



Installation, Operation and Maintenance Manual

For use with the STCC
Cross Conveyor



Registration Data Sheet

Register your spreader at www.meyerproducts.com



Owner Name _____

Address _____

City _____

State/Province _____ Zip/Postal Code _____

Purchased From Company Name _____

Contact Name _____

Address _____

City _____

State/Province _____ Zip/Postal Code _____

Phone Number (_____) _____

E-mail _____

Date Purchased _____

Vehicle Make _____ Vehicle Model _____

Vehicle Year _____ Spreader Model _____

Spreader Serial Number _____



Thank You...

Thank you for buying your Meyer Spreader. As a new owner of hard-working, mechanical equipment, we strongly urge you to spend quality time with this owner's manual. It's easy to use and full of time-saving tips that will enhance your ownership experience. It includes suggestions for faster installation, safe operation and more productive spreading.

We also strongly urge you to register your new Meyer spreader at meyerproducts.com. Registering will only take minutes and the benefits of doing so will last for years. When registered, you will receive timely and accurate communication on operation tips, maintenance, new products, and service bulletins. And in the unlikely event you need warranty work performed, your local servicing dealer will be able to process your claim faster.

*Thanks again for your business. You can now look forward to many years of reliable performance and keeping your driveway safer and easier to use. If you have any questions about your Meyer spreader, contact us at: **www.meyerproducts.com** or call **216-486-1313**.*

Andrew F. Outcalt

Andy Outcalt, President, Meyer Products, LLC.

Table of Contents



Registration Data Sheet	1
Thank You	2
Introduction	4
Safety Definitions & Warnings	5-7
Safety Decal Locations	9
Safety Guards	10-11
Spreader Component Identification.....	12-13
Vehicle Loading	14-15
Installation / Assembly Instructions	16-25
Hydraulic Schematics	26-33
Maintenance.....	39-42
Troubleshooting	43-45
Warranty/Contact Meyer.....	72

Introduction

Snow and ice, despite the beauty it may impart to a bleak winter landscape, poses the dual threat of inconvenience and danger. The environmental conditions associated with snow and ice, not to mention the health hazards and economic loss it may impose, seriously endanger thousands of lives annually. Business and industry suffer, and millions of snowbelt residents may be affected by a single snowstorm.

Meyer Products LLC has published this manual to help you get the maximum performance from your Meyer spreader and familiarize you with the features designed for efficiency and safety; be sure you recognize and understand them. Follow recommended operation and maintenance instructions, so when the storm hits, your Meyer spreader will be ready and you will know how to spread like a pro.

DO NOT EQUIP ANY VEHICLE WITH A SPREADER WITHOUT CONSULTING VEHICLE MANUFACTURERS' RECOMMENDATIONS.

Vehicles equipped with Meyer spreaders installed may be so equipped as to meet vehicle manufacturers' specifications and recommended options for material spreading use. **Most vehicle manufacturers insist that vehicles which are to be used for ice control be equipped with certain options and accessories, and it is so stated in vehicle manufacturer specifications for snow plow application.**

WARNING: Deployment of an air bag while using a Meyer spreader will not be covered under Meyer Products' warranty. We also recommend that, for optimum performance, vehicles used for ice control be equipped with:

- Four-Wheel Drive
- Minimum 60 Amp Alternator or larger
- Minimum 70 Amp Battery or larger (550 C.C.A.)
- Mud and Snow Tires
- Increased Radiator Cooling
- Automatic Transmission
- Power Brakes
- Power Steering

Under the continuing Meyer Product Improvement Plan, Meyer Products LLC reserves the right to change design details and construction without prior notice and without incurring any obligation.



Safety Definitions



These safety alert decals are used to alert you of potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER Conveyor

This decal alerts all to the danger of serious personal injury or death while servicing or cleaning this equipment without first turning off or disconnecting all power sources.



CAUTION

This decal cautions all to observe general safety procedures when operating, moving, storing, cleaning or servicing this equipment.



DANGER Spinner

This decal alerts all to the danger of any person being near the spinner while it is turning where serious personal injury could result if struck by flying debris.

Safety Definitions & Warnings

SAFETY DEFINITIONS



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER

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



WARNING

WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.


















CAUTION

CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, will result in property damage.

1		NEVER stand or ride on the spreader. Failure to comply will result in death or serious injury.
2		Keep hands, feet, and clothing away from power driven parts. Failure to comply will result in death or serious injury.
3		Make sure spreader is completely shut off and all movement has stopped before attempting to clean, service or unclog. Failure to comply will result in death or serious injury.
4		Never enter hopper while spreader is operating or capable of being operated. Failure to comply will result in death or serious injury.
5		NEVER operate or service your spreader without first CAREFULLY reading the Owner's Manual. It is CRITICAL for your safety to ALWAYS obey EVERY warning in the manual and follow EVERY instruction EXPLICITLY . Failure to comply could result in death or serious injury.
6		Never leave operator's position without first completely turning off spreader, disengaging PTO, shutting off hydraulic valve and setting vehicle parking brake. Failure to comply will result in death or serious injury.
7		Never operate spreader without all shields, guards, and safety decals in place. Failure to comply will result in death or serious injury.
8		Spreader should only be operated by personnel trained in the safe use and transportation of this equipment.
9		The spreader should NEVER be used for any other purpose other than conveying granular materials or spreading ice melting or traction products on streets, parking lots, road shoulders and driveways. Failure to comply will result in property damage, death or serious injury.
10		Inspect spreader assembly and mounting components and fasteners for wear and damage before and after each use. Worn or damaged components or fasteners could allow spreader to break free from the transport vehicle. Failure to comply will result in death or serious injury.
11		Transport vehicle must not be operated when overloaded. In all cases, the loaded vehicle weight, including the entire spreader system, all aftermarket accessories, driver, passenger, options, nominal fluid levels, and cargo must not exceed the front/rear Gross Axle Weight Rating (GAWR), and total Gross Vehicle Weight Rating (GVWR). These weights ratings are specified on the safety compliance certification label on the driver's side door opening. Failure to comply will result in death or serious injury.
12		Spreader may tip over or fall. Spreader should be solidly supported when being mounted, dismounted, moved, or stored. Failure to comply will result in death or serious injury.
13		Operator, bystanders and pets should be kept at least 50 feet away from spreader during operation. Failure to comply will result in death or serious injury.
14		SAFETY PRECAUTIONS should be used when hydraulic system is operating or being serviced. Hydraulic fluid under pressure can cause a skin injection injury. If you are injured by hydraulic fluid, get medical attention immediately. Failure to comply will result in death or serious injury.
15		Engine exhaust contains lethal fumes. Breathing these fumes, even in low concentrations, can cause death. Never operate engine in an enclosed area without venting the exhaust to the outside. Failure to comply will result in death or serious injury.

Safety Definitions & Warnings



16	 CAUTION	<i>A driver's first responsibility is the safe operation of the vehicle and spreader. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate mobile communication equipment such as cell phones, two way radios, etc. Failure to comply will result in injury.</i>
17	 CAUTION	<i>Vehicle must conform to all local, state, and national regulations regarding the use of reflective markings and flashing lights. Failure to comply will result in injury.</i>
18	CAUTION	<i>Installation of a Meyer spreader may affect your new vehicle warranty. Before beginning spreader installation verify mounting method is acceptable to your vehicle manufacturer. Failure to comply will result in property damage.</i>
19	CAUTION	<i>Warranty does not apply to a Meyer spreader product which has been negligently or improperly assembled or installed. Failure to comply will result in property damage.</i>
20	CAUTION	CAUTION: <i>To avoid harm to vehicles electrical system always disconnect battery before beginning installation. DO NOT BURN holes or WELD vehicle frame. This may cause frame failure. Failure to comply will result in property damage.</i>

SAFETY DEFINITIONS



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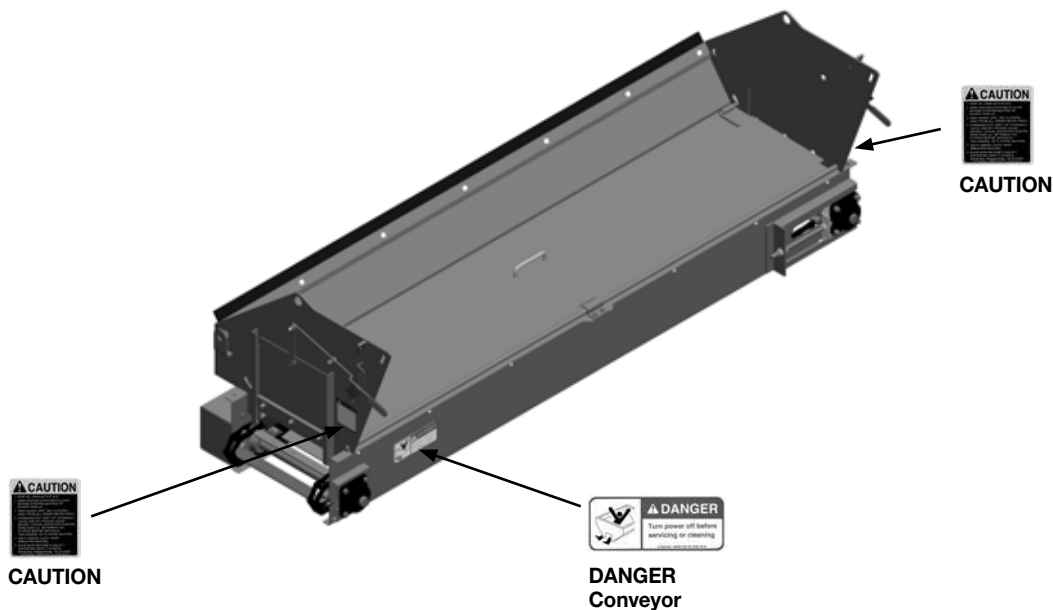
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Safety Decal Locations

These safety alert decals are used to alert you of potential personal injury hazards. Obey all safety messages that follow the symbol to avoid possible injury or death.

Safety Decal Locations



DANGER Conveyor

Alerts all to the danger of serious personal injury or death while servicing or cleaning this equipment without first turning off or disconnecting all power sources.

DANGER Spinner

Alerts all to the danger of any person being near the spinner while it is turning where serious personal injury could result if struck by flying debris.

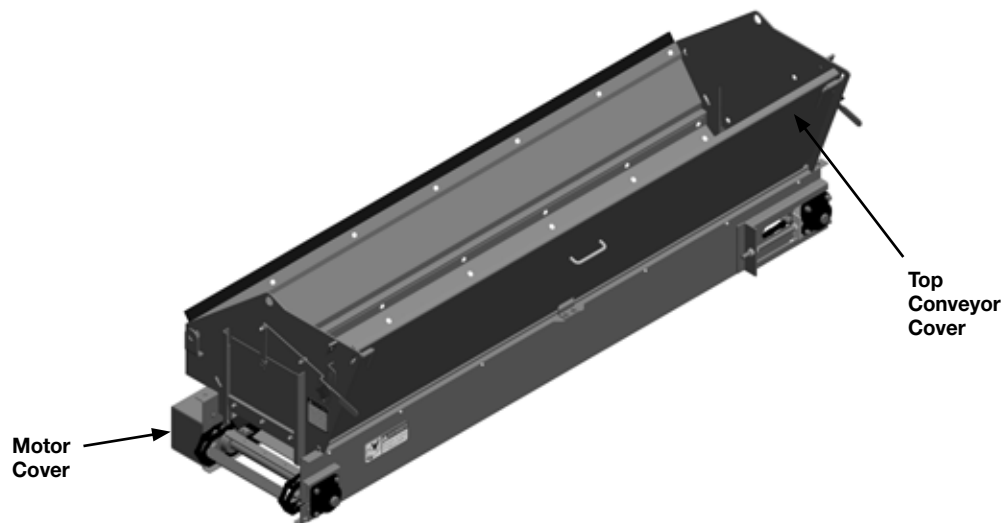
CAUTION

Cautions all to observe general safety procedures when operating, moving, storing, cleaning or servicing this equipment.

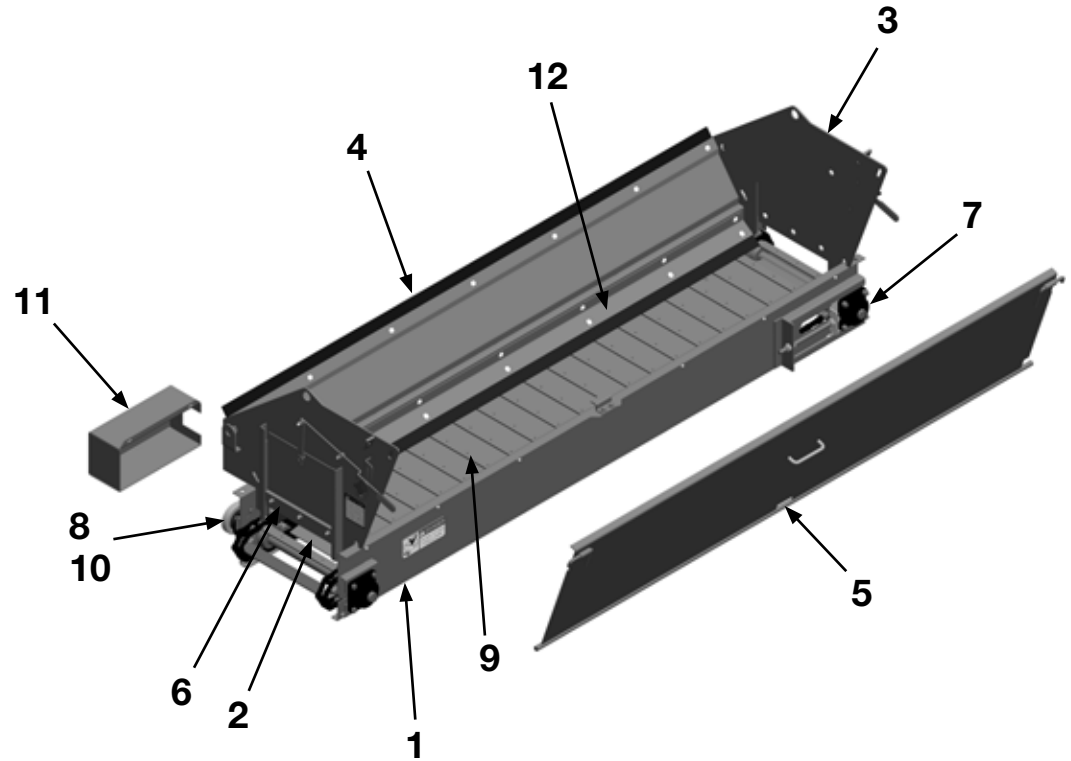
Safety Guards

To prevent serious personal injury or death all safety guards/covers must be securely fastened in the proper location while equipment is operating or capable of being operated.

Safety Guards



Component Identification



Component Identification



1. **Conveyor Trough** – Welded steel trough attaches to a dump body and contains the material conveyor.
2. **Conveyor Floor** – Creates surface for belt to pickup material and move it towards the discharge openings.
3. **End Plates** – Supports the conveyor and allows the conveyor to be attached to a dump body.
4. **Front Seal** – Conforms to the rear apron of the dump body to prevent the material from dropping between.
5. **Top Cover** – Covers and protects the belt while dumping over the conveyor, keeps material inside the conveyor and restricts access to the belt while spreading.
6. **Feed Gate** – Regulates amount of material being discharged from the conveyor.
7. **Idler Assembly** – Applies tension to the belt over chain.
8. **Drive Assembly** – Sprockets receive power from the hydraulic motor to rotate the drive shaft and belt.
9. **Belt Over Chain** – Is driven by the drive shaft and moves material out of the conveyor towards the discharge openings.
10. **Hydraulic Motor** – Supplies power to drive the conveyor belt.
11. **Motor Cover** – Covers hydraulic motor to keep out debris and restricts access while conveyor is operating.
12. **Chain Shields** – Runs longitudinally inside the conveyor, protects chain pintel from debris and damage.

Vehicle Loading

Determining Vehicle Payload

It is necessary to calculate the available material payload to prevent overloading the vehicle. Overloading the vehicle can create dangerous stability and braking problems. Always consult and follow vehicle manufacturer's weight ratings and mounting instructions.

1. Mount complete spreader and any optional equipment on vehicle.
2. Attach all additional equipment onto vehicle such as snow plow, hitch, etc that will be used when spreader is mounted on vehicle.
3. Fill fuel tanks.
4. With normal operator(s) inside of vehicle, weigh vehicle to obtain the Gross Vehicle Weight (GVW).

Vehicle Information	
Make	
Model	
Year	
Unit #	
GVWR	lbs.
FGAWR	lbs.
RGAWR	lbs.

5. Obtain Gross Vehicle Weight Rating (GVWR), Front Gross Axle Weight Rating (FGAWR), and Rear Gross Axle Weight Rating (RGAWR) from the driver's door jam or from the vehicle manufacturer.
6. Subtract the GVW from the GVWR to obtain the available material payload.
7. Divide the payload by the material density to determine the maximum volume of material that can be carried by the vehicle.
9. Load vehicle with the calculated volume of material.
10. Weigh vehicle to verify vehicle does not exceed GVWR, FGAWR, or RGAWR.
11. Repeat procedure for each type of spreading material to be used.

Available Payload Calculation

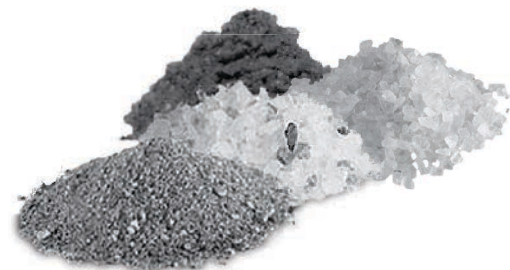
FGAWR		lbs.	FGAW must not exceed the vehicle FGAWR
FGAW		lbs.	
RGAWR		lbs.	RGAW must not exceed the vehicle RGAWR
RGAW		lbs.	
GVWR		lbs.	GVW must not exceed the vehicle GVWR
GVW		lbs.	
Available Payload	- _____	lbs.	Subtract the GVW from the GVWR to obtain the available payload

Vehicle Loading

Density of Common Materials

Material	Density	
	lbs. per cubic foot	lbs. per cubic yard
Ashes	38-47	1026-1269
Asphalt	45	1215
Clay	50-60	1350-1620
Cement (Concrete)	85-150	2295-4050
Coal	39-52	1053-1404
Coke	39-52	1053-1404
Earth (Dirt)	73-95	1971-2565
Granite	97	2619
Gravel	110	2970
Limestone	60	1620
Oak Chips	42-48	1134-1296
Pine Chips	26-45	702-1215
Rip Rap	65	1755
Coarse Salt - Dry	76	2052
Coarse Sand - Dry	100	2700
Coarse Sand - Wet	120	3240
Snow (Packed)	50	1350

Note: The above chart is for reference only. Some of the materials listed are not suitable for use with the STCC cross conveyor.



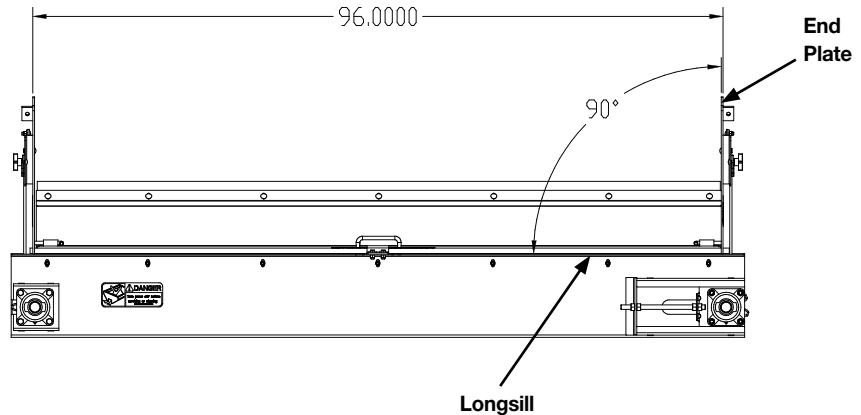
Installation / Assembly Instructions

The STCC spreader is designed to mount on the rear of a dump body, below the tailgate, and be supported by brackets bolted to the dump body rear corner posts.

General

Note: Occasionally the spreader end plates may become bent slightly during handling. Before beginning installation ensure the end plates are square to the spreader longsills, realign if necessary (see Figure 1).

Figure 1



Installation / Assembly Instructions



Mounting

1. Position the STCC spreader at the rear of the dump body with the rubber seal strip towards the dump body. Level the spreader from side to side. Adjust the spreader so the rubber seal strip is as close as possible to the dump body floor (dimension "A") and the spreader end plates are as close as possible to the dump body corner posts (dimension "B") (see Figure 2). The dump body tailgate must be able to fully open without contacting the spreader. Note: the rubber seal strip can be trimmed to clear obstacles such as latch brackets, hardware, etc.

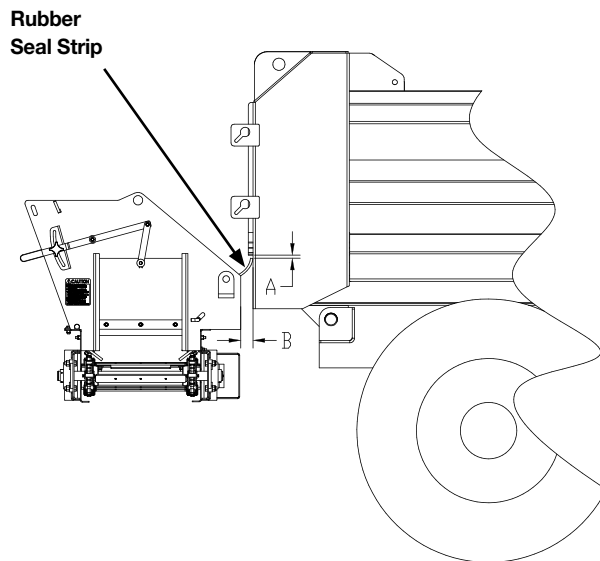
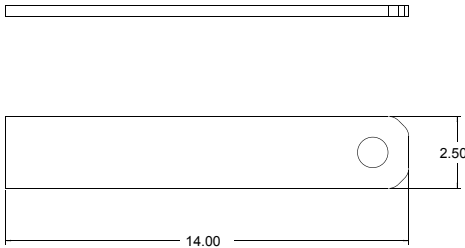


Figure 2

Installation / Assembly Instructions

2. With the spreader in the desired position, attach one conveyor mounting bar to each spreader end plate using the supplied clevis pins, flat washers, and hairpin keepers. Keeping the conveyor mounting bars in the horizontal position mark and drill three $\frac{1}{2}$ " holes through each bar and rear dump body corner post. Secure mounting bars to the corner posts with three $\frac{1}{2}$ " grade 5 bolts & locknuts per side (see Figure 3). Note: conveyor mounting bars may be solid welded to the dump body instead of bolted.



**Conveyor
Mounting
Bar**

Qty 2

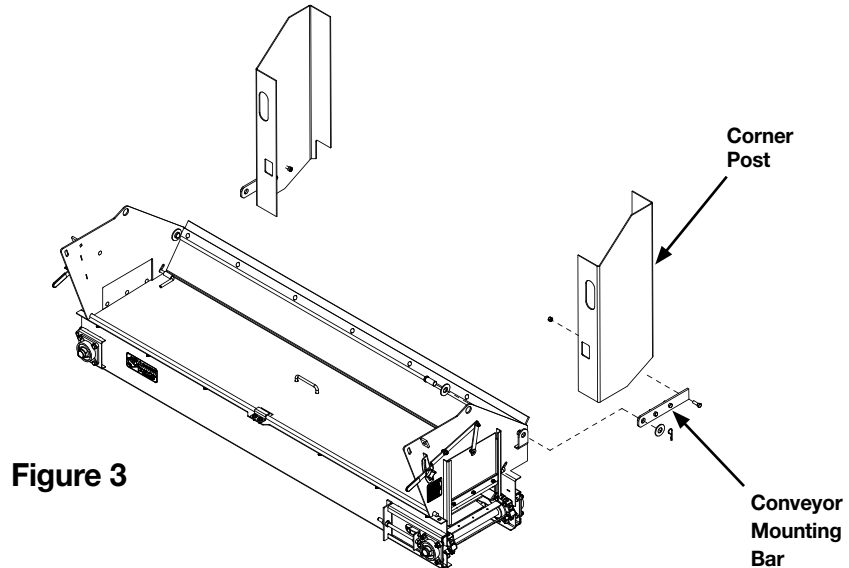


Figure 3

Installation / Assembly Instructions



3. Install one ½" locknut onto each hanger chain and insert the hanger chains into the tabs on each spreader end plate. Secure both hanger chains with a second ½" locknut. Run the chain from each end plate up to the tailgate chain retainer plate on each rear corner post. Adjust both bottom locknuts until the spreader hangs level with the dump body. Once the spreader is level tighten both upper locknuts against the tabs on each spreader end plate (see Figure 4).

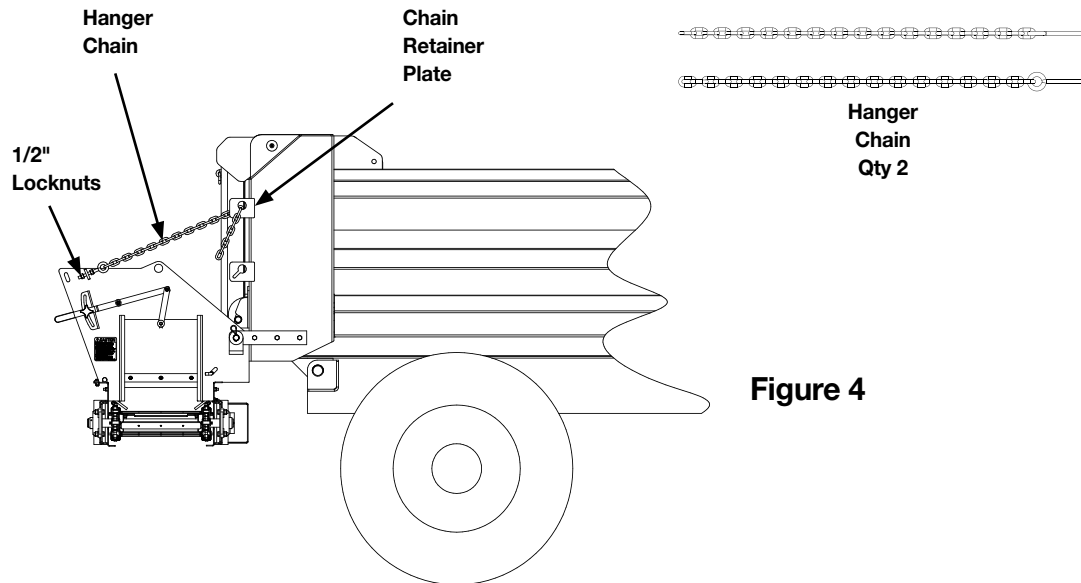
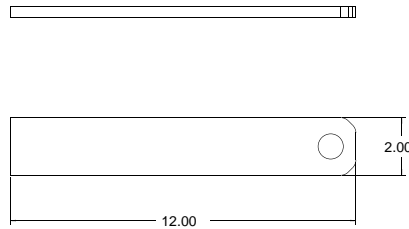


Figure 4

Installation / Assembly Instructions

4. Locate and weld frame Bars to the outside of each truck frame rail. For proper operation the hinge point of the frame bar must be located to match the vertical distance (dimension A) and the horizontal distance (dimension B) on the spreader (see Figure 5). The standard dimensions of the parallel linkage mounting tabs are shown in Figure 6. If unable to install the frame bars to match the standard dimensions in Figure 6 due to obstructions on the truck frame then the following modifications will need to be made: 1) Locate the hinge point of the frame bars as close as possible to the standard dimensions in Figure 6. 2) Modify the parallel linkage mounting tabs on the spreader (relocate or add new tabs) to match dimensions A & B on the truck frame rails (see Figure 7). Note: the holes in both frame bars must align with each other.



Frame Bar
Qty 2

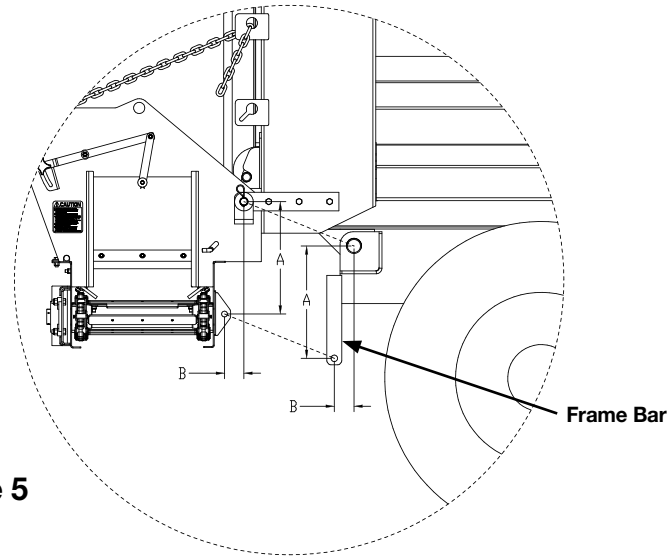


Figure 5

Installation / Assembly Instructions



Figure 6

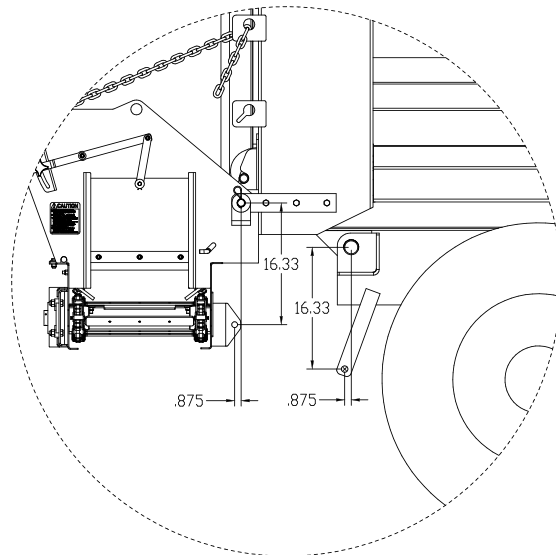
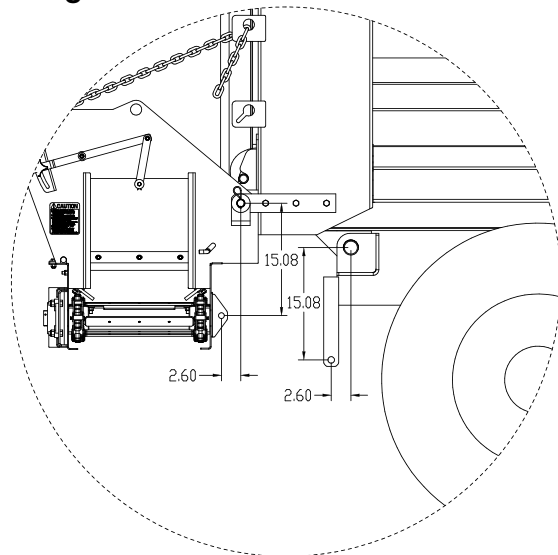
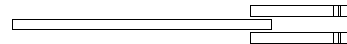
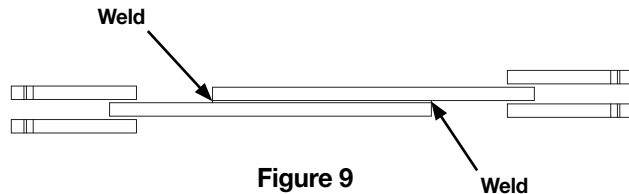


Figure 7

Installation / Assembly Instructions

5. With the spreader level, install one parallel linkage bar onto each mounting tab on the spreader and one onto each frame bar using the supplied clevis pins, $\frac{3}{4}$ " flat washers, and hairpin keepers (see Figure 8). Solid weld both sets of parallel linkages together at the overlapping joints (see Figure 9). Note: With the dump body in the down position the entire weight of the spreader should be supported by the conveyor mounting bars and hanger chains only, not by the parallel linkage bars.



Parallel
Linkage
Bar
Qty 2

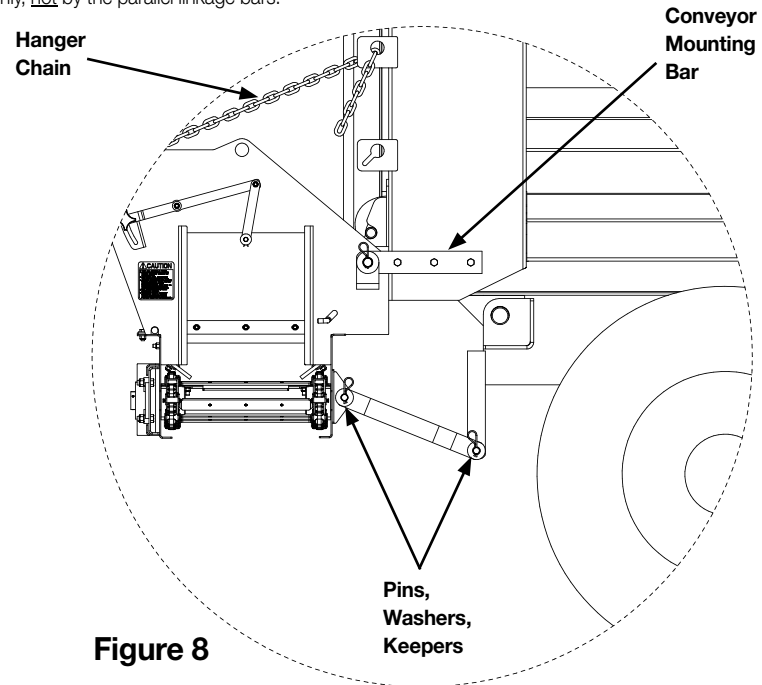
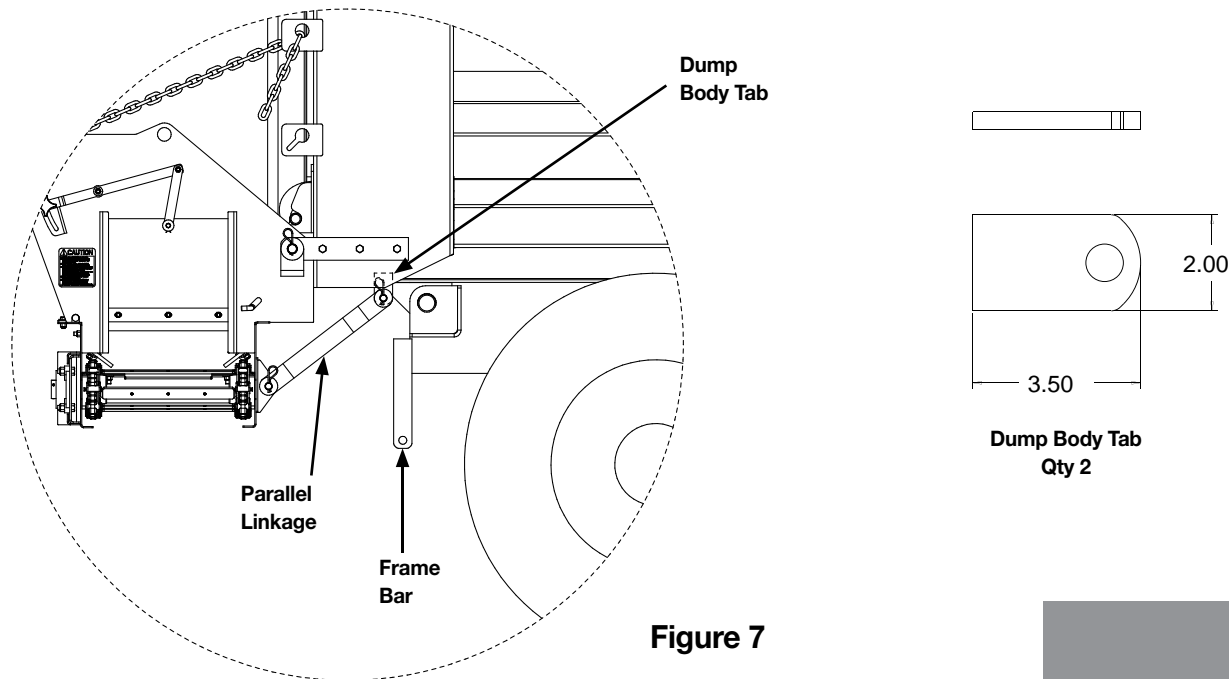


Figure 8

Installation / Assembly Instructions



6. Disconnect both parallel linkages from the truck frame bars leaving the linkages attached to the spreader. Install one dump body tab onto each parallel linkage. Position dump body tabs against longsill or floor of dump body and weld solid (see Figure 10).

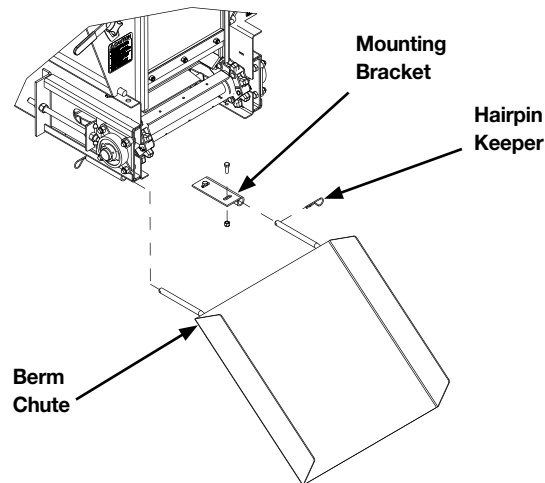


Installation / Assembly Instructions

Berm Chute

The standard Berm Chute may be installed on either the driver's or passenger side of the conveyor as required.

1. Attach mounting brackets to desired end of conveyor with supplied 3/8" bolts & locknuts.
2. Slide Berm Chute arms into mounting brackets and secure with hairpin keepers.
3. Raise Dump Body and check ground clearance of Berm Chute.
4. Remove Berm Chute from Conveyor when not in use.



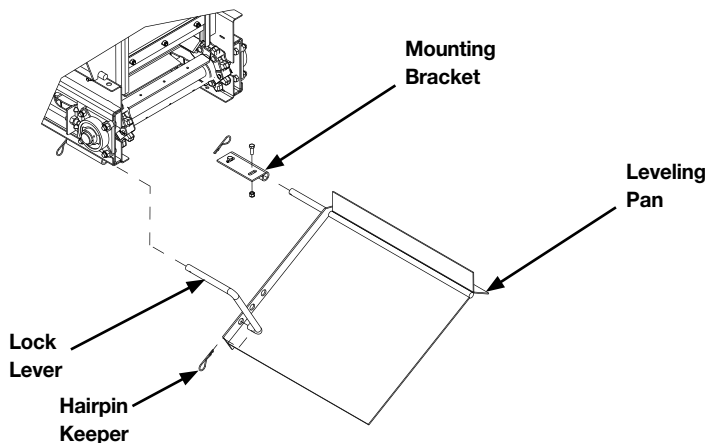
Installation / Assembly Instructions



Leveling Pan

The optional Leveling Pan may be installed on either the driver's or passenger side of the conveyor as required.

1. Attach mounting brackets to the desired end of conveyor with supplied 3/8" bolts & locknuts.
2. Slide Leveling Pan arm into mounting bracket and secure with hairpin keeper.
3. Insert long end of the Lock Lever into the other mounting bracket and secure with hairpin keeper.
4. Insert the short end of the Lock Lever into the desired adjustment hole on the Leveling Pan and secure with hairpin keeper.
5. Raise Dump Body and check ground clearance of Berm Chute.
6. Remove Leveling Pan from Conveyor when not in use.



Hydraulic Schematics

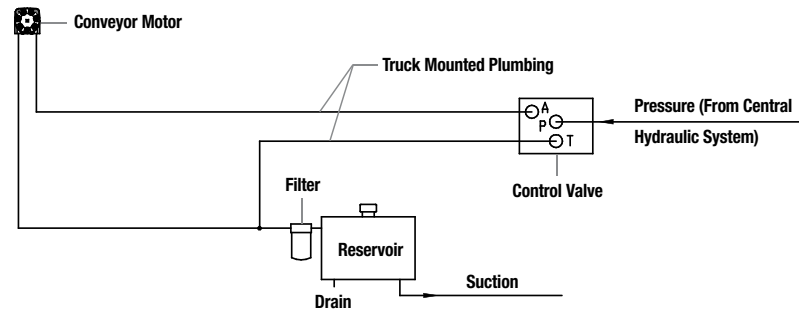
STCC - STANDARD

Hydraulic System Requirements

Conveyor Oil Flow	0-15 GPM
Spinner Oil Flow	0-7 GPM
Relief Valve Setting	1500 PSI
Hydraulic Oil	MS10W hydraulic oil with wear, oxidation and foam inhibitors
Oil Filter	10 micron element return line filter

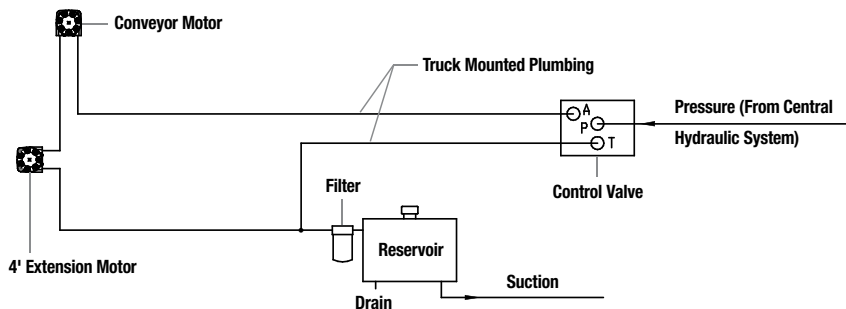
Hydraulic Motor Displacements Cu In / Rev

Conveyor	23.7
4' Conveyor Extension	9.4
Spinner	3.0



Hydraulic Schematics

STCC - WITH 4' EXTENSION

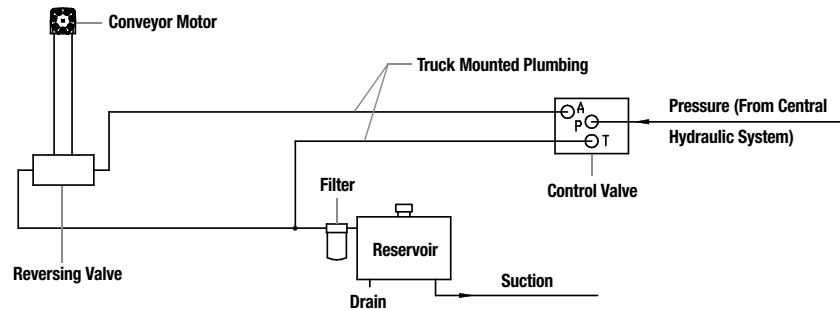


Hydraulic Installation Notes

- On vehicles equipped with a dual flow control system the auger and spinner pressure lines may be combined (before the conveyor motor) to achieve the required GPM to the conveyor motor.
- On spreaders equipped with a reversing valve plus an optional 4' conveyor extension or spinner assembly, check valves should be installed to prevent the optional equipment from operating when the conveyor is being operated in the reverse direction.
- The conveyor motor is normally plumbed to discharge material to the passenger side however the hoses may be reversed for driver's side discharge applications.

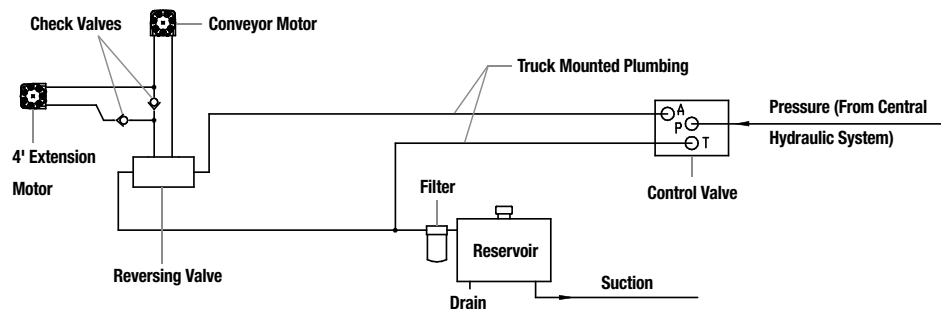
Hydraulic Schematics

STCC - WITH REVERSING VALVE



Hydraulic Schematics

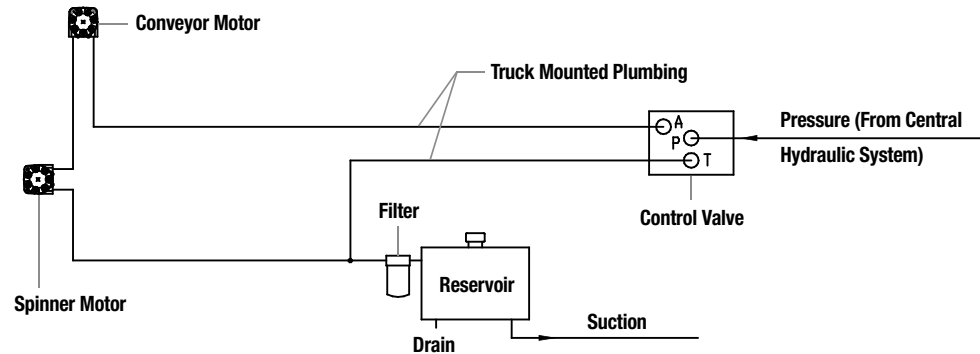
STCC - WITH 4' EXTENSION & REVERSING VALVE



Hydraulic Schematics

STCC - WITH SPINNER

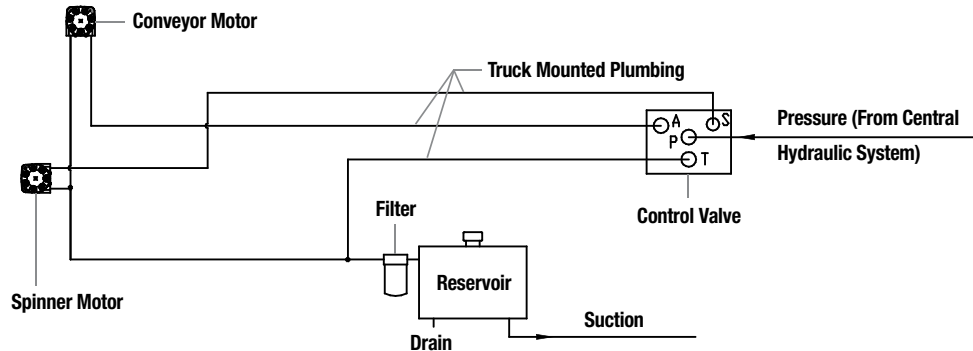
SINGLE FLOW CONTROL SYSTEM



Hydraulic Schematics

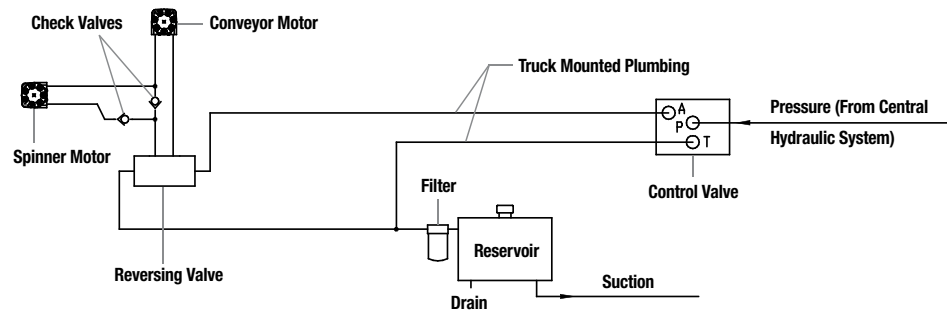
STCC - WITH SPINNER

DUAL FLOW CONTROL SYSTEM



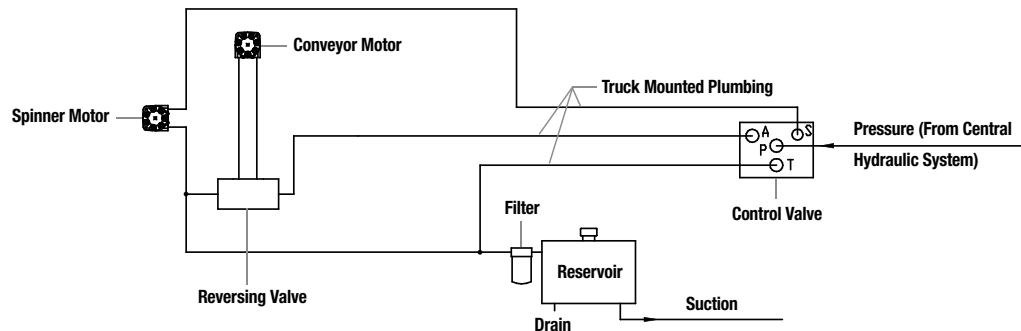
Hydraulic Schematics

STCC - WITH SPINNER & REVERSING VALVE SINGLE FLOW CONTROL SYSTEM



Hydraulic Schematics

STCC - WITH SPINNER & REVERSING VALVE DUAL FLOW CONTROL SYSTEM



Operating Instructions

General Operation

The STCC conveyor is designed to convey or spread clean, dry granular materials free of clumps and foreign debris. Acceptable materials for use in this conveyor include salt, sand, shoulder gravel, ag lime, soil, cold / hot asphalt, or any other granular material less than 3/4" diameter. Note: the use of non-granular materials or materials greater than 3/4" in diameter may cause damage to the spreader and conveyor belt. The supplied high temperature conveyor belt is suitable for hot mix asphalt.

The STCC can be configured in two ways; normal conveyor operation or dump over operation. Conveyor operation is used when materials will be spread using the STCC conveyor. Dump over operation allows the dump body to dump bulk material over the STCC without spreading the material.

Dump Over Operation

1. Top Cover is closed
2. Parallel Linkages are connected to the dump body tabs
3. STCC pivots along with the dump body to remain parallel with the dump body floor
4. Bulk material is dumped over the top of the STCC.

Conveyor Operation

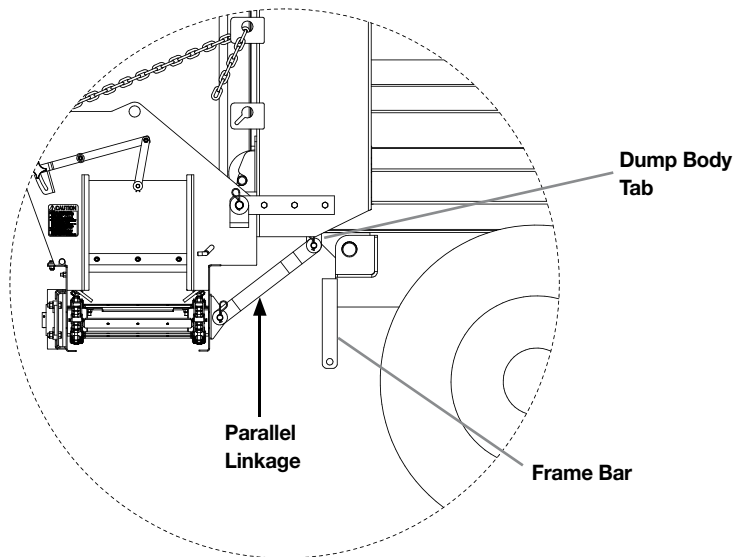
1. Top Cover is open
2. Parallel Linkages are connected to the frame bars
3. STCC remains parallel with the ground at all times
3. Material is discharged from either end of the conveyor

Operating Instructions



Dump Over Operation

The STCC conveyor may be configured to allow bulk materials to be emptied from the dump body by dumping over the top of the conveyor. For dump over operation the top cover must be closed and locked and the parallel linkages must be secured into the dump body tabs so the spreader pivots with the dump body and remains parallel with the dump body floor. The dump body tailgate may be set in either the upper or lower hinged position. Note: never attempt to dump over the STCC conveyor with the parallel linkages secured to the frame bars as damage may result.



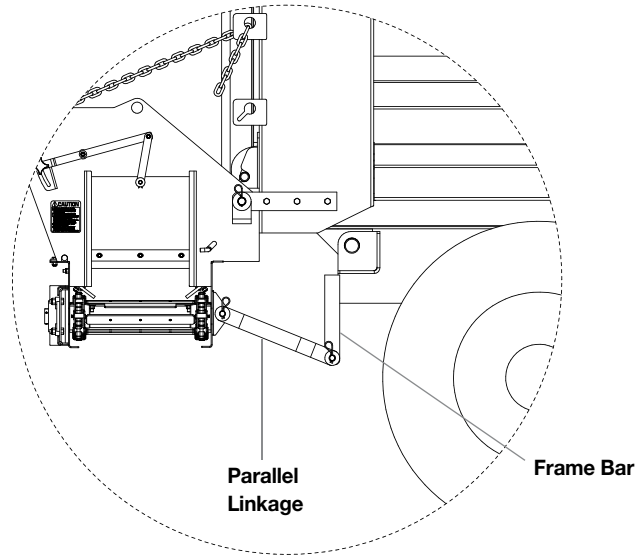
Top Cover must be CLOSED during dump over operations.

Operating Instructions

Conveyor Operation

The STCC conveyor may be configured to discharge bulk materials from either end of the conveyor. For conveyor operation the top cover must be open and the parallel linkages must be secured into the frame bars so the STCC remains parallel with ground. The spreader chains on the dump body tailgate should be set so the tailgate stops just short of contacting the STCC top cover.

Top Cover must be OPEN during conveyor operation.



Operating Instructions



Spreader Calibration

1. Using the calibration chart below determine the required feed gate setting and GPM to obtain the desired output volume.

Flow GPM	Motor RPM	Drive Shaft RPM	Cu. Yd. / Minute / Gate Height							
			1"	2"	3"	4"	5"	6"	7"	8"
1	9.7	7.3	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
2	19.5	14.7	0.08	0.16	0.24	0.32	0.40	0.47	0.55	0.63
3	29.2	22.0	0.12	0.24	0.36	0.47	0.59	0.71	0.83	0.95
4	39.0	29.3	0.16	0.32	0.47	0.63	0.79	0.95	1.11	1.27
5	48.7	36.6	0.20	0.40	0.59	0.79	0.99	1.19	1.39	1.58
6	58.5	44.0	0.24	0.47	0.71	0.95	1.19	1.42	1.66	1.90
7	68.2	51.3	0.28	0.55	0.83	1.11	1.39	1.66	1.94	2.22
8	78.0	58.6	0.32	0.63	0.95	1.27	1.58	1.90	2.22	2.53
9	87.7	66.0	0.36	0.71	1.07	1.42	1.78	2.14	2.49	2.85
10	97.5	73.3	0.40	0.79	1.19	1.58	1.98	2.37	2.77	3.17
11	107.2	80.6	0.44	0.87	1.31	1.74	2.18	2.61	3.05	3.48
12	117.0	87.9	0.47	0.95	1.42	1.90	2.37	2.85	3.32	3.80
13	126.7	95.3	0.51	1.03	1.54	2.06	2.57	3.09	3.60	4.12
14	136.5	102.6	0.55	1.11	1.66	2.22	2.77	3.32	3.88	4.43
15	146.2	109.9	0.59	1.19	1.78	2.37	2.97	3.56	4.16	4.75

Operating Instructions

Spreading Material

1. Ensure the parallel linkages are secured to the frame bars and open the top cover.
2. Using the calibration chart determine the required feed gate to obtain the desired output. Adjust the discharge feed gate to the calculated height. The feed gate on the opposite end should remain closed.
3. Start conveyor before raising dump body, raise dump body in intervals when additional material is needed. Do not overload conveyor, overloading may stall conveyor.
4. When finished spreading, lower dump body and run off material left in conveyor.

IMPORTANT: Conveyor must be empty before raising dump body or damage may result to the conveyor and vehicle.

Maintenance

Regular maintenance is the key to your STCC operating efficiently and trouble free. Meyer Products LLC recommends this maintenance information for regular service. Sustained heavy operation may call for more frequent service. Material spreading subjects a vehicle to exceptionally rugged use. As a result, it is very important to inspect and bring the spreader and vehicle up to maximum operating conditions. Inspection should be made of both the vehicle and spreader prior to the winter season and each use.



Pre-Season Maintenance

Scheduled vehicle maintenance should be performed as recommended by the manufacturer.

Vehicle Maintenance

Don't forget that in addition to keeping equipment in order:

1. Keep windshield wipers, heaters and lights working.
2. Use emergency flashing lights for increased visibility and safety.
3. Equip vehicle with tire chains when necessary.
4. Provide operators with protective clothing and gloves for handling ice melting chemicals.

Vehicle Electrical System

For maximum efficiency, the vehicle supporting the spreader must be properly serviced. The system should consist of at least a 70 amp/hr battery and a 60 amp alternator. Be sure to check regularly:

1. Battery terminals to assure they're tight and free of corrosion.
2. Electrical connections, to assure they're tight and corrosion free.
3. Battery must be in top operating condition.
4. Alternator and regulator, to assure maximum electrical output.

Vehicle Hydraulic System

To prevent any issues with the vehicle hydraulic system, be sure to perform the following prior to the winter season:

1. Flush and refill hydraulic reservoir. Replace hydraulic oil filter.
2. Inspect hydraulic pump, motors, hoses, and couplers for damage or leaks.
3. Refer to hydraulic pump manufacturers maintenance recommendations.

Spreader

Prior to the start of the winter season the pre-season maintenance should be performed to ensure the spreader operates reliably. Follow the maintenance schedule for service recommendations. Don't forget to also do the following:

1. Verify spreader is securely attached to vehicle.
2. Inspect Spreader for loose, missing, or damaged parts, guards, or hardware.
3. Repaint any rusty parts.
4. Ensure moving parts are free and not corroded.
5. Test run spreader before filling with material.

Maintenance

General Maintenance

Inspection: Before and after each use, spreader should be inspected for loose, missing, or damaged mounting hardware, parts, or safety guards. Spreader should also be inspected to ensure it is securely attached to vehicle.

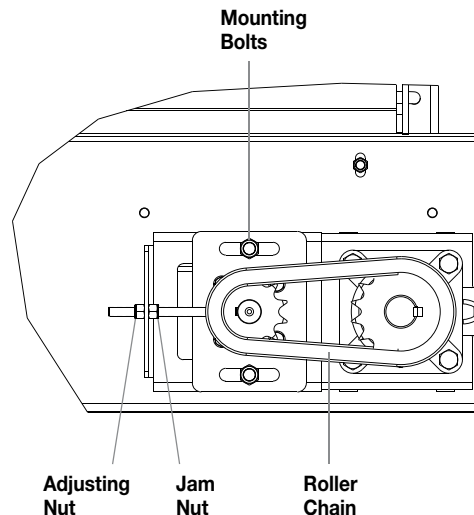
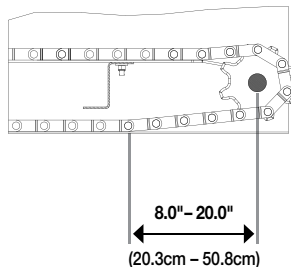
Cleaning: Empty all material from spreader after each use. Wash entire spreader with soap and warm water paying special attention to the conveyor drag chain. Do not clean spreader with any corrosive chemicals or products that contain chlorides or ammonia. Any commercially available salt neutralizer may be applied.

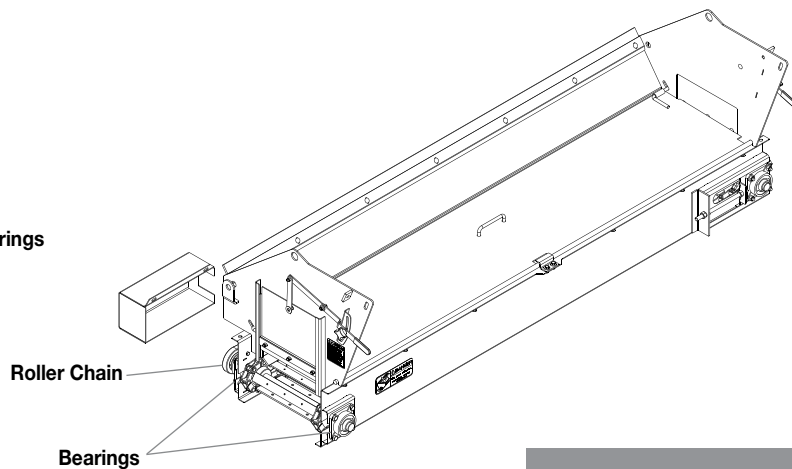
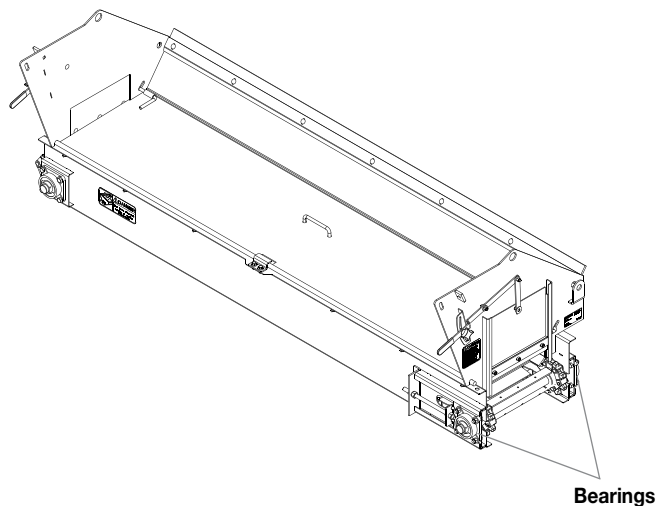
Adjusting Drag Chain Tension: Loosen rear jam nut on take-up bolt and tighten take-up bolt until drag chain is properly tensioned. Drag chain is properly tensioned when the distance between the center line of the idler and point where chain contacts flange of longitudinal is between 8 – 20" (20.3 – 50.8cm). Both sides of drag chain must be adjusted evenly.

Adjusting Roller Chain Tension: Loosen the mounting bolts. Loosen jam nut and tighten the adjusting nut until the proper tension is achieved. Tighten mounting bolts and adjusting nuts to hold motor in position. Roller chain should have between 1/4" – 5/16" (.6 cm – .8 cm) deflection midway between the sprockets.

Lubrication: After every 10 hours of operation or weekly, lubricate drag chain and roller chains with any commercial chain lubricant or a mixture of 75% motor oil & 25% diesel fuel. After every 10 hours of operation or weekly, lubricate drive shaft and idler shaft bearings with high quality chassis grease.

Drag Chain Tension Adjustment





Maintenance

Maintenance Service Schedule

MAINTENANCE TASK TO BE COMPLETED	Pre-Season	Daily	10 Hours or Weekly	40 Hours or Monthly	Post-Season
Inspect spreader for loose, missing, or damaged parts or hardware	X	X			X
Verify spreader is securely attached to vehicle	X	X			
Inspect electrical connections and apply dielectric grease to connections	X		X		X
Adjust drag chain tension	X			X	
Lubricate drag chain	X		X		X
Adjust roller chain tension	X			X	
Lubricate roller chain	X		X		X
Grease idler and drive shaft bearings	X		X		X
Oil or paint rusty surfaces	X				X
Check Hydraulic Fluid Level	X	X			
Replace hydraulic filter	X			X	
Flush and refill hydraulic reservoir	X				

Post Season Maintenance

At the end of the winter season, perform the post-season maintenance as listed in the maintenance service schedule to prevent costly repairs at the start of the next season. Also don't forget to:

1. Empty and thoroughly wash entire spreader with warm soap and water.
2. Spreader may be treated with any commercial salt neutralizer.
3. Lubricate drag chain, roller chains, and bearings.
4. Oil or paint any rusty parts or surfaces.

Troubleshooting Guide



General Troubleshooting

Condition	Possible Cause	Correction
Conveyor will not operate	Hydraulic system not operating properly	See hydraulic troubleshooting
	Conveyor jammed by a foreign object, or frozen material	Inspect conveyor for obstruction and remove
	Damaged or worn motor	Inspect and repair motor
	Loose or damaged roller chain	Adjust or replace roller chain
	Loose or damaged drag chain	Adjust or replace drag chain
	Worn conveyor drive sprockets	Replace drive sprockets
	Shaft keys missing from sprockets or motor	Inspect for missing keys and replace
Conveyor operates erratically	Shaft keys missing from sprockets or motor	Inspect for missing keys and replace
	Hydraulic system not operating properly	Refer to hydraulic system troubleshooting chart
	Loose or damaged roller chain / sprockets	Adjust or replace roller chain / sprockets
	Loose or damaged drag chain	Adjust or replace drag
	Worn conveyor drive sprockets	Replace drive sprockets

Troubleshooting Guide

General Troubleshooting

Condition	Possible Cause	Correction
Noisy operation	Loose or damaged drag chain	Adjust or replace drag chain
	Drag chain needs lubrication	Lubricate drag chain
	Foreign object in conveyor	Remove object
	Faulty bearing	Replace bearing
	Drag chain contacting conveyor frame	Ensure drag chain is centered in conveyor
Material not exiting discharge	Conveyor discharge clogged	Clear material from discharge
	Material bridging inside conveyor	Use free flowing material
	Feed gate closed	Open feed gate
Material leaking from conveyor	Drag chain not properly adjusted	Adjust drag chain tension
	Material too fine	Use coarser material

Troubleshooting Guide



Hydraulic Troubleshooting

Condition	Possible Cause	Correction
Pump cavitation recognized by excessive noise	Air entering system through suction line	Check line from reservoir for possible leaks
	Suction line kinked, twisted, or too long	Install suction as short and straight as possible
	Inadequate suction line size	Increase suction line size
	Oil too heavy	Drain and replace with lower viscosity non-detergent oil
	Excessive pump speed	Decrease PTO speed accordingly
Slow operation of conveyor and or spinner motor	Worn or defective pump	Repair or replace pump
	Worn or defective motor	Repair or replace motor
	Pump cavitation	Refer to pump section
	Insufficient pump speed	Increase PTO RPM accordingly
Erratic operation of conveyor and or spinner motor	Low oil	Fill reservoir to 3/4 full
	Worn or defective motor	Repair or replace motor
	Dirty, worn or defective control valve	Clean, repair, or replace flow control
	Plugged filter	Replace filter element
	Relief valve setting too low	Adjust relief valve to 1500 PSI
	Pump cavitation	Refer to pump section
	Reservoir air vent blocked	Clean or replace vent
Conveyor and or spinner motor will not operate	Quick disconnects are dirty, damaged or improperly connected	Clean, replace or properly connect
	Hose connections wrong	Reconnect hoses
	Foreign material in valve compensator	Remove compensator and clean
	On/off lever on flow control in the off position	Move lever to on position
	Flow control set too low	Adjust control to a higher setting

Notes

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Meyer® One Year Spreader Warranty

Meyer Products warrants to the original purchaser only that it will repair, or at the sole option of Meyer Products replace any part of this Meyer Spreader or Spreader accessory which proves to be defective in workmanship or material under normal use for its intended purpose, that being spreading material, for a period of one year from the date of delivery. This warranty is not transferable or assignable. The original purchaser's sole and exclusive remedy against Meyer Products and Meyer Products' sole obligation for any and all claims, whether for breach of contract, warranty, tort (including negligence) or otherwise shall be limited to providing, through its authorized Distributor/Sub-Distributor network, all labor and/or parts necessary to correct such defects free of charge. Any cost incurred in returning the product to the Distributor/Sub-Distributor is the responsibility of the consumer. The gasoline engine used in the Insert Hopper Spreaders is covered by its own warranty as provided by the engine manufacturer. A copy of this warranty is included with the engine.

Warranty Service

In order to obtain service under this warranty, the original purchaser must return the claimed defective part to the Distributor/Sub-Distributor from whom the product was purchased or to any authorized Meyer Distributor/Sub-Distributor, transportation and freight charges prepaid. Only Meyer Distributors/Sub-Distributors are authorized to perform the obligations under these warranties. For the address and telephone number of the Distributor/Sub-Distributor nearest you, check the telephone directory or you may write to Meyer Products at the address below.


General

It is the responsibility of the original purchaser to establish the warranty period by verifying the original delivery date. A bill of sale, cancelled check or some other appropriate payment record may be kept for that purpose. It is recommended, but not required, that the consumer verify by immediately returning the attached Warranty Registration Card. No person is authorized to change this warranty or to create any warranty other than that set forth herein. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Exclusions

This warranty does not cover paint or expendable spreader parts such as pins, spreader fins and other normal wear items. Meyer Products shall not be liable for any special, indirect or consequential damages arising hereunder, or for damages resulting from lack of necessary maintenance, from misuse, abuse, acts of god, alteration of a Meyer Spreader or part, or from use of parts or hydraulic fluid not supplied by Meyer Products. Use of the Meyer Spreader for any purpose other than spreading the recommended materials is one example of an abuse and misuse of the product.

The foregoing warranty is exclusive and in lieu of all warranties, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose.



Meyer offers a complete line of spreaders for any application and vehicle size. Go to www.MeyerProducts.com for more information.

Dealer/Distributor:

Meyer Spreaders are protected by one or more of the following patents:
6698997, CA 2,415,540 C, 7588195, 8448882, 8505837, 8523086,
8657208, 6186731, 6,793,154 B2, 6722590, 6715703, 6978952, 6932287,
8505838, 8827002, 5842649, CA 2,435,106 C, 6364598.



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