



OPERATOR, MAINTENANCE AND PARTS MANUAL

Models FH and FH-R

- Single Discharge
- Dual Discharge

CONTENTS

GENERAL INFORMATION	3
Introduction.....	3
Read This Manual Prior to Operation	3
Contact Information	4
Limited Warranty	4
Warranty	4
Limitations	4
Other Limitations	5
Model and Serial Tag	5
Specifications	6
Crating and Uncrating Instructions	8
Assembly	8
Optional Equipment.....	8
Roller Extension.....	8
Adjustable-Height Push Roller	8
Curb Attachment	11
Shoe Extensions	15
Pressure-Reducing Manifold	15
Hardware Torque Chart.....	16
EC Declaration of Conformity.....	17
SAFETY	18
Safety Decals	21
Control Area Safety.....	25

TRANSPORTING THE ROAD WIDENER.....	26
Lift Test.....	26
Loading.....	27
JOBSITE PREPARATION.....	29
OPERATION.....	38
Curb Attachment Operation.....	42
Disconnecting Hydraulic and Electrical Lines.....	44
Hydraulic Solenoid Manual Override.....	45
Curb Attachment Operation.....	53
Disconnecting Hydraulic Lines.....	54
MAINTENANCE.....	55
Periodic Maintenance Chart.....	55
Greasing the Machine.....	56
Belt Start-Up and Maintenance.....	57
Checking Hydraulic Oil Level.....	58
Adjusting Conveyor Belt Tension.....	58
Hopper Rubber Flashing to Conveyor Belt Clearance.....	59
Adjusting Conveyor Belt Drive Chain.....	59
Checking Hydraulic Hoses.....	60
Cleaning After Operation.....	60
Pairing the Remote Control.....	60
Unpairing the Remote Control.....	63
Remote Battery Replacement.....	66
TROUBLESHOOTING.....	67
ILLUSTRATED PARTS LIST.....	71

GENERAL INFORMATION

1

Introduction

Congratulations on your purchase of the Road Widener material distribution machine. We would like to thank you for purchasing the Road Widener. The Road Widener was engineered and constructed to provide years of productive results on the jobsite.

Manufacturer's Limited Warranty terms are available if the machine is registered within 60 days of delivery. Registration can be completed online at www.roadwidenerllc.com.

Please watch our operational and instructional video for important instructions and tips on how to operate your attachment. The video can be found on our website under the RESOURCES page.

Read This Manual Prior to Operation

This manual contains safety information, operating instructions, lubrication and maintenance procedures, and a spare parts list. Read this manual carefully to learn how to operate and perform service on the machine correctly. Failure to do so could result in personal injury or equipment damage. In addition to the manual, a service and operation

video is available at www.roadwidenerllc.com and must be viewed before operating the machine.

The Road Widener is available in either a left-hand, right-hand or dual discharge model. All safety, operation and maintenance procedures are the same whether you have a left-hand, right-hand or dual discharge Road Widener machine.

This manual should be kept nearby and be readily accessible to the operator at all times. If this manual is lost or damaged, contact your authorized Road Widener dealer or the Road Widener LLC corporation immediately to order a replacement.

Some photographs or illustrations in this manual may show details or attachments that may be different from your machine. Guards and covers may have been removed for illustrative purpose. Guards should never be removed during operation.

Operating procedures in this manual are basic. They help with developing the skills and techniques required to operate the machine efficiently and economically. Skill level and techniques will develop as the operator gains more knowledge of the machine and its capabilities.

GENERAL INFORMATION

Contact Information

For additional information on Road Widener, go to www.roadwidenerllc.com. To ask a service or sales question, or to order spare parts, contact Road Widener at:

Road Widener LLC
4620 Williamsburg Station, Suite C
Floyds Knobs, IN 47119
www.roadwidenerllc.com
Sales E-mail: sales@roadwidenerllc.com
Parts E-mail: parts@roadwidenerllc.com
Phone: 844-494-3363

Limited Warranty

NOTE: To be eligible for coverage under this Limited Warranty (including with respect to any products, parts or labor), you must complete and return to Road Widener the Warranty Registration for this product. The Warranty Registration can be found on Road Widener's website (www.roadwidenerllc.com). Any questions or requests for assistance in completing the Warranty Registration must be directed to Road Widener's Parts Department.

WARRANTY

Subject to the limitations, exclusions, and claims procedures set forth herein, **ROAD WIDENER LLC** warrants to the first original purchaser from **ROAD WIDENER LLC** or its authorized distributor that this product will be free from material defects in material and workmanship under normal use and service during the warranty period.

If a material defect in material or workmanship is found, you must notify your authorized **ROAD WIDENER** distributor or **ROAD WIDENER LLC** in writing during the warranty period. **ROAD WIDENER LLC** or an authorized distributor will, at **ROAD WIDENER LLC**'s option, repair or replace the product or any part of the product that **ROAD WIDENER LLC** determines has failed to conform to the warranty during the warranty period, or refund to the purchaser the purchase price received by **ROAD WIDENER LLC** for the product or part in question.

The warranty period will begin upon initial delivery of the product by **ROAD WIDENER LLC** or its authorized distributor to the first original purchaser, as such delivery date is identified in the invoice to the purchaser, and will expire (12) months following such delivery date.

Replacement parts manufactured by **ROAD WIDENER LLC** are covered for the remainder of the warranty period applicable to the product in which such parts are installed. **ROAD WIDENER LLC** reserves the right for it or its authorized

distributor to utilize reconditioned, refurbished, repaired, or remanufactured products or parts in the warranty replacement process. Such products and parts will be reasonably comparable in function and performance to an original product or part.

ROAD WIDENER LLC reserves the right to repair any part in lieu of replacing it. The purchaser shall, at its expense and risk, return defective products or parts, after pre-authorization by **ROAD WIDENER LLC**, to the distributor or manufacturing facility specified in such pre-authorization. This Limited Warranty covers only repair or replacement at such facility and does not include field service, travel, or other expenses, and does not include normal maintenance of products. Parts not manufactured by **ROAD WIDENER LLC** and purchased by **ROAD WIDENER LLC** or an authorized distributor are not warranted by **ROAD WIDENER LLC** but may carry a warranty from the manufacturer. **ROAD WIDENER LLC** will pass the warranty on to the purchaser if permitted by the manufacturer and reasonably practicable.

The purchaser is responsible for the costs and risks of transporting the product or part from such facility following review of the warranty claim or warranty service.

LIMITATIONS

- 1] **ROAD WIDENER LLC** has no obligation for any defects caused in whole or in part by misuse, abuse, abnormal use, neglect, tampering, misapplication, negligence, damage in transit, damage due to environmental or natural elements or accidents. **ROAD WIDENER LLC** has no obligation for failure to maintain, store, install, or use products or parts in accordance with **ROAD WIDENER LLC**'s most current operating instructions.
- 2] **ROAD WIDENER LLC** has no obligation under this Limited Warranty if there has been unauthorized service or alteration of the product or parts.
- 3] **ROAD WIDENER LLC** has no obligation under this Limited Warranty for defects caused in whole or in part by any replacement parts or attachments not manufactured by or approved by **ROAD WIDENER LLC**.
- 4] **ROAD WIDENER LLC** has no obligation under this Limited Warranty if there has been a failure to conduct normal maintenance and operating service including, without limitation, providing lubricants, fluids, inspections, or adjustments.
- 5] **ROAD WIDENER LLC** has no obligation under this Limited Warranty if there has been unreasonable delay, as determined by **ROAD WIDENER LLC**, in making the applicable products or parts available upon notification of a service notice ordered by same.
- 6] This Limited Warranty sets forth the original purchaser's sole remedy, and **ROAD WIDENER LLC**'s sole obligation, in connection with the **ROAD WIDENER LLC** product covered by the Limited Warranty. **ROAD WIDENER LLC** will not reimburse the purchaser for any expenses incurred by the purchaser in repairing

GENERAL INFORMATION

or replacing products or parts unless an authorized representative of **ROAD WIDENER LLC** approves such costs in advance in writing. Any oral or written description of a product or part is for the sole purpose of identifying it and shall not be construed as an express warranty. Any assistance **ROAD WIDENER LLC** or its authorized distributor provides outside the terms or limitations of this Limited Warranty does not constitute a waiver of such terms or limitations, or extend or revive the warranty. The limitations in this Limited Warranty apply notwithstanding any failure of the essential purpose of the limited remedies.

- 7] This Limited Warranty extends only to the first original purchaser, **and is not transferable.**
- 8] If any provision of this Limited Warranty shall be determined to be invalid or unenforceable under any applicable law, such provision shall be deemed null and void to the extent of such invalidity or unenforceability and the remainder of the Limited Warranty shall continue in full force and effect.
- 9] Used products or used parts of any kind including, without limitation, products that have been used personally or in demonstration by an authorized distributor, are not covered by this Limited Warranty, and there is **NO WARRANTY** on such products or parts.
- 10] This Limited Warranty does not apply if defects are caused in whole or in part by paint finish, corrosion, controller keyboards, or consumables including, without limitation, fluids, filters, belts, hoses, and replaceable teeth.
- 11] This Limited Warranty does not apply if the claim is due in whole or in part to normal wear and tear or operation of the product outside **ROAD WIDENER LLC's** recommended operating parameters.

OTHER LIMITATIONS

The purchaser must satisfy the following obligations in order to be eligible for coverage by this Limited Warranty. Prior to using or permitting use of the products, the purchaser shall determine the suitability of the products for the intended use and the purchaser assumes all risk and liability whatsoever in connection therewith. The purchaser shall familiarize itself with and comply with all laws and regulations now or hereafter in effect and applicable to the purchase, transport, use, supply, storage, sale, offer for sale, lease, offer for lease, and/or disposal of the products. The purchaser shall maintain and provide to **ROAD WIDENER LLC** on request complete and accurate service records for products with respect to which the purchaser makes a warranty claim. The purchaser shall cause any installation to be performed by an authorized distributor of **ROAD WIDENER LLC** in accordance with product specifications, including torque.

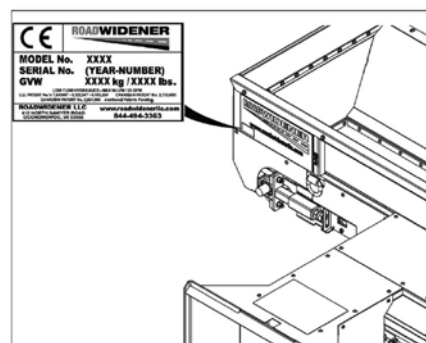
THE EXPRESS WARRANTY DESCRIBED HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR

PURPOSE. ROAD WIDENER LLC DISCLAIMS AND EXCLUDES ALL OTHER EXPRESS AND IMPLIED WARRANTIES.

ROAD WIDENER LLC SHALL NOT BE LIABLE TO THE PURCHASER, OR TO ANYONE CLAIMING UNDER THE PURCHASER, FOR ANY OTHER REMEDIES, OBLIGATIONS OR LIABILITIES IN CONNECTION WITH PRODUCTS, THEIR USE OR PERFORMANCE INCLUDING, WITHOUT LIMITATION, REMEDIES, OBLIGATIONS, OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR WARRANTY, NEGLIGENCE, OR OTHER TORT OR ANY THEORY OF STRICT LIABILITY, WITH RESPECT TO THE PRODUCTS OR ROAD WIDENER LLC'S ACTS OR OMISSIONS OR OTHERWISE. No sales representative, distributor or other party is authorized to modify or add to this Limited Warranty in any manner without **ROAD WIDENER LLC's** prior written permission. No sales representative, distributor or other party is authorized to bind **ROAD WIDENER LLC** to any representation or warranty concerning the products except as specifically set forth in this Limited Warranty.

IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT OR WARRANTY OR ALLEGED NEGLIGENCE OR LIABILITY WITHOUT FAULT, SHALL ROAD WIDENER LLC BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOSS OF PROFIT OR REVENUE, COST OF CAPITAL, COST OF SUBSTITUTED OR REPLACEMENT EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COSTS, LABOR COSTS OR CLAIMS OF CUSTOMERS, PURCHASERS OR LESSEES FOR SUCH DAMAGES, EVEN IF ROAD WIDENER LLC WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL ROAD WIDENER, LLC BE LIABLE FOR AMOUNTS IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT RECEIVED BY ROAD WIDENER LLC.

Model and Serial Tag



The model and serial number tag is located on the left side of the hopper. Refer to this tag when needing any warranty or service assistance. Also refer to this tag when ordering any spare parts. This will help ensure that the correct part is ordered.

GENERAL INFORMATION**Specifications****Single Discharge Unit**

Width of FH and FH-R Single Discharge Road Wideners	125 in. (3,175 mm)
Height of FH and FH-R Single Discharge Road Wideners	51 in. (1,300 mm)
Length of FH and FH-R Single Discharge Road Wideners	98 in. (2,489 mm)
Widths of Shoulders of Road Widening Material That Can Be Laid Down	12 in. (305 mm) to 48 in. (1,219 mm)
Number of Side Exit Chutes	1
Gross Weight of FH Single Discharge Road Wideners	2,900 lb (1,315 kg)
Height of Push Rollers	21 in. (530 mm)
Extra Amount Push Rollers Can Extend	12 in. (305 mm)
Conveyor Belt Type	Rubber
Conveyor Belt Length and Width	8 ft (2.4 m) x 20 in. (508 mm)
Conveyor Speed Range	0-350 ft/min (1.8 m/sec)
Head and Tail Drum Diameter	10 in. (254 mm)
Typical Working Pressure	3,000 psi (207 bar)
Flow Rate	17.5 - 24.2 gal/min (79.6 - 111 l/min)
Hydraulic Fittings	JIC and SAE
Maximum and Minimum Feed Rates	2.0 tons/hr (1.8 tonnes/hr)
Maximum Lump Size of Road Widening Material	10 in. (254 mm)
Optimum Traveling Speed Range While Laying Down Road Widening Material	0.5 to 1.5 mph (0.8 to 2.4 km/hr)

GENERAL INFORMATION

Dual Discharge Unit

Width of FH and FH-R Dual Discharge Road Wideners	138 in. (3,505 mm)
Height of FH and FH-R Dual Discharge Road Wideners	51 in. (1,300 mm)
Length of FH and FH-R Dual Discharge Road Wideners	98 in. (2,489 mm)
Widths of Shoulders of Road Widening Material That Can Be Laid Down	12 in. (305 mm) to 48 in. (1,219 mm)
Number of Side Exit Chutes	2
Gross Weight of FH Dual Discharge Road Wideners	3,400 lb (1,542 kg)
Height of Push Rollers	21 in. (530 mm)
Extra Amount Push Rollers Can Extend	12 in. (305 mm)
Conveyor Belt Type	Rubber
Conveyor Belt Length and Width	9.5 ft (2.9 m) x 21 in. (533 mm)
Conveyor Speed Range	0-350 ft/min (1.8 m/sec)
Head and Tail Drum Diameter	10 in. (254 mm)
Typical Working Pressure	3,000 psi (207 bar)
Minimum Flow Rate	17.5 - 24.2 gal/min (79.6 - 111 l/min)
Hydraulic Fittings	JIC and SAE
Maximum and Minimum Feed Rates	2.0 tons/hr (1.8 tonnes/hr)
Maximum Lump Size of Road Widening Material	10 in. (254 mm)
Optimum Traveling Speed Range While Laying Down Road Widening Material	0.5 to 1.5 mph (0.8 to 2.4 km/hr)

GENERAL INFORMATION

Crating and Uncrating Instructions

Type FH Single Discharge & Dual Discharge and FH-R Single Discharge & Dual Discharge Road Widener machines are generally shipped on an open, flatbed truck. For exports, the machines are packaged in shipping crates that are designed to ensure that the components will not be damaged during transport. Use caution when unpacking the shipping crates as the contents may have shifted during transit.

Assembly

The Road Widener machines come fully assembled from the factory; however, some accessories weigh more than 30 lb (15 kg). When lifting accessories or components more than 30 lb (15 kg), Road Widener recommends that a minimum of 2 people and appropriate lifting devices be used to assemble accessories or components.

Optional accessories weighing more than 30 lb (15 kg) are:

- Shoe Extension Kit
- Pintle Push Plate
- Push Roller Extensions (the push roller extensions are not more than 30 lb (15 kg), but to install the push roller extensions, lifting more than 30 lb (15 kg) is required)

Optional Equipment

Some optional equipment can be ordered from Road Widener for your specific job if needed.

ROLLER EXTENSION

If the rollers need to be extended closer to the dump vehicle, roller extensions are available. The roller extensions will extend the rollers an additional 12 in. (30 cm).

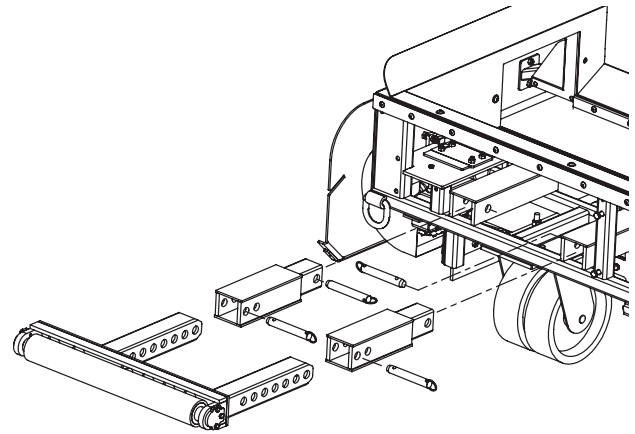


Figure 1: Roller Extension with Pins and Tubes Removed

- 1] Remove the pins holding the roller brackets to the frame and remove the roller assembly.
- 2] Insert the roller extension tubes into the frame and pin them in place.
- 3] Install the roller assembly into the extension tubes and pin the roller assemblies in place.

ADJUSTABLE-HEIGHT PUSH ROLLER

If the height of the rollers needs to be adjusted to work with different height/size dump trucks, adjustable-height push rollers are available. Adjustable-height push rollers were made standard on machine serial numbers FHR-3653, FHRD-1246 and onward.

GENERAL INFORMATION

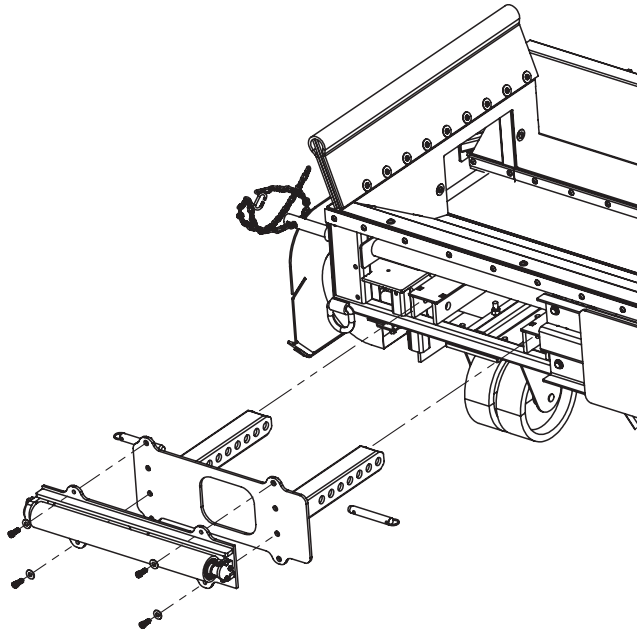


Figure 2: Adjustable-Height Push Rollers with Push Roller and Pins Removed

- 1] Remove the pins holding the standard push rollers to the frame and remove the roller assemblies.
- 2] Insert the adjustable-height push rollers into the frame receiver tubes and pin them in place.
- 3] Use the multiple mounting configurations to mount the push roller on the secondary bracket to the desired height using the supplied hardware. Torque all bolts to the specified values in this manual.

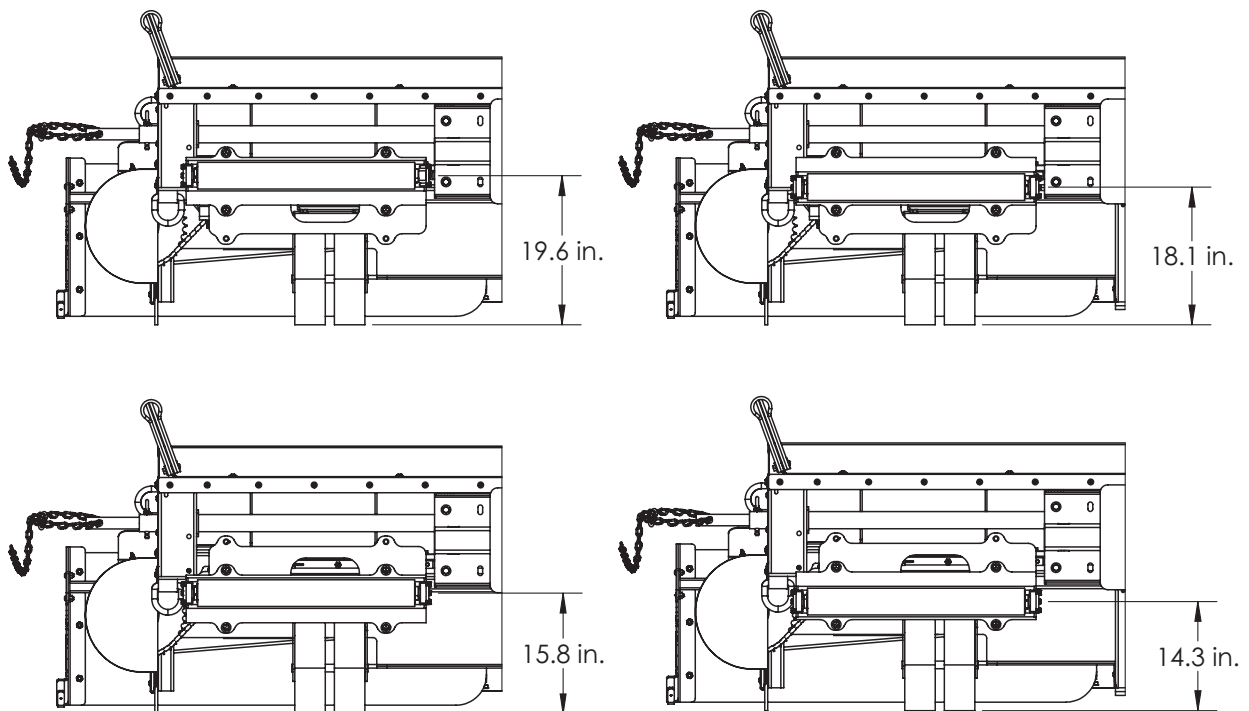


Figure 3: Adjustable-height push roller has (4) possible heights, depending on orientation of push roller plate and mounting holes used. All dimensions approximate, from the ground to the center of the push roller.

GENERAL INFORMATION

- 4] The design of the adjustable-height push rollers lets you move the rollers lower than the standard height if needed. To raise the roller, install the right- and left-hand push roller assemblies on the opposite side (orienting the roller above the receiver tubes).

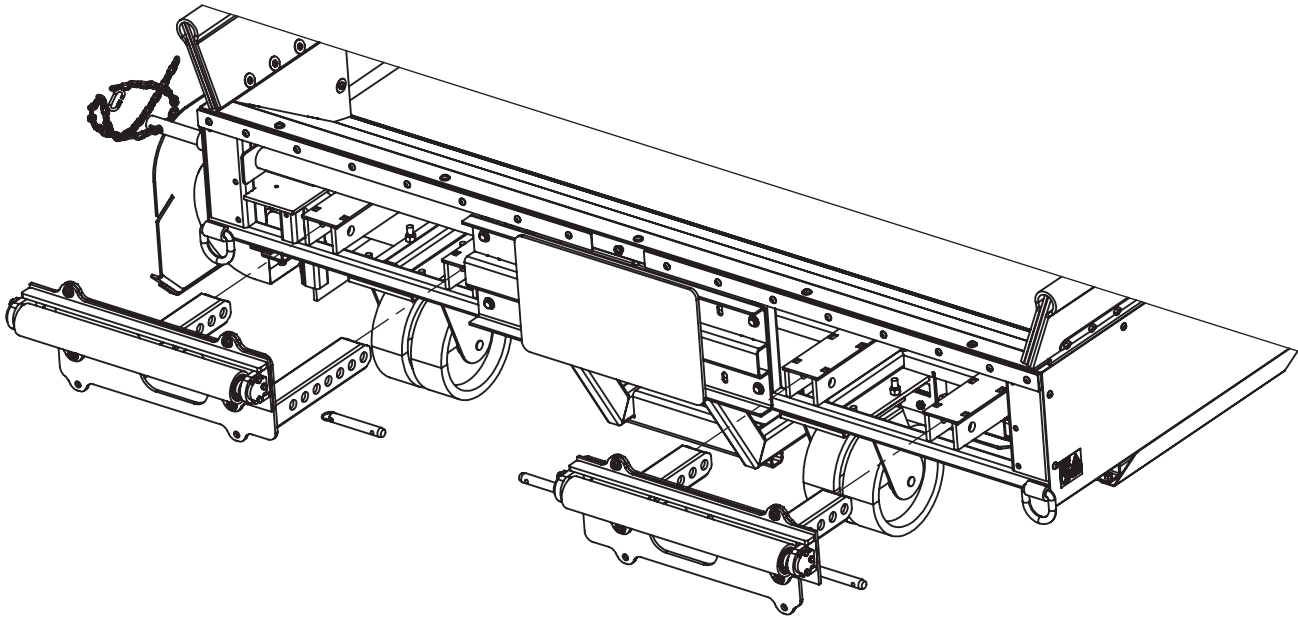


Figure 4: Left-hand and right-hand adjustable-height push rollers reversed to orient the roller above the receiver tubes

GENERAL INFORMATION

CURB ATTACHMENT

The curb attachment extends the hopper and allows the shoe to be extended up over a curb to spread material outside the curb. The roller wheel acts as a guide and rides on the inside of the curb. It can be installed on a right discharge, a left discharge or either side of a dual discharge machine.

NOTICE

Never operate the shoe hydraulics when the curb attachment is installed. Damage to the machine will occur if the hydraulics are used.

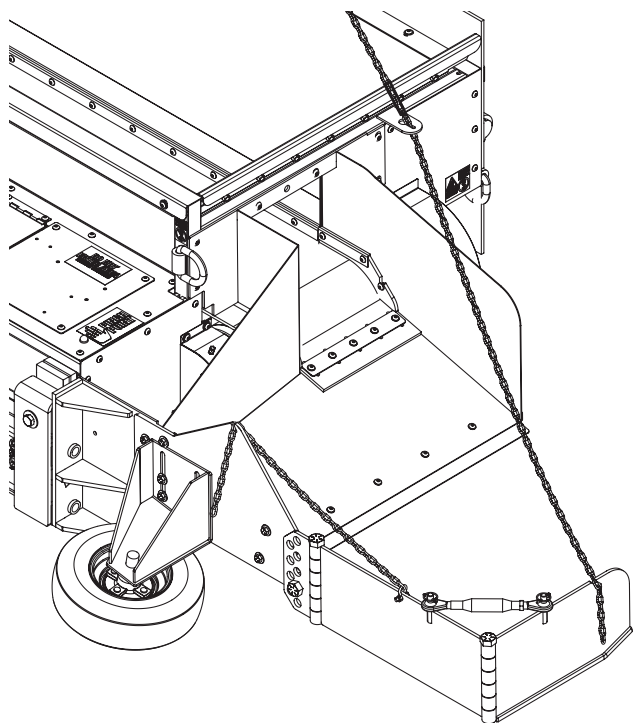


Figure 5: Curb Attachment Installed on Single Discharge Unit

Installation

NOTE: For easier installation have the machine mounted on a skid steer. An assistant may be required for the removal and the installation of some of the parts. This procedure shows mounting the curb attachment onto a right side single discharge machine. Mounting on a left side discharge or a dual discharge is similar.

- 1] Park the machine on a flat, level surface.

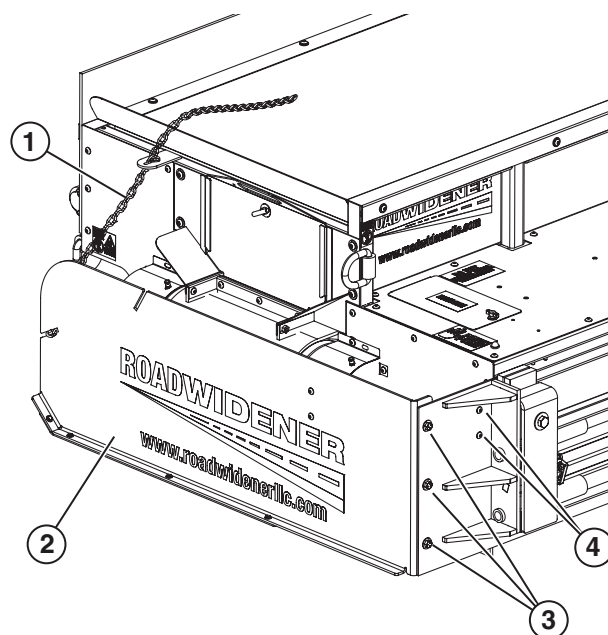


Figure 6: Shoe Hardware Removal

1. Support Bracket Socket Head Screws
2. Shoe Mounting Bolts and Locknuts
3. Chain
4. Shoe

- 2] Remove the 2 bolts for the support bracket.
 3] Remove the shoe mounting bolts and locknuts.
 4] Unhook the chain and remove the shoe.

GENERAL INFORMATION

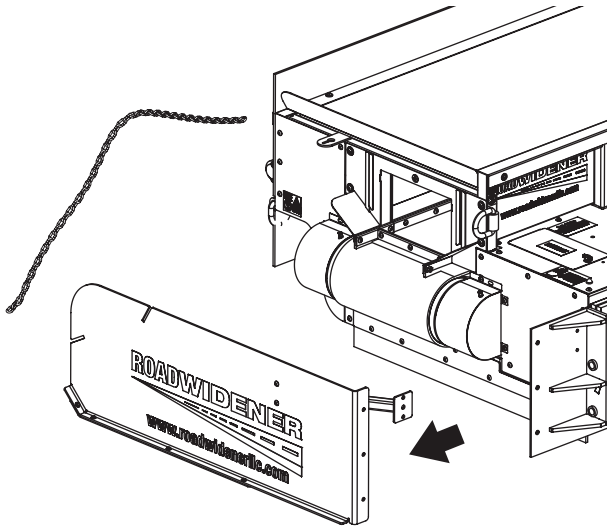


Figure 7: Shoe Removal

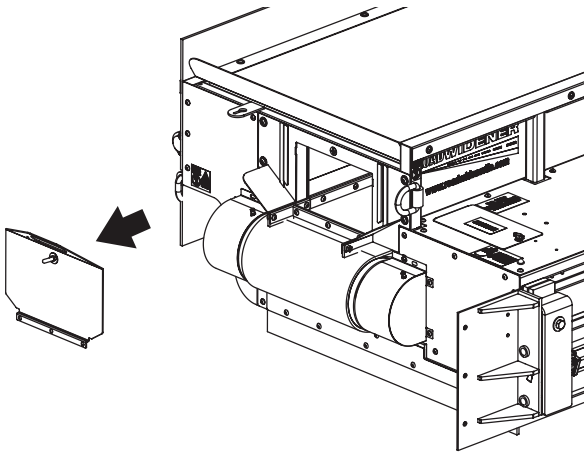


Figure 8: Discharge Plate Removal

- 5] On dual discharge units remove the closure plate if required.

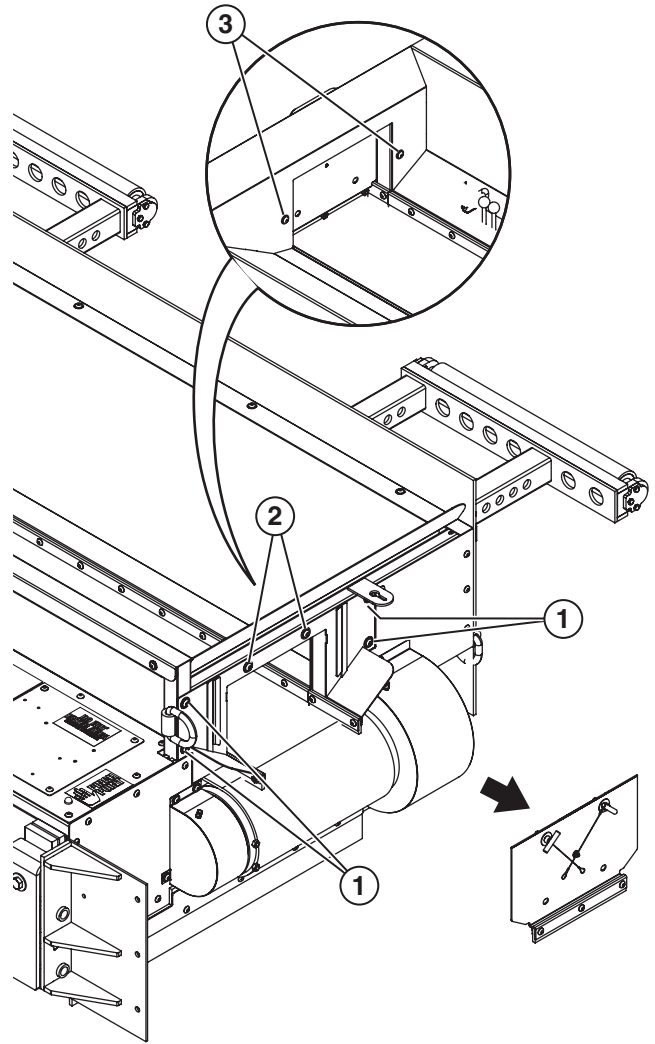


Figure 9: Chute Guide Plate

1. Socket Head Cap Screws
2. Outer Mounting Bolts
3. Inner Mounting Bolts

GENERAL INFORMATION

- 6] Remove the 4 socket head cap screws.
- 7] Remove the 2 outer mounting bolts.
- 8] Remove the 2 inner mounting bolts.

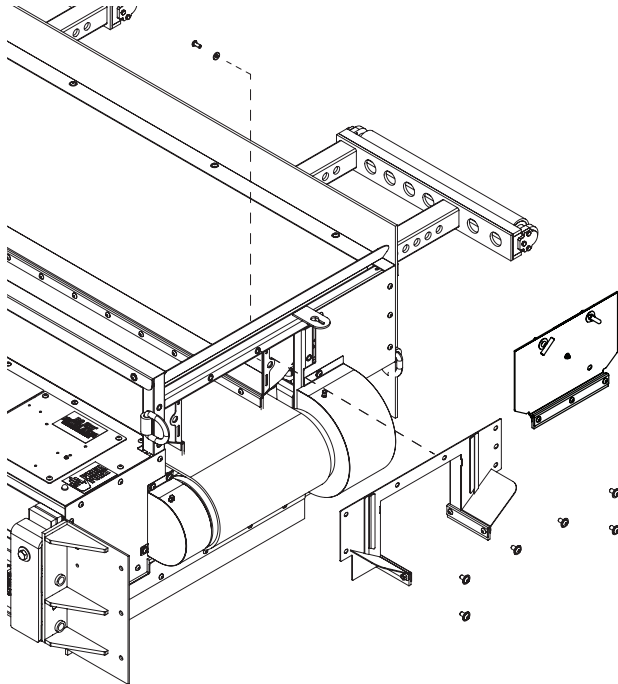


Figure 10: Chute Guide Plate Removal

- 9] Remove the chute guide plate.

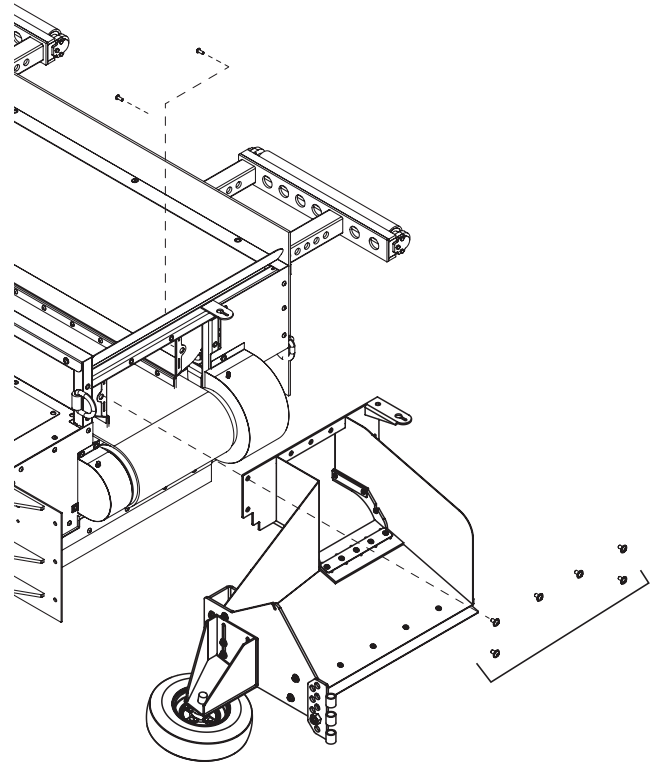


Figure 11: Install Curb Attachment

- 10] Mount the curb attachment frame using the socket head cap screws and the outer and inner mounting bolts removed earlier.

GENERAL INFORMATION

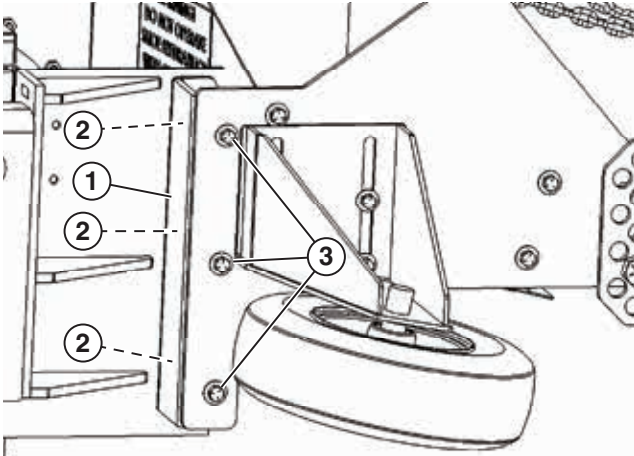


Figure 12: Spacer Plate

1. Spacer Plate
 2. Spacer Plate Inner Mounting Bolts
 3. Spacer Plate Outer Mounting Bolts
- 11] Mount the spacer plate between the Road Widener frame and the curb attachment using 6 bolts.

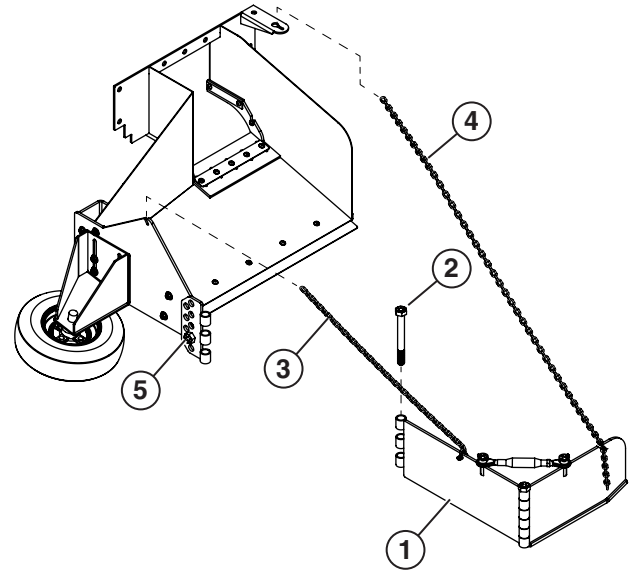


Figure 13: Installing Shoe and Chains

1. Shoe
 2. Bolt
 3. Rear Chain
 4. Front Chain
 5. Hinge
- 12] Install the shoe to the frame using the bolt. The shoe hinge must pivot up and down.
- 13] Install the front and rear chains.

NOTICE

Never operate the shoe hydraulics when the curb attachment is installed. Damage to the machine will occur if the hydraulics are used.

GENERAL INFORMATION

SHOE EXTENSIONS

The standard laydown widths range from 1-4 feet. If additional laydown width is required 1-foot and 2-foot shoe extensions are available to provide a laydown width of up to 6 feet.

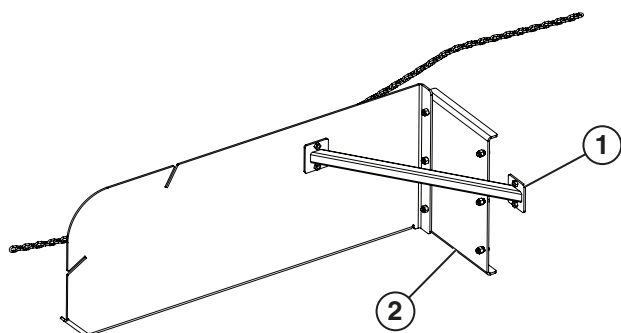


Figure 14: Shoe Extension with Shoe Attached

1. Extension Gusset
2. Extension Plate

- 1] Remove the 4 bolts attaching the standard gusset and set aside. Remove the gusset.
- 2] Remove the 3 bolts attaching the shoe and set hardware and shoe aside.
- 3] Attach extension plate to machine using included hardware.
- 4] Attach shoe to extension plate reusing previous hardware.
- 5] Attach extension gusset reusing previous hardware.

PRESSURE-REDUCING MANIFOLD

If the skid steer is providing high or fluctuating pressure, a pressure-reducing manifold is available. The manifold acts as a protective interface between the Road Widener machine and skid steer. Contact your Road Widener Distributor/Dealer for installation instructions for this system.

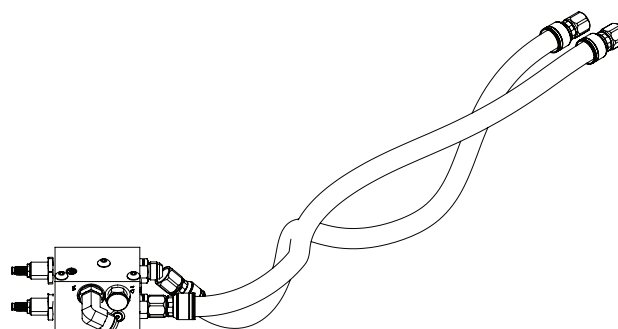





Figure 15: Pressure-Reducing Manifold Kit

GENERAL INFORMATION

Hardware Torque Chart

Use this chart when tightening hardware to the proper torque value.

U.S. Standard Cap Screw Torque Values

SAE GRADE NUMBER	 GRADE 1 OR 2			 GRADE 5			 GRADE 8		
	TORQUE in.-lb (N·m)			TORQUE in.-lb (N·m)			TORQUE in.-lb (N·m)		
SIZE/ THREADS PER INCH									
THREADS	DRY	OILED	PLATED	DRY	OILED	PLATED	DRY	OILED	PLATED
1/4 – 20	62 (7)	53 (6)	44 (5)	97 (11)	80 (9)	73 (8)	142 (16)	133 (15)	124 (14)
1/4 – 28	71 (8)	62 (7)	53 (6)	124 (14)	106 (12)	97 (11)	168 (19)	159 (18)	133 (15)
5/16 – 18	133 (15)	124 (14)	106 (12)	203 (23)	177 (20)	168 (19)	292 (33)	265 (30)	230 (26)
5/16 – 24	159 (18)	142 (16)	124 (14)	230 (26)	203 (23)	177 (20)	327 (37)	292 (33)	265 (30)
3/8 – 16	212 (24)	195 (22)	168 (19)	372 (42)	336 (38)	301 (34)	531 (60)	478 (54)	416 (47)
	ft-lb (N·m)			ft-lb (N·m)			ft-lb (N·m)		
3/8 – 24	20 (27)	18 (24)	16 (22)	35 (47)	32 (43)	28 (38)	49 (66)	44 (60)	39 (53)
7/16 – 14	28 (38)	25 (34)	22 (30)	49 (56)	44 (60)	39 (53)	70 (95)	63 (85)	56 (76)
7/16 – 20	30 (41)	27 (37)	24 (33)	55 (75)	50 (68)	44 (60)	78 (106)	70 (95)	62 (84)
1/2 – 13	39 (53)	35 (47)	31 (42)	75 (102)	68 (92)	60 (81)	105 (142)	95 (129)	84 (114)
1/2 – 20	41 (56)	37 (50)	33 (45)	85 (115)	77 (104)	68 (92)	120 (163)	108 (146)	96 (130)
9/16 – 12	51 (69)	46 (62)	41 (56)	110 (149)	99 (134)	88 (119)	155 (210)	140 (190)	124 (168)
9/16 – 18	55 (75)	50 (68)	44 (60)	120 (163)	108 (146)	96 (130)	170 (230)	153 (207)	136 (184)
5/8 – 11	83 (113)	75 (102)	66 (89)	150 (203)	135 (183)	120 (163)	210 (285)	189 (256)	168 (228)
5/8 – 18	95 (129)	86 (117)	76 (103)	170 (230)	153 (207)	136 (184)	240 (325)	216 (293)	192 (260)
3/4 – 10	105 (142)	95 (130)	84 (114)	270 (366)	243 (329)	216 (293)	375 (508)	338 (458)	300 (407)
3/4 – 16	115 (156)	104 (141)	92 (125)	295 (400)	266 (361)	236 (320)	420 (569)	378 (513)	336 (456)
7/8 – 9	160 (217)	144 (195)	128 (174)	429 (582)	386 (523)	343 (465)	605 (820)	545 (739)	484 (656)
7/8 – 14	175 (237)	158 (214)	140 (190)	473 (641)	426 (578)	379 (514)	675 (915)	608 (824)	540 (732)
1.0 – 8	235 (319)	212 (287)	188 (255)	644 (873)	580 (786)	516 (700)	910 (1,234)	819 (1,110)	728 (987)
1.0 – 14	250 (339)	225 (305)	200 (271)	721 (978)	649 (880)	577 (782)	990 (1,342)	891 (1,208)	792 (1,074)

NOTE:

- Dry torque values are based on the use of clean, dry threads.
- Oiled torque values have been reduced by 10% when engine oil is used as a lubricant.
- Plated torque values have been reduced by 20% for new plated cap screws.
- Oiled torque values should be reduced by 10% from dry when nickel-based antiseize compound is used as a lubricant.
- Cap screws which are threaded into aluminum may require a torque reduction of 30% or more.
- The conversion factor from ft-lb to in.-lb is ft-lb x 12 equals in.-lb.

GENERAL INFORMATION

EC Declaration of Conformity

EC DECLARATION OF CONFORMITY

Manufacturers Name: Road Widener LLC
Manufacturers' Address: 612 North Sawyer Road
 Oconomowoc, WI 53066

ROAD WIDENER

Declare that the Interchangeable Equipment described below complies with applicable health and safety requirements of Part 1 and relevant parts of Part 4 of Annex 1 of the Machinery Directive 2006/42/EC. Confidential technical documentation has been compiled in accordance with Part A of Annex VII of Machinery Directive 2006/42/EC and is available to European national authorities on written request only. If a request is received documentation will be transmitted either electronically and or by post.

Description: Single and Dual Discharge Road Wideners
Model Number: Models FH & FHR (Full Hydraulic & Full Hydraulic Remote)
Sizes: Spreading widths and discharge rates etc.
Serial Number: (As applicable)

The following standards have either been referred to or been complied with in part or in full as relevant:

- | | | |
|-----------------------|-----------------------|--|
| EN ISO 12100: 2010 | Safety of machinery | - Safety of machinery - General principles for design - Risk assessment and risk reduction. |
| EN ISO 13849-1:2015 | Safety of machinery | - Safety-related parts of control systems - Part 1: General principles for design. |
| EN 13857:2008 | Safety of machinery | - Safety distances to prevent hazard zones being reached by upper and lower limbs. |
| EN 349:1993+A1:2008 | Safety of machinery - | Minimum gaps to avoid crushing of parts of the human body |
| EN ISO 14120:2015 | Safety of machinery | - Guards - General requirements for the design and construction of fixed and movable guards. |
| EN 4413:2010 | Hydraulic fluid power | - General rules and safety requirements for systems and their components. |
| EN 614-1:2006+A1:2009 | Safety of machinery | - Ergonomic design principle Terminology and general principles |
| EN 614-2:2000+A1:2008 | Safety of machinery | - Ergonomic design principles - Part 2: Interactions between the design of machinery and work tasks |
| EN ISO 13732-1:2008 | Safety of machinery | - Ergonomics of the thermal environment - Methods for the assessment of human responses to contact with surfaces - Part 1. |
| EN 500-1:2006+A1:2009 | Safety of machinery | - Mobile road construction machinery - Safety - Common requirements |
| ISO 3744:2010 | Acoustics | - Determination of sound power levels of noise sources using sound pressure - Engineering method in an essentially free field over a reflecting plane. |

Full Name of responsible person and place of signing (Typed)

..... (Typed)

Position (Typed)

Signature 

Date 11/29/17

EC REP
 QNET BV
 Hommerterweg 286
 6436 AM Amstenrade
 The Netherlands

2

SAFETY



This safety alert symbol appears with most safety statements. It means attention, become alert, your safety is involved! Please read and abide by the message that follows the safety alert symbol.

The words DANGER, WARNING, CAUTION and NOTICE are used throughout this manual to highlight important information.

DANGER

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

WARNING

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

CAUTION

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

NOTICE

Indicates a situation which can cause damage to the Road Widener, personal property, and/or the environment, or cause the equipment to operate improperly.

NOTE: Indicates a procedure, practice or condition that should be followed in order for the Road Widener to function in the manner intended.

WARNING



Before starting and operating the Road Widener, be sure to read and understand the content and safety messages within this manual as well as the safety labels on the Road Widener. The operator is responsible for safe operation of the Road Widener. Be sure all potential users of the Road Widener also understand these instructions.

Always keep your Road Widener in proper working condition.

SAFETY

WARNING

It is the operator's responsibility to read and understand the skid steer or wheel loader safety messages and proper operation and capabilities. Only qualified and responsible operators should be permitted to operate the machinery.

WARNING

Know the total rated operating capacity of the skid steer or wheel loader which you will be attaching to the Road Widener. The total operating capacity should exceed the weight of the Road Widener.

WARNING



Never operate the machine while under the influence of alcohol or drugs. Their effect on vision and judgment make operating the machine dangerous.

WARNING

Road Widener machines should never be operated with the casters off the ground. Forward tipping may result. Road Widener machines should be lifted off the casters while loading and unloading only.

WARNING

Never operate the machine with the guards missing or damaged. Tampering with or modifying the guards may result in injury or premature wear on the machine.

WARNING



Before operating the machine, read the skid steer or wheel loader operation manual and know what the acceptable grade requirements are. The Road Widener attachment will usually add to the drive machine's stability. Road Widener assumes no responsibility of tipping due to the angle of use.

WARNING

Never allow an operator to sit or stand on Road Widener attachment while in operation. A non-slip surface is provided near the attachment plate for entering and exiting skid steer only. Horizontal surfaces may support maintenance personnel. This should only occur with machinery stopped and fully disconnected from power source.

SAFETY

 **WARNING**

ALWAYS wear the appropriate personal protective equipment as required by the task at hand, including but not limited to:

- Relatively tight and belted clothing
- Safety gloves
- Safety shoes/boots
- Safety eye glasses/goggles/shields
- Hearing protection, ear plugs
- Head protection, hard hats

Operating the machine requires the full attention of the operator. Do not wear radio or music headphones that may interfere with jobsite communications or monitoring the machine in operation.

 **WARNING**

Use extreme caution when near rotating parts. Rotating parts can entangle hands, feet, hair, clothing and/or accessories. Traumatic amputation or severe laceration can result.

- Keep hands and feet away from rotating parts.
- Tie up long hair and remove jewelry.
- Operate equipment with all guards in place.
- **DO NOT** wear loose-fitting clothing, dangling drawstrings or items that could become caught.

Stay clear of all moving parts, rollers, conveyor belt and skid steer when the Road Widener is in operation.

NOTICE

Do not drive the Road Widener through gravel piles or asphalt spills. Material can accumulate inside the belt and the belt rollers causing premature belt wear or belt failure.

NOTICE

Always be environmentally responsible.

- Follow the guidelines of the EPA or other governmental agencies for the proper disposal of hazardous materials. Consult the local authorities or reclamation facility.
- **NEVER** dispose of hazardous materials irresponsibly by dumping them into a sewer, on the ground, or into groundwater or waterways.
- Failure to follow these procedures may seriously harm the environment.

NOTICE

Inspect all hoses, fittings and hydraulic components on both the Road Widener attachment and the drive machine before operation of the hydraulic system. Repair any problems that are discovered.

NOTICE

Do not lift with material in the hopper.

SAFETY

Safety Decals

Read and understand all machines' safety decals. Keep safety decals in good condition. Replace all missing or damaged safety decals. Replacement safety decals can be ordered from Road Widener LLC.

Safety decals located on your machine contain important and useful information that will help you operate your equipment safely. To ensure that all decals remain in place and in good condition, follow these instructions:

- Keep decals clean. Use soap and water, not mineral spirits, abrasive cleaners or other similar cleaners that will damage the decal.
- Replace any damaged or missing decals. When attaching decals, the surface temperature of the metal must be at least 40°F (5°C). The surface must also be clean and dry. When replacing a machine component with a decal attached, replace the decal also.

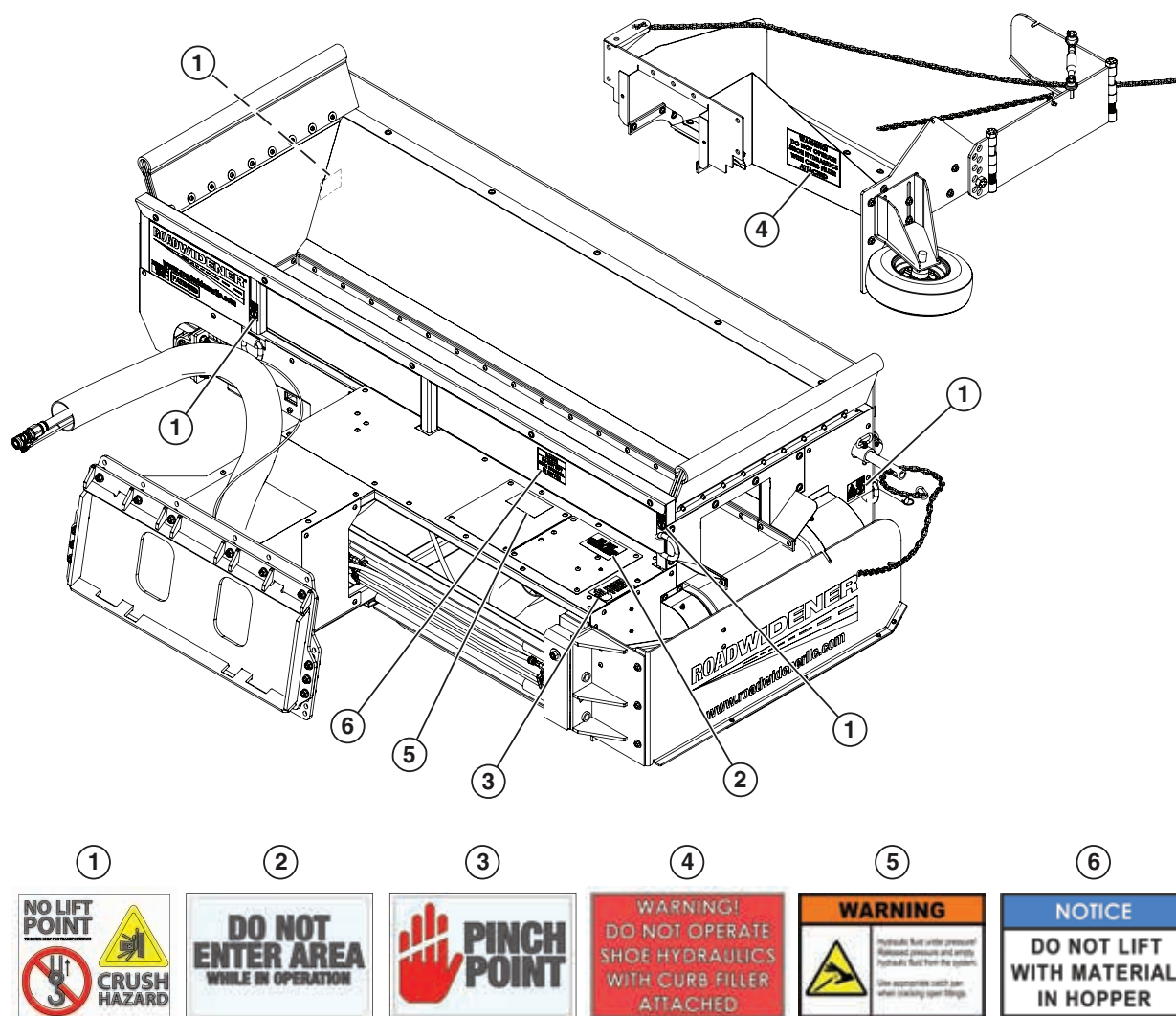


Figure 16: Locations of Safety Decals – FH-R Single Discharge Models

SAFETY

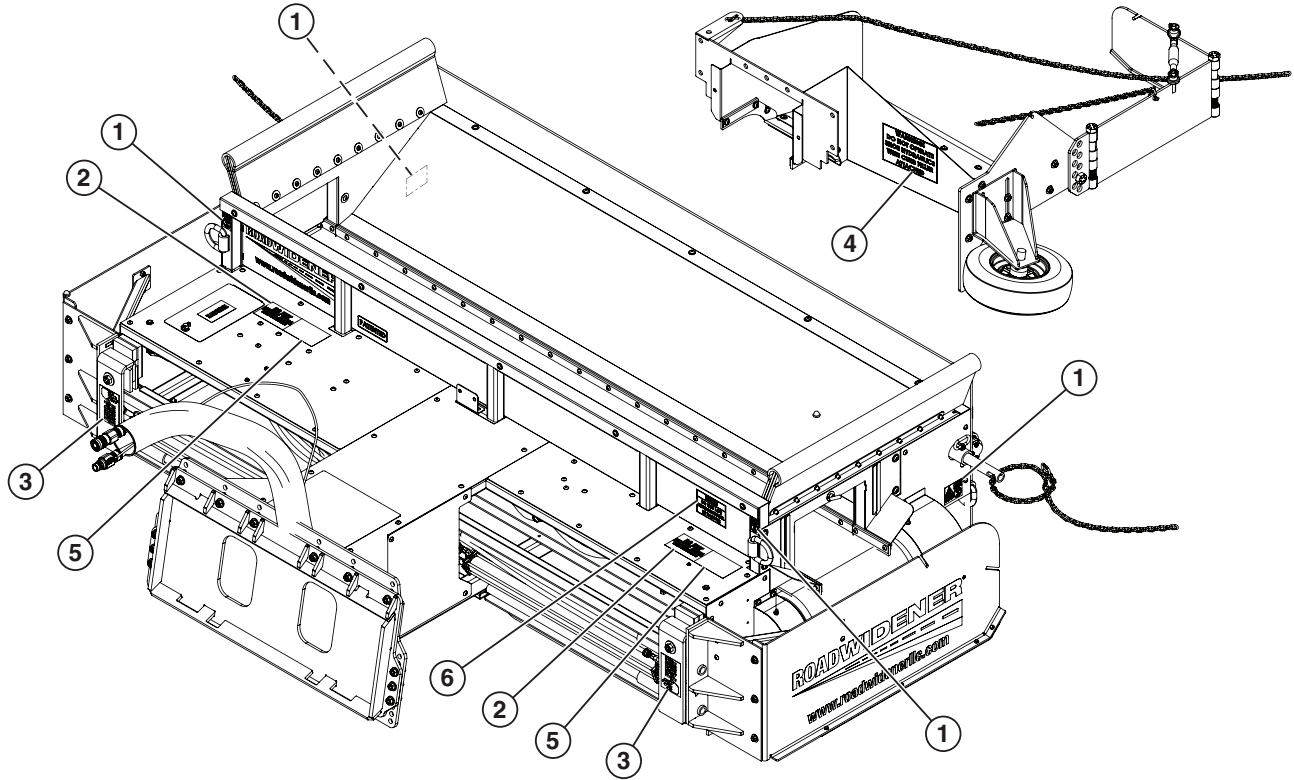


Figure 17: Locations of Safety Decals – FH-R Dual Discharge Models

SAFETY

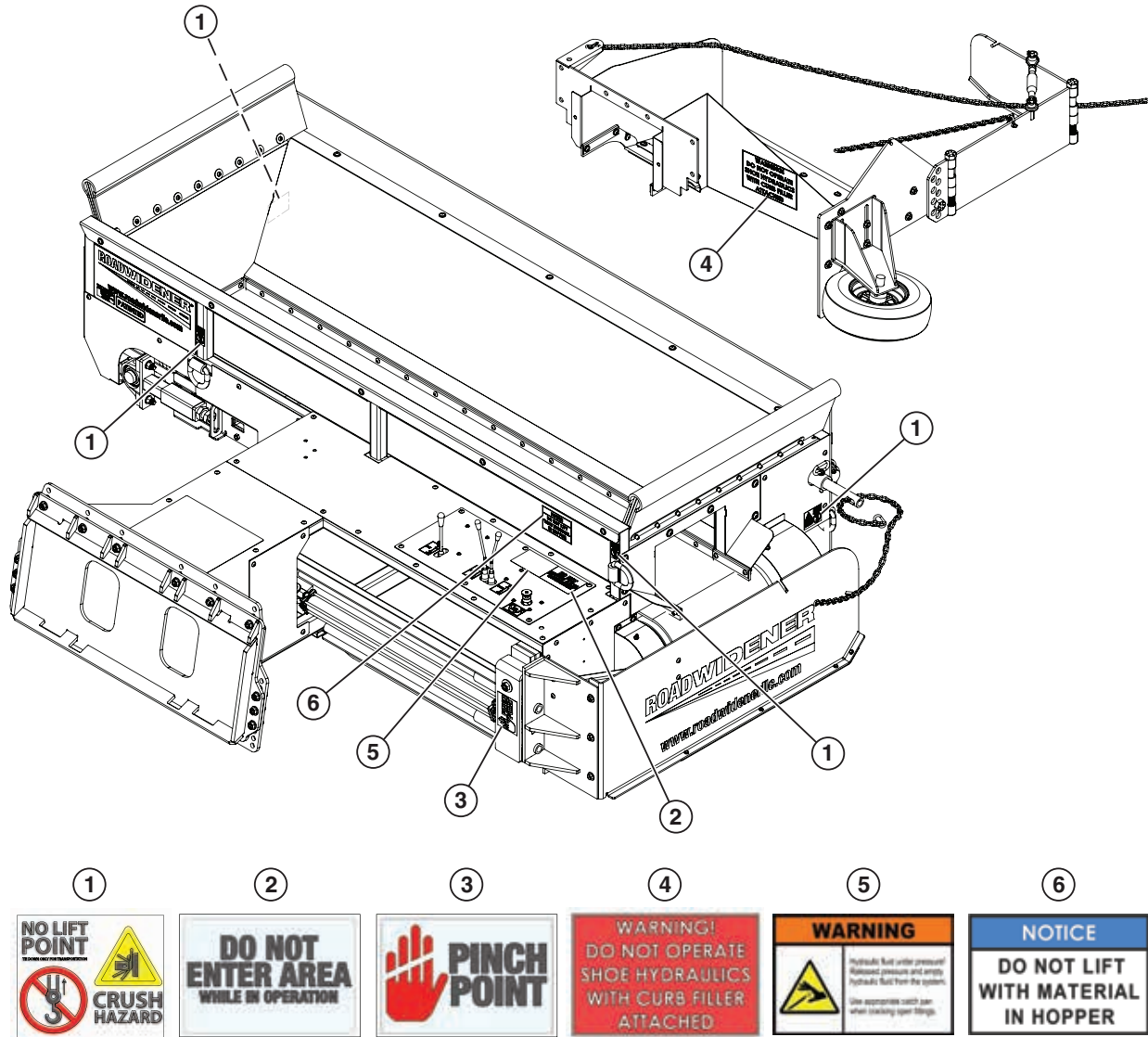


Figure 18: Locations of Safety Decals – FH Single Discharge Models

SAFETY

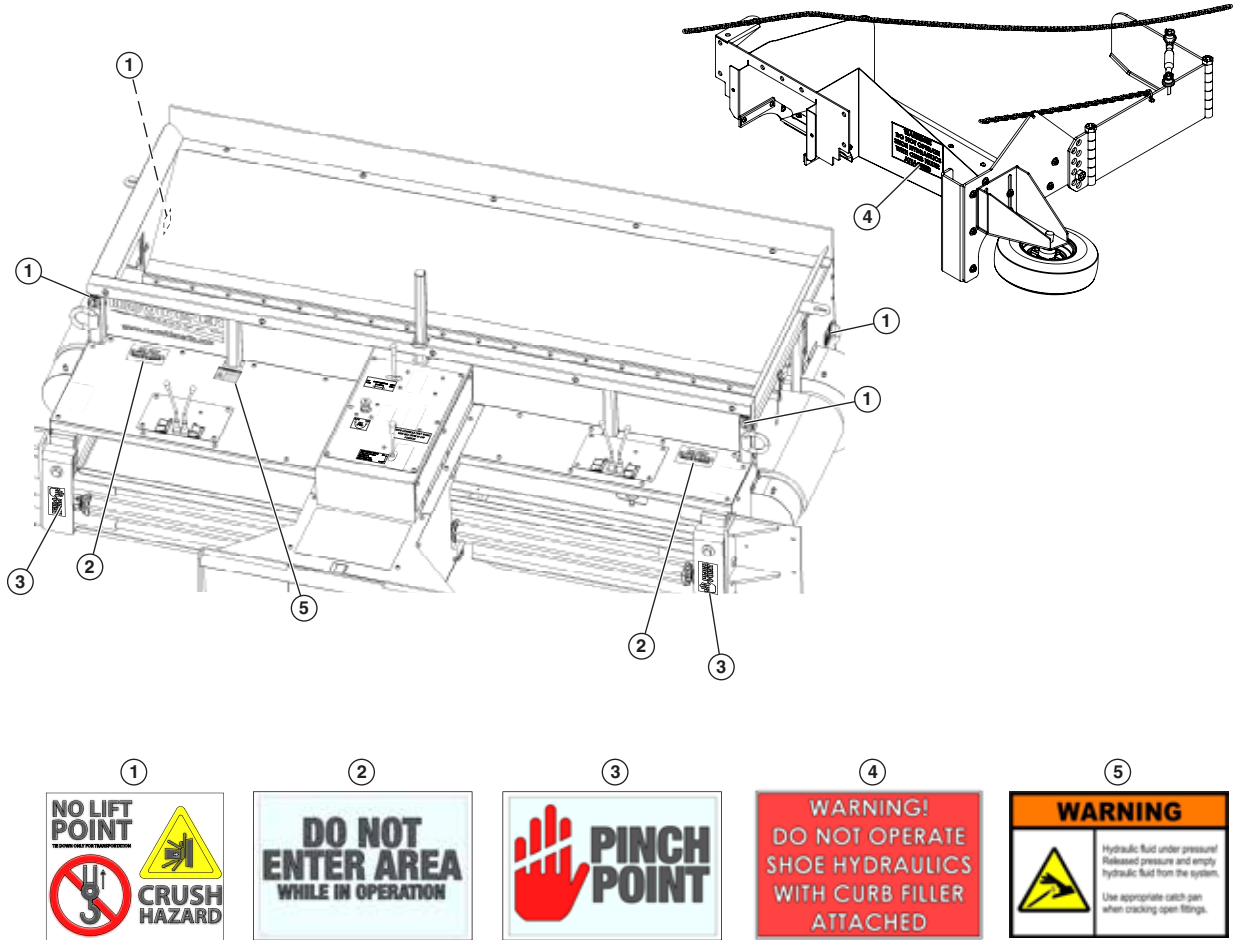


Figure 19: Locations of Safety Decals – FH Dual Discharge Models

SAFETY

Control Area Safety

- Understand operation and safety controls for both the drive machine and the Road Widener attachment
- Wear a high-visibility vest or jacket at all times
- Wear the correct Personal Protection Equipment (PPE) as required at all times
- Maintenance should never be performed during operation
- Maintenance should only be performed on a well lit, flat, level concrete surface with the machine off and disconnected from the power source
- Never let anyone sit or stand on the Road Widener attachment during operation



Figure 20: Safety Area

Never allow an operator or bystander in the control area (shown in orange) during the operation of the machine.

Road Widener recommends that all ground personnel and bystanders stay clear of the machine by 10 ft (3 m) (shown in yellow) during the operation of the machine.

All ground personnel and bystanders should also stay at least 10 ft (3 m) away from the dump truck.

The operators of the skid steer or wheel loader and the Road Widener should be familiar with the operation of both machines. The machines should always be stopped before performing any adjustments or allowing anyone to enter the control area. Both operators should be in constant communication with each other during operation.

3

TRANSPORTING THE ROAD WIDENER

Road Widener recommends loading and transporting the machine on a deck-over trailer or an appropriate trailer with enough capacity to sufficiently handle the weight of the Road Widener attachment. Reference the serial tag and the manual to determine the weight of your machine.

WARNING

Never try to load or unload the Road Widener attachment with a skid steer or wheel loader that does not have the correct lifting capacity to safely lift the Road Widener attachment.

Read the skid steer or wheel loader manual and make sure the maximum lift capacity is sufficient to handle the weight of the Road Widener attachment.

Lift Test

When loading or unloading, park the trailer on a flat, level surface. Due to different configurations, the operator should perform a lift test to determine if the skid steer or wheel loader has the proper lift capacity and the correct amount of rear ballast is installed.

- 1] Attach the mounting plate to the skid steer or wheel loader and lock in place. Connect the hydraulic lines and the 12-volt DC power line if required. See “Jobsite Preparation” on page 29.



Figure 21: Lift Test

- 2] Lift the machine 4 in. (10 cm) off the floor of the trailer and bring the lifting motion to a complete stop.
- 3] Jog the load briefly 1 or 2 seconds by raising the lift arms or tilting the machine forward slightly, or perform both.
- 4] Observe that the rear wheels of the skid steer or wheel loader did not raise off the ground when “jogging” the machine.

TRANSPORTING THE ROAD WIDENER

- 5] If a forward-tipping motion occurs, the skid steer or wheel loader is undersized or does not have the correct amount of ballast installed.

⚠ WARNING

Never attempt to load, unload or operate the machine with an undersized skid steer or wheel loader, or if the correct amount of rear ballast is not installed.



Figure 22: Rear Ballast Weights

- 6] Add rear ballast weights to your machine if required.

NOTE: See the skid steer or wheel loader operator's manual for the proper use and placement of the rear ballast weights.

Loading

⚠ WARNING

When loading or unloading the Road Widener, clear all bystanders from the area. Never stand under the Road Widener when it is being loaded or unloaded. Serious injury or death could occur.

- 1] Use a skid steer to load the Road Widener onto a suitable trailer.
- 2] If removing the Road Widener from the skid steer, disconnect the hydraulic lines and secure them to the Road Widener.
- 3] Disengage the locking pins from the skid steer pads and remove the pads from the universal mounting pad on the Road Widener.

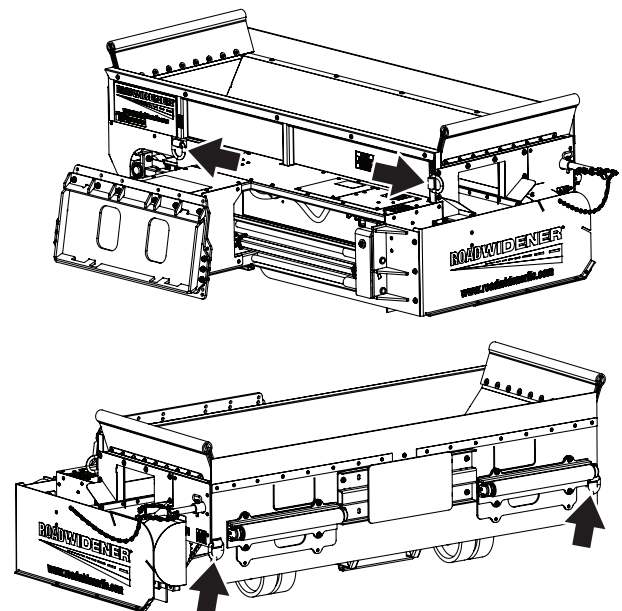


Figure 23: Four Tie-down Rings on Road Widener

TRANSPORTING THE ROAD WIDENER

- 4] There are 4 tie-down rings on the Road Widener. Use the appropriate chains and chain binders, and secure the Road Widener to the trailer using all 4 tie-down points on the Road Widener.

NOTICE

When towing, make sure the tow vehicle is rated for the weight the vehicle will be towing. Always follow any federal, state and local laws where required.

JOBSITE PREPARATION

4

WARNING

The skid steer being used with the Road Widener must have the capability of lifting a minimum of 3,400 lb (1,542 kg) for Dual Discharge and 2,900 lb (1,315 kg) for Single Discharge. Using too small of a skid steer could cause loss of control and possible machine rollover.

WARNING

Never allow anyone to be under or in the area of the Road Widener when it is being unloaded from the trailer.

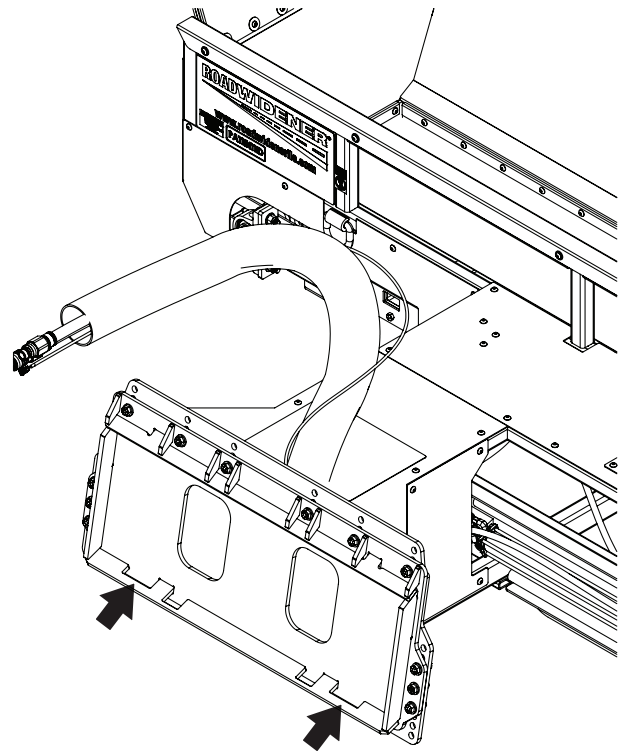


Figure 24: Universal Mounting Pad on Road Widener
(Arrows Indicate Skid Steer Attachment Points)

JOBSITE PREPARATION - FH-R MODELS (REMOTE UNIT)

- 1] Raise the boom on the skid steer and insert the skid steer pads into the universal mounting pad on the Road Widener.
- 2] Depending on your skid steer model, you may have hydraulic locking pins or manual locking pins. Make sure the locking pins are locked in to the universal mounting plate tabs on the Road Widener before moving the machine.
- 3] Slowly lift the Road Widener up off the trailer and slowly back away from the trailer.
- 4] As soon as the Road Widener clears the trailer, lower the Road Widener to the ground.
- 5] Shut off the skid steer and apply the parking brake.
- 6] Clean any dirt or debris from the male and female quick couplers on the Road Widener and the skid steer.



Figure 25: Hydraulic Lines Connecting to Skid Steer from Road Widener

WARNING

Never exceed hydraulic system pressure greater than 3,000 psi (207 bar). Refer to the skid steer or wheel loader manual for the system pressure before connecting the hydraulic lines.

- 7] Connect the hydraulic lines from the Road Widener to the quick coupler ports on the skid steer. Make sure the connections are secure.



Figure 26: 12-volt DC Power Cord

JOBSITE PREPARATION - FH-R MODELS (REMOTE UNIT)

NOTE: Remote systems require 12-volt DC accessory socket to be a 10-amp continuous solid-state connection. Using lower than a 10-amp DC accessory socket will cause the machine to not function. The handheld remote requires (2) AAA batteries and the host machine must deliver 12 volts DC and 10 amps. Connect your machine to a known power source to verify! A direct circuit to the host machine's battery with a solid-state 10-amp fused circuit is advisable if your remote does not function at initial start-up. USB ports and some machine circuits provide less than 10 amps; if your host machine falls into this category, adding a circuit will be required.

- 8] Plug in the 12-volt DC power cord into a 12-volt DC power socket on the skid steer.

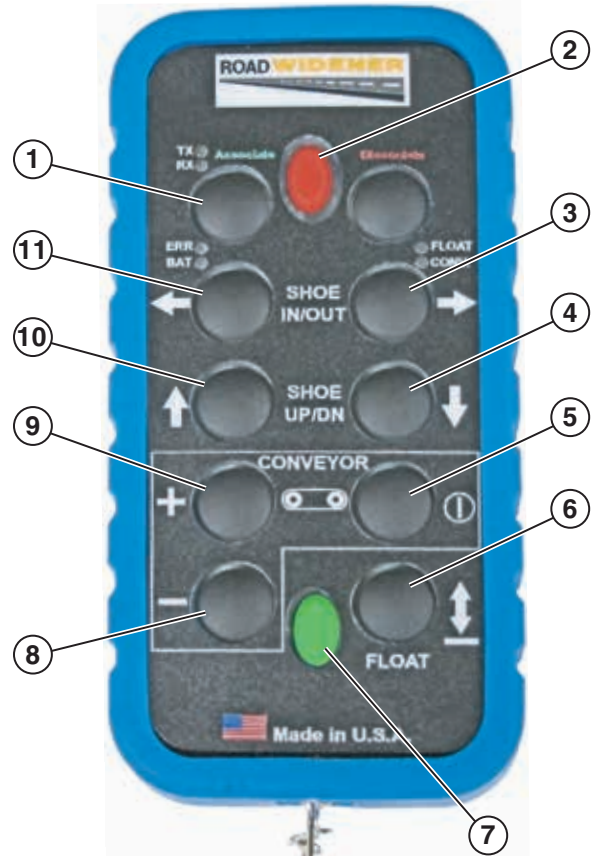


Figure 27: Single Discharge Units Remote

1. Associate Button
2. Power OFF Button
3. Shoe OUT Button
4. Shoe DOWN Button
5. Conveyor ON/OFF Button
6. Shoe Float Button
7. Power ON Button
8. Conveyor Speed Decrease Button
9. Conveyor Speed Increase Button
10. Shoe UP Button
11. Shoe IN Button

JOBSITE PREPARATION - FH-R MODELS (REMOTE UNIT)

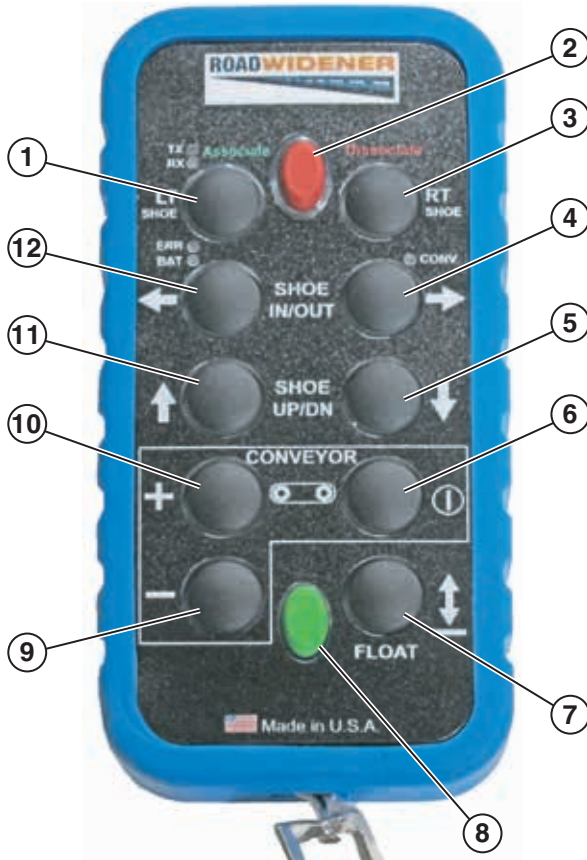


Figure 28: Dual Discharge Units Remote

1. Associate/Left Side Button
2. Power OFF Button
3. Dissociate/Right Side Button
4. Shoe OUT Button
5. Shoe DOWN Button
6. Conveyor ON/OFF Button
7. Shoe Float Button
8. Power ON Button
9. Conveyor Speed Decrease Button
10. Conveyor Speed Increase Button
11. Shoe UP Button
12. Shoe IN Button

- 9] The remotes must be paired to the machine before they can be used. If not already paired see "Pairing the Remote Control" on page 60.

NOTE: If experiencing problems with the remote during operation, refer to the remote operation tips sticker, which is located on the back of the remote.



Figure 29: Amber Battery Status LED

- 10] When the batteries for the remote are charged the battery status amber LED will be off.
- 11] When the battery charge status is at 2.1 volts DC the amber battery LED will begin to flash. This indicates a low battery condition. The remote can still be used but the batteries should be replaced as soon as possible.
- 12] When the battery charge status is at 2.0 volts DC the amber battery LED will turn on solid, the remote will begin to power down and a loss of signal will occur. The batteries must be replaced immediately. To replace the batteries See "Remote Battery Replacement" on page 66.
- 13] On the dual discharge units select which side you will be discharging material out of by pressing the LT button for left side discharge and the RT button for right side discharge.

JOBSITE PREPARATION - FH-R MODELS (REMOTE UNIT)



Figure 30: Red LED Side Indicator Light

- 14] Once the discharge side is selected the red LED indicator light will be lit on the side that is active.

NOTE: The dual discharge model is equipped with a check valve in the control valve. Depending upon your model of skid steer, the flow control valve for the skid steer must be in the correct position or the hydraulics for the Road Widener will not operate.

NOTE: The shoe width and slope adjustment setup is the same for both units.

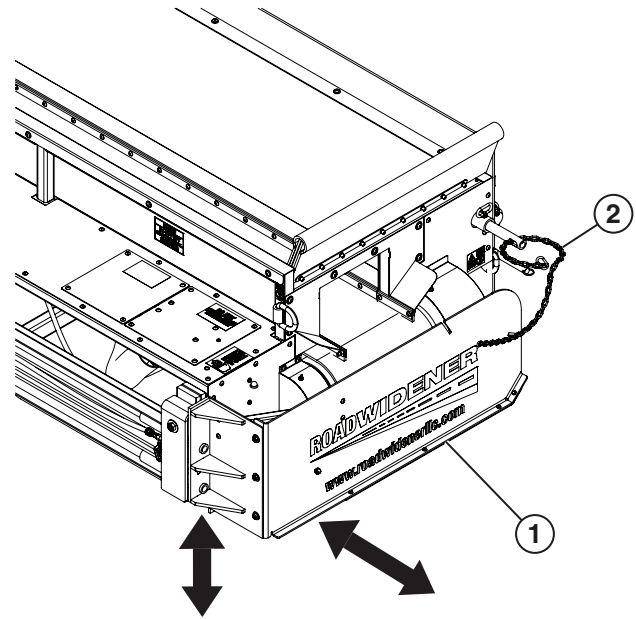


Figure 31: Setting Shoe Width and Shouldering Angle

1. Shoe Plate
 2. Guide Chain
- 15] Set the shoe width by pressing the shoe OUT button to extend the shoe and press the shoe IN button to retract the shoe.
- 16] To set the shouldering angle, press the shoe DOWN button to decrease the angle and press the shoe UP button to increase the angle.
- 17] The shouldering angle can be put in the float position for uneven terrain. When in the float position, the shouldering angle follows the up and down contour of the ground to avoid scraping or scalping.
- 18] To put the shoe in the float mode, push and hold the float button.

JOBSITE PREPARATION - FH-R MODELS (REMOTE UNIT)



Figure 32: Blinking Red LED Light

- 19] When the red LED begins to blink the shoe is in float mode.
- 20] To take the shoe out of float mode, press the float button. The red LED will stop blinking and become solid.
- 21] Once the shoe width and the shouldering angle have been set, take out any slack in the chain and attach it to the slot in the shoe plate.

JOBSITE PREPARATION - FH MODELS (NON-REMOTE UNIT)

- 1] Raise the boom on the skid steer and insert the skid steer pads into the universal mounting pad on the Road Widener.
- 2] Depending on your skid steer model, you may have hydraulic locking pins or manual locking pins. Make sure the locking pins are locked in to the universal mounting plate tabs on the Road Widener before moving the machine.
- 3] Slowly lift the Road Widener up off the trailer and slowly back away from the trailer.
- 4] As soon as the Road Widener clears the trailer, lower the Road Widener to the ground.
- 5] Shut off the skid steer and apply the parking brake.
- 6] Clean any dirt or debris from the male and female quick couplers on the Road Widener and the skid steer.



Figure 33: Hydraulic Lines Connecting to Skid Steer from Road Widener

- 7] Connect the hydraulic lines from the Road Widener to the quick coupler ports on the skid steer. Make sure the connections are secure.

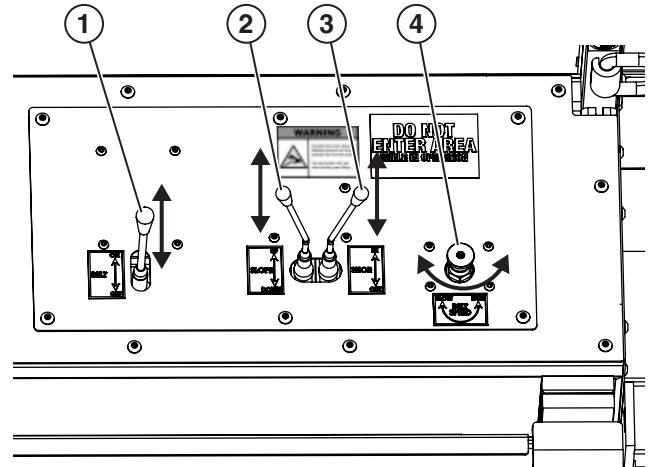


Figure 34: Levers and Control Knob – FH Model

1. Belt On/Off Lever
2. Slope Up/Down Lever
3. Shoe In/Out Lever
4. Belt Speed Control Knob

JOBSITE PREPARATION - FH MODELS (NON-REMOTE UNIT)

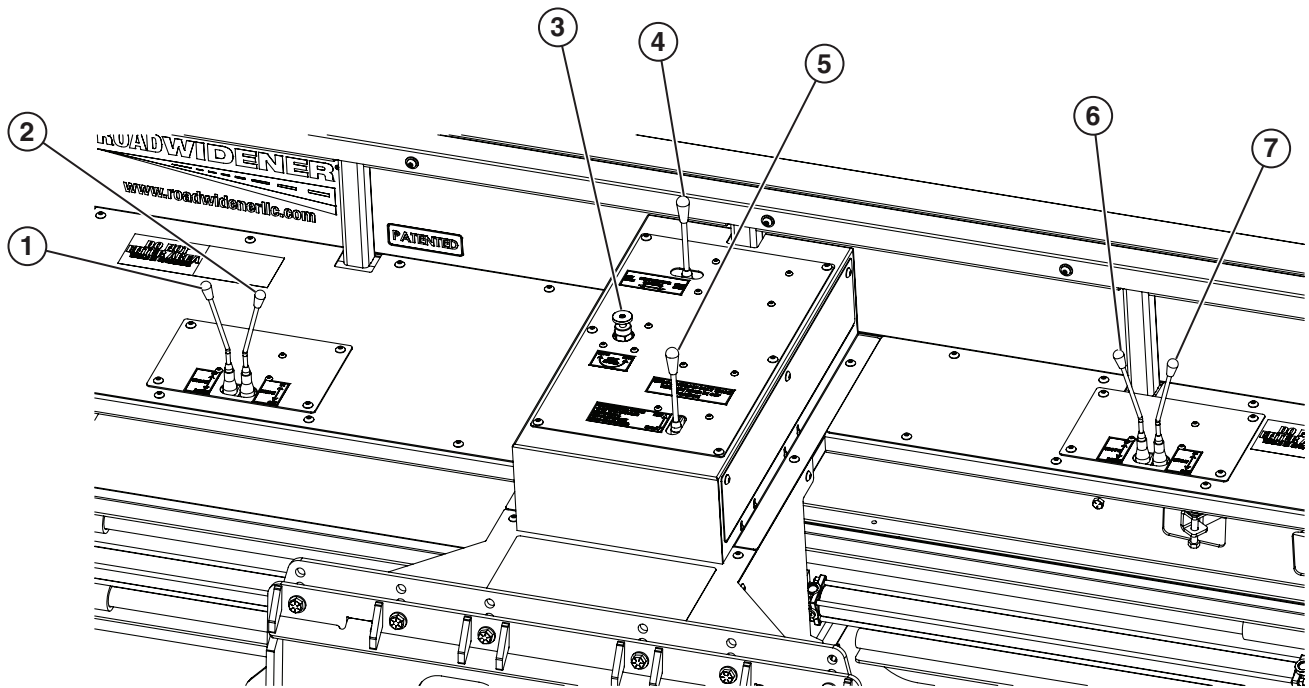


Figure 35: Levers and Controls – Dual Discharge Model

1. Left Slope Up/Down Lever
2. Left Shoe In/Out Lever
3. Belt Speed Control Knob
4. Shoe Selector Control Lever
5. Belt On/Off Lever
6. Right Slope Up/Down Lever
7. Right Shoe In/Out Lever

NOTE: The shoe width and slope adjustment setup is the same for the single discharge and the dual discharge models.

NOTE: The dual discharge model is equipped with a check valve in the control valve. Depending upon your model of skid steer, the flow control valve for the skid steer must be in the correct position or the hydraulics for the Road Widener will not operate.

- 8] Set the shoe width by pulling the shoe in/out lever [(3) in the single discharge model and (2) in the dual discharge model] back to move the shoe out, and push the lever forward to move the shoe in.
- 9] Set the shouldering angle by pulling the slope up/down lever [(2) in the single discharge model and (1) and (6) in the dual discharge model] back to lower the angle, and push the lever forward to raise the angle.

JOBSITE PREPARATION - FH MODELS (NON-REMOTE UNIT)

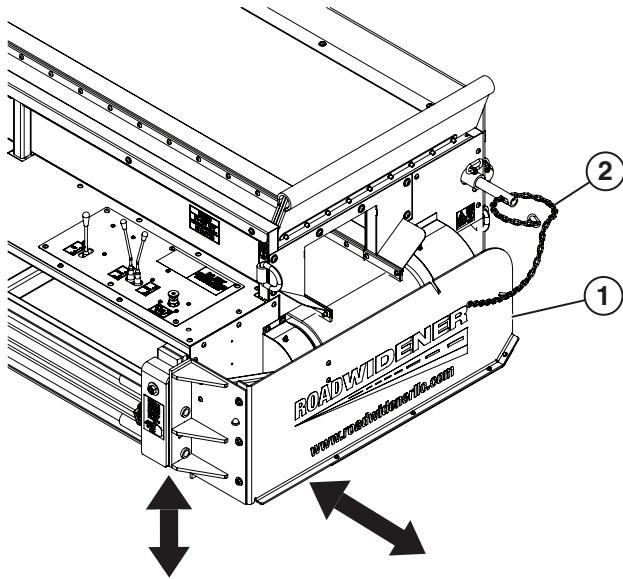


Figure 36: Setting Shoe Width and Shouldering Angle

1. Shoe Plate
2. Guide Chain

10] Once the shoe width and the shouldering angle have been set, take out any slack in the chain and attach it to the slot in the shoe plate.

5

OPERATION

DANGER

Never stand between the truck and the Road Widener when the truck is backing up. Serious injury or death could result.

- 1] Back the truck up to the Road Widener and make sure the tailgate is properly aligned over the hopper as close to the machine as possible.
- 2] Apply the parking brake to the truck to hold it in position.

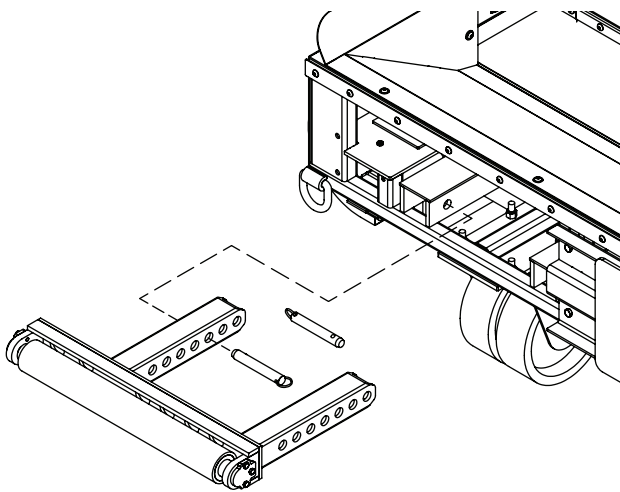


Figure 37: Removing Pins for Push Rollers

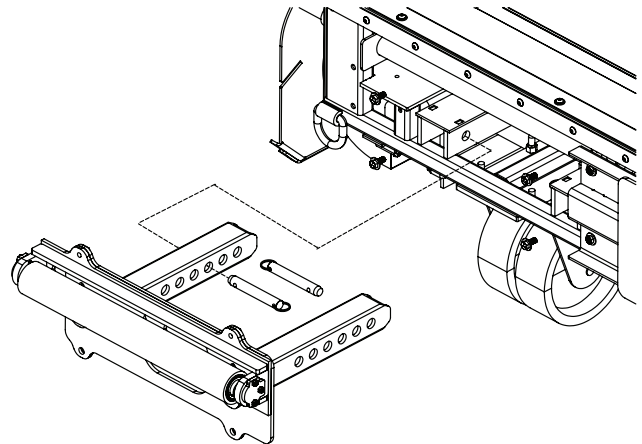


Figure 38: Removing Pins for Adjustable-Height Push Rollers

- 3] Remove the pins for the push rollers and adjust them as needed for the type of vehicle being unloaded so the rollers touch the wheels of the truck.

OPERATION - FH-R MODELS (REMOTE UNIT)



Figure 39: Rollers Touching Truck Wheels

- 4] The standard roller setup is designed to work with a quad-axle dump truck with a stone or asphalt tray. The rollers can be adjusted for many different vehicles by moving the pins or using the optional roller extensions.
- 5] Make sure the skid steer is lowered and the Road Widener is parallel to the road surface. Adjust the tilt on the skid steer if needed.
- 6] Adjust the tailgate chains on each side of the tailgate so they are both the same length.

NOTICE

On the dual discharge model the rubber skirt for the discharge closure plate should be just touching the conveyor belt with no material on the belt. Excessive rubbing of the rubber skirt on the conveyor belt will cause premature wear on the conveyor belt.

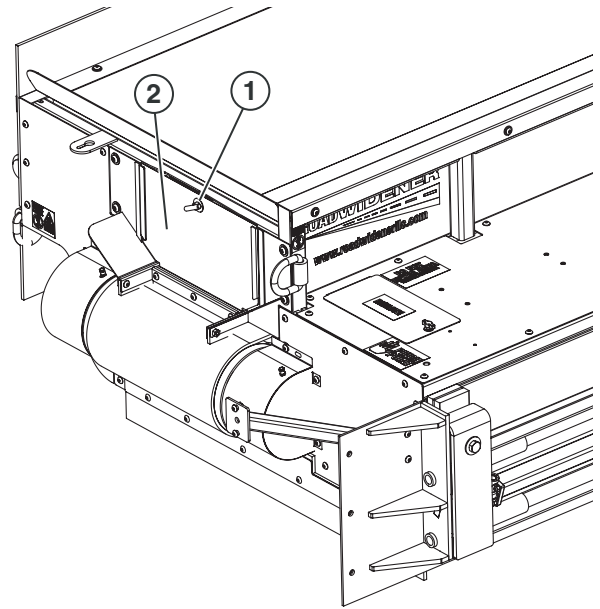


Figure 40: Chute Closure Plate – Dual Discharge Units

1. Screw
 2. Closure Plate
- 7] On the dual discharge units install the closure plate on the side not being discharged on with the screw.

CAUTION

Nighttime operation may require extra lighting. Check your skid steer or wheel loader manual to make sure the proper work light kits are installed before operating in low light conditions.

OPERATION - FH-R MODELS (REMOTE UNIT)

NOTICE

The conveyor ON/OFF button on the remote should only be used as auxiliary or safety stop of the belt. During attachment use, the ON/OFF of the conveyor belt should be controlled by the host machine hydraulic controls. Using the ON/OFF button on the remote and leaving the remote in OFF mode while leaving host machine oil flow on can cause oil to overheat on some host machines.

- 8] Press the conveyor ON/OFF button to turn the conveyor on. Allow the belt to run for a couple of minutes with the hopper empty to warm it up.

WARNING

If the operator needs to leave the operator's seat of the skid steer or wheel loader during operation, make sure all the safety features on the machine are working properly. Refer to the machine's operator manual for more information.

- 9] To increase the belt speed, press the conveyor speed increase (+) button. To decrease the conveyor speed, press the conveyor decrease (-) button.

NOTE: Do not overfill the hopper. Overfilling the hopper may cause the conveyor belt to slip or not turn at all.

NOTICE

Do not drive the Road Widener through gravel piles or asphalt spills. Material can accumulate inside the belt and the belt rollers causing premature belt wear or belt failure.

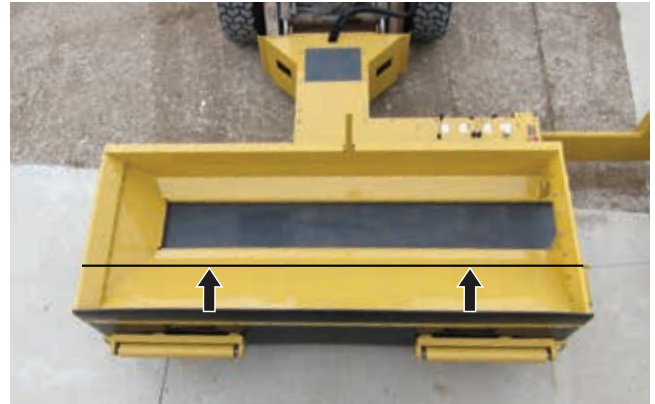


Figure 41: Hopper Dump Line

- 10] When dumping material in the hopper, make sure the back of the truck is close enough to the machine that the material is dumping into the hopper at the line shown in the figure above. Dumping in this area is the ideal area and will prevent spillage of material between the truck and the Road Widener. Adjust the push rollers if needed.
- 11] Raise the box and begin to spill material into the hopper. Do not overfill the hopper.
- 12] Make sure the truck park brake is off and the transmission is in neutral.

NOTE: To keep constant contact of the rollers to the truck tires, the truck operator may need to apply slight pressure to the brake pedal.

WARNING

Never have anyone standing between the Road Widener and the truck during operation. Serious injury or death could occur.

NOTE: On some model skid steers, the auxiliary hydraulics flow can be controlled by the skid steer operator, which will allow the conveyor belt to be started and stopped if required.

OPERATION - FH-R MODELS (REMOTE UNIT)

- 13] Begin moving forward with the skid steer pushing the truck.

NOTICE

Buildup of material on the rollers could occur during operation and should be removed if needed. Excessive buildup of material on rollers and belt can cause premature wear and possible belt failure.

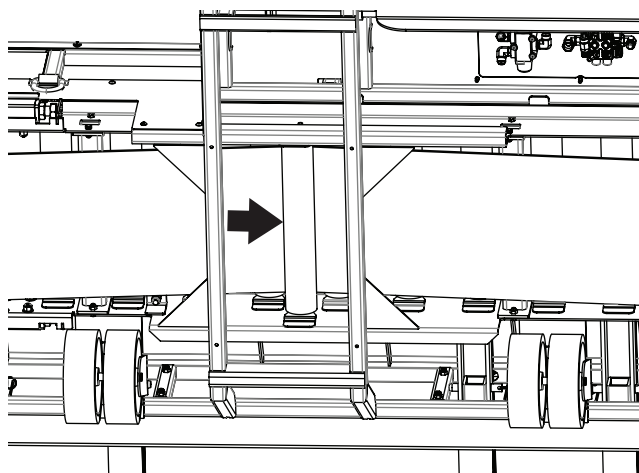


Figure 42: Bottom Idler Roller Location

- 14] When using the Road Widener with wet material or hot asphalt, material could build up on bottom idler roller and the belt.



Figure 43: Material Buildup

- 15] Inspect the rollers for buildup of material before, during and after operation. Clean up any buildup before continuing operation.

OPERATION - FH-R MODELS (REMOTE UNIT)

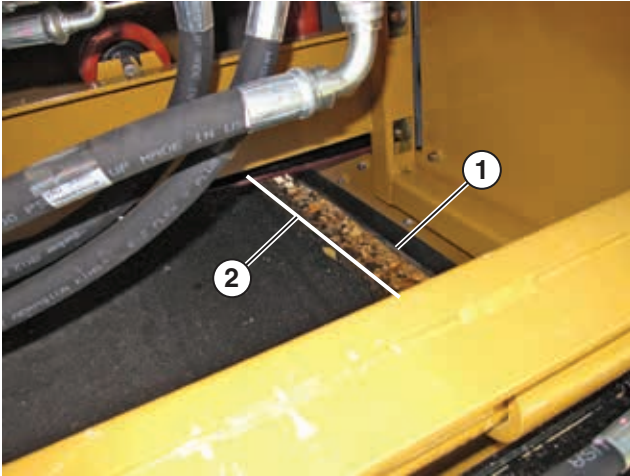


Figure 44: Rubber Skirt Should Follow Along Edge of Road

1. Rubber Skirt
2. Edge of Road

- 16] Check the position of the material and the rubber skirt. The material is laying down correctly when the rubber skirt follows along the edge of the road.
- 17] When traveling, the operator should pay attention to the hopper to make sure there is not too much or too little material in the hopper. It may be necessary to adjust the chains on the tailgate to allow more or less material out of the truck.
- 18] When traveling, turn the conveyor belt on or off as needed using the auxiliary hydraulic controls on the skid steer. Do not allow material to spill over the top of the shoe.



Figure 45: Ensuring Material is Above Road Surface

- 19] If you are planning to compact the material, make sure the material is above the road surface. You can adjust the height of the material by raising or lowering the boom on the skid steer.

NOTICE

Do not allow the truck to pull away from the Road Widener with the box up. Damage to the truck or the Road Widener could occur.

- 20] When the truck is unloaded, stop moving. Have the truck operator apply the brakes. Lower the truck box and then have the truck operator pull away.
- 21] Align the next truck and start the process over again.

Curb Attachment Operation

The curb attachment is used to spread material up and over the back side of the curb. The operation is similar to standard operation with a few exceptions.

OPERATION - FH-R MODELS (REMOTE UNIT)

NOTICE

Never operate the shoe hydraulics when the curb attachment is installed. Damage to the machine will occur if the hydraulics are used.

- 1] Position the machine so the guide wheel is approximately 3 inches away from the curb.

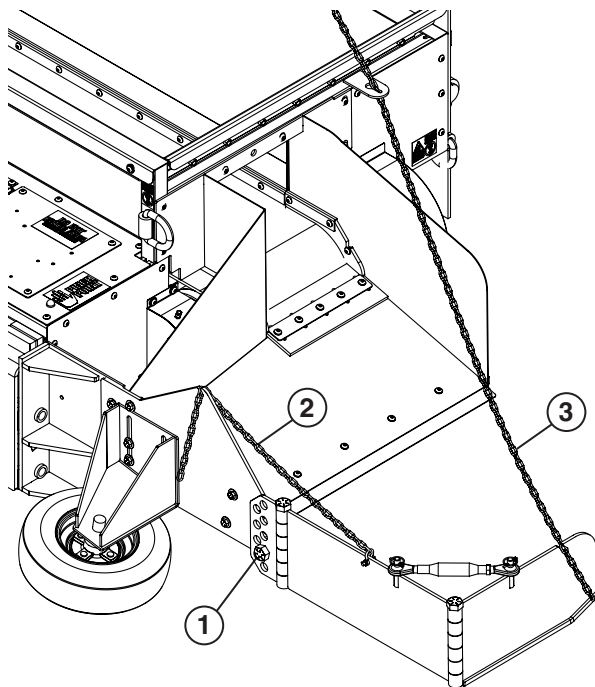


Figure 46: Adjusting Chains

1. Pivot Bolt
2. Rear Chain
3. Front Chain

- 2] Make sure the pivot bolt allows the shoe assembly to move up and down. The shoe assembly must pivot up and down to follow the contour of the terrain when spreading material.

- 3] Using the skid steer boom, raise or lower machine so the shoe is at correct height for the level of material you want to fill.
- 4] Adjust the front and rear chains to hold the shoe assembly in place.

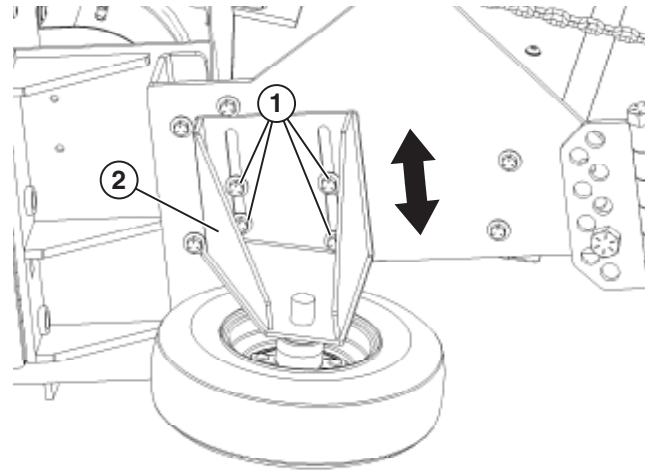


Figure 47: Adjusting the Guide Wheel

1. Wheel Bracket Mounting Bolts
2. Wheel Bracket

- 5] Loosen the 4 bolts holding the wheel bracket to the frame.
- 6] Move the wheel bracket up or down so the wheel is in the center of the curb. Tighten the bolts for the wheel bracket.

OPERATION - FH-R MODELS (REMOTE UNIT)

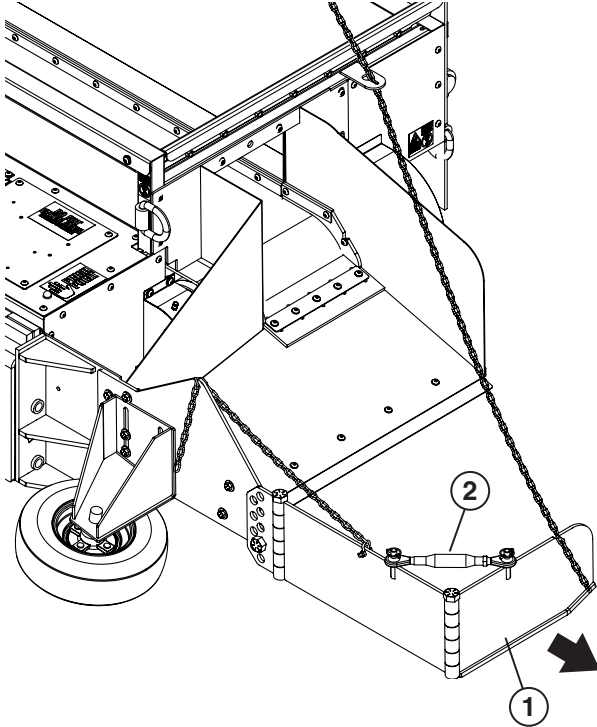


Figure 48: Adjusting Shoe Wider

1. Shoe Outside Edge
 2. Adjustable Link
- 7] The shoe can be adjusted wider by disconnecting the front chain and turning the adjustable link to lengthen it.
 - 8] Reattach the chain as needed.
 - 9] Turn on the conveyor belt and adjust the speed.
 - 10] Begin moving forward using the wheel to guide you against the curb.
 - 11] Begin spreading material as you would using the standard method without the curb attachment.

Disconnecting Hydraulic and Electrical Lines

- 1] Once operation is complete, disconnect the 12-volt DC power plug from the drive machine.



Figure 49: Hydraulic Line Connections

- 2] To disconnect the hydraulic lines, push the male connector on the hydraulic line into the female coupler.
- 3] Push the sleeve on the female coupler toward the male coupler.
- 4] Release the hydraulic line from the female coupler.

OPERATION - FH-R MODELS (REMOTE UNIT)

Hydraulic Solenoid Manual Override

In the unlikely event that the remote would stop functioning, the hydraulic solenoids can be manually overridden to control the hydraulic functions.

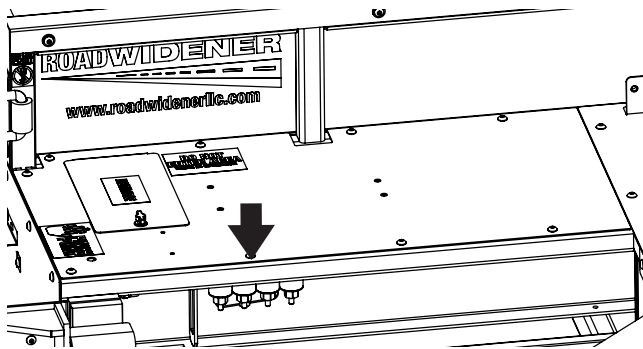


Figure 50: Dual Discharge Unit Hydraulic Valve Location

- 1] Locate the hydraulic valve, which is mounted under the top cover.

OPERATION - FH-R MODELS (REMOTE UNIT)

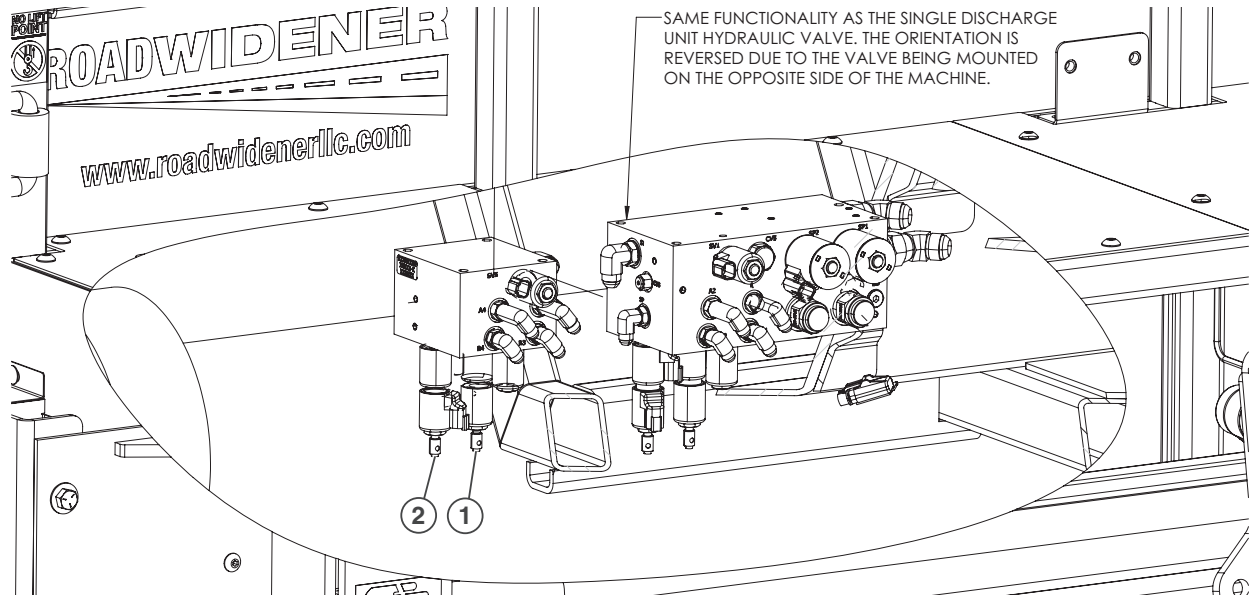


Figure 51: Secondary Dual Discharge Unit Hydraulic Valve

1. Left Shoe Tilt
2. Left Shoe Extend/Retract

NOTE: There are two potential hydraulic valves used in this position shown in Figures 52 and 53. Visually inspect machine to determine which valve is present.

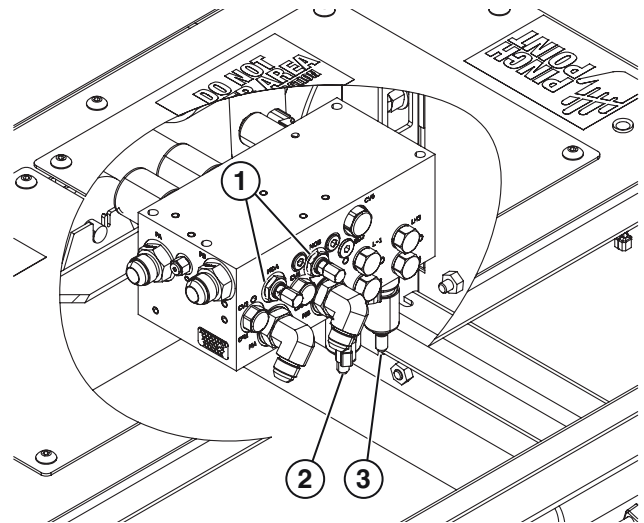


Figure 52: Single Discharge Unit and Primary Dual Discharge Unit Hydraulic Valve

1. Conveyor Motor Control (MOA/MOB)
2. Right Shoe Tilt
3. Right Shoe Extend/Retract

OPERATION - FH-R MODELS (REMOTE UNIT)

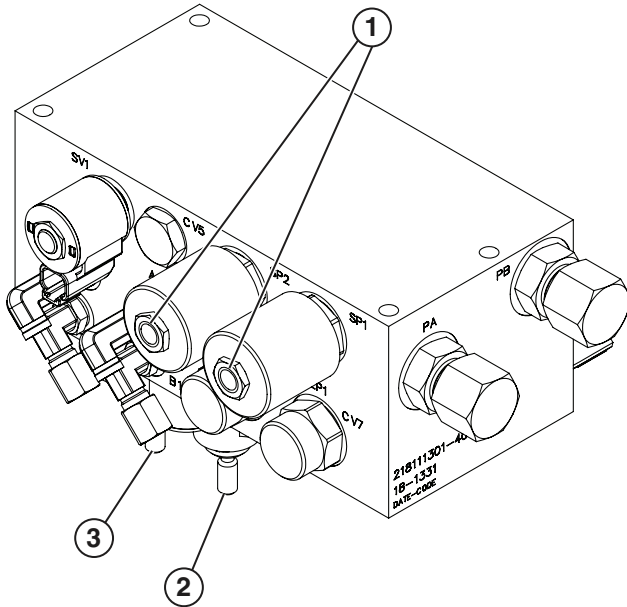


Figure 53: Alternative Single Discharge Unit and Primary Dual Discharge Unit Hydraulic Valve

1. Conveyor Motor Control (MOA/MOB)
2. Right Shoe Tilt
3. Right Shoe Extend/Retract

NOTE: How the hydraulic lines for the skid steer are hooked to the Road Widener will affect if the conveyor moves to the right or the left for the dual discharge machines. The left and right direction of the conveyor on the dual discharge units is determined by the direction of the hydraulic flow from the skid steer. Review your skid steer's operator manual to determine how to control the direction of hydraulic flow.

- 2] Locate the solenoid that controls the function that needs to be overridden by referencing Figures 51, 52 and 53.

- 3] To override the conveyor motor, for the hydraulic valve pictured in Figure 52, the MOA/MOB components are needle valves that will allow the flow of hydraulic oil when opened (they are normally closed). Remove the cap/cover and loosen the jamb nut to operate the needle valves (counterclockwise to open; clockwise to close). For the hydraulic valve pictured in Figure 51, turn the red knurled knob located at the indicated position to open the valve.
- 4] To override the shoe tilt or extend/retract, depress and hold, the button on the end of the solenoid, then slide the outer sleeve up or down, depending on the desired direction. Release the button on the top of the solenoid and move the sleeve back to center to latch back into the center position.
- 5] To extend the shoe or lower the shoe down, pull out on the round pin at the end of the solenoid.

DANGER

Never stand between the truck and the Road Widener when the truck is backing up. Serious injury or death could result.

- 1] Back the truck up to the Road Widener and make sure the tailgate is properly aligned over the hopper as close to the machine as possible.
- 2] Apply the parking brake to the truck to hold it in position.

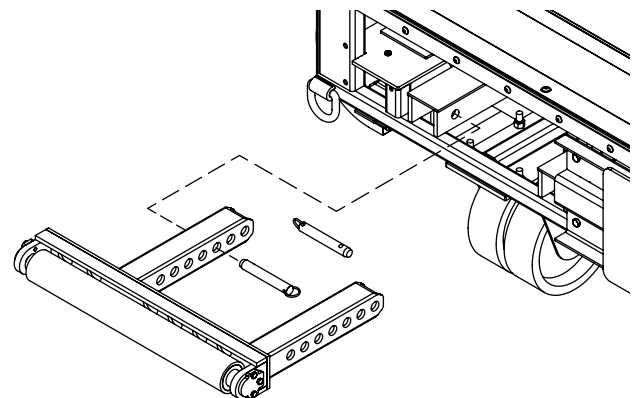


Figure 54: Removing Pins for Push Rollers

OPERATION - FH MODELS (NON-REMOTE UNIT)

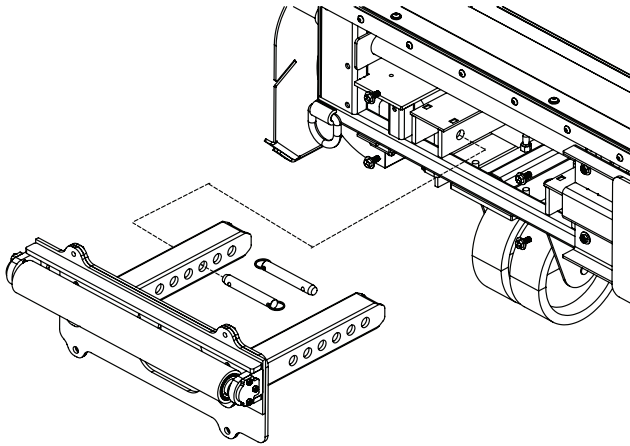


Figure 55: Removing Pins for Adjustable-Height Push Rollers

- 3] Remove the pins for the push rollers and adjust them as needed for the type of vehicle being unloaded so the rollers touch the wheels of the truck.



Figure 56: Rollers Touching Truck Wheels

- 4] The standard roller setup is designed to work with a quad-axle dump truck with a stone or asphalt tray. The rollers can be adjusted for many different vehicles by moving the pins or using the optional roller extensions.
- 5] Make sure the skid steer is lowered and the Road Widener is parallel to the road surface. Adjust the tilt on the skid steer if needed.

- 6] Adjust the tailgate chains on each side of the tailgate so they are both the same length.

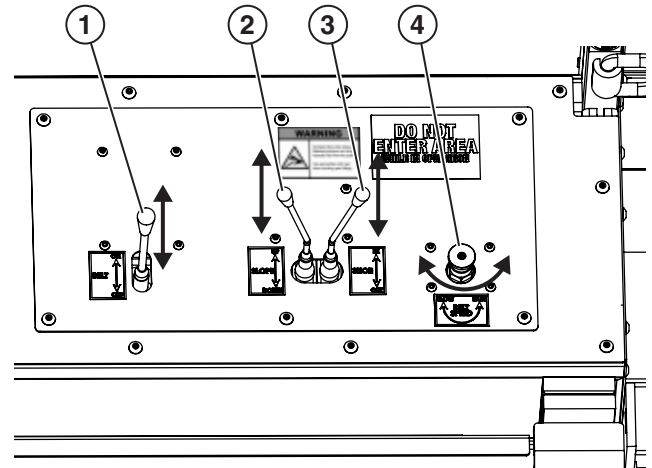


Figure 57: Levers and Control Knob – FH Models

1. Belt On/Off Lever
2. Slope Up/Down Lever
3. Shoe In/Out Lever
4. Belt Speed Control Knob

OPERATION - FH MODELS (NON-REMOTE UNIT)

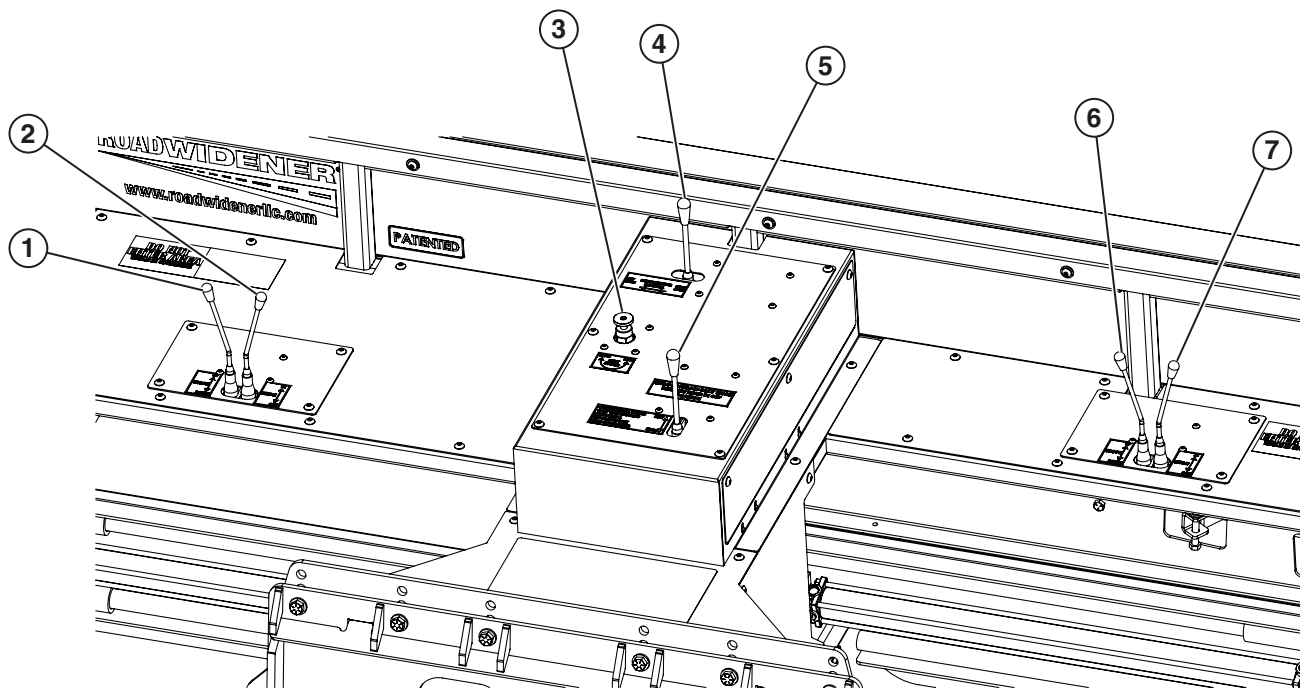


Figure 58: Levers and Controls – Dual Discharge Model

1. Left Slope Up/Down Lever
2. Left Shoe In/Out Lever
3. Belt Speed Control Knob
4. Shoe Selector Control Lever
5. Belt On/Off Lever
6. Right Slope Up/Down Lever
7. Right Shoe In/Out Lever

NOTICE

On the dual discharge model the rubber skirt for the discharge closure plate should be just touching the conveyor belt with no material on the belt. Excessive rubbing of the rubber skirt on the conveyor belt will cause premature wear on the conveyor belt.

NOTE: The dual discharge model is equipped with a check valve in the control valve. Depending upon your model of skid steer, the flow control valve for the skid steer must be in the correct position or the hydraulics for the Road Widener will not operate.

OPERATION - FH MODELS (NON-REMOTE UNIT)

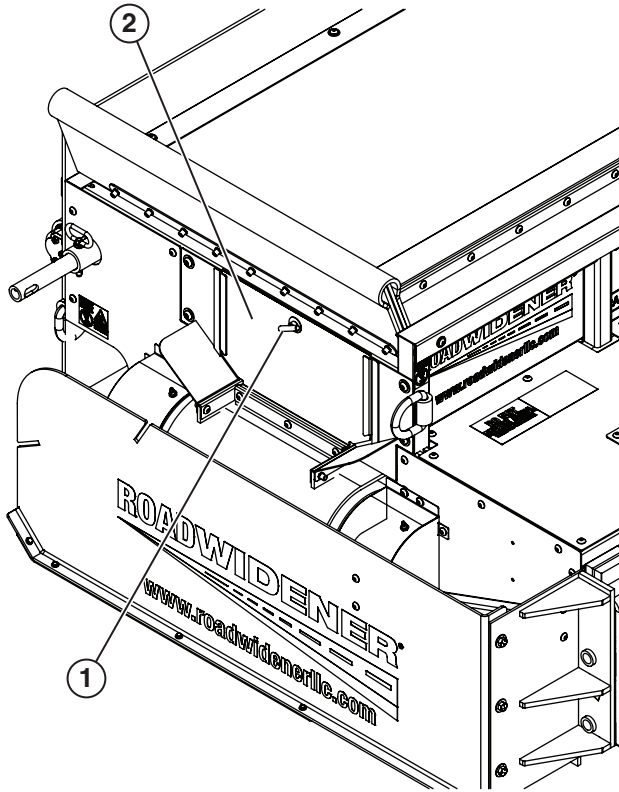


Figure 59: Chute Closure Plate – Dual Discharge Model

1. Screw
2. Closure Plate

- 7] On the dual discharge models install the closure plate on the side not being discharged on with the screw.
- 8] Push the belt on/off lever up to the ON position. Allow the belt to run for a couple minutes with the hopper empty to warm it up.
- 9] Turn the belt speed control knob clockwise to increase the belt speed and counterclockwise to decrease the speed.

NOTE: Do not overfill the hopper. Overfilling the hopper may cause the conveyor belt to slip or not turn at all.

- 10] Raise the box and begin to spill material into the hopper. Do not overfill the hopper.
- 11] Make sure the truck park brake is off and the transmission is in neutral.

NOTE: To keep constant contact of the rollers to the truck tires, the truck operator may need to apply slight pressure to the brake pedal.

WARNING

Never have anyone standing between the Road Widener and the truck during operation. Serious injury or death could occur.

NOTE: On some model skid steers, the auxiliary hydraulics flow can be controlled by the skid steer operator, which will allow the conveyor belt to be started and stopped if required.

- 12] Begin moving forward with the skid steer pushing the truck.

NOTICE

Buildup of material on the rollers could occur during operation and should be removed if needed. Excessive buildup of material on rollers and belt can cause premature wear and possible belt failure.

OPERATION - FH MODELS (NON-REMOTE UNIT)

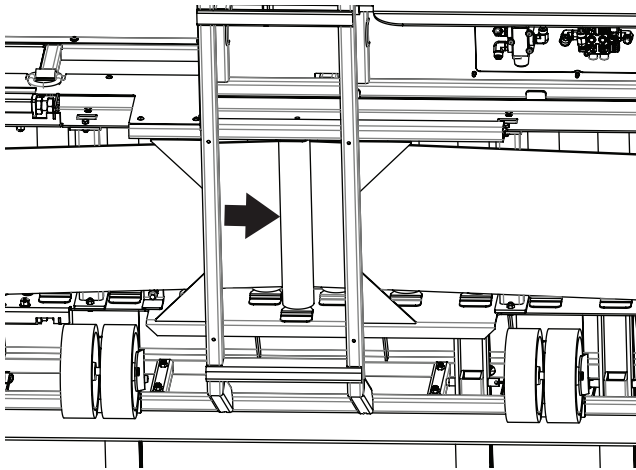


Figure 60: Bottom Idler Roller Location

- 13]** When using the Road Widener with wet material or hot asphalt, material could build up on bottom idler roller and the belt.



Figure 61: Material Buildup

- 14]** Inspect the rollers for buildup of material before, during and in between loads while actual operation is stopped and after operation. Clean up any buildup before continuing operation.

OPERATION - FH MODELS (NON-REMOTE UNIT)

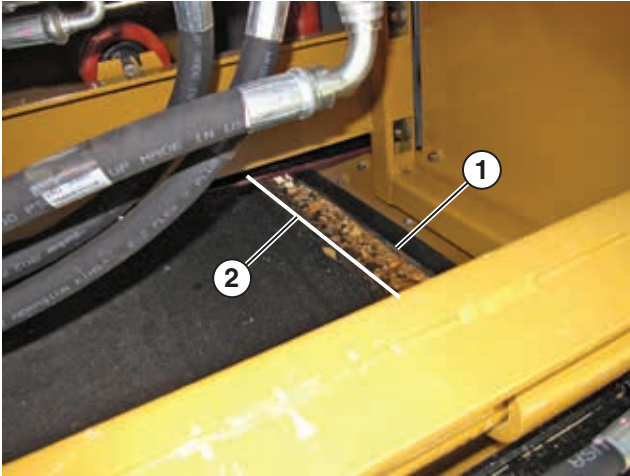


Figure 62: Rubber Skirt Should Follow Along Edge of Road

1. Rubber Skirt
2. Edge of Road

- 15] Check the position of the material and the rubber skirt. The material is laying down correctly when the rubber skirt follows along the edge of the road.
- 16] When traveling, the operator should pay attention to the hopper to make sure there is not too much or too little material in the hopper. It may be necessary to adjust the chains on the tailgate to allow more or less material out of the truck.
- 17] When traveling, turn the conveyor belt on or off as needed using the auxiliary hydraulic controls on the skid steer. Do not allow material to spill over the top of the shoe.



Figure 63: Ensuring Material is Above Road Surface

- 18] If you are planning to compact the material, make sure the material is above the road surface. You can adjust the height of the material by raising or lowering the boom on the skid steer.

NOTICE

Do not allow the truck to pull away from the Road Widener with the box up. Damage to the truck or the Road Widener could occur.

- 19] When the truck is unloaded, stop moving. Have the truck operator apply the brakes. Lower the truck box and then have the truck operator pull away.
- 20] Align the next truck and start the process over again.

OPERATION - FH MODELS (NON-REMOTE UNIT)

Curb Attachment Operation

The curb attachment is used to spread material up and over the back side of the curb. The operation is similar to standard operation with a few exceptions.

NOTICE

Never operate the shoe hydraulics when the curb attachment is installed. Damage to the machine will occur if the hydraulics are used.

- 1] Position the machine so the guide wheel is approximately 3 inches away from the curb.

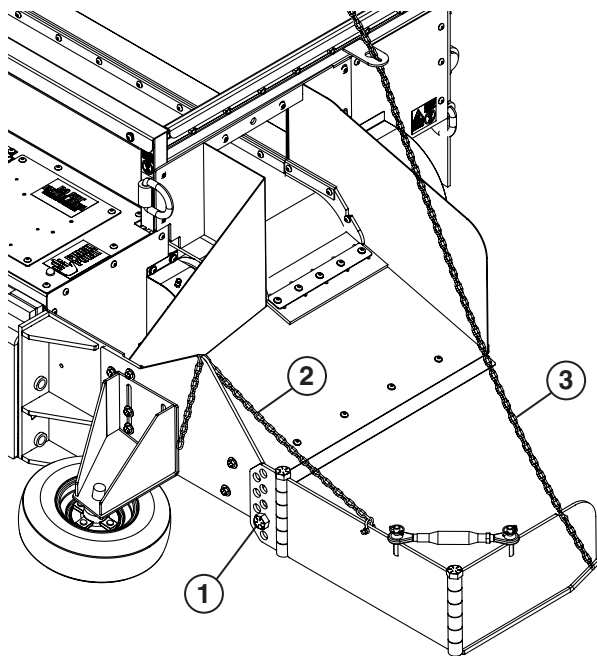


Figure 64: Adjusting Chains

1. Pivot Bolt
2. Rear Chain
3. Front Chain

- 2] Make sure the pivot bolt allows the shoe assembly to move up and down. The shoe assembly must pivot up and down to follow the contour of the terrain when spreading material.
- 3] Using the skid steer boom, raise or lower machine so the shoe is at correct height for the level of material you want to fill.
- 4] Adjust the front and rear chains to hold the shoe assembly in place.

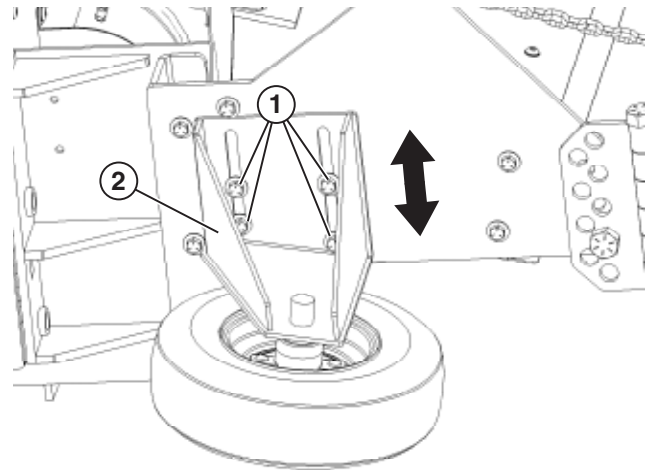


Figure 65: Adjusting the Guide Wheel

1. Wheel Bracket Mounting Bolts
 2. Wheel Bracket
- 5] Loosen the 4 bolts holding the wheel bracket to the frame.
 - 6] Move the wheel bracket up or down so the wheel is in the center of the curb. Tighten the bolts for the wheel bracket.

OPERATION - FH MODELS (NON-REMOTE UNIT)

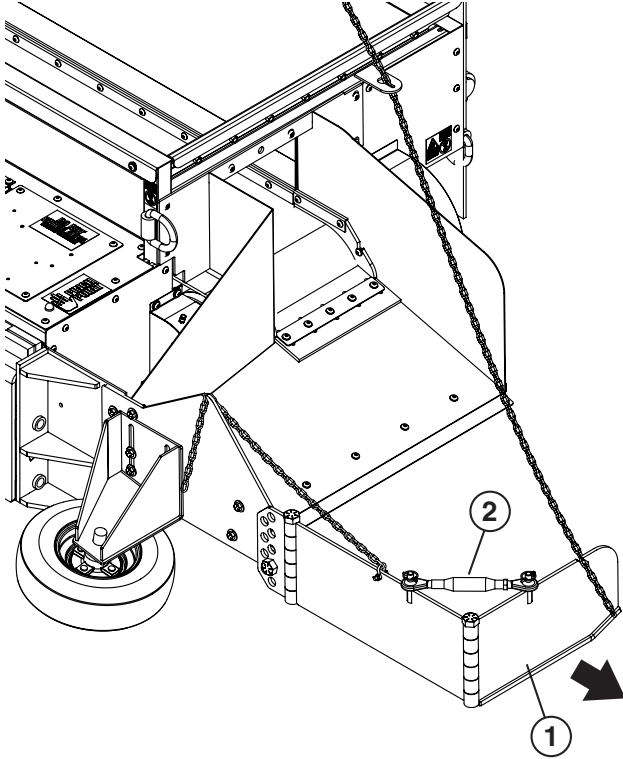


Figure 66: Adjusting Shoe Wider

1. Shoe Outside Edge
 2. Adjustable Link
- 7] The shoe can be adjusted wider by disconnecting the front chain and turning the adjustable link to lengthen it.
 - 8] Reattach the chain as needed.
 - 9] Turn on the conveyor belt and adjust the speed.
 - 10] Begin moving forward using the wheel to guide you against the curb.
 - 11] Begin spreading material as you would using the standard method without the curb attachment.

Disconnecting Hydraulic Lines



Figure 67: Hydraulic Line Connections

- 1] To disconnect the hydraulic lines, push the male connector on the hydraulic line into the female coupler.
- 2] Push the sleeve on the female coupler toward the male coupler.
- 3] Release the hydraulic line from the female coupler.

MAINTENANCE

6

Periodic Maintenance Chart

Review the “Safety” Section on page 18 before performing maintenance.

ITEM	DAILY CHECKS	WEEKLY	MONTHLY	EVERY YEAR OR 1,000 HOURS OF OPERATION
Greasing Machine	X	X	X	X
Belt Start-Up and Maintenance	X	X	X	X
Check Skid Steer/Wheel Loader Hydraulic Oil Level*	X	X	X	X
Check Conveyor Belt Tension	X	X	X	X
Hopper Rubber Flashing to Conveyor Belt Clearance		X	X	X
Adjusting Conveyor Belt Drive Chain			X	X
Checking Hydraulic Hoses		X	X	X
Remote Battery Replacement			X	X
Clean Machine When Using Gravel		X	X	X
Clean Machine When Using Hot Asphalt	X	X	X	X

* See your machine operator’s manual for proper hydraulic oil level check.

MAINTENANCE

WARNING

Maintenance on the Road Widener should only be performed on a flat, level concrete surface. All hydraulic hoses and electrical connections, if equipped, should be disconnected from the skid steer or wheel loader.

NOTICE

Always be environmentally responsible.

- *Follow the guidelines of the EPA or other governmental agencies for the proper disposal of hazardous materials. Consult the local authorities or reclamation facility.*
- *NEVER dispose of hazardous materials irresponsibly by dumping them into a sewer, on the ground, or into groundwater or waterways.*
- *Failure to follow these procedures may seriously harm the environment.*



Figure 68: Lubrication Fittings

Performing maintenance on the Road Widener machine only requires the use of basic hand tools.

Greasing the Machine

The lubrication fittings should be greased daily or more often if the Road Widener is being used in adverse conditions. There are a total of 10 grease fittings on the machine, four for the conveyor bearings and six for the caster wheels.

MAINTENANCE

- 1] Apply grease to the conveyor belt front grease fittings on each side of the machine.

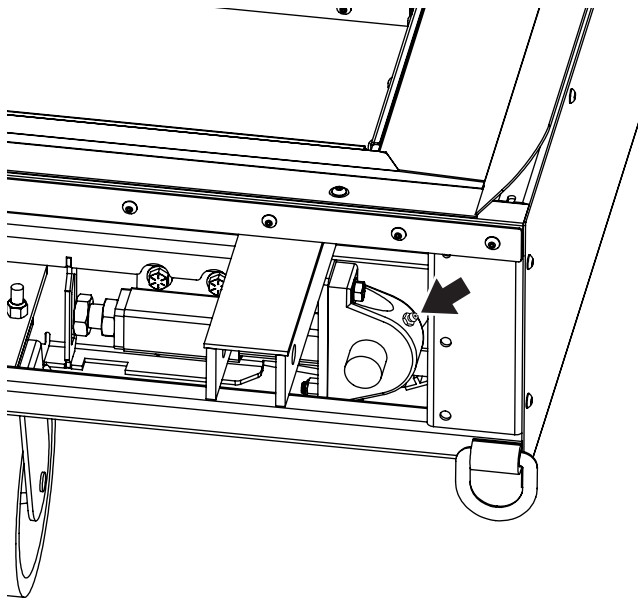


Figure 69: Front Conveyor Belt Grease Fittings

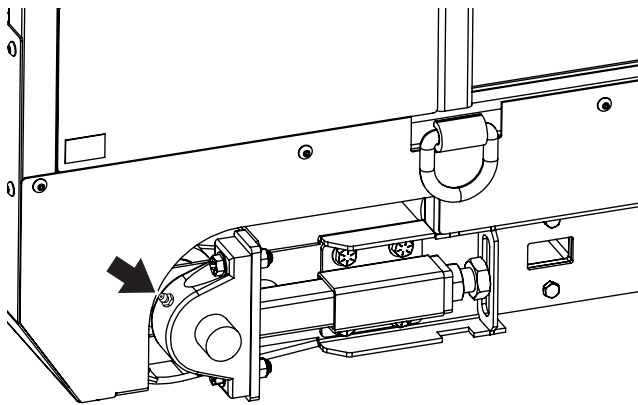


Figure 70: Rear Conveyor Belt Grease Fittings

- 2] Apply grease to the conveyor belt rear grease fitting on each side of the machine.

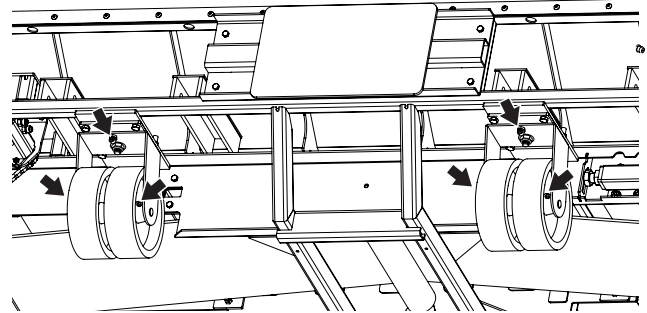


Figure 71: Caster Wheel Pivots and Axle Pins

- 3] Apply grease to each of the caster wheel pivots and to each caster wheel axle pin.

Belt Start-Up and Maintenance

Properly maintaining your belt will ensure a long belt life on your attachment. It is essential that you perform the following steps before use:

- 1] The first time attaching and connecting your attachment, run the belt and observe if the belt stays centered on the head pulley. If there is any "walking" of the belt, make sure to adjust the conveyor belt tension on either side of the belt to eliminate the "walking."
- 2] The first time you run material through the machine, run the belt and observe if the belt stays centered on the head pulley. If there is any "walking" of the belt, make sure to tighten either side of the belt to eliminate the "walking."
- 3] A new belt will stretch with use. Properly maintaining tension will extend the life of the belt. See manual for belt maintenance instructions.
- 4] If you run asphalt or wet topsoil through the machine, it is important to be mindful of the single idler pulley on the bottom of the conveyor belt. Treat the idler pulley with a release agent before every load. After use, clean the idler pulley of any buildup. See steps 13 and 14 on page 51 in the Operation section for more information.

MAINTENANCE

- 5] When using for hot asphalt or wet topsoil, constantly monitor the belt and the rollers for buildup during operation and between loads. If material is allowed to build up on the belt and the rollers it will cause the belt to be over-tensioned, which could cause premature belt failure. Tension the belt with the minimum amount of tension required to allow the belt to turn with no slippage, ensuring that the belt remains free of buildup as much as possible. If buildup occurs, stop the machine and remove buildup and buildup variables (i.e., get dry soil).

Checking Hydraulic Oil Level

The Road Widener attachment hydraulic system is filled at the factory with approximately 3 gallons (11 liters). During operation the hydraulic fluid in the Road Widener is circulated through the hydraulic system from the skid steer or wheel loader. The fluid level should be checked before operation.

- 1] Attach the Road Widener to the skid steer or wheel loader that is going to be used.
- 2] Connect the hydraulic lines and any electrical connections if required.
- 3] Start up the drive machine and extend and retract the cylinders for shoe in and out and up and down.
- 4] Run the conveyor belt for approximately 30 seconds.
- 5] Shut down the Road Widener machine and turn off the skid steer or wheel loader.
- 6] Check the oil in the skid steer or wheel loader hydraulic system by referring to the procedure in the machine's operation manual.

Adjusting Conveyor Belt Tension

The conveyor belt tension is adjusted from the factory but may require an adjustment after the machine has accumulated some run time.

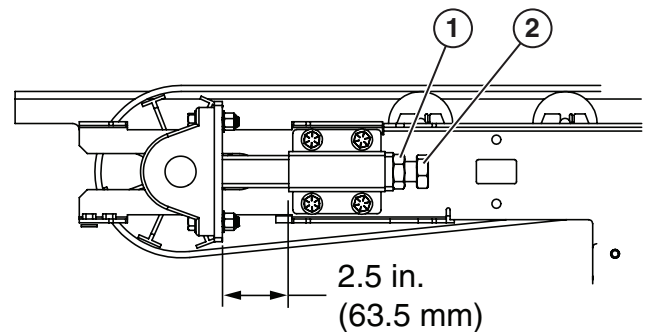


Figure 72: Adjusting Conveyor Belt Tension

1. **Jam Nut**
 2. **Adjustment Bolt**
- 1] Inspect the conveyor belt rollers and make sure there is no material buildup on the rollers. Clean the rollers off if necessary.
 - 2] Measure the distance from the back of the bearing plate to the front of the adjustment bracket. Do this on both sides of the belt. The measurement should be approximately 2.5 in. (63.5 mm).
 - 3] If adjustment is needed, loosen the jam nut for the adjustment bolt.
 - 4] Turn the adjustment bolt until the proper measurement is obtained. Repeat the procedure for the other side. The adjustment must be the same for both sides to ensure the conveyor belt tracks correctly.

MAINTENANCE

Hopper Rubber Flashing to Conveyor Belt Clearance

The hopper rubber flashing should be properly adjusted for proper operation. If the gap is too wide, material spillage between the rubber flashing and the conveyor belt can occur. If the gap is too small, it can cause premature wear on the rubber flashing and the conveyor belt.

- 1] Inspect the conveyor belt rollers and make sure there is no material buildup on the rollers. Clean the rollers off if necessary.

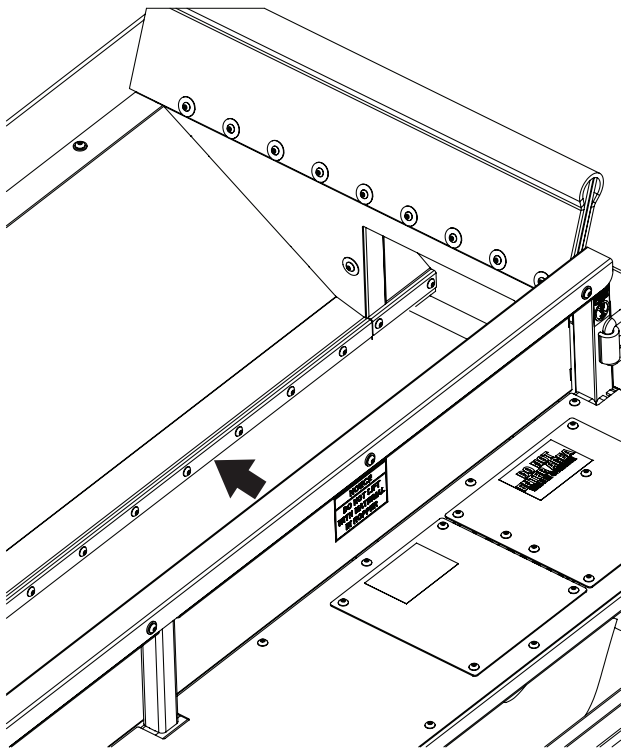


Figure 73: Hopper Rubber Flashing to Conveyor Belt Clearance

- 2] With no material in the hopper, check the clearance between the rubber flashing and the conveyor belt. The rubber flashing should be just touching the conveyor belt with the hopper empty.

- 3] To adjust the flashing, loosen the screws and raise or lower the flashing. Check the clearance on the entire length of the hopper and on both sides of the hopper.
- 4] Tighten the screws after the clearance has been adjusted.

Adjusting Conveyor Belt Drive Chain

After the first 10 hours of use, the conveyor belt drive chain may need to be adjusted. Adjust the conveyor belt drive chain periodically after the first adjustment.

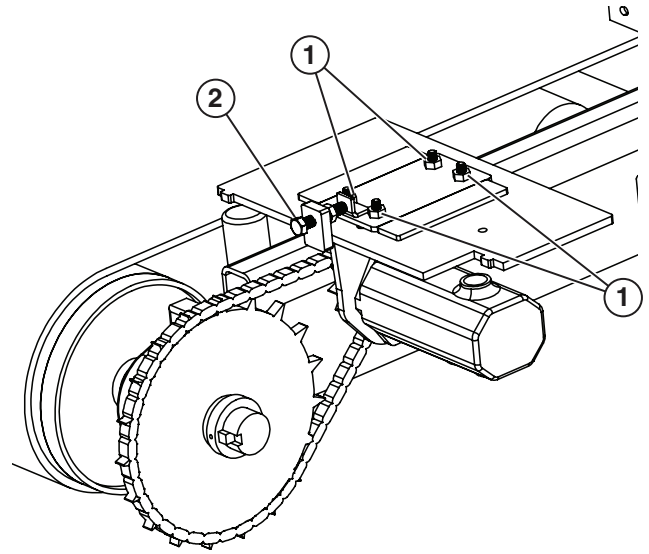


Figure 74: Adjust Conveyor Belt Drive Chain after First 10 Hours of Use

1. **Mounting Bracket Nuts (4 used)**
2. **Adjusting Bolt**

- 1] Loosen the mounting bracket nuts approximately 1-1/2 turns.
- 2] Loosen the jam nut on the adjusting bolt and turn the adjusting bolt clockwise to tighten the chain. Do not overtighten the chain.
- 3] Tighten the jam nut for the adjusting bolt and tighten the 4 mounting bracket nuts.

MAINTENANCE

Checking Hydraulic Hoses

- 1] Check the hydraulic hoses for any noticeable leaks. Make sure they are not rubbing on any moving parts. Fix any leaks before operating the equipment.
- 2] Check the hoses for any bulging, cracks, cuts, abrasions, twisting or bends. Repair or replace hoses as required.

Cleaning After Operation

Clean out the hopper of any material that is left in it. Make sure there is no buildup of material on the conveyor belt rollers. Clean the rollers if needed.

If asphalt was used, make sure debris is properly cleaned off using a releasing agent.

Pairing the Remote Control

NOTE: Road Widener recommends that the 12-volt DC accessory socket is a 10-amp continuous solid state connection. Using a lower amperage 12-volt DC accessory socket may cause the machine to not function.

Your remote should arrive paired and remain paired even when batteries are replaced. **Only on a rare instance will you have to pair the remote, such as if the remote has been replaced.**

The pairing procedure may require an assistant to power up the Road Widener attachment while another person works the remote.

- 1] The remote requires (2) AAA batteries. Make sure the batteries in the remote are new and fully charged.
- 2] All power must be off. Make sure the remote is turned off and the 12-volt DC power plug from the Road Widener attachment is not connected.

MAINTENANCE

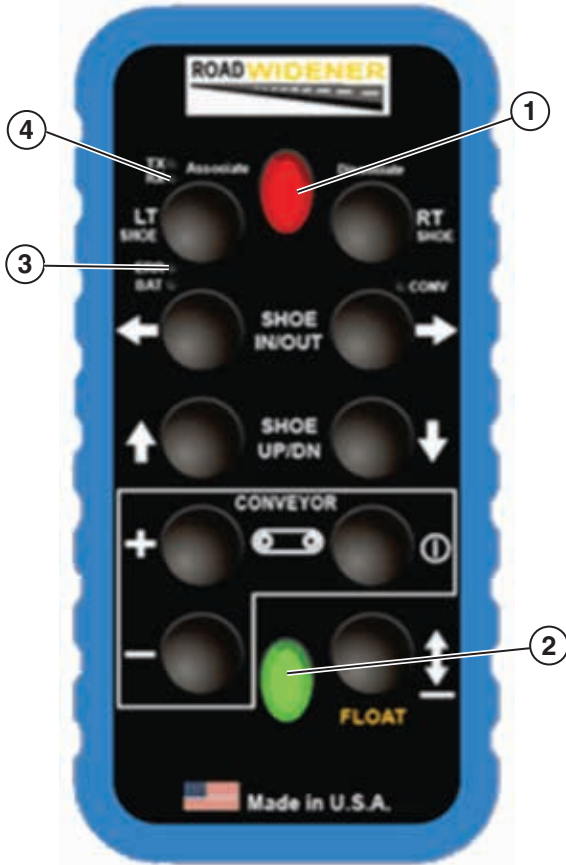


Figure 75: Remote Buttons and LEDs

1. Red Power OFF Button
2. Green Power ON Button
3. Error LED
4. RX LED

3] With the remote power off, press and hold the associate button and the green power ON button simultaneously. The RX and ERR LEDs will illuminate solid.

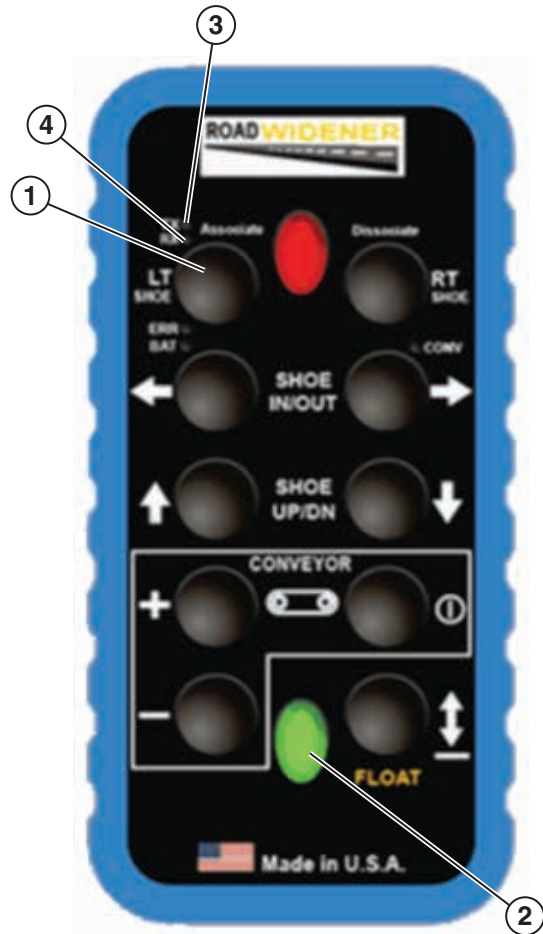


Figure 76: Associate/Learn Button

1. Associate/Learn Button
2. Power ON Button
3. TX LED
4. RX LED

MAINTENANCE



Figure 77: Associate/Learn Button



Figure 78: TX and RX LEDs Flashing

1. **Associate/Learn Button**
- 4] Continue holding the associate and green buttons.
- 5] The TX, RX, ERR and BAT LEDs will flash on and off and then just the TX LED will flash.
- 6] Continue holding both the associate and green buttons, and plug in the power source.
- 7] The TX, RX, ERR and BAT LEDs will flash on and off.
- 8] Release the associate/learn button. When properly paired, the TX and RX LEDs will be flashing.

MAINTENANCE



Figure 79: Red LED

- 9] When the remote is paired the red LED on the machine will be lit.

NOTE: If the LED does not light, check for proper pairing or that the correct 12-volt DC power is supplied for base unit.

Unpairing the Remote Control

If pairing has occurred successfully (indicated by RX and TX LEDs flashing) and the remote is not functioning, on rare occasions nearby signal interferences may require frequency change. If you feel the remote is paired but not functioning, please perform the unpairing process followed by the pairing process.

NOTE: Road Widener recommends that the 12-volt DC accessory socket is a 10-amp continuous solid state connection. Using a lower amperage 12-volt DC accessory socket may cause the attachment to not function.

The unpairing procedure may require an assistant to power up the Road Widener attachment while another person works the remote.

- 1] Make sure the batteries in the remote are new and fully charged.
- 2] All power must be off. Make sure the remote is turned off and the 12-volt DC power plug from the Road Widener is not connected.

MAINTENANCE

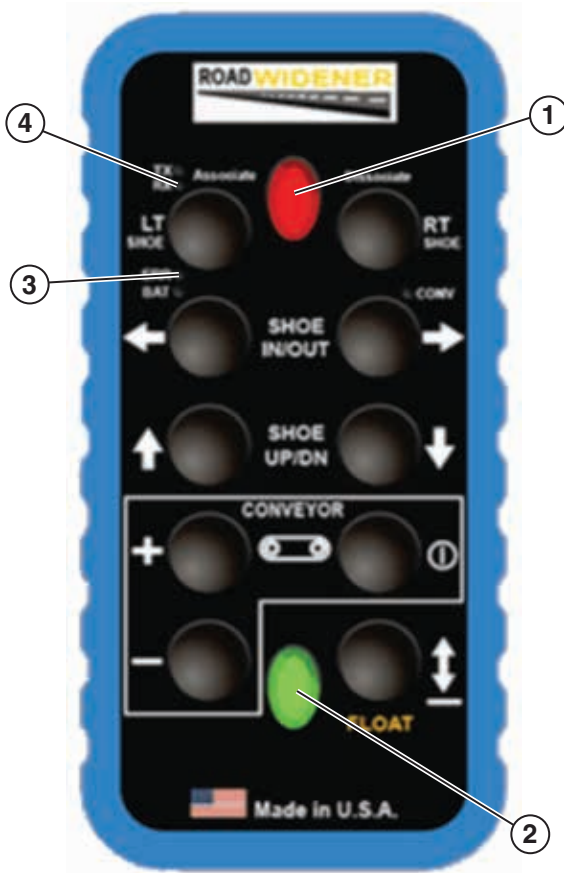


Figure 80: Remote Buttons and LEDs

1. Red Power OFF Button
 2. Green Power ON Button
 3. Error LED
 4. RX LED
- 3] With the remote power off, press and hold the green power ON button and the dissociate button simultaneously. Initially all 6 LEDs (TX, RX, ERR, Bat, Conv, and Float) will illuminate. They will all stay on momentarily and then only the TX will illuminate solid.

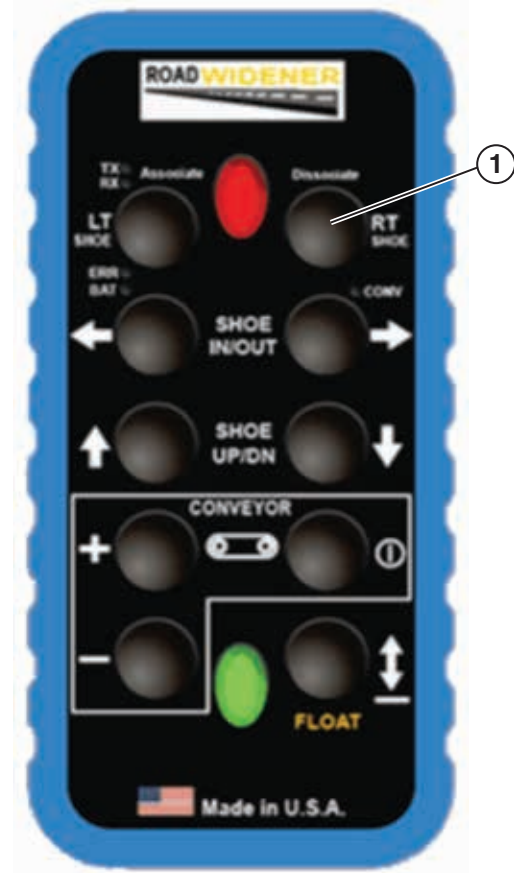


Figure 81: Dissociate Button

1. Dissociate Button
- 4] Continue holding the dissociate button and the green power ON button while plugging in the 12-volt DC power cord into a 12-volt DC power source.

MAINTENANCE



Figure 82: TX and RX LEDs Flashing

- 5] Release the dissociate button. When properly paired, the TX and the RX LEDs will be flashing.
- 6] The unpairing is now complete.



Figure 83: Red LED

- 7] When the remote is unpaired the red LED on the attachment will not be lit.

MAINTENANCE

Remote Battery Replacement



Figure 84: Remote Battery Cover

- 1] Remove the four screws for the battery cover on the back of the remote and remove the cover.



Figure 85: Battery Replacement

NOTE: Typical temperature range for alkaline batteries is -20°F to 130°F (-30°C to 55°C). To achieve maximum performance throughout all temperature ranges it is recommended that lithium ion batteries be used.

- 2] Remove the batteries and replace them with a high quality alkaline AAA battery.
- 3] Install new batteries with negative (-) side of the battery against the springs.
- 4] Install the battery cover.

TROUBLE-SHOOTING

7

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Machine tipping or unstable (All models)	Skid steer or wheel loader machine are undersized	Check weight capacities of skid steer and use a larger-sized loader.
	The Road Widener hopper is being loaded on unlevel ground	Load the hopper on level ground with the casters on the ground.
	Road Widener is not on the caster wheels	Lower the Road Widener so it is resting on the ground and is level.
Material spilling out of hopper (All models)	Truck is not properly lined up with hopper	Properly align truck with hopper.
	Push rollers are not adjusted properly	Adjust the push roller for the truck being unloaded.
	Truck tailgate is open too far	Adjust the tailgate chains.
	Too much material is in hopper	Do not fully fill the hopper.
No hydraulics	Hydraulic hoses are not hooked up correctly to loader (All models)	Check hose connections and hook up correctly.
	Loader's auxiliary hydraulics are off (All models)	Make sure the loader's auxiliary hydraulics are on.
	Control valve levers are not in the correct position (FH models)	Move the control valve levers to the correct position.
	Flow control valve is not set properly	Adjust the flow control valve. For FH models see Figures 36, 37, 56 and 57 and for FH-R models see Figures 31 and 32.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
No hydraulics (continued)	Remote batteries are dead (FH-R models)	Replace the batteries.
	For dual discharge units, the flow control selector valve on skid is not set to correct position (FH models)	Move the selector valve control switch to the correct position.
Slow or no hydraulics (All models)	Possible air in the hydraulic system	Perform the solenoid manual override for the shoe extend, and the shoe up or down solenoids. Continue to override the solenoids for an additional 7 seconds after the maximum extension and retraction of the cylinders to allow the air to be dissipated.
	Debris in valve	Perform solenoid manual overrides to clear air or debris from valves.
	Low oil in skid steer attachment	Check oil and oil pressure from machine cylinders. They will typically extend more easily than they retract.
Shoe movement limitation (goes up but not down, down but not up, out but not in, in but not out, or a combination thereof) (FH-R models)	Loose or improper wire connections	Verify wire connectors are properly connected to the receiver(s) (brain box).
	Defective receiver	Swap the wire connectors from each receiver. Does the problem move to the left side? If yes, the receiver (brain box) is defective. Replace receiver. If no, check harnesses. Make sure the wire harness is not cut or spliced or rubbing on anything.
Conveyor belt not moving or slipping (All models)	Too much material is in the hopper	Remove some material from the hopper.
	Conveyor belt tension is incorrect	Adjust the conveyor belt tension.
	Tailgate is open too far and dumping too much material into the hopper	Shorten the tailgate chains to close the tailgate more.
Conveyor belt not tracking properly (All models)	Conveyor belt tension is incorrect	Adjust the conveyor belt tension.
	Material buildup on the rollers	Inspect the rollers and remove any built-up material or debris. Apply a releasing agent to rollers if needed. See steps 13 and 14 on page 51 for more information.
	Too much material is in hopper	Remove some material from the hopper.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Loader loses traction when pushing truck (All models)	Loader is pushing too hard on truck	Apply less pressure to the back of the truck.
	Too much material is in hopper	Remove some material from the hopper.
	Brakes on truck are applied too hard	Apply less brake pressure on truck.
Handheld remote and base unit are not communicating (FH-R models)	Power is not supplied to base unit or remote	Make sure the 12-volt DC power cord is plugged into a 12-volt DC power source and the connection is clean of debris and corrosion.
		Make sure the amber battery LED is not illuminated. If illuminated, install new batteries in the remote.
The remote green TX LED is not illuminated or the remote does not stay connected with the base unit (FH-R models)	Remote batteries are low	Replace remote batteries. See "Remote Battery Replacement" on page 66.
The remote and the base unit are powered but are not communicating with each other (FH-R models)	Remote and base unit may be out of range	Make sure the units are in range.
	Obstructions or interference exist between remote and base unit	Make sure there is a clear line of sight between the base unit and the remote.
	Remote and base unit are not properly paired	In the unlikely event that pairing is required, see the separate pairing instructions that were supplied with the machine or go to www.roadwidenerllc.com for the pairing procedure.
	The 12-volt DC accessory socket or power cord is not rated for 10 amps	Make sure both the 12-volt DC accessory socket and power cord are rated for 10 amps.
Red LED on machine is lit but functions are not working (FH-R models)	The 12-volt DC power source is not rated for the correct amperage	The recommended amperage for the 12-volt DC accessory socket is 10 amps. Make sure the 12-volt DC power source can supply a minimum of 10 amps.
Remote does not seem to be paired or will not pair correctly (FH-R models).	12-volt DC power source is not supplying enough amperage	Check the 12-volt DC power source to make sure it has the correct output of 10 amps.

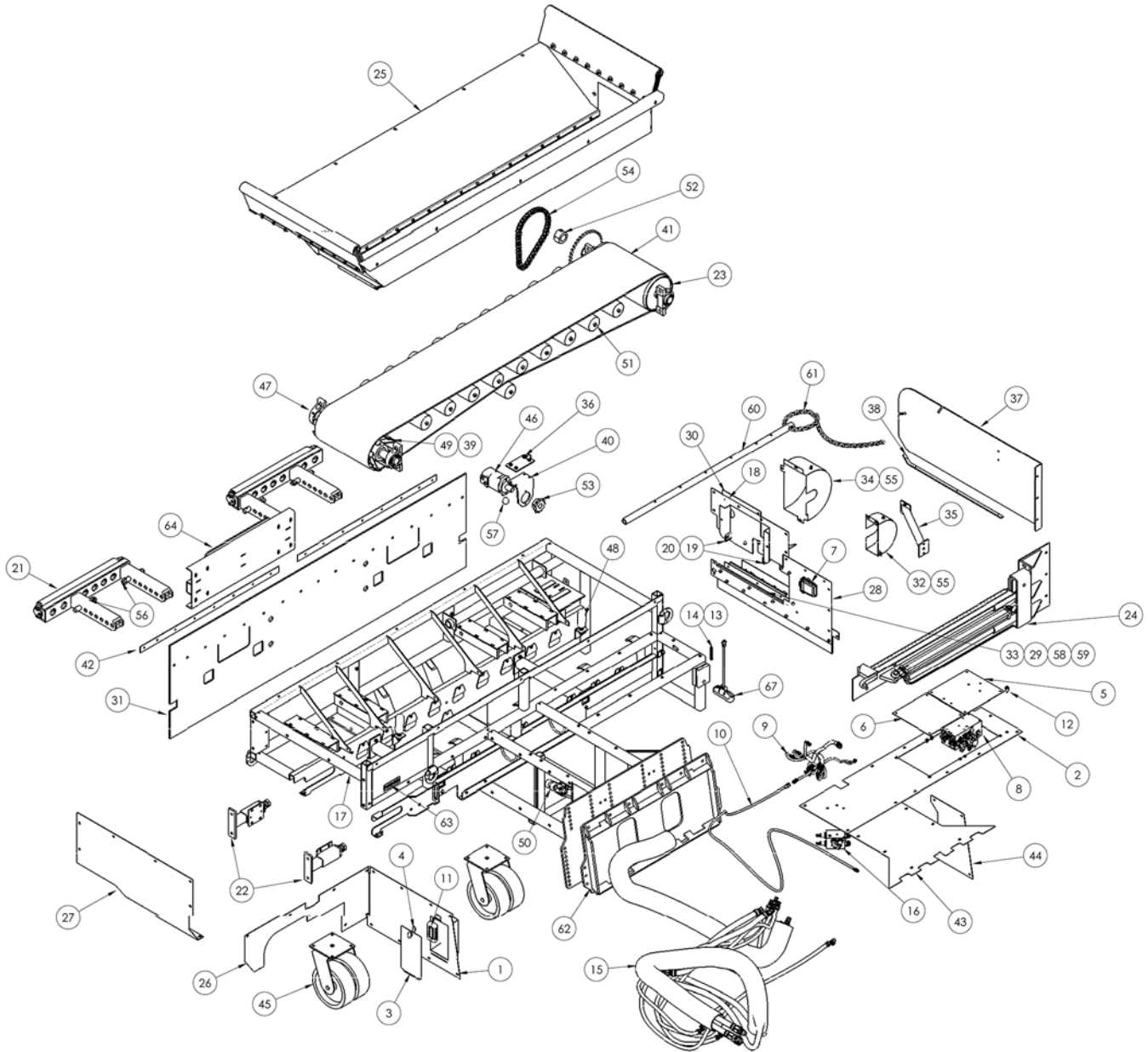
TROUBLESHOOTING

This Page Intentionally Left Blank

ILLUSTRATED PARTS LIST

8

ILLUSTRATED PARTS LIST



ILLUSTRATED PARTS LIST

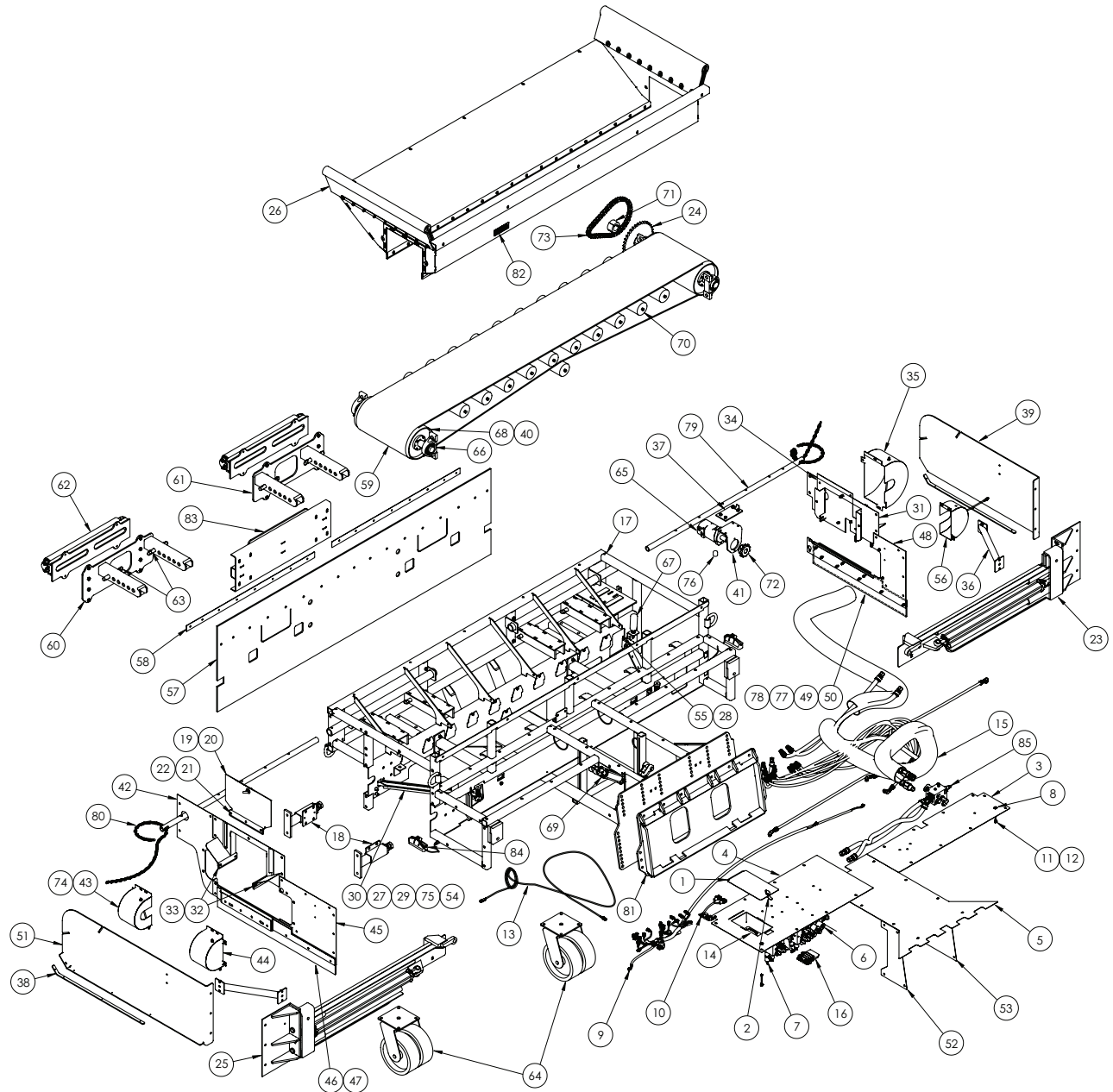
NOTE: Contact a Road Widener Distributor/Dealer for all service.

RW-1001001 - FHR RIGHT DISCHARGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	RW-2001012	COVER PANEL REMOTE ACCESS RH - ANGLED	1
2	RW-3000216	COVER PANEL 9 BOLTED RH	1
3	RW-3001162	REMOTE CUBBY COVER	1
4	RW-4005024	LATCH	1
5	RW-3001163	HYDRO PLATE - HYDRECO - BOLTED	1
6	RW-3000215	HYDRO PLATE - HYDRECO - BOLTED	1
7	RW-4003000	MODEL FHR SINGLE RECEIVER	1
8	RW-4007084	HYDRAULIC MANIFOLD - FHR	1
9	RW-4003002	FHR SINGLE DISCHARGE HARNESS	1
10	RW-4007044	FHR INTERMEDIATE HARNESS	1
11	RW-4005019	REMOTE FOR RH DISCHARGE UNIT	1
12	RW-4004068	FHR/FHRD INDICATOR LIGHT - RED, PROTRUSIVE HEAD	1
13	RW-4000074	JUMPER WIRE (POSITIVE)	1
14	RW-4000080	JUMPER WIRE (NEGATIVE)	1
15	RW-4003006	FHR HYDRAULIC HOSE ASSEMBLY	1
16	RW-4007145	PRESSURE REDUCING MANIFOLD	1
17	RW-3001200	RH FRAME WELDMENT - ANGLED	1
18	RW-3000019	STANDARD EXIT CHUTE WELDMENT	1
19	RW-3000023	EXIT CHUTE RUBBER STRIP	2
20	RW-3000024	EXIT CHUTE RUBBER STRIP BRACKET	2
21	RW-2000001	PUSH ROLLER ASSEMBLY	2
22	RW-2000002	TENSIONER ASSEMBLY	2
23	RW-2001003	HEAD PULLEY ASSEMBLY	1
24	RW-2001000	RH SHOE ASSEMBLY	1
25	RW-2001010	RH HOPPER ASSEMBLY - RUBBER	1
26	RW-3001066	COVER PANEL 1	1
27	RW-3001067	SHEET (EXTERIOR TIN)	1
28	RW-3001167	COVER PANEL 4 - REMOTE	1
29	RW-3001070	COVER PANEL 5	1
30	RW-3001072	COVER PANEL 7	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
31	RW-3001075	APRON SKIRT	1
32	RW-3001077	BEARING GUARD WELDMENT	1
33	RW-3001076	CONVEYOR BELT DISCHARGE SKIRT	1
34	RW-3001081	GEAR GUARD WELDMENT	1
35	RW-3001085	GUSSET TUBE WELDMENT	1
36	RW-3001088	MOTOR MOUNT PLATE WELDMENT	1
37	RW-3001112	RH SHOE CATCH	1
38	RW-3001113	SHOE WEAR STRIP	1
39	RW-3001118	SHAFT - TAIL PULLEY	1
40	RW-3001122	MOTOR MOUNT	1
41	RW-3001135	CONVEYOR BELT	1
42	RW-3001149	HOPPER STRIP	2
43	RW-3001208	COVER PANEL 8 - ANGLED	1
44	RW-3001183	COVER PANEL 6 - ANGLED	1
45	RW-4000004	CASTER	2
46	RW-4000005	CONVEYOR MOTOR	1
47	RW-4000007	PILLOW BLOCK BEARING	2
48	RW-4000009	GUIDE ROLLER WITH HARDWARE	4
49	RW-4000011	TAIL PULLEY - WINGED	1
50	RW-4000012	6" CYLINDER	1
51	RW-4000017	ROLLER	10
52	RW-4000019	2517 X 1-15/16 BUSHING	1
53	RW-4000020	SMALL SPROCKET	1
54	RW-4000021	ROLLER DRIVE CHAIN	1
55	RW-4000022	GREASE GUN EXTENSION HOSE	2
56	RW-4000025	QUICK RELEASE PIN	4
57	RW-4000030	THREADED BUMPER	1
58	RW-3003253	BELT WIPER STRIP	1
59	RW-3003254	BELT WIPER CLAMP PLATE	1
60	RW-3003287	CHAIN MOUNT TUBE	1
61	RW-4000064	SHOE SUPPORT CHAIN	1
62	RW-2003046	ADJUSTABLE INTERFACE WELDMENT	1
63	RW-4007118	PATENTED LABEL	1
64	RW-3001114	PUSH PLATE WELDMENT	1
65	RW-4007186	HEX NUT - GRADE 8 (3/8-16)	1
66	RW-4007206	BHCS 3/8-16 X 5/8	1
67	RW-4007260	LED WORK LIGHT	1

ILLUSTRATED PARTS LIST



ILLUSTRATED PARTS LIST

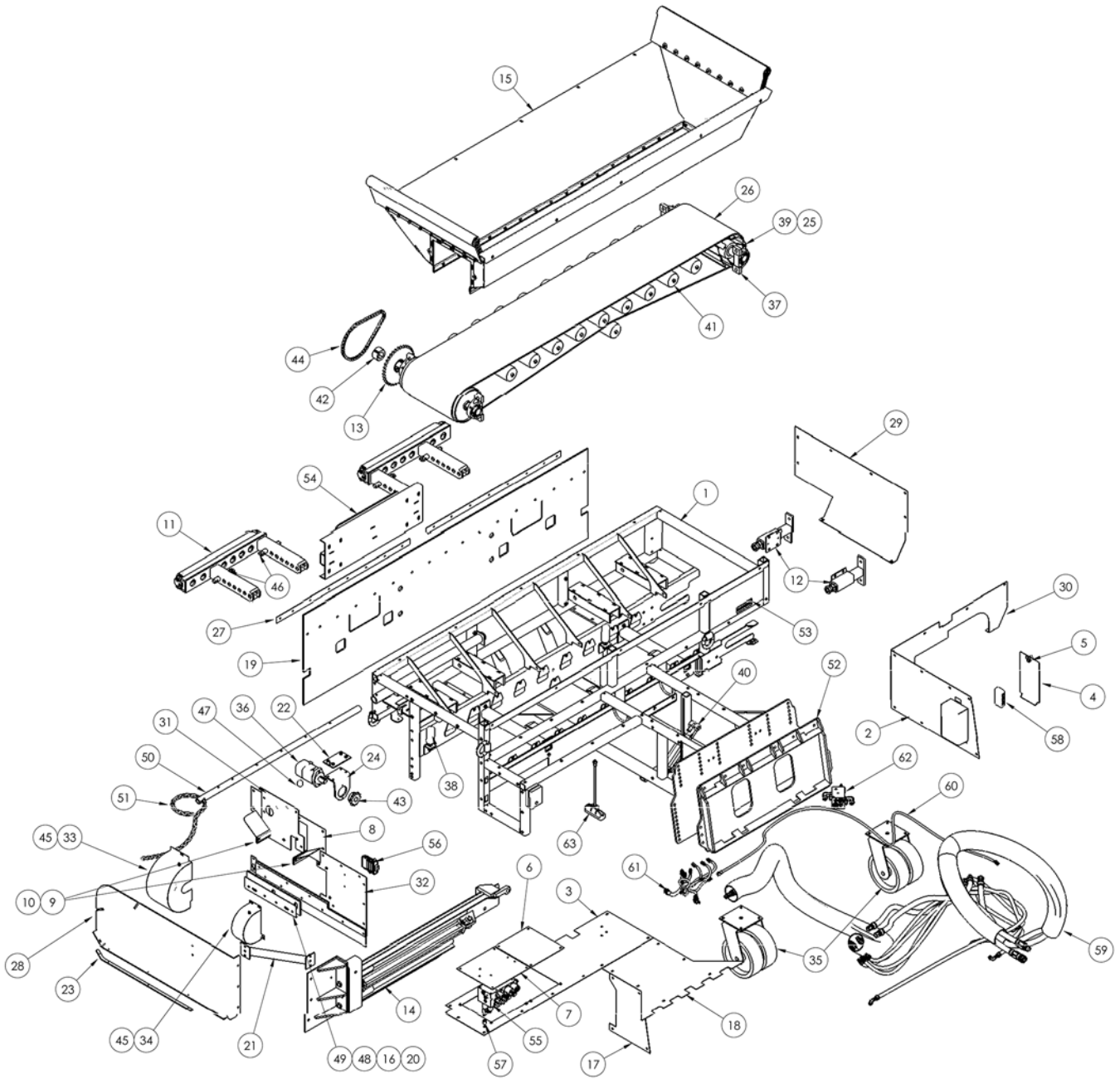
NOTE: Contact a Road Widener Distributor/Dealer for all service.

RW-1003001 - FHR DUAL DISCHARGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	RW-3001162	REMOTE CUBBY COVER	1
2	RW-4005024	LATCH	1
3	RW-3003098	RIGHT SIDE PLATE - REMOTE	1
4	RW-3003099	LEFT SIDE PLATE - REMOTE	1
5	RW-3001211	CENTER PANEL - DUAL REMOTE ANGLED	1
6	RW-4007085	PRIMARY HYDRAULIC MANIFOLD - FHRD	1
7	RW-4007086	SECONDARY HYDRAULIC MANIFOLD - FHRD	1
8	RW-4004068	FHR/FHRD INDICATOR LIGHT - RED, PROTRUSIVE HEAD	2
9	RW-4003003	FHR DUAL DISCHARGE HARNESS	1
10	RW-4007144	FHRD DUAL RECEIVER JUMPER	1
11	RW-4000074	JUMPER WIRE (POSITIVE)	2
12	RW-4000080	JUMPER WIRE (NEGATIVE)	2
13	RW-4007044	FHR INTERMEDIATE HARNESS	1
14	RW-4005020	REMOTE DUAL UNIT	1
15	RW-4003007	FHRD HYDRAULIC HOSE ASSEMBLY	1
16	RW-4007143	FHRD REMOTE HYDRAULICS RECEIVER	1
17	RW-3003003	DUAL FRAME WELDMENT	1
18	RW-2000002	TENSIONER ASSEMBLY	2
19	RW-2000004	T-BOLT ASSEMBLY	2
20	RW-3007157	DUAL BLOCKER PLATE	1
21	RW-3001130	HOPPER STRIP 3	1
22	RW-3000054	BLOCKER PLATE SKIRT	1
23	RW-2001000	RH SHOE ASSEMBLY	1
24	RW-2001003	HEAD PULLEY ASSEMBLY	1
25	RW-2002000	LH SHOE ASSEMBLY	1
26	RW-2003014	DUAL HOPPER ASSEMBLY - RUBBER	1
27	RW-3003051	BELT WIPER 1	1
28	RW-3003052	BELT WIPER 1 - MR	1
29	RW-3003053	BELT WIPER 2	2
30	RW-3003054	BELT WIPER STRIP	2
31	RW-3003065	DUAL EXIT CHUTE WELDMENT	2
32	RW-3000023	EXIT CHUTE RUBBER STRIP	4
33	RW-3000024	EXIT CHUTE RUBBER STRIP BRACKET	4
34	RW-3001072	COVER PANEL 7	1
35	RW-3001081	GEAR GUARD WELDMENT	1
36	RW-3001085	GUSSET TUBE WELDMENT	2
37	RW-3001088	MOTOR MOUNT PLATE WELDMENT	1
38	RW-3001113	SHOE WEAR STRIP	2
39	RW-3003044	RH SHOE CATCH - DUAL	1
40	RW-3001118	SHAFT - TAIL PULLEY	1
41	RW-3001122	MOTOR MOUNT	1
42	RW-3003018	COVER PANEL 7 DUAL	1
43	RW-3003015	BEARING GUARD WELDMENT - TS	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
44	RW-3003017	BEARING GUARD WELDMENT - TS - MR	1
45	RW-3003022	COVER PANEL 4 - DUAL	1
46	RW-3003040	CONVEYOR BELT DISCHARGE DUAL SKIRT	1
47	RW-3003039	COVER PANEL 5 - DUAL	1
48	RW-3003043	COVER PANEL 4 - DUAL - SHORT	1
49	RW-3003041	COVER PANEL 5 - DUAL - SHORT	1
50	RW-3003042	CONVEYOR BELT DISCHARGE DUAL SKIRT - SHORT	1
51	RW-3003045	LH SHOE CATCH - DUAL	1
52	RW-3000222	COVER PANEL 6 - DUAL ANGLED LH	1
53	RW-3000221	COVER PANEL 6 - DUAL ANGLED RH	1
54	RW-3003058	WIPER PIVOT BRACKET	1
55	RW-3003059	WIPER PIVOT BRACKET - MR	1
56	RW-3001077	BEARING GUARD WELDMENT	1
57	RW-3001075	APRON SKIRT	1
58	RW-3001149	HOPPER STRIP	2
59	RW-3003004	CONVEYOR BELT - DUAL	1
60	RW-3007087	LH ADJUSTABLE PUSH ROLLER MTG WELDMENT	1
61	RW-3007086	RH ADJUSTABLE PUSH ROLLER MTG WELDMENT	1
62	RW-2007014	ADJUSTABLE PUSH ROLLER ASSEMBLY	2
63	RW-4000025	QUICK RELEASE PIN	8
64	RW-4000004	CASTER	2
65	RW-4000005	CONVEYOR MOTOR	1
66	RW-4000007	PILLOW BLOCK BEARING	2
67	RW-4000009	GUIDE ROLLER WITH HARDWARE	4
68	RW-4000010	DRUM ROLLER ASSEMBLY	1
69	RW-4000012	6" CYLINDER	2
70	RW-4000017	ROLLER	11
71	RW-4000019	2517 X 1-15/16 BUSHING	1
72	RW-4000020	SMALL SPROCKET	1
73	RW-4000021	ROLLER DRIVE CHAIN	1
74	RW-4000022	GREASE GUN EXTENSION HOSE	4
75	RW-4000029	COIL COMPRESSION SPRING	2
76	RW-4000030	THREADED BUMPER	1
77	RW-3003253	BELT WIPER STRIP	2
78	RW-3003254	BELT WIPER CLAMP PLATE	2
79	RW-3003287	CHAIN MOUNT TUBE	2
80	RW-4000064	SHOE SUPPORT CHAIN	2
81	RW-2003046	ADJUSTABLE INTERFACE WELDMENT	1
82	RW-4007118	PATENTED LABEL	1
83	RW-3001114	PUSH PLATE WELDMENT	1
84	RW-4007260	LED WORK LIGHT	2
85	RW-2007022	PRESSURE REDUCING HYDRAULICS KIT	1

ILLUSTRATED PARTS LIST



ILLUSTRATED PARTS LIST

NOTE: Contact a Road Widener Distributor/Dealer for all service.

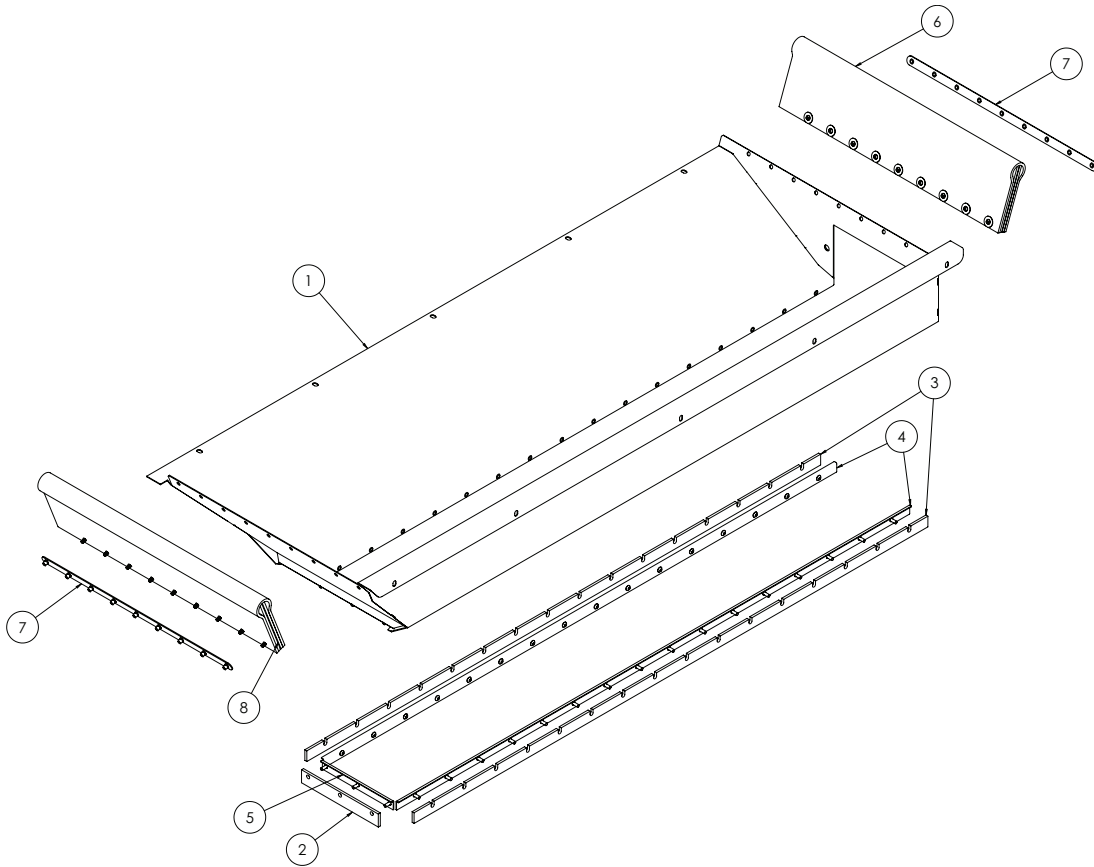
RW-1002001 - FHR LEFT DISCHARGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	RW-3002000	LH FRAME WELDMENT	1
2	RW-2002007	COVER PANEL REMOTE ACCESS LH - ANGLED	1
3	RW-3000214	COVER PANEL 9 BOLTED LH	1
4	RW-3001162	REMOTE CUBBY COVER	1
5	RW-4005024	LATCH	1
6	RW-3000215	HYDRO PLATE - HYDRECO - BOLTED	1
7	RW-3001163	HYDRO PLATE - HYDRECO - BOLTED	1
8	RW-3000019	STANDARD EXIT CHUTE WELDMENT	1
9	RW-3000023	EXIT CHUTE RUBBER STRIP	2
10	RW-3000024	EXIT CHUTE RUBBER STRIP BRACKET	2
11	RW-2000001	PUSH ROLLER ASSEMBLY	2
12	RW-2000002	TENSIONER ASSEMBLY	2
13	RW-2001003	HEAD PULLEY ASSEMBLY	1
14	RW-2002000	LH SHOE ASSEMBLY	1
15	RW-2001013	LH HOPPER ASSEMBLY - RUBBER	1
16	RW-3001070	COVER PANEL 5	1
17	RW-3001183	COVER PANEL 6 - ANGLED	1
18	RW-3001208	COVER PANEL 8 - ANGLED	1
19	RW-3001075	APRON SKIRT	1
20	RW-3001076	CONVEYOR BELT DISCHARGE SKIRT	1
21	RW-3001085	GUSSET TUBE WELDMENT	1
22	RW-3001088	MOTOR MOUNT PLATE WELDMENT	1
23	RW-3001113	SHOE WEAR STRIP	1
24	RW-3001122	MOTOR MOUNT	1
25	RW-3001118	SHAFT - TAIL PULLEY	1
26	RW-3001135	CONVEYOR BELT	1
27	RW-3001149	HOPPER STRIP	2
28	RW-3002030	LH SHOE CATCH	1
29	RW-3002031	LH COVER PANEL 2	1
30	RW-3002032	LH COVER PANEL 1	1
31	RW-3002034	LH COVER PANEL 7	1
32	RW-3002035	LH COVER PANEL 4	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
33	RW-3002036	GEAR GUARD WELDMENT	1
34	RW-3002039	LH BEARING GUARD WELDMENT	1
35	RW-4000004	CASTER	2
36	RW-4000005	CONVEYOR MOTOR	1
37	RW-4000007	PILLOW BLOCK BEARING	2
38	RW-4000009	GUIDE ROLLER WITH HARDWARE	4
39	RW-4000011	TAIL PULLEY - WINGED	1
40	RW-4000012	6" CYLINDER	1
41	RW-4000017	ROLLER	10
42	RW-4000019	2517 X 1-15/16 BUSHING	1
43	RW-4000020	SMALL SPROCKET	1
44	RW-4000021	ROLLER DRIVE CHAIN	1
45	RW-4000022	GREASE GUN EXTENSION HOSE	2
46	RW-4000025	QUICK RELEASE PIN	4
47	RW-4000030	THREADED BUMPER	1
48	RW-3003253	BELT WIPER STRIP	1
49	RW-3003254	BELT WIPER CLAMP PLATE	1
50	RW-3003287	CHAIN MOUNT TUBE	1
51	RW-4000064	SHOE SUPPORT CHAIN	1
52	RW-2003046	ADJUSTABLE INTERFACE WELDMENT	1
53	RW-4007118	PATENTED LABEL	1
54	RW-3001114	PUSH PLATE WELDMENT	1
55	RW-4007084	HYDRAULIC MANIFOLD - FHR	1
56	RW-4003000	MODEL FHR SINGLE RECEIVER	1
57	RW-4004068	FHR/FHRD INDICATOR LIGHT - RED, PROTRUSIVE HEAD	1
58	RW-4005019	REMOTE FOR RH DISCHARGE UNIT	1
59	RW-4003006	FHR HYDRAULIC HOSE ASSEMBLY	1
60	RW-4007044	FHR INTERMEDIATE HARNESS	1
61	RW-4003002	FHR SINGLE DISCHARGE HARNESS	1
62	RW-4007145	PRESSURE REDUCING MANIFOLD	1
63	RW-4007260	LED WORK LIGHT	1

ILLUSTRATED PARTS LIST

NOTE: Contact a Road Widener Distributor/Dealer for all service.



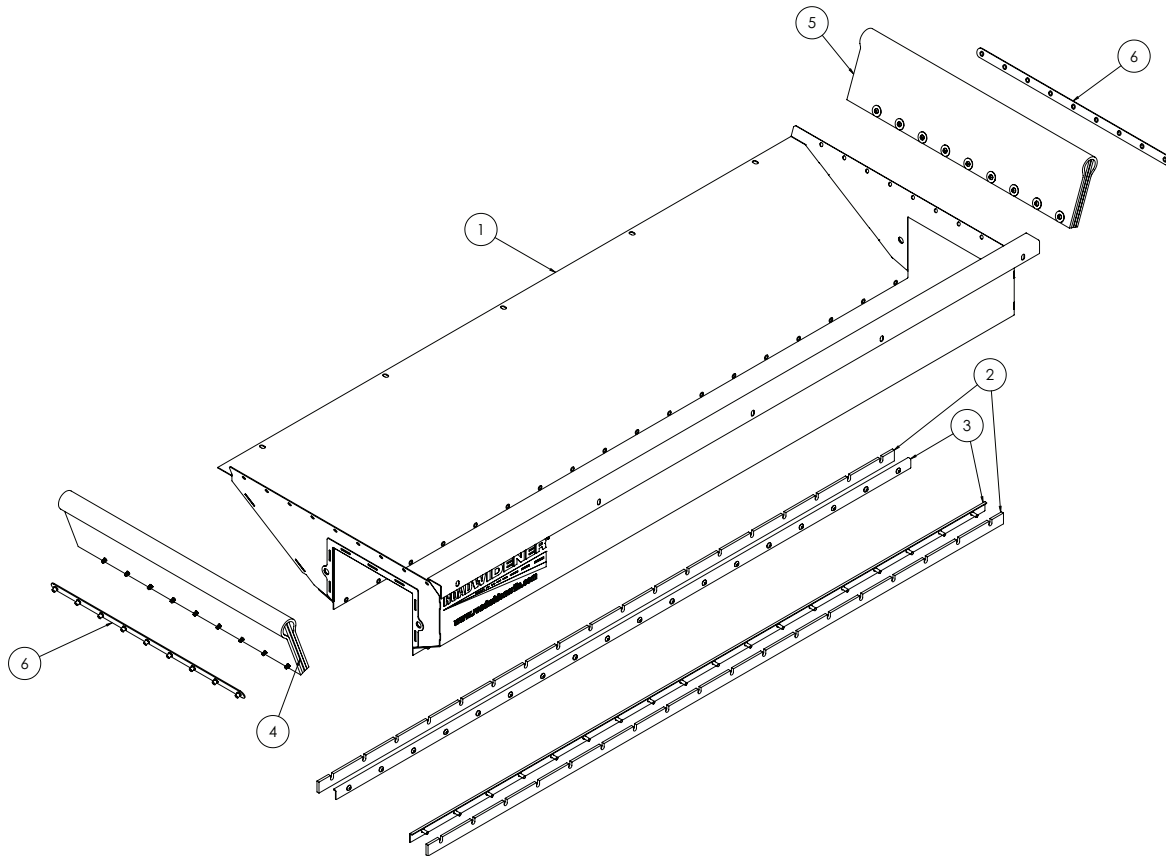
RW-2001010 - HOPPER ASSEMBLY

USAGE: RW-1001001 - FHR RIGHT DISCHARGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	RW-3001150	RH HOPPER WELDMENT	1
2	RW-3001132	HOPPER SKIRT 2	1
3	RW-3001131	HOPPER SKIRT 1	2
4	RW-3001129	HOPPER STRIP 2	2
5	RW-3001130	HOPPER STRIP 3	1
6	RW-3001178	RUBBER BUMPER 1	2
7	RW-3001179	BUMPER RETAINER WELDMENT	2
8	RW-4005066	HOPPER BUMPER REINFORCEMENT	4

ILLUSTRATED PARTS LIST

NOTE: Contact a Road Widener Distributor/Dealer for all service.



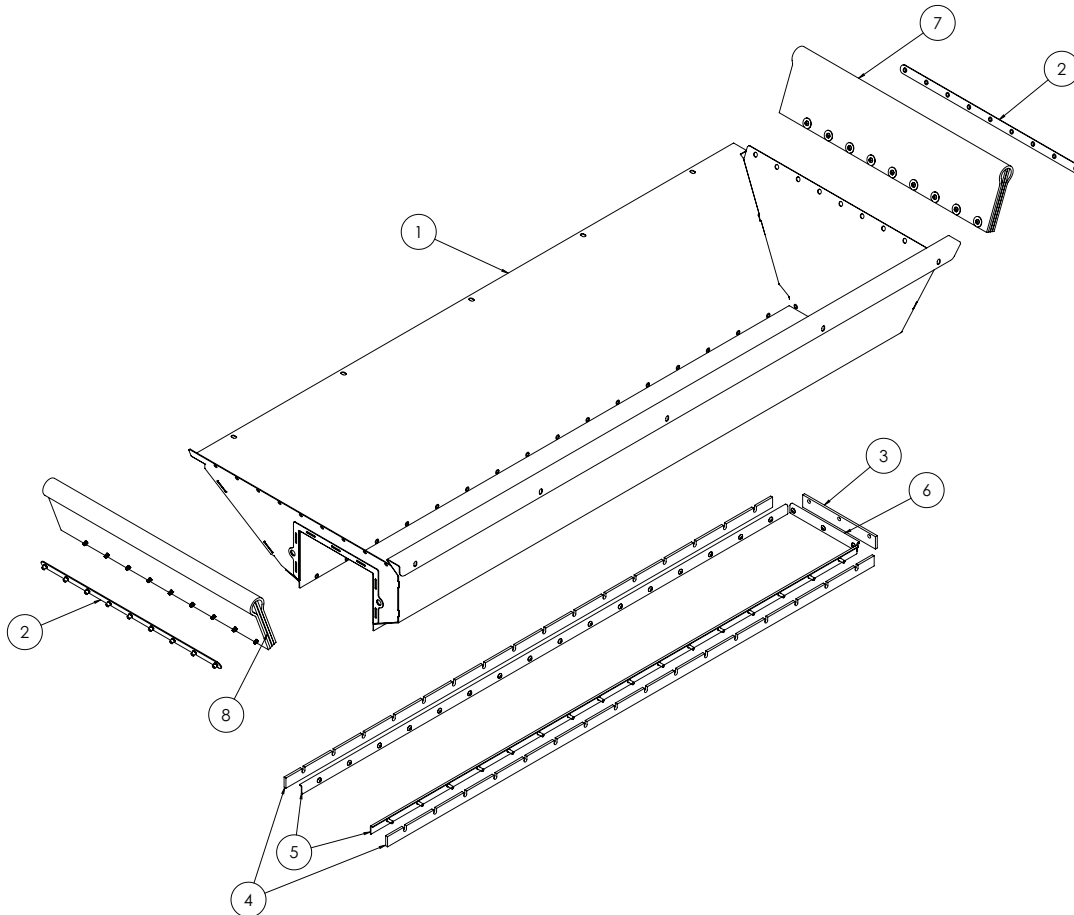
RW-2003014 - HOPPER ASSEMBLY

USAGE: RW-1003001 - FHR DUAL DISCHARGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	RW-3000094	DUAL HOPPER WELDMENT - RUBBER	1
2	RW-3003005	DUAL HOPPER SKIRT	2
3	RW-3003006	DUAL HOPPER STRIP	2
4	RW-4005066	HOPPER BUMPER REINFORCEMENT	4
5	RW-3001178	RUBBER BUMPER 1	2
6	RW-3001179	HOPPER STRIP 5	2

ILLUSTRATED PARTS LIST

NOTE: Contact a Road Widener Distributor/Dealer for all service.



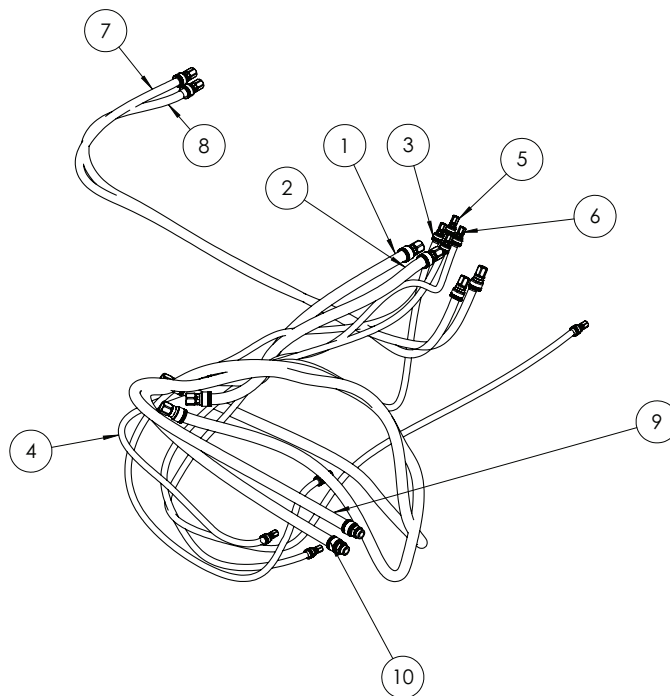
RW-2001001 - HOPPER ASSEMBLY

USAGE: RW-1002001 - FHR LEFT DISCHARGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	RW-3000089	LH HOPPER WELDMENT	1
2	RW-3001179	HOPPER STRIP 5	2
3	RW-3001132	HOPPER SKIRT 2	1
4	RW-3001131	HOPPER SKIRT 1	2
5	RW-3001129	HOPPER STRIP 2	2
6	RW-3001130	HOPPER STRIP 3	1
7	RW-3001178	RUBBER BUMPER 1	2
8	RW-4005066	HOPPER BUMPER REINFORCEMENT	4

ILLUSTRATED PARTS LIST

NOTE: Contact a Road Widener Distributor/Dealer for all service.



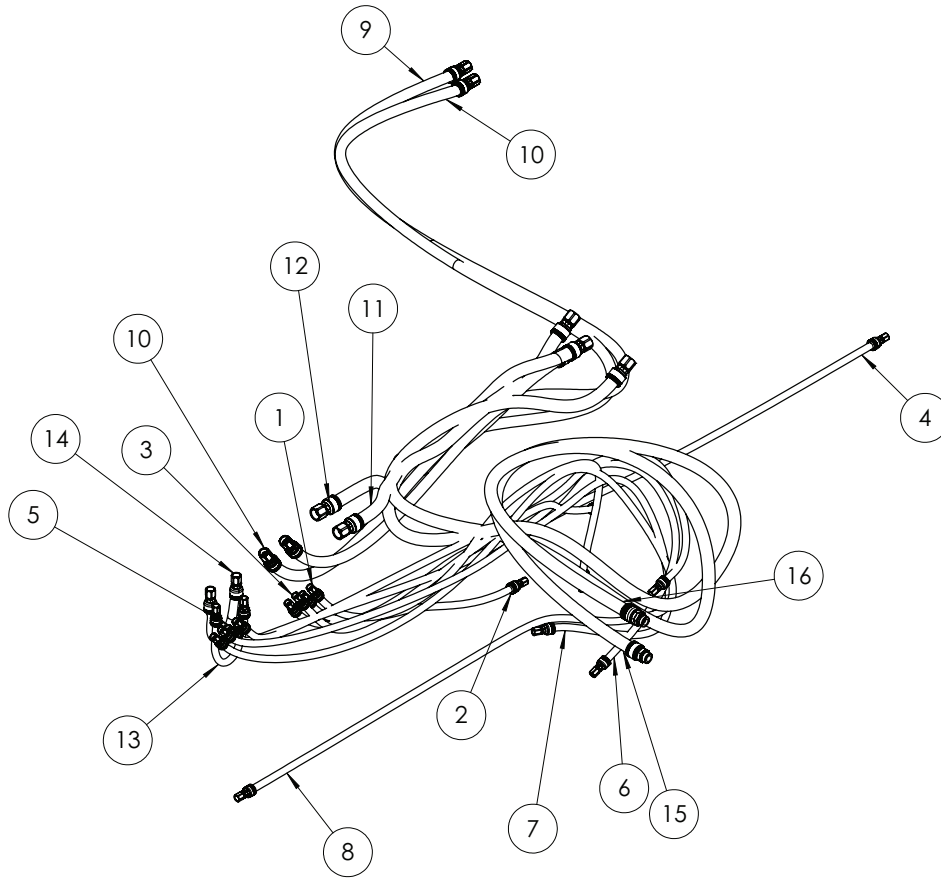
RW-4003006 - HOSE ASSEMBLY

USAGE: RW-1001001 - FHR RIGHT DISCHARGE / RW-1002001 - FHR LEFT DISCHARGE

ITEM NO.	END A CONNECTION	HOSE PART NO.	HOSE IDENTIFIER	END B CONNECTION	HOSE FUNCTION	HYDRAULIC MANIFOLD SOLENOID
1	PRIMARY MANIFOLD - PORT PA	RW-4007140	PA	PRESSURE REDUCING MANIFOLD - PORT A	PRIMARY MANIFOLD REDUCED PRESSURE IN	
2	PRIMARY MANIFOLD - PORT PB	RW-4007140	PB	PRESSURE REDUCING MANIFOLD - PORT B	PRIMARY MANIFOLD RETURN TO TANK	
3	PRIMARY MANIFOLD - PORT A1	RW-4007147	A1	TILT CYLINDER BARREL END	SHOE TILT DOWN	SV3
4	PRIMARY MANIFOLD - PORT B1	RW-4007148	B1	TILT CYLINDER ROD END	SHOE TILT UP	SV3
5	PRIMARY MANIFOLD - PORT A2	RW-4007149	A2	EXTENSION CYLINDER BARREL END	SHOE EXTEND	SV4
6	PRIMARY MANIFOLD - PORT B2	RW-4007150	B2	EXTENSION CYLINDER ROD END	SHOE RETRACT	SV4
7	PRIMARY MANIFOLD - PORT MA	RW-4007151	MA	MOTOR TOP PORT	CONVEYOR RIGHT	SP1
8	PRIMARY MANIFOLD - PORT MB	RW-4007151	MB	MOTOR BOTTOM PORT	CONVEYOR LEFT	SP2
9	PRESSURE REDUCING MANIFOLD - PORT VA	RW-4007152	A	HOST MACHINE PRESSURE QD	HOST MACHINE PRESSURE IN	
10	PRESSURE REDUCING MANIFOLD - PORT VB	RW-4007152	B	HOST MACHINE RETURN QD	HOST MACHINE RETURN TO TANK	

ILLUSTRATED PARTS LIST

NOTE: Contact a Road Widener Distributor/Dealer for all service.



ILLUSTRATED PARTS LIST

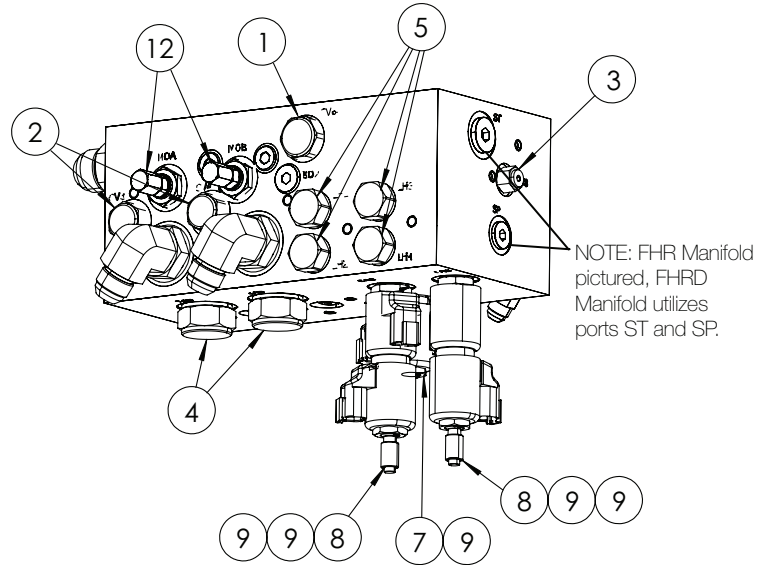
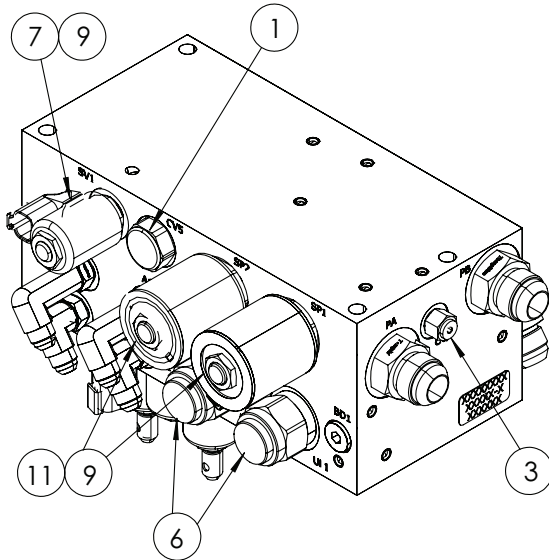
RW-4003007 - HOSE ASSEMBLY

USAGE: RW-1003001 - FHR DUAL DISCHARGE

ITEM NO.	END A CONNECTION	HOSE PART NO.	HOSE IDENTIFIER	END B CONNECTION	HOSE FUNCTION	HYDRAULIC MANIFOLD SOLENOID
1	PRIMARY MANIFOLD - PORT A1	RW-4007131	A1	RH TILT CYLINDER BARREL END	RH SHOE TILT DOWN	SV3
2	PRIMARY MANIFOLD - PORT B1	RW-4007132	B1	RH TILT CYLINDER ROD END	RH SHOE TILT UP	SV3
3	PRIMARY MANIFOLD - PORT A2	RW-4007133	A2	RH EXTENSION CYLINDER BARREL END	RH SHOE EXTEND	SV4
4	PRIMARY MANIFOLD - PORT B2	RW-4007134	B2	RH EXTENSION CYLINDER ROD END	RH SHOE RETRACT	SV4
5	SECONDARY MANIFOLD - PORT A3	RW-4007135	A3	LH TILT CYLINDER BARREL END	LH SHOE TILT DOWN	SV7
6	SECONDARY MANIFOLD - PORT B3	RW-4007136	B3	LH TILT CYLINDER ROD END	LH SHOE TILT UP	SV7
7	SECONDARY MANIFOLD - PORT A4	RW-4007137	A4	LH EXTENSION CYLINDER BARREL END	LH SHOE EXTEND	SV8
8	SECONDARY MANIFOLD - PORT B4	RW-4007138	B4	LH EXTENSION CYLINDER ROD END	LH SHOE RETRACT	SV8
9	PRIMARY MANIFOLD - PORT MA	RW-4007139	MA	MOTOR TOP PORT	CONVEYOR RIGHT	SP1
10	PRIMARY MANIFOLD - PORT MB	RW-4007139	MB	MOTOR BOTTOM PORT	CONVEYOR LEFT	SP2
11	PRIMARY MANIFOLD - PORT PA	RW-4007140	PA	PRESSURE REDUCING MANIFOLD - PORT A	PRIMARY MANIFOLD REDUCED PRESSURE IN	
12	PRIMARY MANIFOLD - PORT PB	RW-4007140	PB	PRESSURE REDUCING MANIFOLD - PORT B	PRIMARY MANIFOLD RETURN TO TANK	
13	PRIMARY MANIFOLD - PORT SB	RW-4007141	SB	SECONDARY MANIFOLD - PORT SB	SECONDARY MANIFOLD PRESSURE IN	
14	PRIMARY MANIFOLD - PORT ST	RW-4007142	ST	SECONDARY MANIFOLD - PORT ST	SECONDARY MANIFOLD RETURN TO TANK	
15	PRESSURE REDUCING MANIFOLD - PORT VA	RW-4007152	A	HOST MACHINE PRESSURE QD	HOST MACHINE PRESSURE IN	
16	PRESSURE REDUCING MANIFOLD - PORT VB	RW-4007152	B	HOST MACHINE RETURN QD	HOST MACHINE RETURN TO TANK	

ILLUSTRATED PARTS LIST

NOTE: Contact a Road Widener Distributor/Dealer for all service.



VIEWS ABOVE APPLY TO PART NUMBERS:

RW-4007084 – HYDRAULIC MANIFOLD

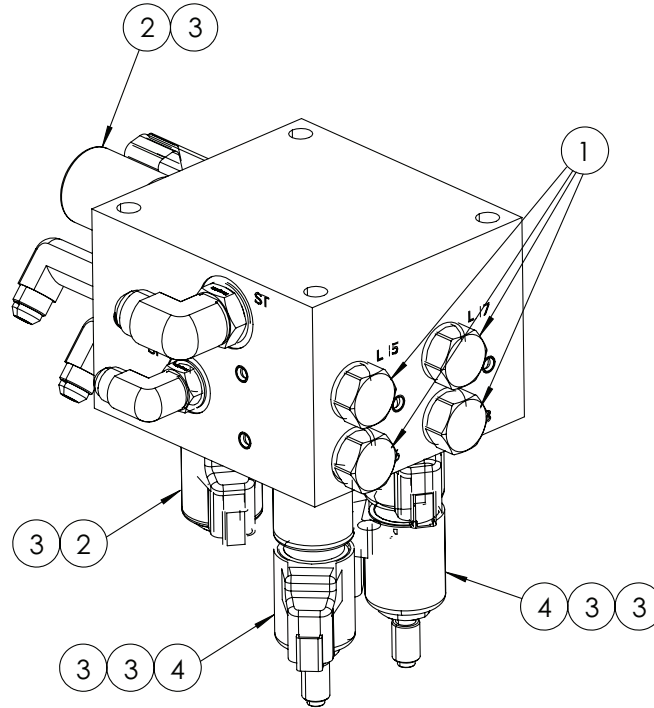
USAGE: RW-1001001 – FHR RIGHT DISCHARGE / RW-1002001 – FHR LEFT DISCHARGE

RW-4007086 – PRIMARY HYDRAULIC MANIFOLD

USAGE: RW-1003001 – FHR DUAL DISCHARGE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	MACHINE FUNCTION (PORT LABEL)	INSTALLATION TORQUE	SEAL KIT NO.
1	RW-4007300	CHECK VALVE	2	(CV5 & CV6)	30 FT-LBS	RW-4007067
2	RW-4007301	CHECK VALVE	2	(CV3 & CV4)	20 FT-LBS	RW-4007068
3	RW-4007216	CHECK VALVE	2	(CV7 & CV8)	10 FT-LBS	RW-4007210
4	RW-4007217	CHECK VALVE	2	(CV1 & CV2)	42 FT-LBS	RW-4007211
5	RW-4007162	PILOT OPERATED CHECK VALVE	4	(LH1, LH2, LH3, LH4)	30 FT-LBS	RW-4007212
6	RW-4007163	CARTRIDGE VALVE	2	CONVEYOR BELT ROTATION (UL1 & UL2)	42 FT-LBS	RW-4007213
7	RW-4007164	CARTRIDGE VALVE	2	SHOE TILT FLOAT (SV1 & SV2)	25 FT-LBS	RW-4007214
8	RW-4007165	CARTRIDGE VALVE	2	SHOE TILT (SV3) & SHOE EXTEND (SV4)	20 FT-LBS	RW-4005077
9	RW-4007166	COIL	6	SHOE TILT FLOAT (SV1 & SV2), SHOE TILE (SV3) & SHOE EXTEND (SV4)	5 FT-LBS	-
10	RW-4007169	PROPORTIONAL VALVE	2	CONVEYOR BELT ROTATION (SP1 & SP2)	35 FT-LBS	RW-4007061
11	RW-4007033	COIL	2	CONVEYOR BELT ROTATION (SP1 & SP2)	5 FT-LBS	-
12	RW-4007167	NEEDLE VALVE	2	CONVEYOR BELT MANUAL RELEASE (MOA & MOB)	20 FT-LBS	RW-4007215

ILLUSTRATED PARTS LIST

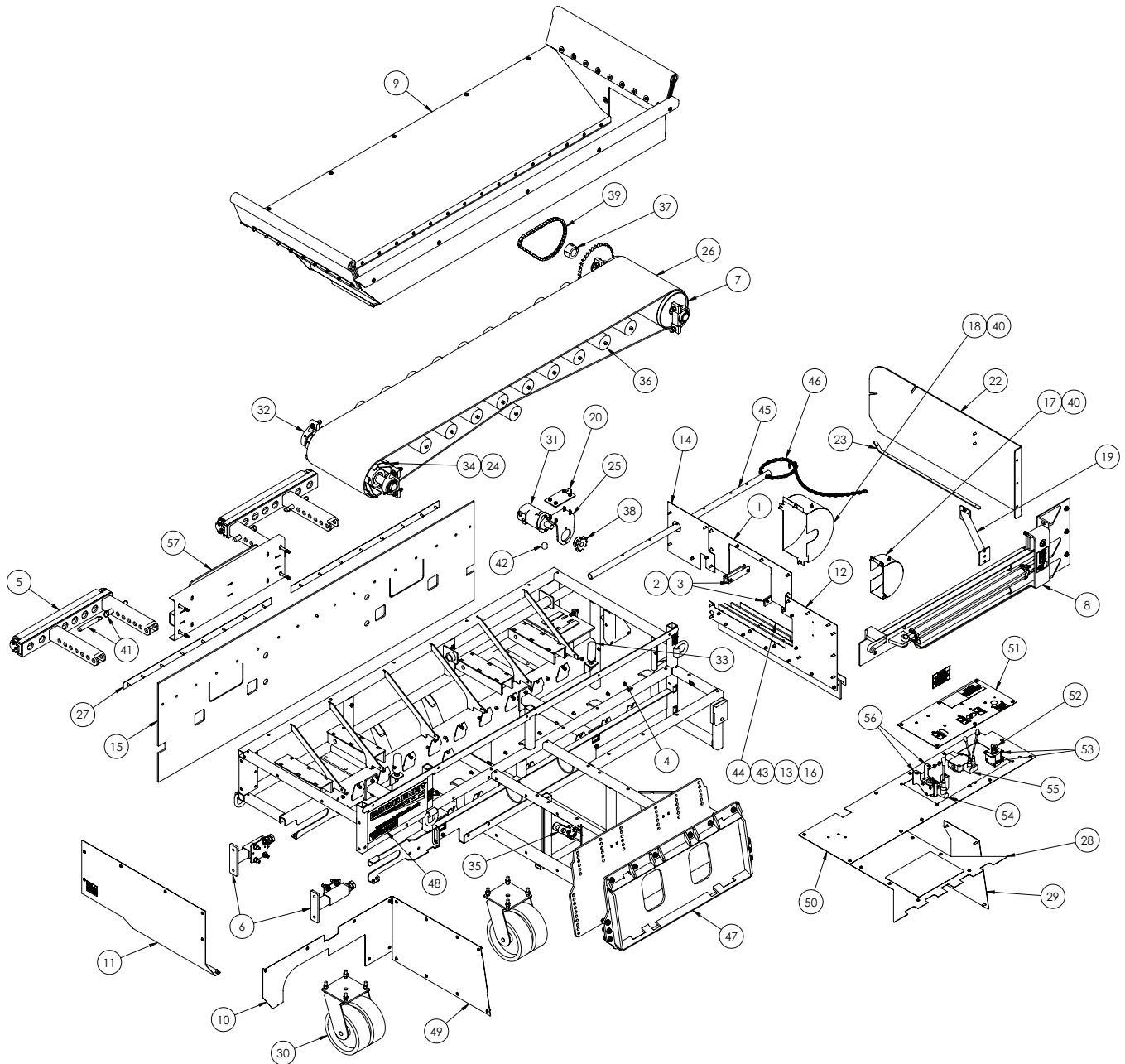


RW-4007086 – SECONDARY HYDRAULIC MANIFOLD

USAGE: RW-1003001

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	MACHINE FUNCTION (PORT LABEL)	INSTALLATION TORQUE	SEAL KIT NO.
1	RW-4007162	PILOT OPERATED CHECK VALVE	4	(LH5, LH6, LH7, LH8)	30 FT-LBS	RW-4007212
2	RW-4007164	CARTRIDGE VALVE	2	LH SHOE TILT FLOAT (SV5 & SV6)	25 FT-LBS	RW-4007214
3	RW-4007166	COIL	6	LH SHOE TILT (SV7) & LH SHOE EXTEND (SV8)	5 FT-LBS	-
4	RW-4007165	CARTRIDGE VALVE	2	LH SHOE TILT (SV7) & LH SHOE EXTEND (SV8)	20 FT-LBS	RW-4007215

ILLUSTRATED PARTS LIST



NOTE: This model is no longer in production, for part service reference only.

ILLUSTRATED PARTS LIST

RW-1001000 - MANUAL UNIT, LIMITED PARTS AVAILABLE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	RW-3000019	STANDARD EXIT CHUTE WELDMENT	1
2	RW-3000023	EXIT CHUTE RUBBER STRIP	2
3	RW-3000024	EXIT CHUTE RUBBER STRIP BRACKET	2
4	RW-4007155	3/8-16 AVK RIVET NUT INSERT	4
5	RW-2000001	PUSH ROLLER ASSEMBLY	2
6	RW-2000002	TENSIONER ASSEMBLY	2
7	RW-2001003	HEAD PULLEY ASSEMBLY	1
8	RW-2001000	RH SHOE ASSEMBLY	1
9	RW-2001010	RH HOPPER ASSEMBLY - RUBBER	1
10	RW-3001066	COVER PANEL 1	1
11	RW-3001067	SHEET (EXTERIOR TIN)	1
12	RW-3001167	COVER PANEL 4 - REMOTE	1
13	RW-3001070	COVER PANEL 5	1
14	RW-3001072	COVER PANEL 7	1
15	RW-3001075	APRON SKIRT	1
16	RW-3001076	CONVEYOR BELT DISCHARGE SKIRT	1
17	RW-3001077	BEARING GUARD WELDMENT	1
18	RW-3001081	GEAR GUARD WELDMENT	1
19	RW-3001085	GUSSET TUBE WELDMENT	1
20	RW-3001088	MOTOR MOUNT PLATE WELDMENT	1
21	RW-3001112	RH SHOE CATCH	1
22	RW-3001113	SHOE WEAR STRIP	1
23	RW-3001118	SHAFT - TAIL PULLEY	1
24	RW-3001122	MOTOR MOUNT	1
25	RW-3001135	CONVEYOR BELT	1
26	RW-3001149	HOPPER STRIP	2

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
27	RW-3001208	COVER PANEL 8 - ANGLED	1
28	RW-3001183	COVER PANEL 6 - ANGLED	1
29	RW-4000004	CASTER	2
30	RW-4000005	CONVEYOR MOTOR	1
31	RW-4000007	PILLOW BLOCK BEARING	2
32	RW-4000009	GUIDE ROLLER WITH HARDWARE	4
33	RW-4000011	TAIL PULLEY - WINGED	1
34	RW-4000012	6" CYLINDER	1
35	RW-4000017	ROLLER	10
36	RW-4000019	2517 X 1-15/16 BUSHING	1
37	RW-4000020	SMALL SPROCKET	1
38	RW-4000021	ROLLER DRIVE CHAIN	1
39	RW-4000022	GREASE GUN EXTENSION HOSE	2
40	RW-4000025	QUICK RELEASE PIN	4
41	RW-4000030	THREADED BUMPER	1
42	RW-3003253	BELT WIPER STRIP	1
43	RW-3003254	BELT WIPER CLAMP PLATE	1
44	RW-3003287	CHAIN MOUNT TUBE	1
45	RW-4000064	SHOE SUPPORT CHAIN	1
46	RW-2003046	ADJUSTABLE INTERFACE WELDMENT	1
47	RW-4007118	PATENTED LABEL	1
48	RW-3001182	COVER PANEL 3 - ANGLED	1
49	RW-3000216	COVER PANEL 9 BOLTED RH	1
50	RW-3001143	HYDRO PLATE - HYDRECO	1
51	RW-4000016	FLOW CONTROL	1
52	RW-3001121	FLOW CONTROL VALVE MOUNT	2
53	RW-4000037	SELECTING VALVE - HYDRECO	1
54	RW-4000038	2 LEVER VALVE - HYDRECO	1
55	RW-3001144	SELECTING VALVE MOUNT - HYDRECO	2
56	RW-3001114	PUSH PLATE WELDMENT	1

NOTE: This model is no longer in production, for part service reference only.



Road Widener LLC

Sales: 844-4WIDENER (844-494-3363)

sales@roadwidenerllc.com

www.roadwidenerllc.com



Made in the USA.