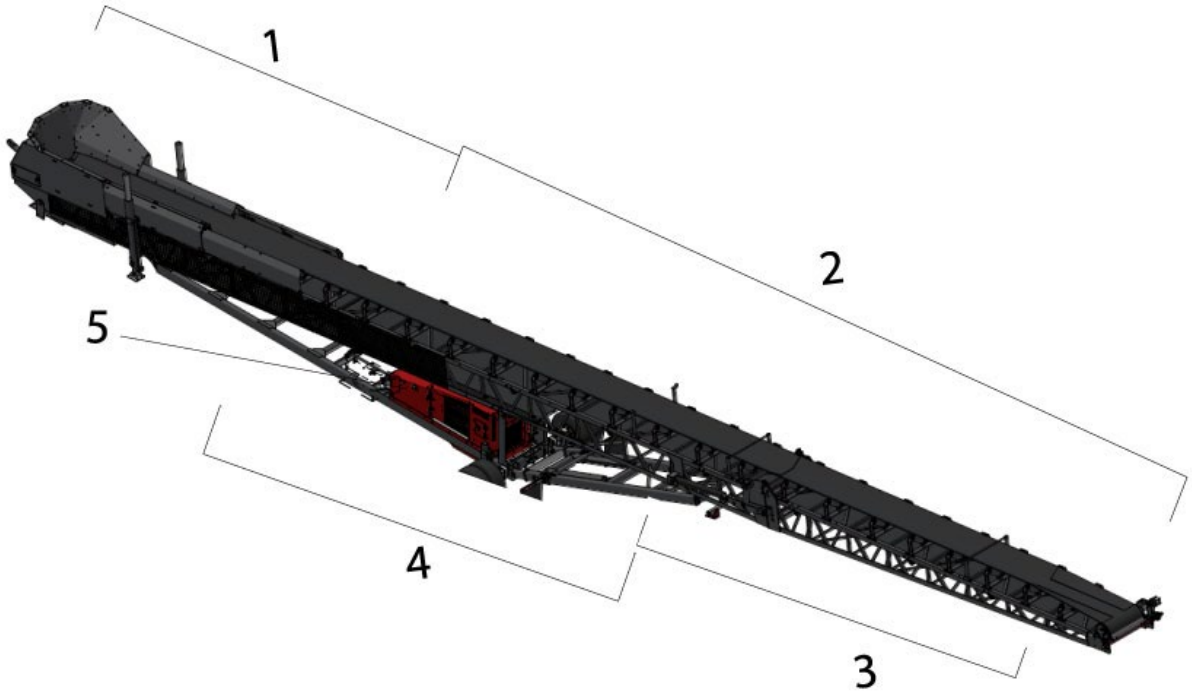
Front



Back

NOTE: The left and right of the machine are assigned by standing at the hopper end of the machine looking toward the head pulley.

MAIN COMPONENTS



1.	**TAIL FRAME SECTION**	Receives the material and directs material onto the belt.
0.	**CENTER FRAME SECTION**	Supports the belt and material from the tail frame to the head frame.
1.	**HEAD FRAME SECTION**	Supports the belt and material as it is discharged from the conveyor.
2.	**UNDERCARRIAGE FRAME SECTION**	Supports the main conveyor system. It allows head and tail frames to move while be supported underneath.
3.	**POWER UNIT**	Encloses the engine, hydraulic tank, fuel tank and machine operational controls.

1 INTRODUCTION

Thank you for your purchase of a FSC-100W Stacker. This accompanying manual is designed to help you safely operate and maintain your new machine, ensuring years of safe production and reliable service. Please ensure that all owners, operators or any other persons working near or on the machine have read and understood this manual. Observing procedures and maintenance schedules, as outlined in this manual, will help to avoid any dangers, reduce costly repairs and downtime, and increase the reliability of the machine.

The machine is designed and built to the highest standards, using quality materials and components. Fabriweld Corporation takes great care to ensure that you receive a safe and reliable machine that provides years of trouble-free production.

Nonetheless, any misuse of this machine may result in serious injury or death and damage to the machine as well as void the manufacturer's warranty.

This operating manual should always stay with the machine. Fabriweld Corporation cannot be held liable for any damages resulting from misuse.

Contacting Fabriweld Corporation

If you have any questions regarding your machine, please contact us:

Fabriweld Corporation
405 Industrial Pkwy

Norwalk, OH 44857 USA

Phone: 1 (419) 663-0279

Fax: 1 (419) 663-3010

Owner's Manual Section

The following briefly outlines each section of the manual and its contents:

Safety–Safety information related to all aspects of the machine, including operation, service, hydraulic system, electrical system, safety stickers and warnings, and transportation

Operation Procedures–Basic operating procedures, including unloading from transport, on-site setup, operation, travel preparation, and transport loading

Maintenance Procedures – Service schedules and general maintenance checks, including all oil and filter changes, and recommended lubricants

Special Procedures – Instruction for belt-tightening and filter-replacement

Technical Specifications – Size and weight information and data related to the machine and its components

Problems, Errors and Omissions

We believe this manual will provide you with the necessary information to operate and maintain your machine for many years of service. If you believe that this manual contains an error, or you encounter a problem while following guidelines in this manual, or if you believe there may be missing information from this manual, please contact us so we may rectify any problems immediately.

2 SAFETY

2.1 Warnings and Symbols

Most accidents involving machine operation, service, and transport are caused by failure to observe basic safety rules and precautions. Prior recognition of all possible safety hazards can often prevent accidents. The machine operator must always assess every situation for potential hazards. The machine operator must also have the required knowledge and skill as well as proper equipment necessary to carry out tasks safely and appropriately. The warnings printed on the machine and in this manual are not inclusive. **Fabriweld Corporation cannot anticipate every possible situation that may be potentially hazardous. For any action not recommended by Fabriweld Corporation, you must satisfy yourself that it is safe for you and for others.** Such action must, cannot compromise safety and product service. If in doubt, please contact Fabriweld Corporation.

Improper operation, service or transport can result in injury or death. Do not operate machine unless you have been factory trained. Do not attempt to operate, service or transport machine without first carefully reading and fully understanding the Safety and Operational Procedures sections of this manual.

Safety precautions and warnings are provided in this publication and on the machine. Failure to observe them can result in injury or death. Hazards are highlighted by warning symbols, such as *Danger, Warning, Caution and Attention.*

2.2 Safety Rules: Dos and Don'ts

2.2.1 Do Not:

- Remove obstruction or attempt any maintenance while engine is running
- Operate machine without reading manuals thoroughly
- Stand within a 15m (50ft) radius of the machine while it is in operation unless you are an authorized and trained operator and/or technician involved in machine operation or maintenance
- Increase pressure in system, as this may cause damage to pump seal, hoses, hose fittings and the actual machine structure
- Start or stop (unless in an emergency) with control levers in operating position, as this could stall the engine, shear keys and couplings, blow seals and cause damage to the actual machine structure
- Operate machine with guards missing
- Remove any guards
- Open inspection doors while machine is operating
- Block burst hydraulic hoses, pipes or fittings with hands, as hydraulic oil under pressure will penetrate the skin and cause serious injury
- Enter loading area while machine is functioning unless you are an authorized and trained operator and/or technician involved in machine operation or maintenance
- Stand beneath conveyor
- Stand beneath any head drum
- Use machine near power lines
- Touch hot surfaces
- Wear loose fitting clothing near machine

2.2.2 Do:

- Change filters and oil regularly
- Grease machine regularly
- Inspect machine regularly
- Check conveyor belt alignment before running belt
- Read all manuals before operating machine
- Observe all safety precautions and warnings
- Replace unreadable or missing warning labels with new ones before operating machine
- Use a qualified and knowledgeable service person
- Grease all exposed hydraulic cylinder rods every eight weeks to prevent corrosion
- Always wear EN/ANSI-approved PPE, including Hard Hat, Safety Glasses, Ear Protection, Close Fitting Overalls, Steel Toed Boots, a High-Visibility Vest, and Gloves (Figure 1)

2.3 Personal Safety

Ascertain from the appropriate authority and observe all statutory and any other regulations that may apply to the planned location before operating the machine. Operators must be trained in the correct and safe use of all equipment.

2.3.1 Personal Protective Equipment

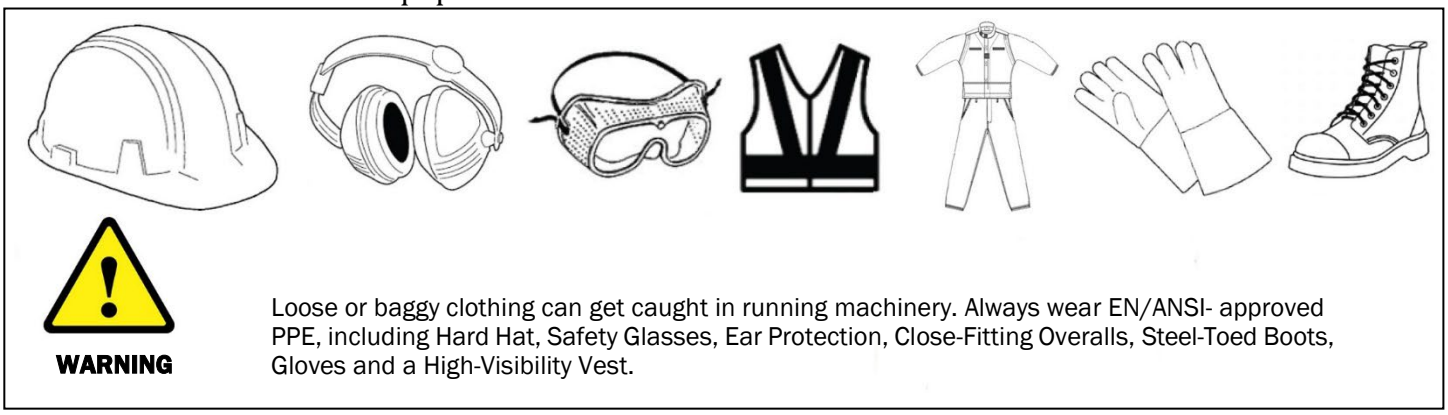


Figure 1: Personal Protective Equipment

Before operation the operator(s) must:

- Have received specific and adequate training in the task to be carried out.
- Have read and understood the operations manual and the Safety Signs in this manual and around the machine(s).
- Know the location and function of controls and safety features such as emergency stop buttons and safety guards.
- Be aware of all moving parts of the machine.

Any work on and/or with the machine must be executed by trained, reliable and authorized personnel only. Statutory minimum age limits must be observed.

Work on the electrical system and equipment of the machine must be carried out only by a skilled electrician or by instructed persons under the supervision and guidance of a skilled electrician and in accordance with electrical engineering rules and regulations.

Work on the hydraulic system must be carried out only by personnel with special knowledge and experience of hydraulic equipment.

Where possible when working close to engines or machinery, only do so when they are stopped. If this is not practical, remember to keep tools, test equipment and all other parts of your body well away from the moving parts. Loose or baggy clothing can get caught in running machinery.

For reasons of safety, long hair must be tied back or otherwise secured, garments must be close fitting and no jewelry such as rings may be worn. Injury may result from being caught up in the machinery or from rings catching on moving parts. Always wear EN/ANSI-approved PPE, including Hard Hat, Safety Glasses, Ear Protection, Dust Mask, Close-Fitting Overalls, Steel Toed Boots and a High-Visibility Vest.

2.4 Safety Symbol Classification

You can be injured if you do not obey the safety instructions as indicated on warning signs. Observe all safety instructions and warnings attached to the equipment. Ensure that safety instructions and warnings attached to the equipment are always complete and perfectly legible. Keep warnings and instruction labels clean and up to date.

Replace unreadable or missing labels with new ones before operating the machinery. Make sure replacement parts include warning or instruction labels where necessary.

2.4.1 Safety Warning Symbol

Hazard symbols or warning symbols are recognizable symbols designed to warn about hazardous or dangerous materials, locations, or objects, including electric currents, poisons, and radioactivity.

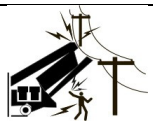
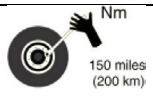
2.4.2 ANSI Hazard Classification System

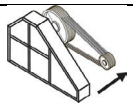
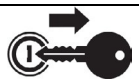
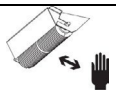
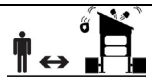
A multi-tier hazard classification system is used to alert you to potential personal injury hazards. Signal words used with the safety alert symbol indicate a specific level of severity of the potential hazard. Signal words used without the safety alert symbol relate to property damage and protection only. All are used as attention-getting devices throughout this manual as well as on ANSI type decals and labels fixed to the machine.

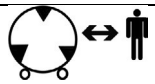
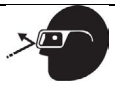
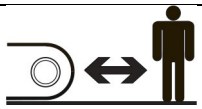
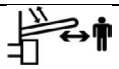
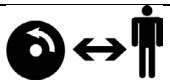
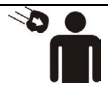
DANGER
Indicate[s] a hazardous situation which, if not avoided, will result in death or serious injury. The signal word "DANGER" is to be limited to the most extreme situations. DANGER [signs] should not be used for property damage hazards unless personal injury risk appropriate to these levels is also involved.
WARNING
Indicate[s] a hazardous situation which, if not avoided, could result in death or serious injury. WARNING [signs] should not be used for property damage hazards unless personal injury risk appropriate to this level is also involved.
CAUTION
Indicate[s] a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION [signs] without a safety alert symbol may be used to alert against unsafe practices that can result in property damage only.
NOTICE
[This header is] preferred to address practices not related to personal injury. The safety alert symbol shall not be used with this signal word. As an alternative to "NOTICE" the word "CAUTION" without the safety alert symbol may be used to indicate a message not related to personal injury.

2.4.3 Description of Safety Symbols

This machine is fitted with several safety warning decals to highlight potential risks. These warnings must always be obeyed. If one of the decals becomes detached or damaged it must be replaced. The safety decals use pictograms to indicate the relevant risk in line with ISO requirements and pictograms with text in line with ANSI requirements and will be equipped with same dependent on your region. A full list of explanations for each pictogram follows.

	**ELECTROCUTION HAZARD: Electrical shock/electrocution from conveyor to power line contact**		**FALL HAZARD: Falling from a height**
	**Stay sufficient distances from electrical power lines**		**Do not climb onto the machine**
	**ENTANGLEMENT HAZARD: Entanglement in belt drive or conveyor**		**Use personnel lift to reach high places**
	**ENTANGLEMENT HAZARD: Entanglement in belt drive**		**Check tire pressures prior to transport**
	**Stay clear of conveyor**		**Check wheel nut torque. Recheck wheel nut torque every 150 miles (200km)**

	**Install covers and guards before operation**		**Connect and check braking system**
	**Turn machine off and remove key**		**CRUSH HAZARD: Crushing of fingers or hand. Force applied in one direction**
	**Lock out machine**		**Keep hands clear of openings**
	**Read and understand operations manual before using equipment**		**Hand entanglement in pulley/winch**
	**INJECTION HAZARD: Skin injection from high pressure fluid**		**Keep hands clear of moving components**
	**Use safe methods to check for hydraulic leaks**		**ELECTROCUTION HAZARD: Electric shock/electrocution**
	**CRUSH HAZARD: Crushed foot from support leg**		**HEARING HAZARD: Risk of loss or degradation of hearing**
	**Stay clear of support legs and jacks**		**Wear hearing personal protective equipment**
	**FALLING MATERIAL HAZARD: Risk from falling or flying material**		**EXPLOSION HAZARD: Risk of explosion during an operation or service procedure**
	**Stay clear of hopper during operation**		**BURN HAZARD: Risk of burns from corrosive material**

	Keep open flame away		CUTTING HAZARD: Contact with knives in trommel drum will result in death or serious injury
	EMERGENCY STOP: Press to engage, twist to reset		Stay clear of sharp knives in trommel drum
	FLYING MATERIAL HAZARD: Risk of being struck by flying objects		CRUSH HAZARD: Crush from track machine runover
	Wear eye personal protective equipment		Stay clear of track machine
	CRUSH HAZARD: Crush risk from overhead impact		CRUSH HAZARD: Crush from wheel machine runover
	Stay clear of moving conveyors		Stay clear of wheeled machine
	Unauthorized persons prohibited		EXPLOSION HAZARD: Battery Explosion
	FLYING MATERIAL HAZARD: Risk of being struck by flying material		Keep welding sparks away from the battery area
	Do not stand on platform while machine is in operation		BURN HAZARD: Burn from hot surface or liquid
	Do not stand on machine while in operation		Stay clear of hot surface or liquid
	INHALATION HAZARD: Inhalation of poisonous/toxic fumes or dust		IMPACT HAZARD: Impact from spring loaded door
	Wear respiratory personal protective equipment		

2.4.4 Selected Decals on the Machine

These safety decals are located on this machine for warning indicators to warn the customer and authorized personnel that work on and around machine of possible dangers.

2.5 Work Area Safety

2.5.1 General Work Area Guidelines

Operators must have received specific training in all operating and service tasks as required for the safe operation and service of the machine. Operators must know the location and correct operation of all controls and safety features such as remote stop buttons and isolator switches. Operators must be aware of all moving parts on the machine.

Only authorized and trained personnel involved in the machine operation or maintenance should be in the vicinity of the machine while it is running. All other personnel should be kept at a safe distance.

Keep the work area as neat and as clean as practical. Keep your equipment clean and free of dirt and grease so it can be checked for loose, cracked or broken parts. Replace defective parts as soon as they are discovered.

The guards provided are designed and manufactured to ensure, so far as reasonably practicable, that the machinery and plant on which they are fitted can be operated safely and without risk to health when properly used. However, it cannot be guaranteed that the guards provided will meet the requirements laid down by individual inspectors and any additional guard and/or modification to guarding supplied, which may be required for any reason whatsoever, will be charged as an addition to the Contract Price.

Walkways should only be used when the machine is turned off, unless to perform specific maintenance procedures which require the machine to be operational. In this instance, only trained and authorized personnel equipped with the correct PPE should be allowed access, and the machine must be running empty and cleared of all material beforehand Always check that walkways and handrails are fully secured in place before using.

Do not smoke or allow smoking near flammable fuels or solvents. Use non-flammable solvents for cleaning parts and equipment. Know where fire extinguishers and other fire suppression equipment are located and learn how to use them.

Always use hoisting equipment for heavy loads. Regularly check hooks, cables, shackles and chains for stretch and wear. Never overload hoists, cranes or other lifting devices.

Avoid electrical and static sparks and any open flame while handling, storing, moving or pouring fuels, electrolytes for batteries, hydraulic fluids or coolants.

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2.6 Modifications

Never make any modifications, additions or conversions which might affect safety without the supplier's approval. In the event of safety relevant modifications or changes in the behavior of the machinery during operation, stop the machine and lock out immediately and report the malfunction to the proper personnel.

2.7 Transportation Safety

Before transporting the machine, observe the prescribed transport position, admissible speed and itinerary. Only use appropriate means of transport and lifting gear of adequate capacity. Know the overall height to avoid contact with overhead obstructions such as bridges, power lines, etc.

The preparations to move equipment must be supervised by a minimum of two persons. Ensure persons transporting the machine adhere to all safety signs and procedures.

Before transportation on public roads, ensure the machine has been properly secured with no loose material left in or on the machine. Always observe the valid traffic regulations and, if necessary, ensure beforehand that the machine is in a condition compatible with these regulations.

Extreme caution is required when transporting machinery on site. Soft or uneven ground may cause accidents. On sloping terrain, always adapt your traveling speed to the relevant ground conditions. Never change to a lower gear on a slope. Always change gear before reaching a slope.

The machine may start without notice. Stay clear of the machine. The machine must be loaded and transported only in accordance with the operating instructions. For maneuvering the machine, observe the prescribed transport position, admissible speed and equipment and, where applicable, of adequate capacity. The re-commissioning procedure must be strictly in accordance with the operating instructions. Before traveling with the machine, check that the braking and any signaling, and lighting systems are fully functional. Before setting the machine in motion always check that the accessories have been safely stowed away.

On wheel Bogie machines, ensure that wheel nuts are torqued between 800Nm and 550Nm (590-627ft.lb) prior to transport.

CHECK YOUR TIRES FOR:

- CORRECT PRESSURE CUTS OR BULGES
- NAILS OR SPIKES
- UNEVEN OR EXCESSIVE WEAR
- MISSING VALVE CAPS

CHECK YOUR WHEELS FOR:

- DAMAGED RIMS
- MISSING OR LOOSE WHEEL NUTS OR BOLTS
- OBVIOUS MISALIGNMENT

Have cuts or punctures repaired by authorized personnel before adding air. Beware that an overinflated tire can explode and cause serious injury or death.

2.8 Operation Safety

Before attempting to operate the machine, read, understand and observe the contents of this manual as well as any other relevant manual for other equipment incorporated in the machine. Study all safety signs on your machine. It is emphasized that all safety aspects are checked before starting the machine. Take the necessary precautions to ensure that the machine is used only when in a safe and reliable state.

Operate the machine only for its designed purpose and only if all guarding, protective and safety-orientated devices, emergency shut-off equipment, sound proofing elements and exhausts are in place and fully functional. Before starting the engine ensure it is safe to do so. Never leave the machine unattended while it is in operation. Before starting, walk completely around the machine. Make sure no one is under it, on it or close to it. Let other workers and bystanders know you are starting up, and do not start until everyone is clear of the machine. Before moving the machine, ensure that everyone is clear from the surrounding area and that the warning siren and beacon and the tracking umbilical Machine Stop button are operating correctly.

Make certain enough ventilation is present to run engines safely. Do not start an engine in an enclosed space without properly vented exhaust. Exhaust fumes from gasoline or diesel engines can kill. Do not allow a build-up of solid material or dust in any part of the machine. In the event of material blockage, any malfunction or operational difficulty, stop the machine immediately and lock out. Have any defects rectified immediately? Be alert and watch for pinch points, closing mechanisms and falling parts when working on or around the machinery. Keep hands and tools clear. In-running nip points on moving machinery can cause serious injury or even death. Do not reach into unguarded machinery. Your arm could be pulled in and amputated. Switch off and lock out the machine before removing any safety devices or guarding.

Never work or stand beneath machinery or attachments as it is raised or lowered. Never work or stand beneath machinery as they are being loaded with and/or discharging material. During operation, do not climb onto, over or under moving conveyor belts and rollers. Always use ladders, steps and walkways when mounting and dismounting.

Hole alignment on mechanical supports must be checked and secured with pins provided and in accordance with safety signs. Follow safe operating practices.

Operate the machine controls smoothly. Avoid sudden stops, starts or changes in direction. Only use emergency stop buttons or emergency stop lines (if fitted) in emergency situations or during safety drills.

Never check the tension of “V” belts, drive chains and conveyors when machine is running. Do check frequently the stability of the machine. The chassis should not have undue vibration during operation.

After each day’s operation, always run the machine dry; never leave material in the belt feeder on conveyor belts or screen box. Starting a machine with a full load will cause strain problems in your machine.

2.9 Hydraulic and Pneumatic Safety

Only persons having special knowledge and experience in hydraulic and pneumatic systems may carry out work on hydraulic and pneumatic equipment. Never disable or alter any hydraulic circuit or component without consulting with Fabriweld Corporation.

Relieve all pressure in the hydraulic system by returning all controls to the neutral position. Turn off the machine and isolate power supply before any pipes, filter caps, filters or hydraulic fittings are disconnected or removed. Depressurize all system sections and pressure pipes (hydraulic system, compressed air system) to be removed in accordance with the specific instructions for the unit concerned before carrying out any repair work.

Check for leaks in tanks or tubing with flashlights or other proper equipment. Never use an open flame to check for leaks. Always use a piece of cardboard to check for leaks. Do not use your hand. Hydraulic fluid under pressure can penetrate the skin,

causing serious injury. If fluid is injected under the skin, it must be surgically removed, or gangrene will result. Get medical help immediately. Always wear EN/ANSI-approved PPE, including goggles and gloves.

Check all lines, hoses and screwed connections regularly for leaks and obvious damage. Splashed oil may cause injury and fire. Repair any damage immediately.

Hydraulic and compressed air lines must be laid and fitted properly. Ensure that no connections are interchanged. The fittings, lengths and quality of the hoses must comply with technical requirements.

Always practice extreme cleanliness servicing hydraulic components.

Do not exceed safe limits. Never set a pressure relief valve to a pressure higher than that set at the factory.

For questions concerning accumulators, which are pressure-containment vessels, contact your Fabriweld Corporation distributor. Malfunctioning valves or poor maintenance practices can result in build-up of extremely high hydraulic and/or pneumatic pressures inside the accumulator.

2.10 Electrical Safety

Work on the electrical system or equipment may only be carried out by a skilled and qualified electrician or by specially instructed personnel under the control and supervision of such an electrician and in accordance with applicable electrical engineering rules and regulations.

Use only original fuses with the specified current rating. Switch off the machine immediately if trouble occurs in the electrical system. Machines with high voltage electrical equipment must be suitably earth bonded by a qualified electrician prior to activating the main isolator switch. If machine is electric-hydraulic or direct electric drive, the “mains” electrical

supply to the machine should always be isolated by unplugging/uncoupling the “mains” power socket. It is recommended that an earth leakage safety switch be fitted in the supply line to the power point on site. Special care should be taken to ensure that earth wires are correctly connected.

When working with the machine, maintain a safe distance from overhead electric lines. If work is to be carried out close to overhead lines, the working equipment must be kept well away from them. Check out the prescribed safety distances.

- If your machine encounters a live wire:
- Warn others against approaching and touching the machine.
- Have the live wire de-energized.

If provided for in the regulations, the power supply to machines and parts of machines, on which inspection, maintenance and repair work is to be carried out, must be cut off. Before starting any work, check the de-energized parts for presence of power and ground or short circuit them in addition to insulating adjacent live parts and elements.

The electrical equipment of the machine is to be inspected and checked at regular intervals.

Defects such as loose connections or scorched or otherwise damaged cables must be rectified immediately. Necessary work on live parts and elements must be carried out only in the presence of a second person, who can cut off the power supply in case of danger by actuating the emergency shutoff or main power switch. Observe the lockout and tagout procedure in an emergency. Secure the working area with a red and white safety chain and a warning sign. Use insulated tools only.

Before starting work on high voltage assemblies and after cutting out the power supply, the feeder cable must be grounded and components, such as capacitors, short-circuited with a grounding rod. Tracked machines are wired with negative earth. Always observe correct polarity.

Always disconnect battery leads before carrying out any maintenance to the electrical system or servicing the engine. Never short across the starter terminals of a battery as this can cause a fire and could also damage the electrical system. If welding is to be carried out on the machine, it is essential that the powerpack is isolated.

The battery contains Sulphur acid, an electrolyte which can cause severe burns and produce explosive gases. Always wear EN/ANSI-approved PPE and avoid contact with the skin, eyes or clothing.

Diesel engine exhaust emissions contain products of combustion, which may be harmful to your health. Always operate the machine in a well-ventilated area. If operating in an enclosed area, vent the emissions outside. Do not touch any part of the engine or exhaust system. Allow the engine and exhaust to cool before performing any repair or maintenance.

Never fill the fuel tank with the engine running while smoking or when near an open flame. Never overfill the tank or spill fuel. If fuel is spilled, clean it up immediately.

2.11 Maintenance Safety

Understand the service procedures before doing work. Keep working area clean and dry. Never lubricate, clean, service or adjust machinery while it is moving. Keep hands, feet and clothing clear of power-driven parts and in running nip- points. Disengage all power and operate controls to relieve pressure. Stop the engine, implement the lockout and tagout procedure and allow the machinery to cool before carrying out any maintenance.

2.11.1 Overview

Whenever maintenance or service is being carried out, a minimum of two (2) persons should be present at all times.

Never work alone.

Keep all parts in good condition. Ensure that all parts are properly installed. Fix damage immediately. Replace worn and broken parts. Remove any build-up of grease, oil and debris.

Never attempt repairs or adjustments to the machine while it is running unless specified to do so. Before carrying out any maintenance, relieve all hydraulic pressure by returning the controls to the neutral position and secure all hydraulically operated attachments with pins provided.

Disconnect the battery ground cable before adjusting on electrical systems or welding on machinery. For the execution of maintenance work, tools and workshop equipment adapted to the task on hand are indispensable.

Remove only guards or covers that provide access. Wipe away any excess grease and oil.

Never leave guards off or access doors open when unattended. Keep bystanders away if access doors are open.

When working beneath raised equipment, always use blocks, jack-stands or other rigid and stable supports. Make sure that any part of the machine raised for any reason is prevented from falling by securing in a safe, reliable manner. Never work under unsupported equipment.

For carrying out overhead assembly work always use specially designed or otherwise safety-oriented ladders and working platforms. Always use any walkway/platforms provided or a safe and secure platform approved by the safety enforcing authority.

For performing work above ground level make sure to always use an approved (EN/ANSI) safety harness. Always use walkways and platforms provided or a safe secure platform approved by the machine operator's management. Do not use any unauthorized or unsafe structures or platforms.

Return idler roller guards should be checked for wear/damage during routine maintenance. The gap between the guard and the idler roller should not exceed 6mm. The gap between the idler roller and the guard must be renewed.

Contact your local Fabriweld Corporation dealer to obtain an approved replacement.

2.11.2 Maintenance and Repairs During Operation

Disposal of Parts and Consumables; Observe all adjustments maintenance and intervals set out in these operating instructions, except where: Warning, horn/light/gauge or indicator calls for immediate action.

Adverse conditions necessitate more frequent servicing.

Observe information on the replacement of parts and equipment. These activities may be executed by skilled personnel only. When the machine is completely shut down for maintenance and repair work, it must be secured against inadvertent starting by:

Switching off the engine and removing the ignition key or isolating the electrical supply as applicable.

Implementing the lockout procedure.

Attaching a warning sign(s) to the machinery in appropriate positions.

Carry out maintenance and repair work only if the machine is positioned on stable and level ground and has been secured against inadvertent movement and buckling.

Never allow unqualified or untrained personnel to attempt to remove or replace any part of the machine, or anyone to remove large or heavy components without adequate lifting equipment.

To avoid the risk of accidents, individual parts and large assemblies being moved for replacement purposes should be carefully attached to lifting tackle and secured. Use only suitable and technically adequate lifting gear. Never work or stand under suspended loads.

Keep away from the feed hoppers and stockpile conveyor discharge points, where there is risk of serious injury or death due to the loading and removal of material.

Falling from and/or onto Fabriweld Corporation machines can cause injury or even death. Do not climb on the machine while it is in operation. Never use machine parts as a climbing aid.

Beware of moving haulage and loading equipment in the vicinity of the machine. Always use an approved (EN/ANSI) safety harness when reaching any points 2m (7ft) or more above the ground level. Keep all handles, steps, handrails, platforms, landing and ladders free from dirt, oil, snow and ice.

The fastening of loads and instructing of crane operators should be entrusted to experienced persons only. The Rigging Marshaller giving the instructions must be within sight or sound of the operator.

After cleaning, examine all fuel, lubricant, and hydraulic fluid lines for leaks, loose connections, chafe marks and damage. Any defects found must be rectified without delay.

Any safety devices removed for setup, maintenance or repair purposes must be refitted and checked immediately upon completion of the maintenance and repair work to ensure full working order.

Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with Fabriweld Corporation equipment includes such items as oil, fuel, coolant, filters and batteries, etc. Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them. Do not pour waste onto the ground, down a drain or into any water source. Ensure that all consumables and replaced parts are disposed of safely and with minimum environmentalimpact.

Always ensure that any safety fitment such as locking wedges, securing chains, bars or struts are utilized as indicated in these operating instructions.

Diesel fuel is highly flammable. Never remove the filler cap, or refuel, with the engine running. Never add gasoline or any other fuels mixed to diesel because of increased fire or explosion risks. Do not carry out maintenance on the fuel system near naked lights or sources of sparks, such as welding equipment, or while smoking.

After maintenance, tighten all bolts, fittings and connections. Install all guards, covers and shields. Replace or repair any damaged ones. Refill and recharge pressure systems with recommended fluids. Start the engine and check for leaks. Operate all controls and make sure the machine is functioning properly. After testing, shut down, check the work you performed. Recheck all fluid levels before releasing machine for operation.

2.12 Gas, Dust, Steam, Smoke Safety

Death, serious injury or delayed lung disease may result from breathing dusts generated when certain hazardous materials are crushed, screened or conveyed with this machine.

Always operate internal combustion engines and fuel-operated heating systems only out of doors or in a well-ventilated area. Before starting the machine in enclosed areas, make sure that there is sufficient ventilation.

Observe the regulations in force at the respective site.

Dust found on the machine or produced during work on the machine should be removed by extraction, not blowing.

Dust waste should be dampened, placed in a sealed container and marked to ensure safe disposal. When dusts are generated by the operation of this machine, use approved respiratory protection, as required by federal, state and local safety and health regulations.

Carry out welding, flame-cutting and grinding work on the machine only if this has been expressly authorized, as there may be a risk of explosion and fire.

Before carrying out welding, flame-cutting and grinding operations, clean the machine and its surroundings from dust and other flammable substances and make sure the premises are adequately ventilated as there may be a risk of explosion.

Ensure operators wear EN/ANSI-approved PPE, including a suitable face mask, where exposed to possible harmful effects of air pollution of anykind.

2.13 Hazardous Substances

Ensure that correct procedures are formulated to safely handle hazardous materials by correct identification, labelling, storage, use and disposal.

All hazardous materials must be handled strictly in accordance with the manufacturer’s instructions and all applicable regulations observed at all times. Store hazardous materials in restricted access areas and mark them clearly.

2.14 Noise Levels

HEARING HAZARD EXCEEDS 90 dB (A) – May cause loss or degradation of hearing over a period of time.

Always ensure that operators are provided with EN/ANSI-approved PPE, including ear defenders, and that these are always worn when the machine is operating.

Methods/Measurements

Sound levels were measured using an Extech Model 407736 Digital Sound Level Meter using the slow response setting. Readings were repeated at three different locations: directly at the control panel, from ten feet away from the side of the machine, and from twenty feet away from the side of the machine.

Conclusions/Recommendations

Sound levels were measured to be as follows:

LOCATION: Control Panel	Decibels
Startup (including warning horn):	98dB
Machine running at idle, belt not running:	88dB
Machine running at full throttle, belt not running:	93dB
Machine running at idle, belt running:	92dB
Machine running at full throttle, belt running:	94dB
LOCATION: Ten feet to the side of Control Panel	
Machine running at idle, belt not running:	80dB
Machine running at full throttle, belt not running:	90dB
Machine running at idle, belt running:	84dB
Machine running at full throttle, belt running:	90dB
Location: Twenty feet to the side of Control Panel	
Machine running at idle, belt not running:	69dB
Machine running at full throttle, belt not running:	85dB
Machine running at idle, belt running:	79dB
Machine running at full throttle, belt running:	83dB

3 OPERATIONAL PROCEDURES

3.1 Preliminary

Do not attempt to start the machine until you have been properly trained by a Fabriweld Corporation technician. Ensure that the machine operator has read this manual. Ensure that all precautions are taken so that the machine is only operated safely and appropriately. Observe all government laws, codes or bylaws on safety matters. Only operate the machine when all its safety features are in place and working properly, including all guards, safety devices, safety and warning stickers, emergency shut-off switches, tank caps, and exhaust elements. Always operate outdoors or in properly ventilated area machines fitted with an internal combustion engine. Always wear safety boots, glasses and hard hats while operating the machine. Avoid wearing loose fitting clothing, neckties or scarves.

3.2 Machine Pre-Startup

Do not attempt to start the machine until you have been properly trained by a Fabriweld Corporation technician. Different countries and states have distinct legislation relating to the safe operation of machinery. Therefore, it is the user's responsibility that local laws are complied with in the operation of the machine.

3.2.1 Before starting your machine:

1. Check that the machine is in good mechanical condition and that there is no component damage or loss. Ensure all safety devices, guards, bolts and fittings have been properly installed and tightened.
2. Check that conveyor is fully unfolded with supports properly in place.
3. Ensure the feed hopper and conveyor belt are free of material.
4. Check for any obstructions that would inhibit the movement of the conveyor.
5. Ensure all hydraulic valves are in the neutral position.
6. Know where all emergency stops are located.
7. Ensure the machine is level and stable and all safety pins are in proper position.
8. Ensure all non-operator personnel and unnecessary equipment are outside the buffer zone.

3.3 Machine Operation

3.3.1 Before setting up the machine:

1. Check the area around the machine for potential hazards, including overhead wires or structures, sloping and unstable terrain, poles or trees, etc., and deal with each situation before continuing. The machine must be set up on a firm and level ground for safety and maximum performance.
2. Establish a buffer zone around the machine to be kept clear of any non-operator personnel and foreign objects while the machine is in operation.
3. While setting up the machine:
4. Ensure all safety precautions have been made before starting the machine (see Machine Pre-Startup)
5. Keep all non-operator personnel outside the buffer zone while lifting or lowering undercarriages.
6. Level the machine front to back, and side to side.
7. Unfold the conveyor in accordance with the operation procedure listed for your machine.

3.4 While Operating

Always concentrate and pay attention to the job at hand.

1. At the first sign of malfunction shut down and lock out the machine (see Lockout/Tag Out Procedure).
2. Stay clear of discharge end of machine. There is a risk of serious injury or death from material discharging.
3. Observe all safety warnings.

4. Ensure all guards and safety devices are in place.
5. Keep hands and fingers away from moving objects, such as the conveyor, undercarriages and the engine compartment.
6. Do not climb in or on the machine while in operation.
7. Do not fold the conveyor while in operation.
8. Do not transport the machine while in operation.
9. All personnel must be notified prior to using the remote control.

3.5 Lockout/Tagout Procedure

1. Follow proper shutdown procedures. (see Stopping Engine)
2. Turn the ignition key to Off position and remove the key.
3. Engage lockout switch.
4. Activate at least one emergency stop button.
5. It is suggested that a Maintenance/Repair Tag be secured to the control panel to notify all personnel that the machine has been immobilized. Only once the problem has been repaired and inspected the tag can be removed.
6. Follow proper safety precautions before restarting the machine (see Starting Engine).

3.6 Maintenance

Maintenance and/or repairs on the machine must be performed by competent individuals. Maintenance and/or repairs should only be carried out once the machine is on sturdy and level ground and is secured against inadvertent movement or buckling. Always assess the situation for potential hazards before action is taken. Ensure the following safety precautions are met at all times.

1. Lock out the machine before any action is taken. (See Lockout/Tagout Procedure)
2. Never stand or work under a suspended load.
3. Never use machine assemblies or parts as a work area or climbing aid. Only use proper safety platforms or ladders when working on the machine.
4. When moving large and/or heavy machine assemblies for the purposes of removing, replacing or performing work, ensure all parts are secured with proper rigging and all standard rigging practices are followed.
5. Always use proper safety harnesses when working more than 7 feet from the ground.
6. Never perform maintenance with tools that may cause sparks or provide an ignition source for the fuel.
7. Only carry out grinding, welding or flame cutting if the manufacturer has authorized it. There may be a risk of explosion and fire.
    a. Ensure the machine and its surroundings are clear of dust and any other flammable sources to prevent the risk of an explosion.
    b. The premises upon which work will be performed should also be properly ventilated.
    c. Follow the lockout/tag out procedure. This will help prevent damage to any sensitive electronics on the machine.
8. Any work to be performed on the electrical system must be carried out by a qualified electrician in compliance with standard practices and any laws, codes or bylaws.
    a. Before any work is performed on the electrical system always disconnect the battery leads, check all de-energized parts for power and ground or short circuit them.
    b. The electrical system must be inspected and checked at regular intervals. Check for defects, such as loose connections and frayed, burned or damaged cables.
9. Any work to be performed on the hydraulic system must be carried out by a qualified hydraulic specialist in compliance with standard practices and any laws, codes or bylaws.
10. Never use your hands or other body parts to check for hydraulic leaks. Use a piece of cardboard or paper. Before performing any service or maintenance work on the hydraulic system ensure it is de-pressurized.
11. Any equipment that is raised and lowered hydraulically must be secured in place before any service work is performed.
12. Inspect all lines, hoses, fittings and connections for leaks and any damage. Any problems should be fixed immediately.
13. Never remove the filler cap or refuel while the engine is running.

14. Keep all safety devices, platforms, work areas and ladders clear of oil, dirt, snow, ice, water or other medium that may cause harm.
15. All inspection, maintenance, and service schedules must be strictly followed.

3.7 Transportation

1. Make sure that all of material has been run off the conveyor and the machine has been properly shut down.
2. Always perform machine pre-start check before starting the machine. Clear the area of all non-operator personnel and obstructions before folding the conveyor. Refer to the Operational Procedures section for proper procedures for folding the conveyor and loading of the machine.
3. Do not move the machine without all transportation fitments securely in place and safety pins in position. Ensure that:
4. All travel stays/chains, jacks and tow bars are secured in the travel position.
5. All parts are properly secured, cleaned and free of hardware, rocks, dirt or any debris that can fall off the machine and cause damage to other motorists.
6. All necessary parts are removed before transport.

3.8 Starting the Engine

1 Check that control levers are in neutral position, and all emergency stops are released.

2 Make sure no one, other than the machine operator, is standing within 15m (50ft) of machine.

3 Set throttle lever to idle.

4 Insert key (Figure 2).

5 Turn key clockwise to the Run Position. The Charge Emergency Stop and Oil Pressure lights will illuminate.

6 Turn key further clockwise to the Crank Position. The fuel light will illuminate, and the alarm will sound. Hold for approximately 10 seconds until engine cranks.

7 Release key immediately after the engine starts. The key will rotate back into the Run Position.

Figure 2: Electronic Control Module

Note: The engine will start but will stop after 20 minutes if the air filter is blocked.

3.8.1 Stopping Engine

1. Make sure the conveyor belt is clear of all material.
2. Before stopping the engine, slow the engine to idle speed for a few minutes before turning ignition switch off.

3.9 Machine Setup Procedure

3.9.1 Unfolding the Conveyor

Before unfolding the conveyor top section, check that there are no loose items on the upper conveyor frame. Any loose items on the upper conveyor frame may fall off causing injury and/or damage to the machinery.

1 Start engine (See Section 3.1.1).

2 Run engine at idle speed.

3 Unfold the head frame using the hydraulic controls (Figure 3). Keep all personnel well clear of any pinch points (Figure 4).

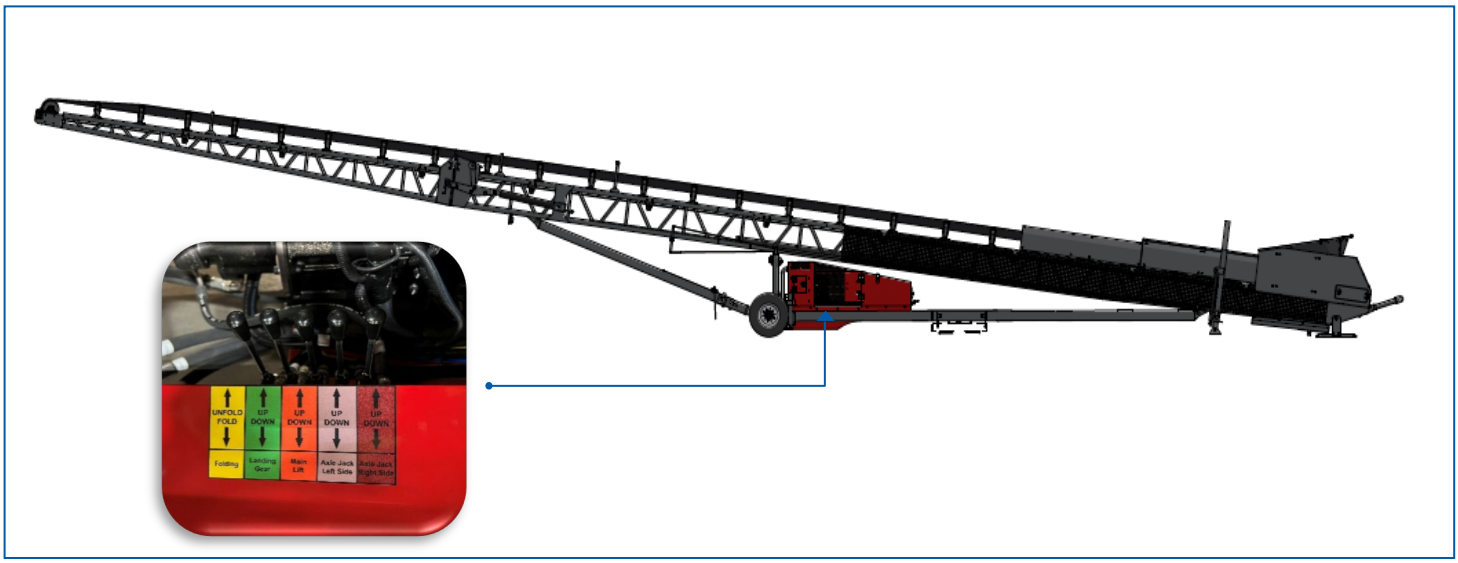


Figure 3: Control Valves

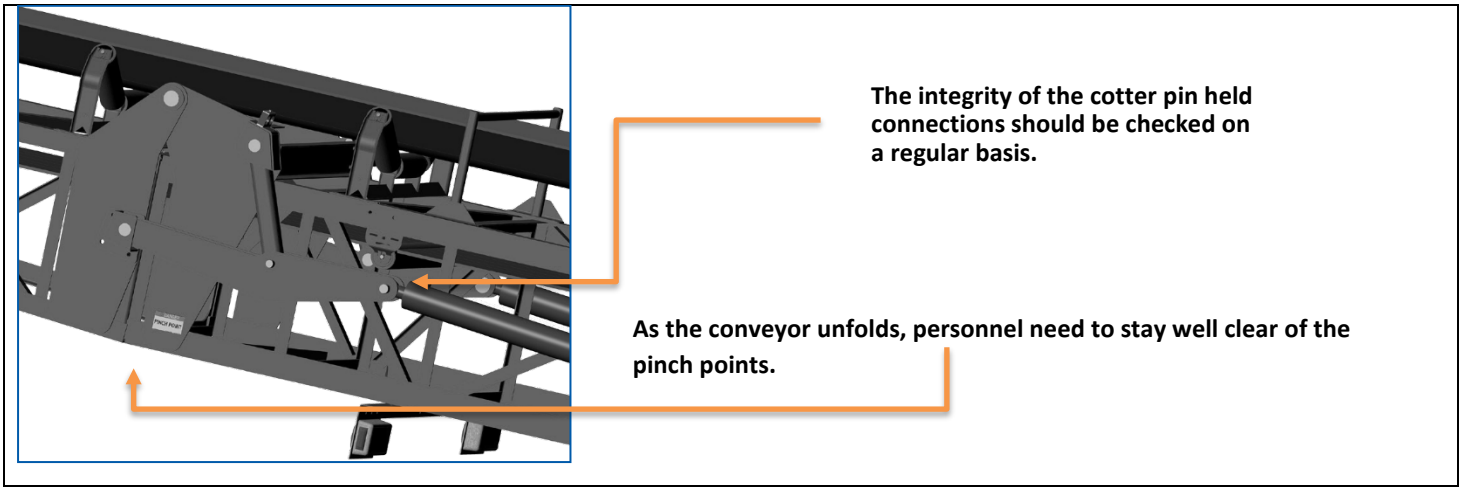


Figure 4: Pinch Points

WARNING

Make sure machine is clear of all non- authorized personnel before startup.

3.9.2 Unfold Conveyor

- Before unfolding the conveyor top section, check that there are no loose items on the upper conveyor frame. Any loose items on the upper conveyor frame may fall off causing injury and/or damage to the machinery.
- Start electric hydraulic pump.

As the conveyor unfolds, personnel need to stay well clear of the pinch points.

3.9.3 Raising Conveyor

To raise the conveyor, perform the following steps in order:

- Starting from lowest position, raise the conveyor a minimal amount using the hydraulic controls to release the weight on the safety pins. Remove the pins (X2).
- Continue raising the conveyor to the appropriate height. Adjust the height of the conveyor to align with the nearest pin holes located on the inner undercarriage (Figure 5). Replace the pins (X2) and lower the conveyor to ensure the pins are carrying the weight of the conveyor.

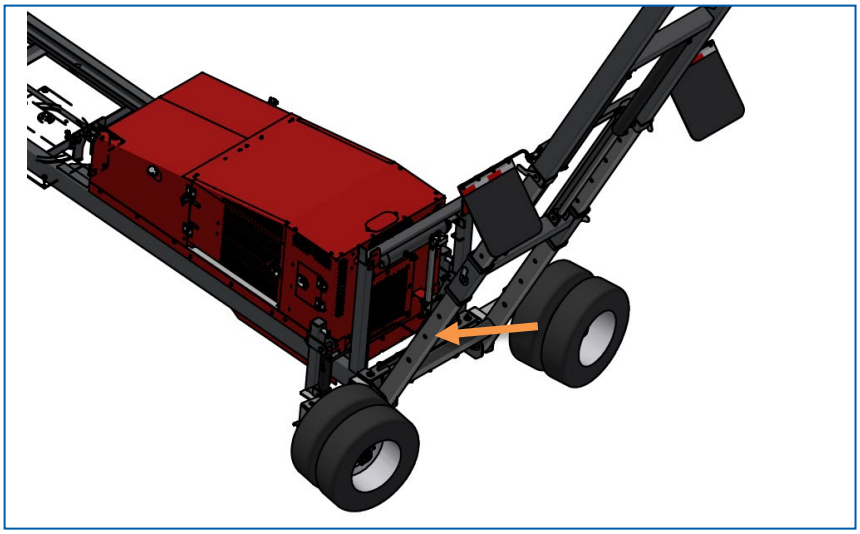


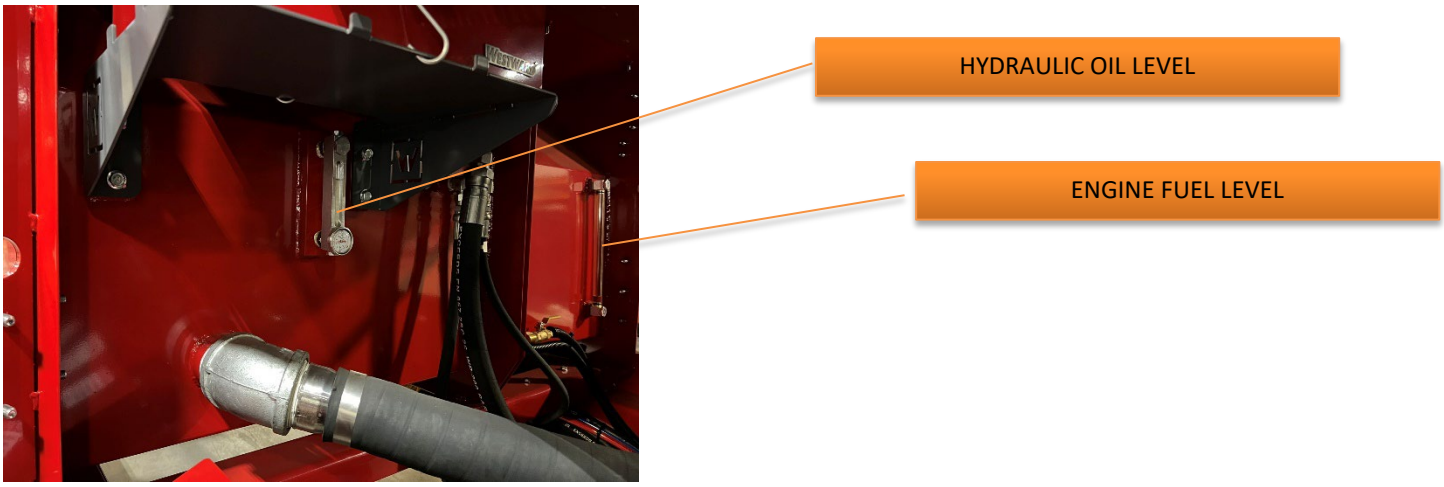
Figure 5: Pin Holes

3.10 Operating Functions

3.10.1 Pre-Startup Checks

1. Check engine fuel level (Figure 6) and fill if necessary.
2. Check hydraulic oil level (Figure 6) and fill if necessary.
3. All control valves (Figure 3) must be in the neutral (mid) – position.
4. Throttle should be in the idle position.
5. Turn the ignition key on the starter panel (Figure 2) to the crank position and hold. Once started, release the ignition key.

Figure 6: Power Unit



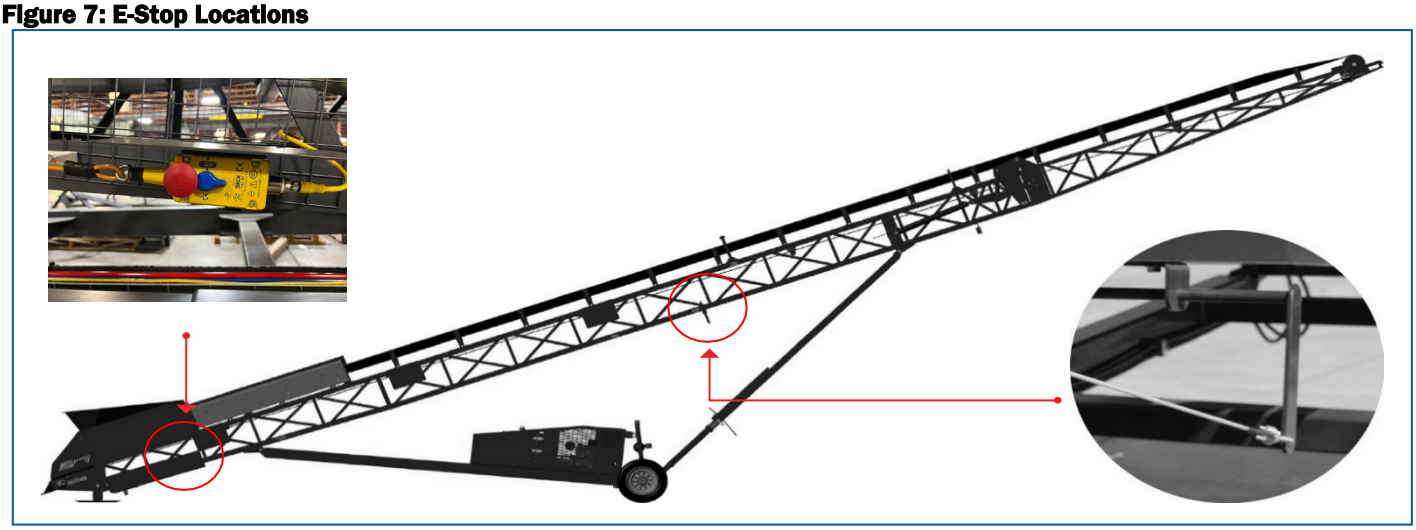
3.10.2 Start Conveyor

To start the conveyor belt, pull the conveyor control arm (Figure 3).

3.11 Emergency Stops

NOTE: In the event of an emergency it is important to know how to stop the machine quickly. Become familiar with the location and operation of all emergency stops on the machine

Figure 7: E-Stop Locations



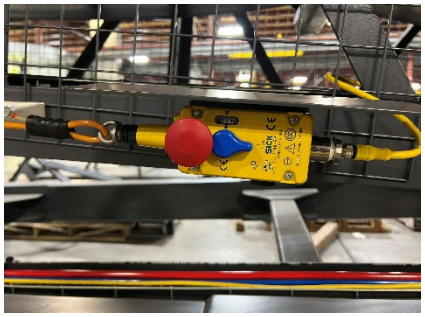
Become familiar with location and operation of all emergency stops on machine.

If an emergency arises, stop machine quickly, by pulling the emergency stop cord or pushing the emergency stop button, located on the left and right sides of the machine (Figure 7). After the machine stops:

1. Turn off the engine.
2. Set all hydraulic control levers to neutral positions.

3.11.1 Restarting After an Emergency Stop

1. Ensure all control levers are in the neutral position.
2. If the emergency stop is of a twist type, simply twist clockwise to reset. (ii) If emergency stop is of a key type, insert key and turn key clockwise.
3. Reset stop switch if the pull cable is used to stop the unit. Place the blue switch back into Run position to reset. Make sure the arrow on the clear screen



3.11.2 Transporting the Machine

DANGER

Become familiar with location and operation of all emergency stops on machine.

Before you transport your machine, ensure that all applicable transport regulations are fulfilled, including but not limited to:

- Travel stays are in place.
- All appropriate signage and/or flags have been attached to your machine based upon the transit regulations of your region.
- Ground clearance on the entire machine has been checked.
- Height clearance on the entire machine has been checked.

3.11.3 Preparation

- **Lowering the conveyor for transport**
- Utilizing the main lift control valve:
- Slightly lift the conveyor to remove any pressure on the safety pins.
- Remove the safety pins.
- Retract the extension cylinders to bring the conveyor into its lowest position.
- Replace the safety pins, locking the conveyor in place.

3.11.4 Folding the Conveyor for Transport

Fold the conveyor in the travel position (Figure 8), using the hydraulic top fold control valve (Figure 3).

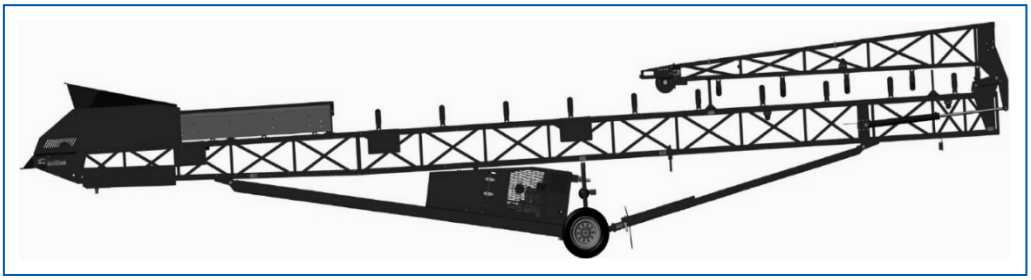


Figure 8: Travel Position

3.11.5 Loading Machine onto a Truck

DANGER **Ensure hopper and conveyor are empty (free from material) prior to transit.**

Before you begin the connection process, ensure that the:

1. Machine is fully lowered.
2. Conveyor has been folded for transport.
3. Machine is positioned on flat ground.
4. Travel stays are in place.
5. Machine wheels are blocked ensuring a stable environment.

The machine is transported by attaching the back end of the machine (hopper end) to a transport vehicle's 5th wheel (Figure 9). A suitable lifting device (e.g., fork lift truck, crane, optional landing gear legs) should be used to lift the hopper end of the machine for connection to the transport vehicle. During loading continually check ground clearance.

Before you transport your machine, ensure that:

1. The 5th wheel pin lock is in place.
2. The transport brakes are connected.
3. The transport lights are connected.
4. Wheel blocks have been removed.
5. Optional landing gear legs, if available, have been raised to ensure appropriate ground clearance and have been pinned in place to ensure they do not lower during transit.
6. Optional wheel drive, if available, has had the chain removed (master link removed).
7. All appropriate signage and/or flags have been attached to your machine based upon the transit regulations of your region.
8. Ground clearance on the entire machine is adequate.
9. Height clearance on the entire machine is adequate.

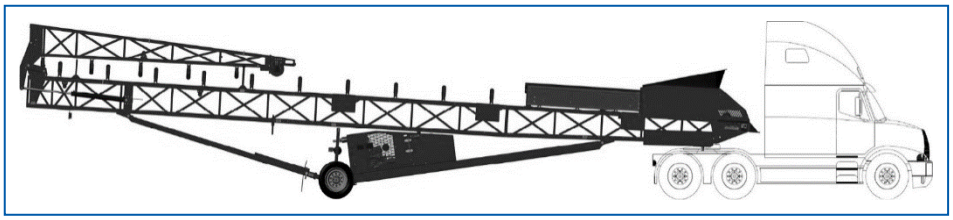


Figure 9: Connecting to a Truck

3.11.6 Onsite Transit

Onsite transit can be accomplished with the tow bar located at the back on the machine (Figure 10). Towing this machine should only be done by someone with adequate training.

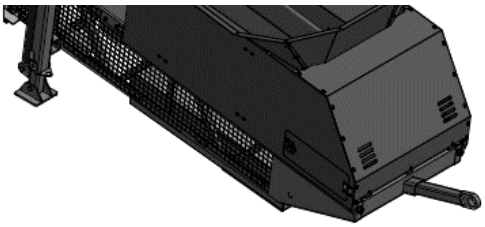


FIGURE 8 TOW BAR

CAUTION **Travel stays must be in place before transport.**

DANGER **Tow bar is designed to be used onsite only. Do not use the tow bar to transport the machine on public roads/highways.**

3.11.7 Air Tank Drain

The air tank, which holds pressurized air for the machine's air brakes, should be drained after every transport. Drain the air tank of moisture by pulling the wire cord (Figure 11). Note that draining the air tank will disengage.

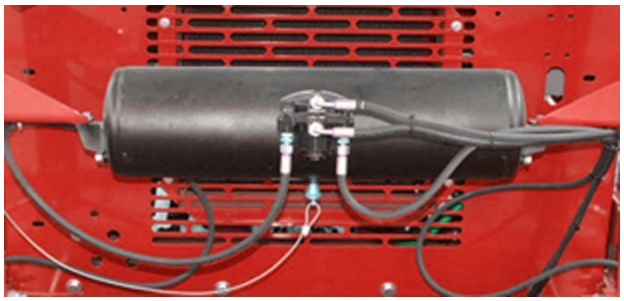


Figure 11: Air Tank

4 RECOMMENDED SPARE PARTS

During the working life of a Wheeled/Tracked Stacker, it may be necessary to replace some parts due to normal wear and tear. This section identifies the parts which may need replacing.

4.1 Regular Spare Parts

We recommend that the following parts are kept in stock for the operation and maintenance of the Wheeled or Tracked Stacker:

- **Oil filters**
- **Fuelfilter**
- **Air filter**
- **Flashing**
- **Rollers**
- **Idlers**
- **Hydraulic filters**
- **For part numbers and quantities reference the FSC Parts Book.**

5 MAINTENANCE

Before carrying out maintenance or attempting to remove obstruction on machine, ensure that machine is locked out.

5.1 General

Maintenance of a FSC100 Stacker is carried out using five schedules:

Schedule A – daily

Schedule B – after first 50 hours

Schedule C – weekly

Schedule D – monthly

Schedule E – 600 hours or 3 months

Schedule F – annually

5.1.1 SCHEDULE A – DAILY MAINTENANCE

	ITEM	OPERATION
1	Defects	Attend to any defects reported by the operator.
2	Electrical System	Examine all visible cables and connections.
3	Hydraulic Power Unit	a) Check oil level and replenish as necessary. b) Visually inspect for leaks, damaged hoses and fittings. Replace defective items. c) Visually inspect filter indicators.
4	Conveyor Belt	a) Visually inspect for cuts, rips and tears. Report to maintenance manager if necessary. b) Check alignment. Adjust as necessary. c) Check tension. Adjust as necessary.
5	Guards	a) Ensure all guards are securely fitted. b) Report defective guards to maintenance manager. c) Replace defective guards.
6	Fasteners	Visually inspect for loose bolts and screws. Tighten if necessary.
7	Fuel Level	a) Check fuel level and replenish as necessary. b) Visually inspect for leaks, damaged hoses and fittings. Replace defective items.
8	Engine Oil Level	Check oil level and replenish as necessary.
9	Hoses	Visually inspect for leaks, damaged hoses and fittings. Replace defective items.
10	Seals	Visually inspect for damaged seals.
11	Engine Air Filter	Change filter if indicator shows restriction.

5.1.2 SCHEDULE B – MAINTENANCE AFTER FIRST 50 HOURS

	ITEM	OPERATION
1	Schedule A	Ensure that the work detailed in this schedule has been carried out.
2	Return Line Hydraulic Filters	Change filter after the first 50 hours
3	Diesel Pre-Filter	Drain pre-filter after first 50 hours

5.1.3 SCHEDULE C – WEEKLY MAINTENANCE OR EVERY 50 HOURS

	ITEM	OPERATION	
1	Schedule A	Ensure that the work detailed in this schedule has been carried out.	
2	Conveyor Belt Scraper	a) Remove material buildup. b) Check adjustment and adjust as necessary. c) Replace worn or damaged parts.	
3	Greasing of Bearings	Grease as per recommendations.	See Section 5.2
4	Bolt Tightness	Check bolt tightness around hopper and engine compartment.	
5	Diesel Pre-Filter	Drain diesel pre-filter.	

5.1.4 SCHEDULE D – MONTHLY MAINTENANCE OR EVERY 200 HOURS

	ITEM	OPERATION	REMARKS
1	Schedules A and C	Ensure that the work detailed in these schedules has been carried out.	
2	Bearings	a) Inspect for loose bolts and tighten if necessary. b) Inspect for loose fit on shaft and any damage. Replace if necessary.	Replace worn or damaged bearings if seal is leaking.
3	Hydraulic Oil Filters	Return line oil filter should be changed every 1,000 hours, or when indicator turns from green to red.	Change element frequently when operating in excessively dusty conditions.
4	Hydraulic Tank	Hydraulic tank filter/breather cap should be cleaned.	
5	Engine Air Intake Pipe	Check engine air intake pipe for signs of weakness, holes or wear and replace where necessary.	

5.1.5 SCHEDULE E – THREE-MONTH MAINTENANCE OR EVERY 600 HOURS

	ITEM	OPERATION
1	Engine Oil Change	Engine oil, oil filter and fuel filter

5.1.6 SCHEDULE F – ANNUAL MAINTENANCE OR EVERY 2,500 HOURS

	ITEM	OPERATION
1	Schedules A, C and D	Ensure that the work detailed in these schedules has been carried out.
2	Hydraulic Oil	a) Analyze oil sample and check for condition and contamination. b) Change only as necessary.

5.2 Greasing Information

1. Conveyor bearings require ten grease gun strokes every 8 hours using EP2 Lithium grease.

Figure 12: Remote Grease Lines

5.3 Hydraulic System

IMPORTANT: When changing or topping up hydraulic oil or changing filter elements, the utmost cleanliness must always be observed. Impurities in the oil will destroy the system. Check condition of all hydraulic system components weekly.

IMPORTANT: If the performance of the machine has decreased, i.e., conveyor has slowed down, switch off machine immediately and check hydraulic system before restarting.

NOTE: If the hydraulic system requires any major repairs contact an agent approved by Fabriweld Corporation immediately.

5.4 Recommended Lubricants

Conveyor Bearings and General-Purpose Grease	EP2 Grease Engine
Hydraulic Oil Type	ISO VG 46
Hydraulic Oil (Cold Weather Operation (Ambient Temp -15ºC (5ºF))	ISO VG 32

5.5 Servicing Terminology

Definitions of terms are as follows:

Check or inspect: Carry out a survey to ensure one or more of the following does not impair condition of the item.

1. External damage
2. Insecurity of attachment
3. Cracks or fractures

Check or inspect: Carry out a survey to ensure one or more of the following does not impair condition of the item.

1. Corrosion, deterioration or contamination
2. Distortion
3. Loose or missing fasteners
4. Faulty or broken locking devices
5. Chafing, fraying, scoring, wear, cuts or tearing
6. Leaks from pipelines and hoses
7. Discoloration due to overheating or leaking fluids

Operate: Ensure that an item or system functions correctly as far as possible without the use of test equipment or reference to measurement.

OEM: Original Equipment Manufacturer

Fit: Correctly attach one item to another

Remove: Separate completely an item from its support

Refit: Fit an item, which has previously been removed

Replace: Remove an item and fit a new or serviced item

Replenish: Refill a container to a pre-determined level or quantity and where necessary:

1. Remove caps from filter orifices
2. Remove caps from filter orifices
3. Clean orifices
4. Fillcontainerasdirected
5. Inspectcapsandgaskets
6. Refit caps

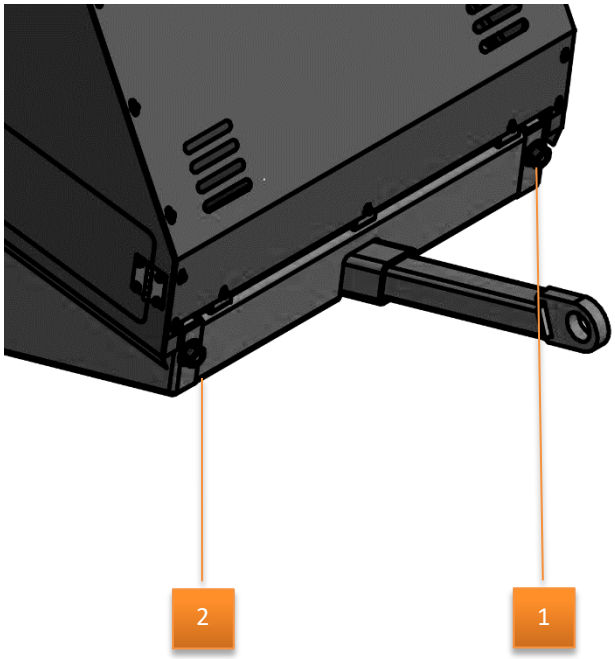
6 SPECIAL PROCEDURES

ALL SPECIAL PROCEDURES IN SECTION 6 SHOULD ONLY BE CARRIED OUT BY A QULAIFIED AND COMPETENT SERVICE PERSON.

Before attempting any procedures in this section ensure that the engine is switched off and cannot be restarted by anyone other than the service person. Lock out the machine. The service person must oversee the lockout keys for the entire duration of the procedure.

6.1 Tensioning and Alignment of Conveyor Belt

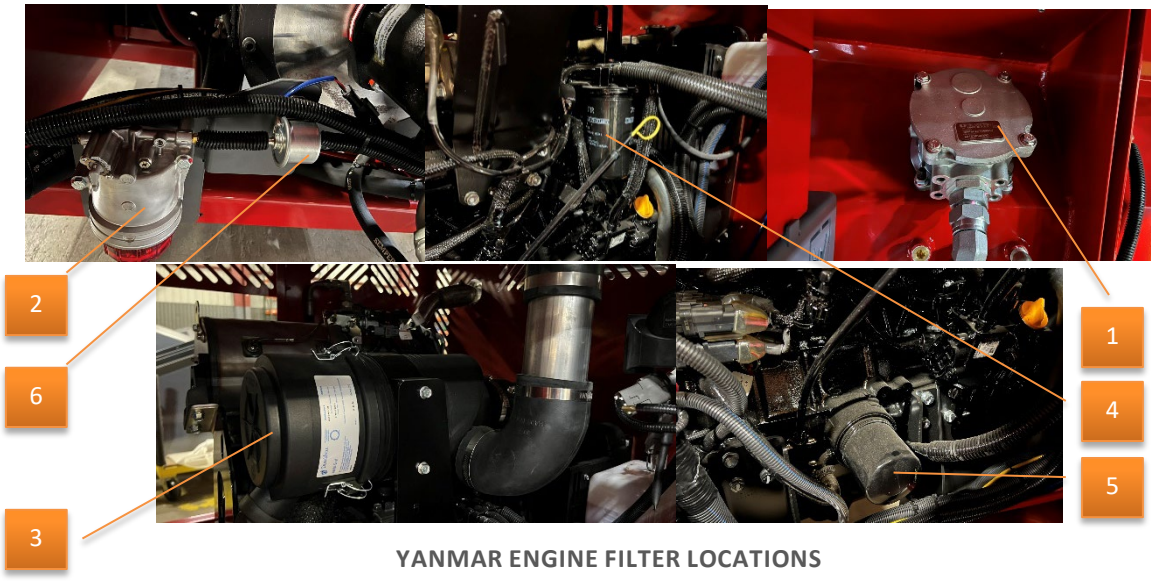
1. **ADJUSTER RIGHT HAND**
2. **ADJUSTER LEFT HAND**



1.	Ensure that engine is switched off and cannot be started by anyone other than the service person.
2.	Push in one e-stop.
3.	Clean buildup of material from all idlers and rollers.
4.	Release emergency stops.
5.	Check that machine is clear of all unauthorized personnel. Restart the engine.
6.	Start the engine at idle speed.
7.	Run the conveyor being adjusted and increase the engine speed.
8.	If the conveyor belt is running to the right, stop the conveyor and tighten the right-hand adjuster (Figure 13, No. 1).
9.	If the conveyor belt is running to the left, stop the conveyor and tighten the left-hand adjuster (Figure 13, No. 2).
10.	Observe the belt to see if it is running true to center. If not, repeat Step 8 or Step 9 until the belt is centered.
11.	Run the machine with belts loaded and unloaded until you are satisfied that the belt is properly tensioned and aligned correctly.
12.	Tighten locking bolt.

6.2 Servicing Filters

FILTER LOCATIONS 1



YANMAR ENGINE FILTER LOCATIONS

1. HYDRAULIC FILTER HEAD (FSC-8013) ELEMENT (FSC-8201)
2. WATER SEPERATOR (FSC-9229) ELEMENT (FSC-9234)
3. AIR FILTER (FSC-9257) ELEMENT (FSC-9243)
4. FUEL FILTER (FSC-9233)
5. OIL FILTER (FSC-9232)
6. FUEL PUMP (FSC-9230)

6.2.1 Hydraulic Oil Filter Servicing Procedure

1 Lock out machine.

2 Clean the exterior of the hydraulic oil filter housing with a clean rag.

3 Remove filter cap by removing bolts (Figure 14, No. 1)

4 Remove hydraulic filter element (Figure 14, No. 2)

5 Replace filter element

NOTES: Do not allow dirt to enter the tank. The complete filter housing does not have to be removed as shown. Only the cap and lid need to be removed.

The hydraulic fill (Figure 15) has a strainer to filter out large debris. It should be kept clear. To remove strainer, remove filler cap and pull outstrainer.

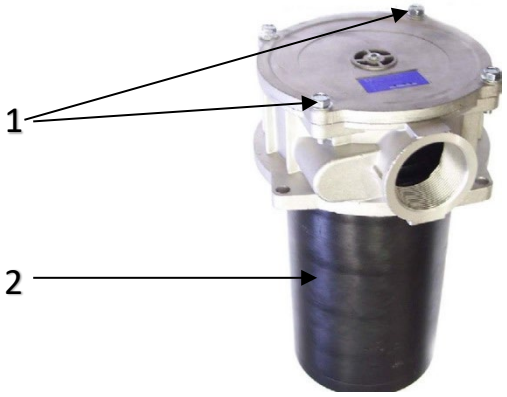


FIGURE 14 HYDRAULIC OIL FITER

FIGURE 15 FILTER HYDRAULIC FILL

6.3 Air Filters

Servicing Heavy-Duty Air Filter Elements
When to service?

The element in any air cleaner should be serviced when the maximum allowable restriction, established by the engine manufacturer, has been reached. The element should not be serviced on the basis of visual observation because this will generally lead to over-servicing.

Over-servicing will cause increased service cost, both time and material, and may cause dust contamination of the engine due to:

1. Element damage from excessive handling
2. Increased chance of improper installation of element
3. Increased initial inefficiencies

6.4 Achieving maximum air filter efficiency

The efficiency of an air filter increases as it is used. As soon as the air filter is put into operation, it begins to remove harmful dust particles. As these particles accumulate throughout the filter medium, the microscopic openings in the medium become obstructed. This ongoing reduction in the size of the openings helps the filter stop increasingly finer dust particles, thus resulting in a more efficient filter. As the filter continues to plug with contamination, the restriction to air flow will increase. Most engine manufacturers establish a maximum degree of vacuum in the air induction system that the engine can tolerate and still operate efficiently.

6.5 What is restriction?

Restriction is the resistance to airflow through the air cleaner system into engine.

6.6 What instruments do we use to measure restriction?

Restriction is best recorded by a water manometer, an air cleaner service indicator or a dial gauge calibrated in inches of water or kPa (other units may also be used). Since some users will not have a water manometer or dial gauge available, the use of permanently mounted service indicators should be considered. The indicator can be mounted in an area where the operator can monitor the condition of the element constantly.

6.7 How is restriction measured?

Accurate restriction can only be measured at maximum airflow. On naturally aspirated or supercharged (not turbocharged) diesels, the maximum airflow occurs at maximum RPM (high idle) without regard for engine power. On gasoline, LP, or turbocharged diesel engines, the maximum airflow occurs only at maximum engine horsepower at governed RPM. Most engine manufacturers suggest a maximum allowable restriction between 15 inches and 20 inches

of water (3.75 – 5.00 kPa) for gas and LP engines, and from 20 inches to 30 inches of water (5.00 – 7.50 kPa) for diesels. Exceeding these maximums will affect engineperformance.

The operator should not be alarmed when the signal on the restriction indicator begins to appear. The air filter manufacturer furnished your service element to withstand several times these recommended maximums without collapsing of leaking dirt into the engine.

6.8 Where is restriction measured?

Restriction is measured in the air cleaner outlet tap (if provided), at a tap in the air transfer tube, or within the engine intake manifold.

6.9 Measuring restriction in dry air cleaners

As a dry air cleaner element becomes loaded with dust, the vacuum on the “engine side” of the air cleaner (at the air cleaner outlet) increases. This vacuum is generally measured as restriction in inches of water or kPa.

The engine manufacturer often places a maximum allowable limit on the amount of restriction the engine can withstand without loss of performance before the element must be serviced.

Mechanical gauges, warning devices, indicators, and water manometers are available to inform the operator when the air cleaner restriction reaches this recommendation limit. These gauges and devices are generally reliable, but the water manometer is the most accurate and dependable.

To use the manometer, hold vertically and fill both legs approximately half full with water. One of the upper ends is connected to the restriction tap on the outlet side of the air cleaner by means of a flexible hose. The other end is left open to atmosphere. With the manometer held vertically and the engine drawing maximum air, the difference in the height of the water columns in the two legs, measured in inches, is the air cleaner restriction.

6.10 Why service?

Proper air cleaner servicing will result in maximum engine protection against the ravages of dust. Proper servicing can also save you time and money by increasing filter life and efficiency. Two of the most common servicing problems are:

Over-servicing. New filter elements increase in efficiency as dust builds up on the media. Don't be fooled by filter appearance; it should look dirty. By using proper filter restriction measurement tools, you will use the full life of the filter at maximum efficiency.

Improper servicing. Your engine is highly vulnerable to abrasive dust contaminants during the servicing process. The most common cause of engine damage is due to careless servicing procedures. By following the steps shown, you can avoid unnecessary dust contamination to the engine.

6.11 How to service:

Remove the filter element as gently as possible – be extremely careful with the dirty element, until you get it completely out of the housing. Accidentally bumping it while still inside means dropped dirt and dust may contaminate the clean side of your filter housing before the new filter element has a chance to do its job.

Always clean the inside of the housing carefully – dirt left in the air cleaner housing may be harmful to your engine. Use a clean, water-dampened cloth to wipe every surface clean. Check it visually to make sure it's clean before putting in a new element.

Always clean the gasket sealing surfaces of the housing – an improper gasket seal is one of the most common causes of engine contamination. Make sure that all hardened dirt ridges are completely removed wherever filter gaskets contact the cleaner housing.

Press your fresh gasket to see if it springs back – make sure your new element is made with a highly compressible gasket that springs right back when your finger pressure is released. A quality gasket is one of the most important parts of the element. On a radial seal element, the gasket surface is the inside diameter of the open-end cap.

Make sure the gasket is seating evenly – if you don't feel the gasket is seating evenly of a perfect seal, you may not have protection. Re-check to see if the sealing surface in the housing is clean, or if the element is the correct model number. It may be too short for the housing.

Check connections and dusts for airtight fit – check that all clamps and flange joints are tight, as well as air cleaner mounting bolts. Seal any leaks immediately – they mean dirt is directly entering your engine. All duct joints, from air cleaners to engine, must be tight.

Safety element service – the safety element should never be cleaned. For maximum engine protection and air cleaner service life, replace the safety element with a new safety element every third primary element change.

6.12 How not to service:

Don't remove element for inspection – such a check will always do more harm to your engine than the good your inspection can do. Ridges of dirt on the gasket sealing surface can drop on the clean filter side when the gasket is released. If you utilized scheduled maintenance, stick with your maintenance schedule. If you're on restriction maintenance, follow your indicator reading; replace the indicator with a new one if you don't trust it.

Never rap an element to clean it – only to destroy – rapping hard enough to knock off dust often damages the element and jeopardizes your engine protection. Deeply embedded dirt is never released by tapping. It is always safer to keep operating until you can change to a fresh filter.

Never judge your element's life by looking at it – a dirty-looking element may still have plenty of life left, while a restricted element may appear clean. Your best bet for lowest filter maintenance costs and best engine performance is to follow a restriction indicator. It's a smart, low-cost investment.

Never leave an air cleaner open longer than necessary – your open-air cleaner is a direct entry to your engine. If the element is not going to be changed immediately, you are better off leaving the dirty element in place. At a minimum, cover the opening. Don't overlook a worn or damaged gasket in the housing – if your air cleaner has a cover gasket, inspect it and replace it with a new one if necessary. Always ensure that any traces of the old gasket are removed. If your filter model calls for a new gasket with each use, never reuse the old one.

Don't use a dented filter element – never install a dented or punctured element, because it cannot protect properly against contamination. A dent can make a firm seal impossible or can indicate damaged media.

Never use a warped cover on housing – replace with a new cover as soon as possible. A warped or damaged cover cannot make a proper seal. Also check to make sure there is no damage to the air cleaner housing that could cause a leak.

Never substitute an incorrect element model number – elements may look almost identical but can differ by a fraction of an inch in length – a difference that may make a positive seal impossible. You're always better off using the dirty element until you can get the correct model.

7 SECTION FAULT FINDING

7.1 Fault Finding Table

	HYDRAULICS HEATING UP	BELT STALLING	HYDRAULIC OIL FOAMING
OIL COOLER BLOCKED OR FAN NOT WORKING	X		
RETURN FILTER CLOGGED	X		
STOP VALVES TURNED OFF			X
LOW OIL LEVEL IN TANK	X		
HOSE COLLAPSE	X		
HOSE BLOCKED	X		
LOW PRESSURE TO MOTOR		X	
OIL SYSTEM OBSTRUCTED	X		
BELT SLIPPING ON DRIVE DRUM		X	
AIR IN/ENTERING SYSTEM	X		X
PUMP PRESSURE LOW		X	
PUMP DAMAGE (PRESSURE TEST)		X	
DAMAGED FITTINGS			X
MOTOR DAMAGED		X	
HOSES HOLED			X
MOTOR/PUMP KEY HAS SHEARED		X	
SHEARED COUPLING		X	

8 SECTION TECHNICAL SPECIFICATIONS

8.1 Description

- 36” (900mm) wide heavy duty 100’ (30.48m) long conveyor
- 74 HP Yanmar
- Road towable
- Air brakes, mud flaps, and lights
- Large feed hopper
- Hydraulic folding frame for easy transport
- Fast onsite setup time (5 minutes)
- Abundant service room inside power-pack

8.1 Dimensions and Weight

8.1.1 Working Dimensions:

Length ..... 100’ (30.48m)

Width .....10’ – 4” (3.1m)

Height ..... 43’ – 3” (13.17m)

8.1.2 Transport Dimensions:

Length ..... 71’ (21.64m)

Width .....10’ – 4” (31m)

Height ..... 13’ – 6” (4.11m)

Weight..... 25,000lbs (9,090kgs)

8.2 Conveyor Belt Spec

Belt width ..... 36” (900mm)

Belt length ..... 100’ (30.48m) drum centers

Belt specs .....Heavy Duty Plain 36 in – 3ply – 3/16 X 1/16

Drive drum diameter ..... 14” (355mm)

Tail drum diameter ..... 12” (304mm)

Motor ..... Danfoss 800cc/rev (38.4 cu.in/rev)

Flow rate .....96 LPM (25.4 US GPM)

Adjustable speed..... Yes

Drive drum maximum speed 152rpm

Belt maximum speed 548ft/min (167m/min)

8.3 Power Unit and Hydraulics

Engine ..... Yanmar

Engine power 74hp

Engine speed 2400rpm

Flywheel pump .....Permco 56.8cc cast iron

Total system flow .....96 LPM (25.4 US GPM)

Hydraulic tank capacity..... 379 L (100 US gal)

Diesel tank capacity ..... 257 L (68 US gal)

Hydraulic oil cooler ..... Yes

8.4 Capacities

Stockpile height ..... 40'

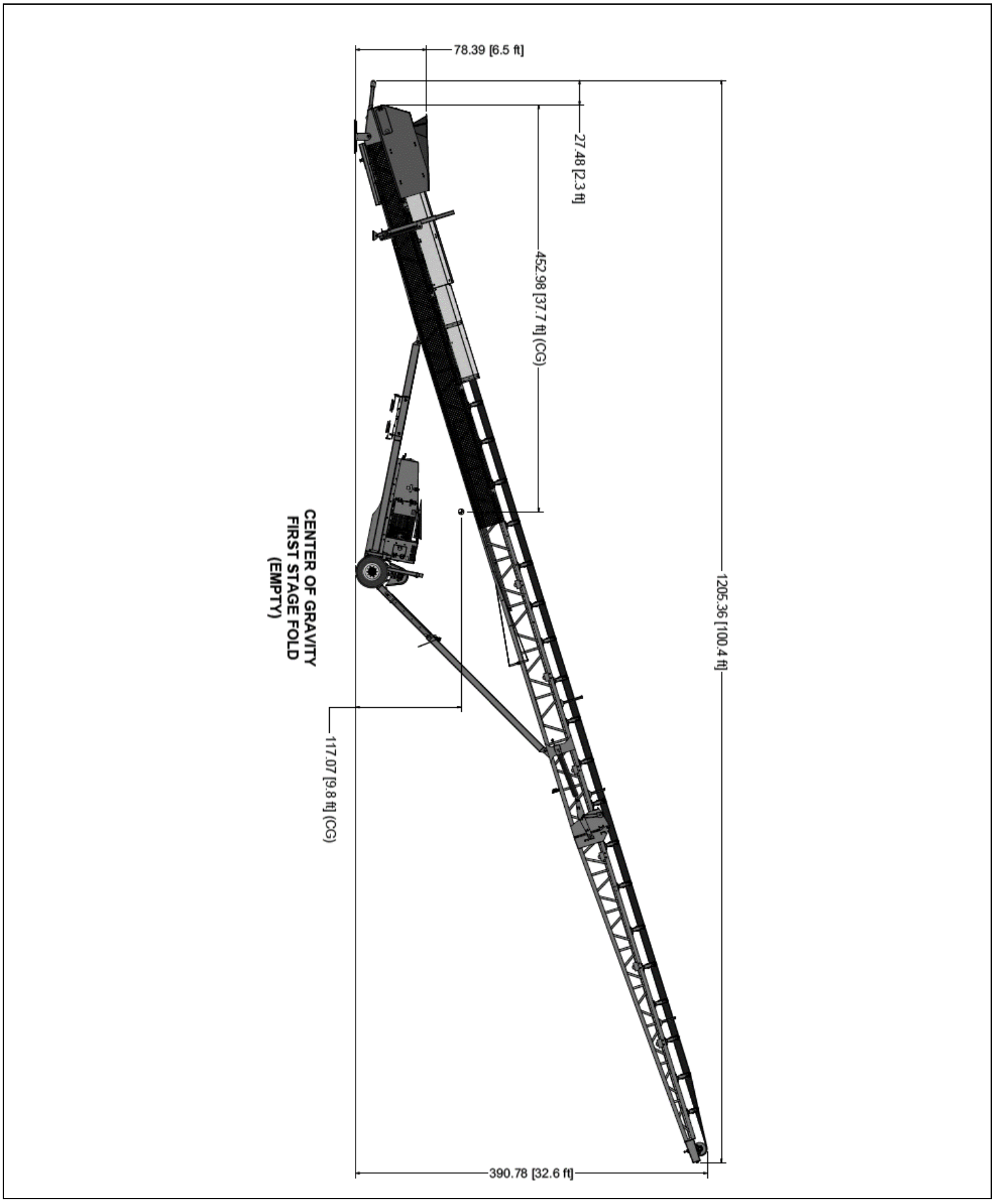
Stockpile capacity ..... 4350 cu. yds. (3325 cu. m.)

Radial pile capacity at 90º..... 18100 cu. yds. (13800 cu. m.)

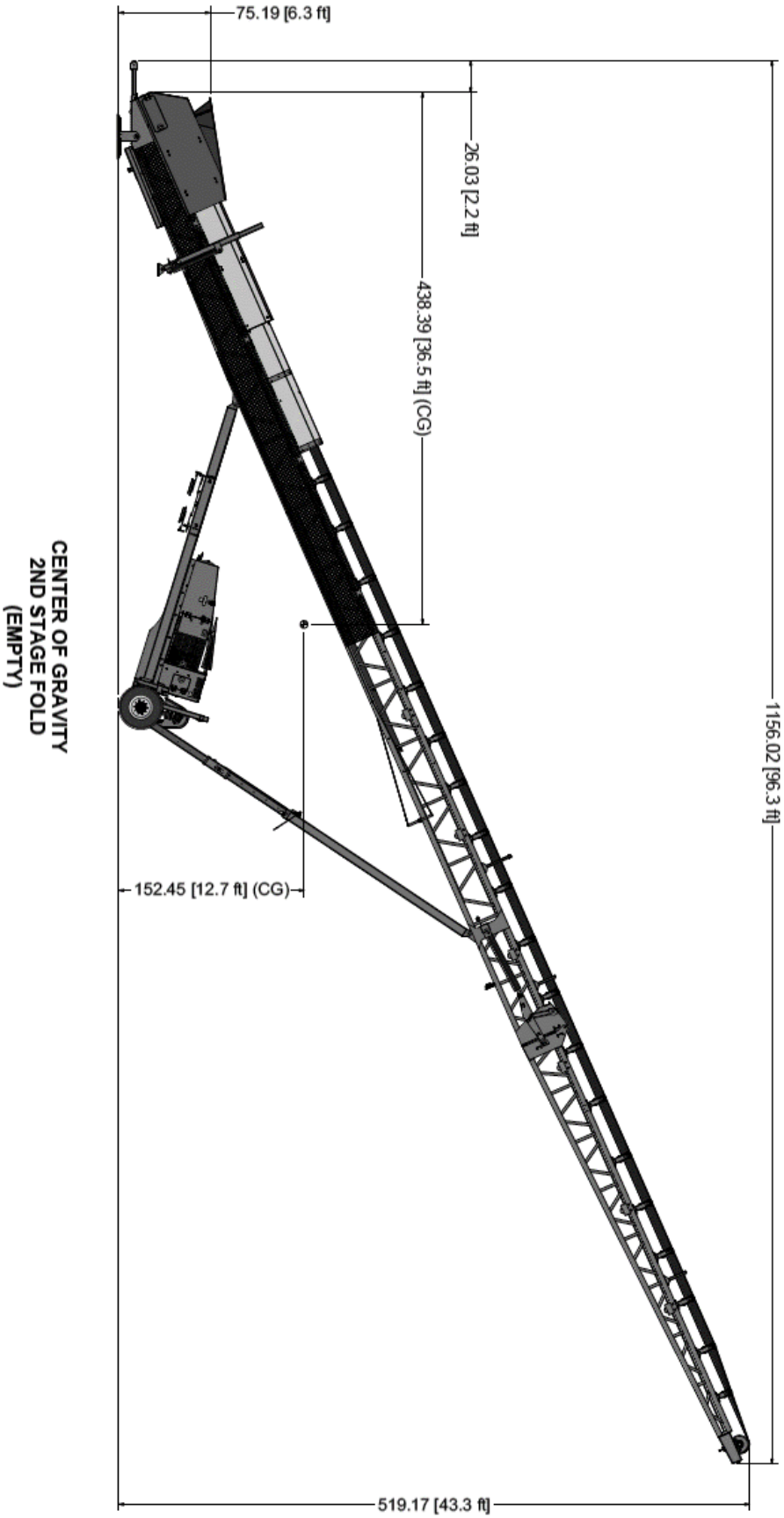
Production ..... 500TPH (Standard)

Optional production .....800TPH (maximum)

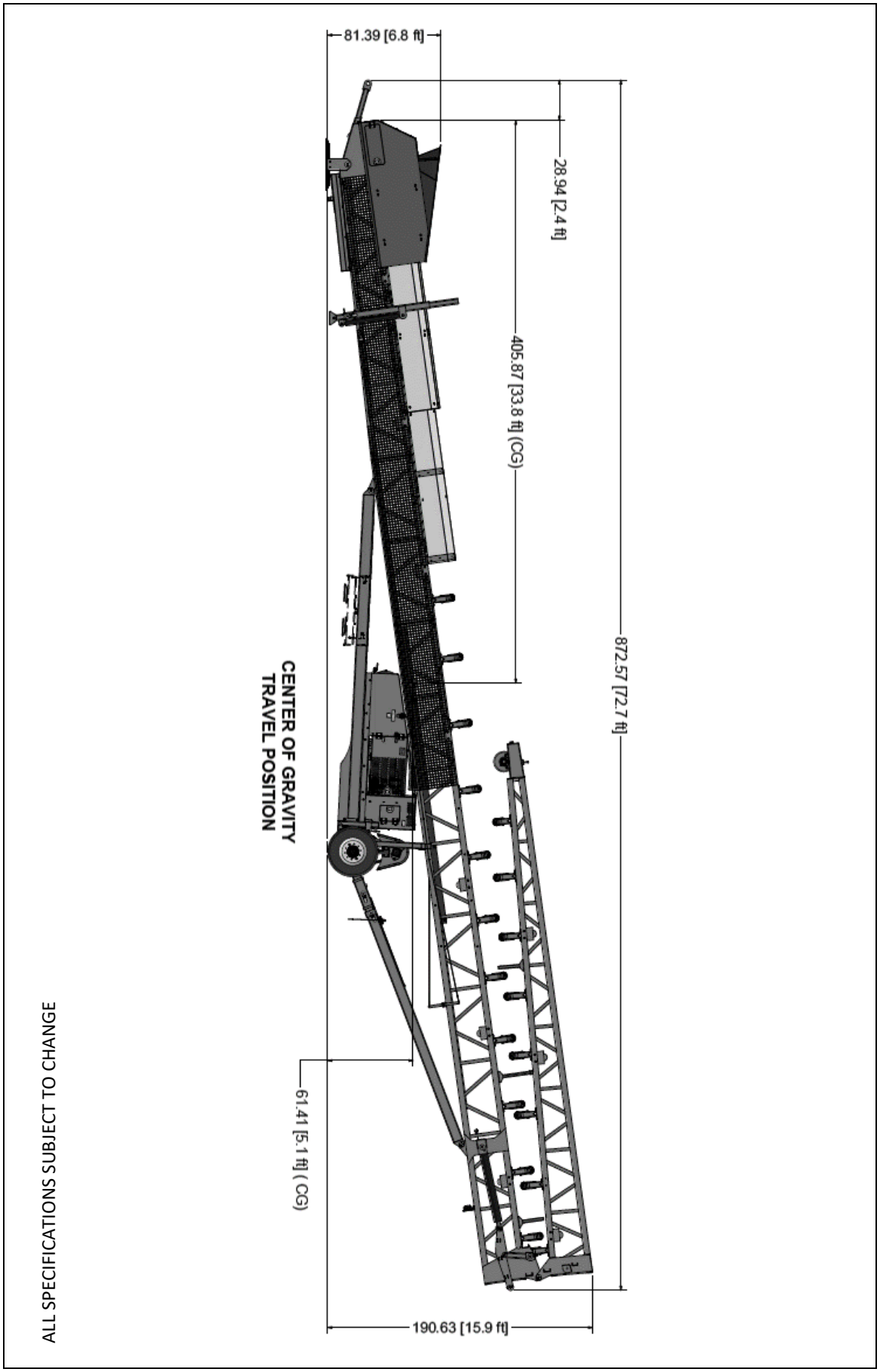
8.5 Center of Gravity and Working Dimensions

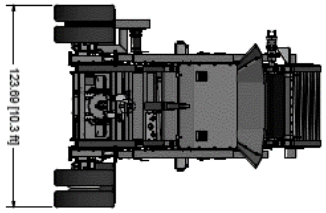


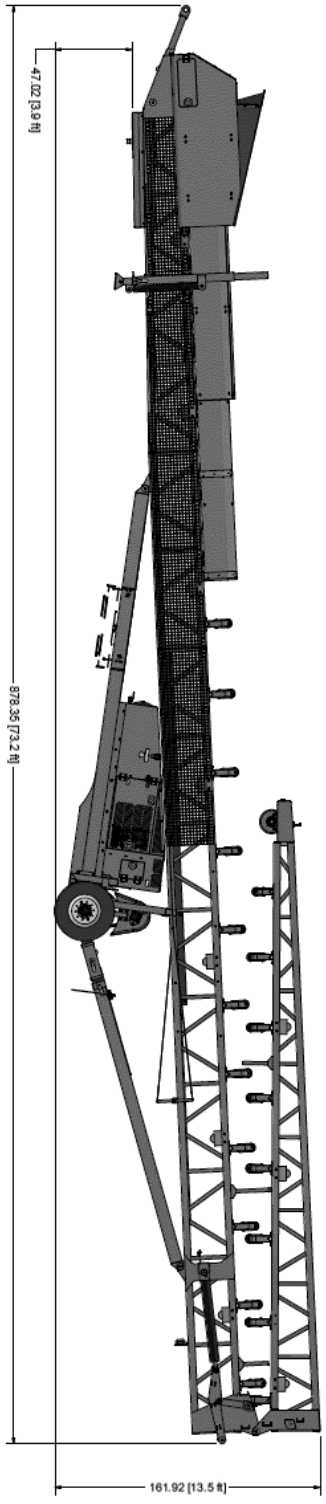
8.6 Center of Gravity and Working Dimensions 2



8.7 Transport Dimensions







Fifth wheel raised height