



212 North Evans Road Evansdale, Iowa 50707 Phone (319) 236-7977; Fax (319) 236-7980

Owners Manual

J - PLOWS

Unit Serial Number: _____

Record the MODEL and SERIAL NUMBER of equipment for parts ordering information.

PURCHASED FROM: _____

DATE: _____

MODEL: _____

SERIAL NUMBER: _____



212 North Evans Road Evansdale, Iowa 50707 Phone (319) 236-7977; Fax (319) 236-7980

WARRANTY POLICY

Viking Cives, USA warrants products of its manufacture against defects in workmanship and material for a period of one year, from the date of shipment to the customer. In consequence of this warranty, any component part or parts of such products proving defective within the above specified time will be repaired or replaced F.O.B. factory. Providing such parts are returned, transportation prepaid, to the factory and found defective by Viking Cives, USA.

This warranty will not apply to any product which has been repaired or altered outside of Viking Cives, USA factory in any way, so as in Viking Cives, USA judgement, to affect its stability or reliability, nor which has been subject to misuse or accident.

The obligations of Viking Cives, USA under this warranty are limited to the replacement of defective parts. Such obligations are exclusive and in lieu of all other remedies, warranties, guarantees of liabilities, expressed or implied, with respect to each product delivered, hereunder, arising by law or otherwise (including without limitation any obligation or liability by Viking Cives, USA arising from negligence or with respect to fitness, merchantability, loss of use, revenue, or profit, or consequential damages or injuries).

This limited warranty shall not be extended, altered, or varied except by a written instrument signed by Viking Cives, USA.

Viking Cives, USA assumes no responsibility for engines, electrical equipment or any other equipment and accessories not manufactured by Viking Cives, USA beyond the warranty of the manufacturer of such equipment of accessories.

All warranty work done on Viking Cives, USA equipment must have prior authorization from Viking Cives, USA along with a **“Return Goods Authorization”** number. All labor and parts issued by user for Viking Cives, USA warranty without an authorization number and a signed authorization warranty form will be at the users own cost.

ORDERING PARTS

Delays and errors can be eliminated when ordering instructions are followed correctly.

1. Place orders direct with Viking-Cives Group/nearest dealer.
2. State Company name, address, and postal/zip code.
3. Give the exact model and serial number of the equipment/unit (stamped on the unit identification plate.)
4. Furnish part number, description and quantities required. *Note: An alpha designation in the Item ID column indicates a sub-component for that parent item. When placing parts orders reference the parent item to receive a complete assembly. Individual items can be ordered separately if required by ordering the alpha designated item number.*
5. Print or type order clearly.
6. Give specific shipping instructions.



VIKING-CIVES (USA) – RR2, Box 36-1/2; Harrisville, New York 13648; (315) 543-2321, (315) 543-2366 Fax

VIKING-CIVES (USA) Midwest Division – 212 North Evans Road; Evansdale, Iowa 50707; (319) 236-7977, (319) 236-7980 Fax

VIKING-CIVES LTD. – RR4, Box 1120; Mount Forest, Ontario, Canada N0G 2L0; (519) 323-4433, (519) 323-4608 Fax



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WARRANTY REQUEST PROCEDURE

All repairs considered for warranty that are performed outside of Viking Cives, USA; require prior written authorization from Viking Cives, USA. Failure to obtain written warranty authorization prior to repairs may result in the rejection of the warranty claim. **To obtain warranty consideration one must provide all required Viking Cives, USA with unit information including date of manufacture and serial numbers.** In most cases this information is easily obtained from the "Shipped Unit Tag" (located in most cases inside the driver's side door) and/or individual unit serial tag.

(A) To obtain Parts Warranty Consideration:

- (1) Contact Viking Cives, USA customer service to obtain a Return Goods Authorization (RGA) number. Any product arriving at Viking Cives, USA without a RGA number will be rejected and returned to the sender at his or her own expense.
- (2) Goods are to be shipped prepaid to Viking Cives, USA in Evansdale, Iowa. **All items should be clearly marked with the appropriate RGA number.**
- (3) When a replacement item is shipped to replace a defective part for warranty consideration the following additional steps will occur:
 - a) An invoice will be generated for the value of the replacement item(s).
 - b) The defective part(s) must be returned (prepaid) to Viking Cives, USA.
 - c) Upon receiving the defective part(s) Viking Cives, USA will issue and process a Discrepant Material Report (DMR). Once the evaluation of the DMR report is complete and the parts are deemed warranty, a credit will be issued against the outstanding invoice. **If the part(s) are deemed Non-warranty the invoice will remain outstanding to be paid to Viking Cives, USA.** Any part(s) to be returned to the customer will be at his or her own expense.

(B) To obtain Labor Parts Repair Warranty Consideration:

In the event that repairs are required outside of Viking Cives, USA facility that may be considered for warranty the following steps must occur. **Notification of Viking Cives, USA customer service must take place prior to the start of any repairs.**

- (1) Contact Viking Cives, USA customer service to obtain a Warranty Claim Form (WCF) and warranty authorization number.
- (2) Fill out all required WCF information and fax or mail the completed form to Viking Cives, USA, attention Customer Service Department.
- (3) Once the WCF report has been reviewed warranty authorization will be granted or denied. **NOTE: Viking Cives, USA warranty labor rates will apply unless specifically determined otherwise.** Any part(s) involved in a WCF request must follow the Parts Warranty Consideration procedures.

For Customer Service and/or Parts requests please contact:

Craig LaRue – (clarue@vikingcives.com)
Ph. (319) 236-7977; Fax (319) 236-7980



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INTRODUCTION

This instruction/parts manual has operation and maintenance information for the Viking-Cives (**insert equipment Type**). It has been prepared to familiarize you with the design features of the unit, and to instruct you in its proper operation and maintenance.

Read this manual carefully before you operate and/or service your (**insert equipment Type**). Remember that you're working with heavy equipment that can injure you or someone else. You can help lessen the chance of injury by following the procedures in this manual, carefully.

DANGER: If incorrectly used, this equipment can cause severe injury. Your chance of injury can be greatly reduced by following all caution/warning decal notifications. All decals must be kept clean and complete. Replace any decals that are unreadable. Decals may be purchased directly from Viking-Cives Group and/or the nearest authorized dealer. All Operator/Service people should review this manual carefully and become familiar with its contents. **If anyone else beside you operates or services this equipment, make sure they read this manual and are instructed to follow the safety procedures related to this equipment.**

PERIODIC MAINTENANCE INSPECTION DAILY INSPECTION AND LUBRICATION

Daily inspection along with periodic preventive maintenance will reduce the chance of any major repairs and down time during equipment use.

1. Check the fluid level in the hydraulic oil reservoir. If the sight indicates low oil level, add the appropriate amount of the specified hydraulic fluid. **Cold Weather Operation:** All equipment is designed to operate with hydraulic oil minimally warm. During cold weather conditions, it is recommended that the truck be run at idle with the pump engaged and circulating the oil through the system before operating equipment.
2. Grease all required components:
 - All plow harness sheave nipples.
 - All pump drive shaft nipples.
 - Front and Rear tower sheave swivel blocks.
 - Wing extension arm nipples.
 - Front and Rear tower guide tracks.
 - All front harness pivot points.
3. Check all components for loose and/or missing fasteners, if required tighten and/or replace.
4. Visually inspect all battery terminals and electrical connections, wires, switches, etc. for signs of corrosion, wear, loose and/or broken connections, etc. At the beginning of each shift review all lighting accessories to ensure proper working conditions, immediately replace any broken or non-functioning bulbs and/or lenses.
5. Visually inspect all hydraulic connections and hoses for cracks and/or leaks.
6. Check all cables, chains and sheaves for excessive wear or damage.
7. Visually inspect plow and wing units. Check cutting edges and wear shoes. If cutting edge has excessive wear remove and rotate, or if required replace. **CAUTION:** Do not allow cutting edge to wear down to mounting angle. Any wear to the mounting angle may affect the operation and safety of the equipment. Replacement is costly.
8. At the beginning of each shift visually inspect all caution and warning decals. All decals should be complete and legible. If decals are not legible, clean them. If cleaning the decals does not make them legible, install new decals.



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GENERAL OPERATING INSTRUCTIONS

1. The operator should familiarize himself with all equipment prior to operation. The in cabs controls are placed at a comfortable reach of the operator, with an allowable amount of adjustment. If necessary, the controls can be adjusted for either driver or passenger use.
2. Before putting any equipment into use, check for any worn, damaged or loose components, if necessary repair or replace. Listen for any unusual sounds, if necessary repair and/or replace worn or damaged parts.
3. Before operating any equipment be sure to read and fully understand all caution and safety warnings. Familiarize yourself and others with all caution/warning labels and their locations. Make sure all labels are complete and legible. Replace any labels that have become unreadable and/or missing. Replacement labels can be purchased directly from Viking-Cives Group and/or the nearest authorized dealer.



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REGISTRATION OF EQUIPMENT AND WARRANTY INFORMATION

Report any damage to equipment at once to Viking Cives, USA. You should also register your equipment with Viking Cives, USA, by filing out a warranty certificate and registration card and returning them to Viking Cives, USA. The warranty period becomes effective upon date of delivery of equipment unless other arrangements have been made with a Distributor or Viking Cives, USA. The information required to register the equipment may be found on the serial number tag secured to the equipment.

A WORD ABOUT SAFETY:

The equipment described in this manual is normally being operated in adverse winter conditions with bad weather, snow and ice. Due to these adverse operating conditions it is important that you the operator use good safety practices at all time to protect yourself, co-workers and others when using the equipment.

It is not practical or possible to warn you about all the hazards associated with the operation and maintenance of this equipment. You should always use your own good judgment supplemented with the information found on the safety decals, instructions in this manual, your employer's safety programs, safety codes, local, state/provincial, and federal laws, rules and regulations.

When operating/performing maintenance on this equipment, trouble shooting equipment operations and loading or unloading the sanders/spreaders with material observe & obey all safety decals on the equipment and warnings listed in the manual. Failure to do this could result in serious injury or death to you or others.

Remember at all times that as the operator you are responsible for the safe operation of this equipment and responsible for the safety of others. Good safety practices not only protect you but also protect the people around you.



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INSTALLATION

TO CONNECT UNIT TO PRIME MOVER

During the initial installation of the plow to the vehicle, some adjustments will be necessary to insure proper operation of the plow and trip mechanisms. **NOTE: When plow is being raised, lowered or reversed – stand clear!**

1. Set plow unit on level surface with the moldboard in the bulldoze position; adjust drive height to approximately 21” as shown in figure 1.
2. Drive the prime mover into position. Connect the plow drive frame to the vehicle push harness. **NEVER stand between the prime mover and the plow drive frame when the vehicle is being moved into position.** Before connecting the drive frame to the push harness, shut the vehicle engine down and make sure that the auxiliary brake is engaged.

TO CONNECT HYDRAULICS FOR REVERSING CYLINDERS

Connect the hydraulic hoses leading from the cushion valve located on the plow drive frame to the quick disconnect couplers located on the prime mover. **NOTE: Normally one hose will have a male quick disconnect hose end and the other will have a female quick disconnect hose end.** This prevents the hoses from being coupled incorrectly. Also when the hoses are disconnected from the prime mover this allows for them to be coupled together to prevent contamination from entering into the hydraulic system.

NOTE: Plow lift and power reverse functions should be thoroughly tested BEFORE operating the plow in a working situation.



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OPERATION

When all conditions of installation have been met, the plow is ready to operate. **NOTE: Always lift the plow before reversing.** The levers for controlling the plow lift and reverse functions are located in the cab of the prime mover.

TO LIFT THE PLOW

The plow lift lever activates a three-position valve. Normally to raise the plow, pull the plow lift lever. When you release the lever the valve will return to a neutral hold position and the plow will remain in that position. To lower the plow, push the plow lift lever. When you release the lever, the valve will return to a neutral hold position. **NOTE: For plows with this lift valve arrangement, it is necessary to hold the plow lift lever in the down position for a few moments while plowing to allow the plow to seek its lowest level.** After this has been accomplished you can release the lever and the plow will be properly set to follow the contour of the plowing surface. However, some units are equipped with a three-position plow lift valve with a detent in the down position. This valve will lock in a float position when the plow is lowered. The plow will then automatically seek its lowest level allowing it to follow the contour of the plowing surface.

TO REVERSE THE PLOW

Normally the plow reverse lever activates a three-position valve. If you push or pull this lever, the plow will reverse to the right or left accordingly. When you release the lever the valve will shift to a neutral hold position. Therefore, you have an infinite variety of plowing angle at your disposal.

TO ADJUST THE ATTACK ANGLE:

The cutting edge angle is preset a $105^{\circ} (\pm 5^{\circ})$ when the plow is driven at 19" (± 1 ").



NEVER stand between the vehicle and the drive frame when the vehicle is being moved into position. Before connecting the drive frame to the push frame, shut the engine down and make sure that the auxiliary brake is engaged.

TO INSTALL THE LIFT CHAIN

With the plow lift arm fully collapsed, put a few links of the lift chain "A" through the grab link on the push frame lift arm. Leave some slack to allow plow to follow contour of road, but also insure adequate carrying height with the lifting device ram extended. The plow drive frame should be parallel (level) with the ground in the carry position.

CAUTION! Do not take too short grab on the lift chain. Damage can occur (grab link can bend or chain can break) if the stroke of the lift ram exceeds the travel length of the chain. When properly positioned, the tree "legs" of chain will be taut with the front chain being slightly tighter.



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MAINTENANCE

In preparation for the snowplowing season and **after every eight (8) hours of operation**, a visual equipment inspection must be performed. Look for any damaged components, bends, cracked welds, hydraulic leaks, etc. Inspect all fasteners; tighten any that have loosened and replace any that are damaged. Check all hydraulic hoses for cuts, cracks and/or leaks. Check plow lift cable(s) for loose clamps and frays. **Immediately replace frayed cables.** On plows with push frame mounted shoes, check all shoe mounting bolts for tightness and/or proper adjustment. Correct shoe height setup is critical for plow operation and performance.

Periodically during plowing, stop to inspect plow cutting edges and moldboard/push frame shoes for wear. At the first sign of excessive wear, discard and replace with new parts.

When the plow is disconnected from the prime mover, be sure to couple the hydraulic hoses together, to prevent damage to the quick disconnect hose ends and to help prevent the introduction of foreign material into the hydraulic system.

TO REMOVE A TORSION SPRING

Lay the plow on its face. Loosen the spring tension bolts. Hold the spring in a slightly compressed state. Remove the nut, washer and spring keeper assembly from all the springs. The springs will now be in a completely free, or unloaded state.

Remove the curb shoe from the end of the plow by unbolting it from the tubing (the pivot for the trip edge). Slide the tubing out of the plow. As it passes through each spring, remove the spring. This can be done by slightly twisting and rotating the spring on the bias while removing it. It will come out between the moldboard backer angle and the trip edge backer angle.

LUBRICATION SCHEDULE

After every 8 hours of operation, the following points must be lubricated:

1. MAIN PIVOT PIN – Apply Texaco Marfax heavy duty #2 (or equal) with grease gun to fitting at pivot pin.
2. CASTER TUBE ASSEMBLY – Apply Texaco heavy duty #2 (or equal) with a grease gun to all fittings. There are (2) grease fittings located on each caster assembly.
3. CASTER ADJUSTMENT ROD – Apply SAE #30 oil with an oil can to all friction points.



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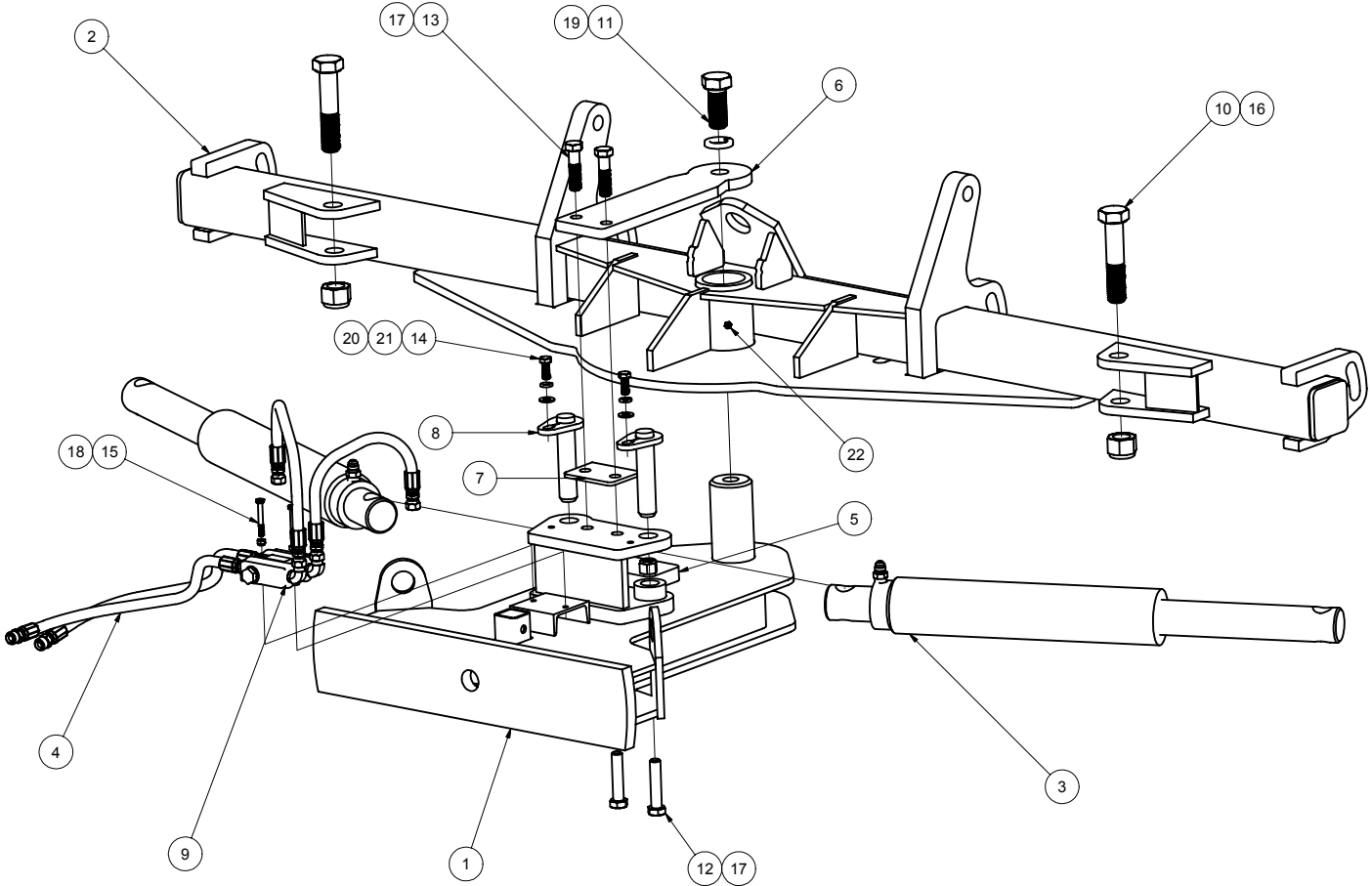


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PUSHFRAME ASS'Y VCM PRTE-HD

ITEM ID	ITEM NO	DESCRIPTION	QTY REQ	OPTIONAL
1	202100909	RAM REVERSE A-FRAME WELD'T	1	
2	202100923	RAM REVERSE TRUSS FRAME WELD'T	1	
3	20540302	CYLINDER SA 3.5 X 16.125 FRINK	2	
4	201501206	HOSE KIT FRK TE-HDP	1	
5	202100942	A-FRAME RETAINER PLT	1	
6	202101077	BRACE BAR	1	
7	202101078	SHIM PLATE	1	
8	202100938	PIN 1.250 DIA X 5.500 WELD'T	2	
9	20530031	VALUE CUSHION DXV-50-2000	1	
10	81023C-V	BOLT HEX 1 ¼ X 6 UNC ZINC	2	
11	281028	BOLT HEX 1 ¼ X 3 UNC ZINC	1	
12	215367	BOLT HEX ¾ X 3 ½ UNC ZINC	2	
13	281066	BOLT HEX ¾ X 3 UNC ZINC	2	
14	3SK3610	BOLT HEX ½ X 1 ¼ UNC ZINC	2	
15	3SK3495	BOLT HEX 5/16 X 2 ½ UNC ZINC	2	
16	281007B	NUT HEX TOPLOCK 1 ¼" UNC ZINC	2	
17	3SK3811	NUT HEX TOPLOCK ¾" UNC ZINC	4	
18	3SK3497	NUT HEX TOPLOCK 5/16" UNC ZINC	2	
19	281014A	LOCKWASHER SPLIT 1 ¼ ZINC	1	
20	3SK3661	FLATWASHER SAE ½ ZINC	2	
21	233626	LOCKWASHER SPLIT ½ ZINC	2	
22	280577	GREASE FITTING 1/8 NPT STR	1	

PUSHFRAME ASS'Y VCM PRTE - HD



ITEM	DRAWING NO.	ALT. ITEM NO.	DESCRIPTION	QTY
1	202100909		RAM REVERSE A-FRAME WELD'T	1
2	202100923	0051-4-140	RAM REVERSE TRUSS FRAME WELD'T	1
3	20540302	0003-1-89	CYLINDER SA 3.5 X 16.125 FRINK	2
4	201501206		HOSE KIT FRK TE-HDP	1
5	202100942	0051-5-265	A-FRAME RETAINER PLT	1
6	202101077	103-7628	BRACE BAR	1
7	202101078	103-7629	SHIM PLATE	1
8	202100938	0051-1-24	PIN 1.250 DIA X 5.500 WELD'T	2
9	20530031	80244D	VALVE CUSHION DXV-50-2000	1
10	81023C-C	81023C	BOLT HEX 1 1/4 X 6 UNC ZINC	2
11	281028		BOLT HEX 1 1/4 X 3 UNC ZINC	1
12	215367		BOLT HEX 3/4 X 3 1/2 UNC ZINC	2
13	281066		BOLT HEX 3/4 X 3 UNC ZINC	2
14	3SK3610		BOLT HEX 1/2 X 2 UNC ZINC	2
15	3SK3495		BOLT HEX 5/16 X 2 1/2 UNC ZINC	2
16	281007B	80999D	NUT HEX TOPLOCK 1 1/4" UNC ZINC	2
17	3SK3811		NUT HEX TOPLOCK 3/4" UNC ZINC	4
18	3SK3497	HH-00340-017	NUT HEX TOPLOCK 5/16" UNC ZINC	2
19	281014A	81015B	LOCKWASHER SPLIT 1 1/4 ZINC	1
20	3SK3661		FLATWASHER SAE 1/2 ZINC	2
21	233626	81080	LOCKWASHER SPLIT 1/2 ZINC	2
22	280577	80577	GREASE FITTING 1/8 NPT STR	1

EQUIPMENT MAY NOT BE EXACTLY AS SHOWN. SOME COMPONENTS MAY BE OPTIONAL TO MAINTAIN OUR ON-GOING PRODUCT AND DEVELOPMENT IMPROVEMENT PROGRAM, VIKING-CIVES RESERVES THE RIGHT TO CHANGE EQUIPMENT & SPECIFICATION WITHOUT NOTICE.

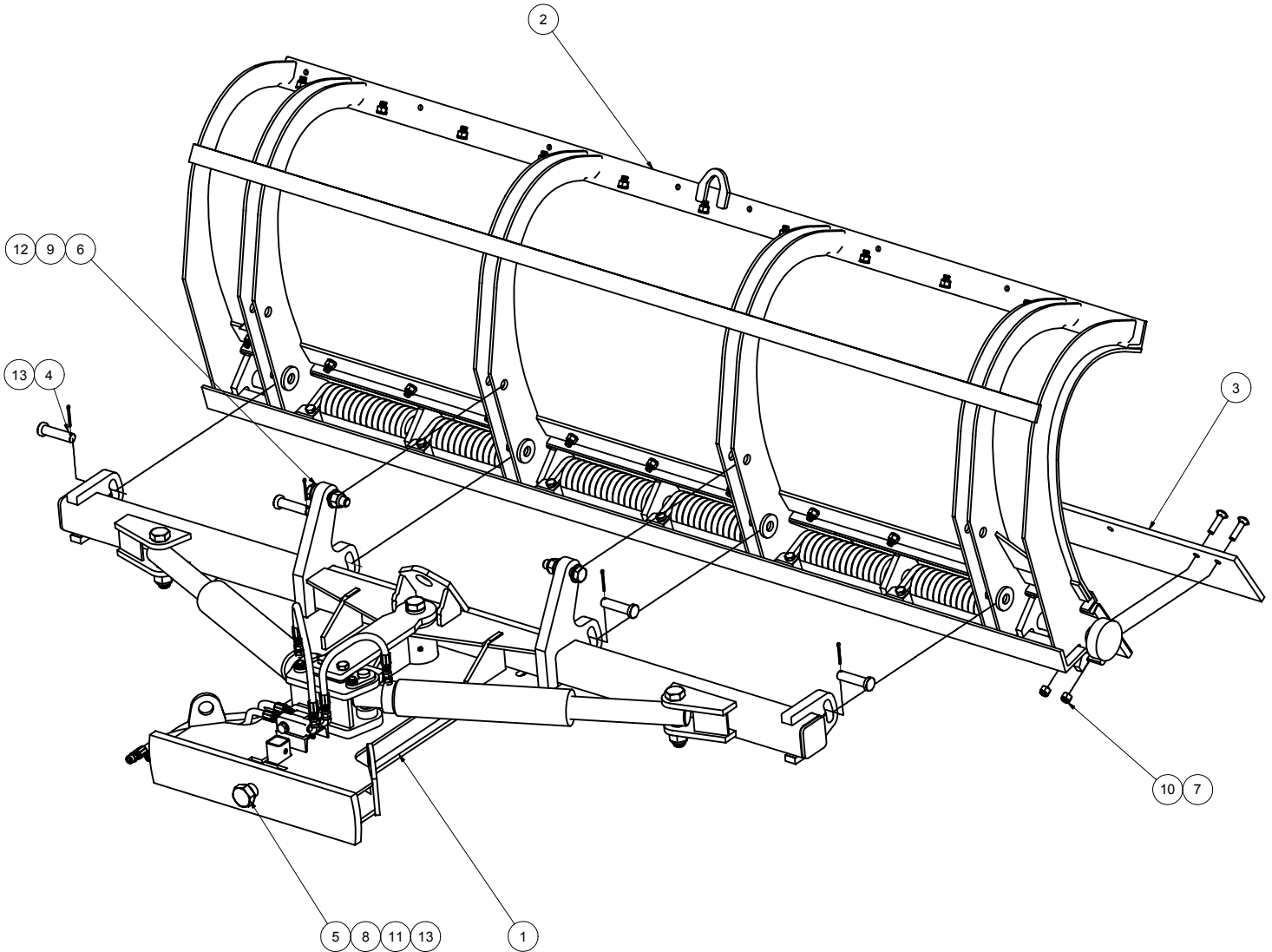


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S8260: PLOW ASSEMBLY 3910TE - HDP 12 IN

ITEM ID	DRAWING NO	DESCRIPTION	QTY REQ	OPTIONAL
1	202101002	PUSHFRAME ASS'Y VCL PRTE-HD	1	
2	202101022	MOLDBOARD ASS'Y 3910TE-HDP 12 IN	1	
3	280005E	CUTTING EDGE ¾ X 6 X 120	1	
4	3SK3410	PIN 1" X 4"	4	
5	200900211	BOLT DRILLED 1.500 X 3.813	1	
6	281022A	BOLT HEX 1 X 4 ½ UNC ZINC	2	
7	2N81074C	BOLT CARRIAGE 5/8 X 2 ½ UNC ZINC	12	
8	2181010	NUT HEX SLOTTED 1 ½ UNC ZINC	1	
9	237278	NUT HEX TOPLOCK 1" UNC ZINC	2	
10	3SK3781	NUT HEX TOPLOCKS 5/8" UNC ZINC	12	
11	3SK3860	FLATWASHER USS 1 ½ ZINC	1	
12	281013A	FLATWASHER SAE 1" ZINC	4	
13	3SK3450	COTTER PIN ¼ X 2 ½ ZINC	5	
14		RUBBER DEFLECTOR INSTL KIT – 10 FT	*	
15	2002505	UQH SWIVEL WELD'T 30 ½ CENTERS	*	
16	2002750	PUSHLUG SWIVEL WELD'T 30 ½ CENTERS	*	

S8260: PLOW ASSEMBLY 3910TE-HDP 12 IN



ITEM	DRAWING NO.	ALT. ITEM NO.	DESCRIPTION	QTY
1	202101002		PUSHFRAME ASS'Y VCL PRTE-HD	1
2	202101022		MOLDBOARD ASS'Y 3910TE-HDP 12 IN	1
3	280005E		CUTTING EDGE 3/4 X 6 X 120	1
4	3SK3410		PIN 1" X 4"	4
5	200900211	002751-2	BOLT DRILLED 1.500 X 3.813	1
6	281022A	81022	BOLT HEX 1 X 4 1/2 UNC ZINC	2
7	2N81074C	81105A	BOLT CARRIAGE 5/8 X 2 1/2 UNC ZINC	12
8	2181010	81010	NUT HEX SLOTTED 1 1/2 UNC ZINC	1
9	237278		NUT HEX TOPLOCK 1" UNC ZINC	2
10	SK3781		NUT HEX TOPLOCK 5/8" UNC ZINC	12
11	3SK3860		FLATWASHER USS 1 1/2 ZINC	1
12	281013A	81013A	FLATWASHER SAE 1" ZINC	4
13	3SK3450	80508A	COTTER PIN 1/4 X 2 1/2 ZINC	5
14			RUBBER DEFLECTOR INSTL KIT - 10 FT	*
15	2002505		UQH SWIVEL WELD'T 30 1/2 CENTERS	*
16	2002750		PUSHLUG SWIVEL WELD'T 30 1/2 CENTERS	*

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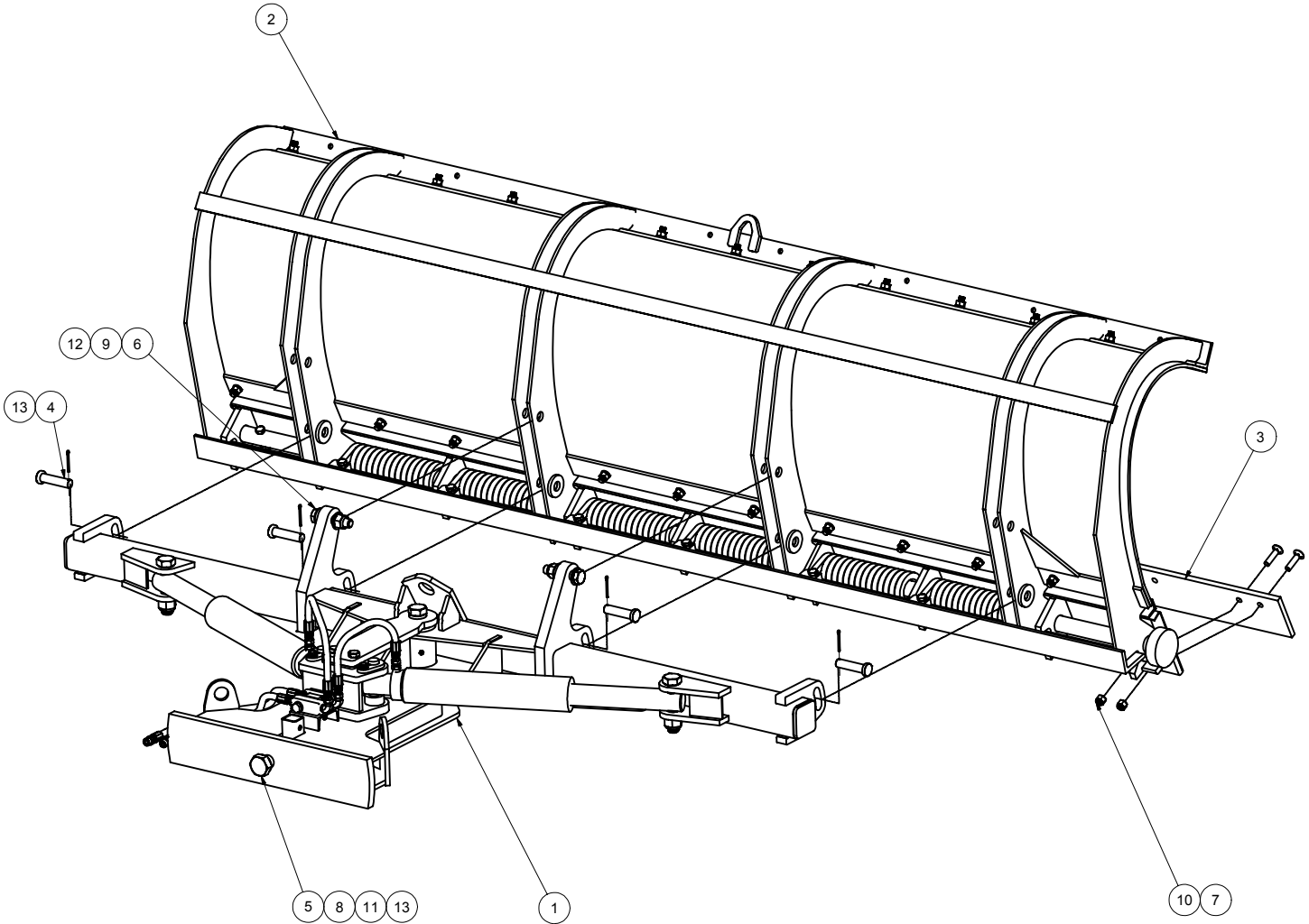


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S8265: PLOW ASSEMBLY 3911TE - HDP 12 IN

ITEM ID	DRAWING NO	DESCRIPTION	QTY REQ	OPTIONAL
1	202101002	PUSHFRAME ASS'Y VCL PRTE-HD	1	
2	202101004	MOLDBOARD ASS'Y VCL 3911TE-HDP 12IN	1	
3	280028B	CUTTING EDGE ¾ X 6 X 132	1	
4	3SK3410	PIN 1" X 4"	4	
5	200900211	BOLT DRILLED 1.500 X 3.813	1	
6	281022A	BOLT HEX 1 X 4 ½ UNC ZINC	2	
7	2N81074C	BOLT CARRIAGE 5/8 X 2 ½ UNC ZINC	13	
8	2181010	NUT HEX SLOTTED 1 ½ UNC ZINC	1	
9	237278	NUT HEX TOPLOCK 1" UNC ZINC	2	
10	3SK3781	NUT HEX TOPLOCK 5/8" UNC ZINC	13	
11	3SK3860	FLATWASHER USS 1 ½ ZINC	1	
12	281013A	FLATWASHER SAE 1" ZINC	4	
13	3SK3450	COTTER PIN ¼ X 2 ½ ZINC	5	
14		RUBBER DEFLECTOR INSTL KIT – 11 FT	*	
15	2002505	UQH SWIVEL WELD'T 30 ½ CENTERS	*	
16	2002750	PUSHLUG SWIVEL WELD'T 30 ½ CENTERS	*	

S8265: PLOW ASSEMBLY 3911TE - HDP 12 IN



ITEM	DRAWING NO.	ALT. ITEM NO.	DESCRIPTION	QTY
1	202101002		PUSHFRAME ASS'Y VCL PRTE-HD	1
2	202101004		MOLDBOARD ASS'Y VCL 3911TE-HDP 12IN	1
3	280028B		CUTTING EDGE 3/4 X 6 X 132	1
4	3SK3410		PIN 1" X 4"	4
5	200900211	002751-2	BOLT DRILLED 1.500 X 3.813	1
6	281022A	81022	BOLT HEX 1 X 4 1/2 UNC ZINC	2
7	2N81074C	81105A	BOLT CARRIAGE 5/8 X 2 1/2 UNC ZINC	13
8	2181010	81010	NUT HEX SLOTTED 1 1/2 UNC ZINC	1
9	237278		NUT HEX TOPLOCK 1" UNC ZINC	2
10	SK3781		NUT HEX TOPLOCK 5/8" UNC ZINC	13
11	3SK3860		FLATWASHER USS 1 1/2 ZINC	1
12	281013A	81013A	FLATWASHER SAE 1" ZINC	4
13	3SK3450	80508A	COTTER PIN 1/4 X 2 1/2 ZINC	5
14			RUBBER DEFLECTOR INSTL KIT - 11 FT	*
15	2002505		UQH SWIVEL WELD'T 30 1/2 CENTERS	*
16	2002750		PUSHLUG SWIVEL WELD'T 30 1/2 CENTERS	*

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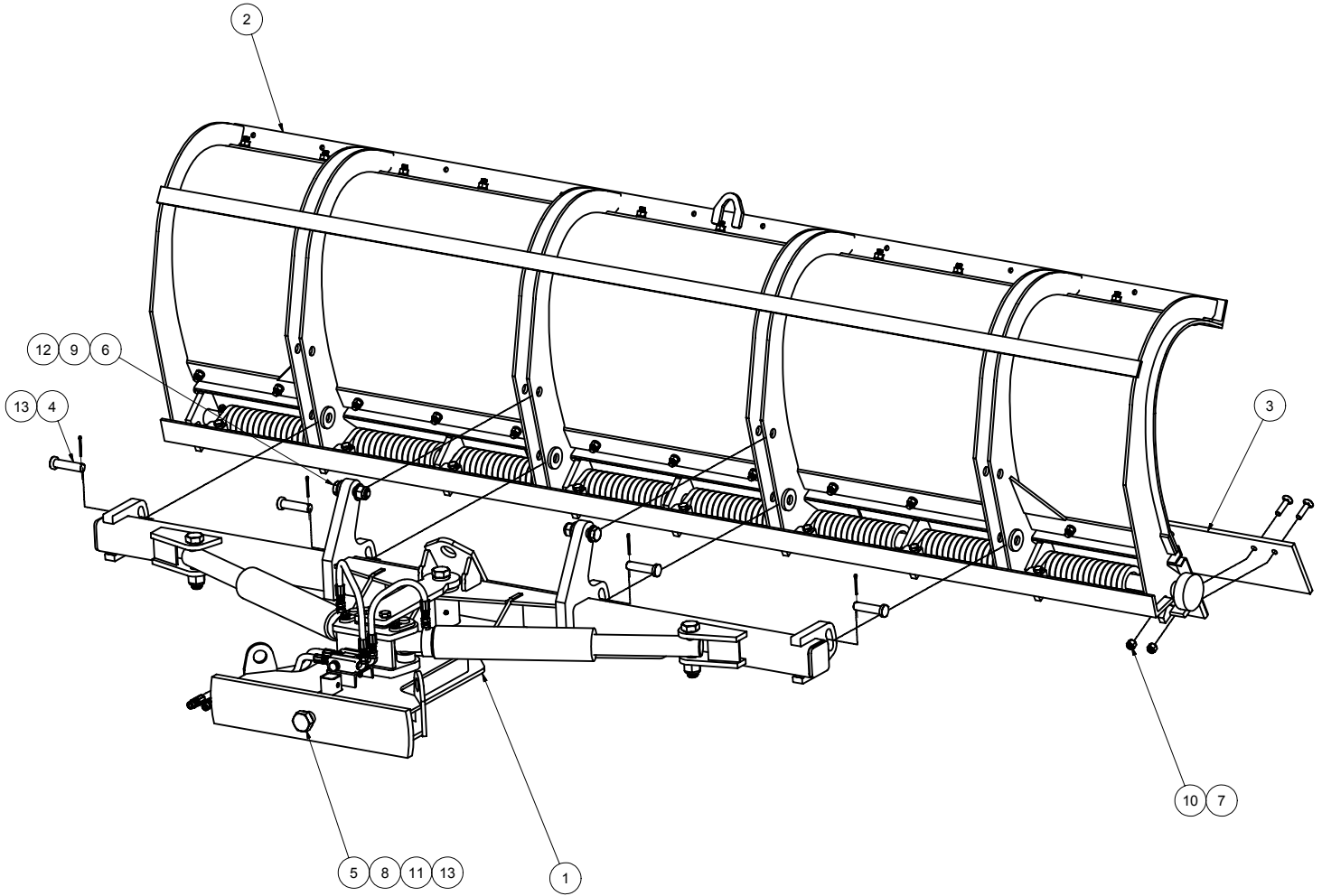


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S8270: PLOW ASSEMBLY 3912TE - HDP 12 IN

ITEM ID	ITEM NO	DESCRIPTION	QTY REQ	OPTIONAL
1	202101002	PUSHFRAME ASS'Y VCL PRTE-HD	1	
2	202101016	MOLDBOARD ASS'Y VCL 3912TE-HDP 12IN	1	
3	280014b	CUTTING EDGE TP 3/4 X 6 X 144	1	
4	3SK3410	PIN 1" X 4"	4	
5	200900211	BOLT DRILLED 1.500 X 3.813	1	
6	281022A	BOLT HEX 1 X 4 1/2 UNC ZINC	2	
7	2N81074C	BOLT CARRIAGE 5/8 X 2 1/2 UNC ZINC	14	
8	2181010	NUT HEX SLOTTED 1 1/2 UNC ZINC	1	
9	237278	NUT HEX TOPLOCK 1" UNC ZINC	2	
10	3SK3781	NUT HEX TOPLOCK 5/8" UNC ZINC	14	
11	3SK3860	FLATWASHER USS 1 1/2 ZINC	1	
12	281013A	FLATWASHER SAE 1" ZINC	4	
13	3SK3450	COTTER PIN 1/4 X 1/2 ZINC	5	
14		RUBBER DEFLECTOR INSTL KIT - 12 FT	*	
15	2002505	UQH SWIVEL WELD'T 30 1/2 CENTERS	*	
16	2002750	PUSHLUG SWIVEL WELD'T 30 1/2 CENTERS	*	

S8270: PLOW ASSEMBLY 3912TE - HDP 12 IN



ITEM	DRAWING NO.	ALT. ITEM NO.	DESCRIPTION	QTY
1	202101002		PUSHFRAME ASS'Y VCL PRTE-HD	1
2	202101016		MOLDBOARD ASS'Y VCL 3912TE-HDP 12IN	1
3	280014B		CUTTING EDGE TP 3/4 X 6 X 144	1
4	3SK3410		PIN 1" X 4"	4
5	200900211	002751-2	BOLT DRILLED 1.500 X 3.813	1
6	281022A	81022	BOLT HEX 1 X 4 1/2 UNC ZINC	2
7	2N81074C	81105A	BOLT CARRIAGE 5/8 X 2 1/2 UNC ZINC	14
8	2181010	81010	NUT HEX SLOTTED 1 1/2 UNC ZINC	1
9	237278		NUT HEX TOPLOCK 1" UNC ZINC	2
10	SK3781		NUT HEX TOPLOCK 5/8" UNC ZINC	14
11	3SK3860		FLATWASHER USS 1 1/2 ZINC	1
12	281013A	81013A	FLATWASHER SAE 1" ZINC	4
13	3SK3450	80508A	COTTER PIN 1/4 X 2 1/2 ZINC	5
14			RUBBER DEFLECTOR INSTL KIT - 12 FT	*
15	2002505		UQH SWIVEL WELD'T 30 1/2 CENTERS	*
16	2002750		PUSHLUG SWIVEL WELD'T 30 1/2 CENTERS	*

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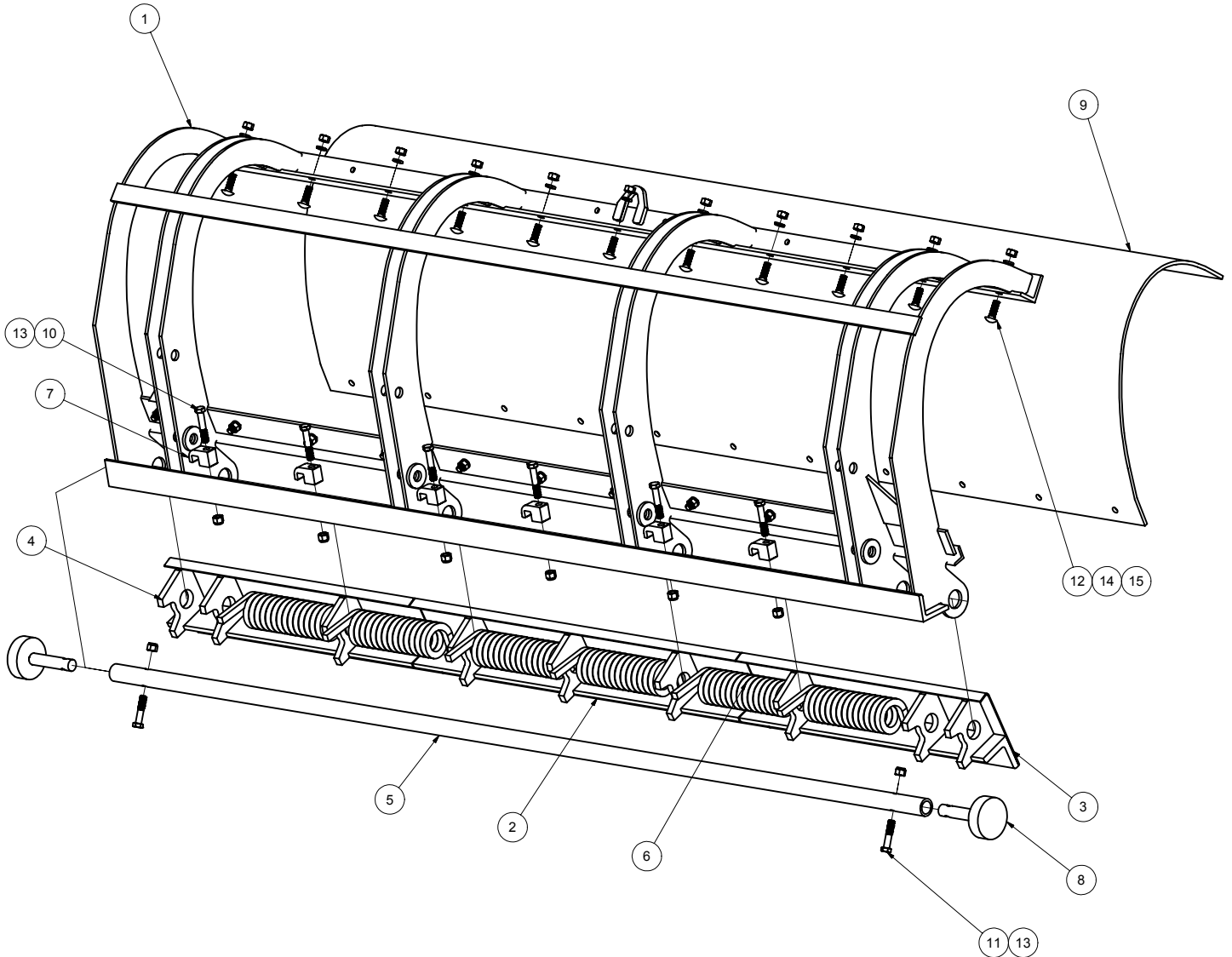


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MOLDBOARD ASS'Y VCM 3910TE - HDP 12 IN

ITEM ID	ITEM NO	DESCRIPTION	QTY REQ	OPTIONAL
1	202100952	MOLDBOARD WELD'T VCL 3910TE-HDP	1	
2	202101019	TRIP EDGE WELD'T CTR 10/12FT 12IN	1	
3	202101023	TRIP EDGE WELD'T RTH 10FT 12IN	1	
4	202101024	TRIP EDGE WELD'T LTH 10FT 12IN	1	
5	202100966	TRIP EDGE MTG TUBE 10FT TE-HD	1	
6	20580038	SPRING TORSION FRINK 39 SERIES	6	
7	202100989	TRIP SPRING RETAINER CLAMP	6	
8	202100969	CURB SHOE WELD'T	2	
9	202100957	MOLDBOARD SKIN POLY 3910TE-HDP	1	
10	3SK3722	BOLT HEX 5/8 X 3 1/2 UNC ZINC	6	
11	3SK3711	BOLT HEX 5/8 X 3 UNC ZINC	2	
12	221834	BOLT CARRIAGE 5/8 X 2 UNC ZINC	22	
13	3SK3781	NUT HEX TOPLOCK 5/8" UNC ZINC	8	
14	3SK3785	NUT HEX 5/8 UNC ZINC	22	
15	3SK3772	LOCKWASHER SPLIT 5/8 ZINC	22	

MOLDBOARD ASS'Y VCM 3910TE - HDP 12 IN



ITEM	DRAWING NO.	ALT. ITEM NO.	DESCRIPTION	QTY
1	202100952	0051-4-95	MOLDBOARD WELD'T VCL 3910TE-HDP	1
2	202101019		TRIP EDGE WELD'T CTR 10/12FT 12IN	1
3	202101023		TRIP EDGE WELD'T RTH 10FT 12IN	1
4	202101024		TRIP EDGE WELD'T LTH 10FT 12IN	1
5	202100966		TRIP EDGE MTG TUBE 10FT TE-HD	1
6	20580038	0051-6-106	SPRING TORSION FRINK 39 SERIES	6
7	202100989	0051-5-525	TRIP SPRING RETAINER CLAMP	6
8	202100969	0051-1-2	CURB SHOE WELD'T	2
9	202100957	0051-5-216	MOLDBOARD SKIN POLY 3910TE-HDP	1
10	3SK3722		BOLT HEX 5/8 X 3 1/2 UNC ZINC	6
11	3SK3711		BOLT HEX 5/8 X 3 UNC ZINC	2
12	221834		BOLT CARRIAGE 5/8 X 2 UNC ZINC	22
13	3SK3781		NUT HEX TOPLOCK 5/8" UNC ZINC	8
14	3SK3785	81069H	NUT HEX 5/8 UNC ZINC	22
15	3SK3772	81070C	LOCKWASHER SPLIT 5/8 ZINC	22

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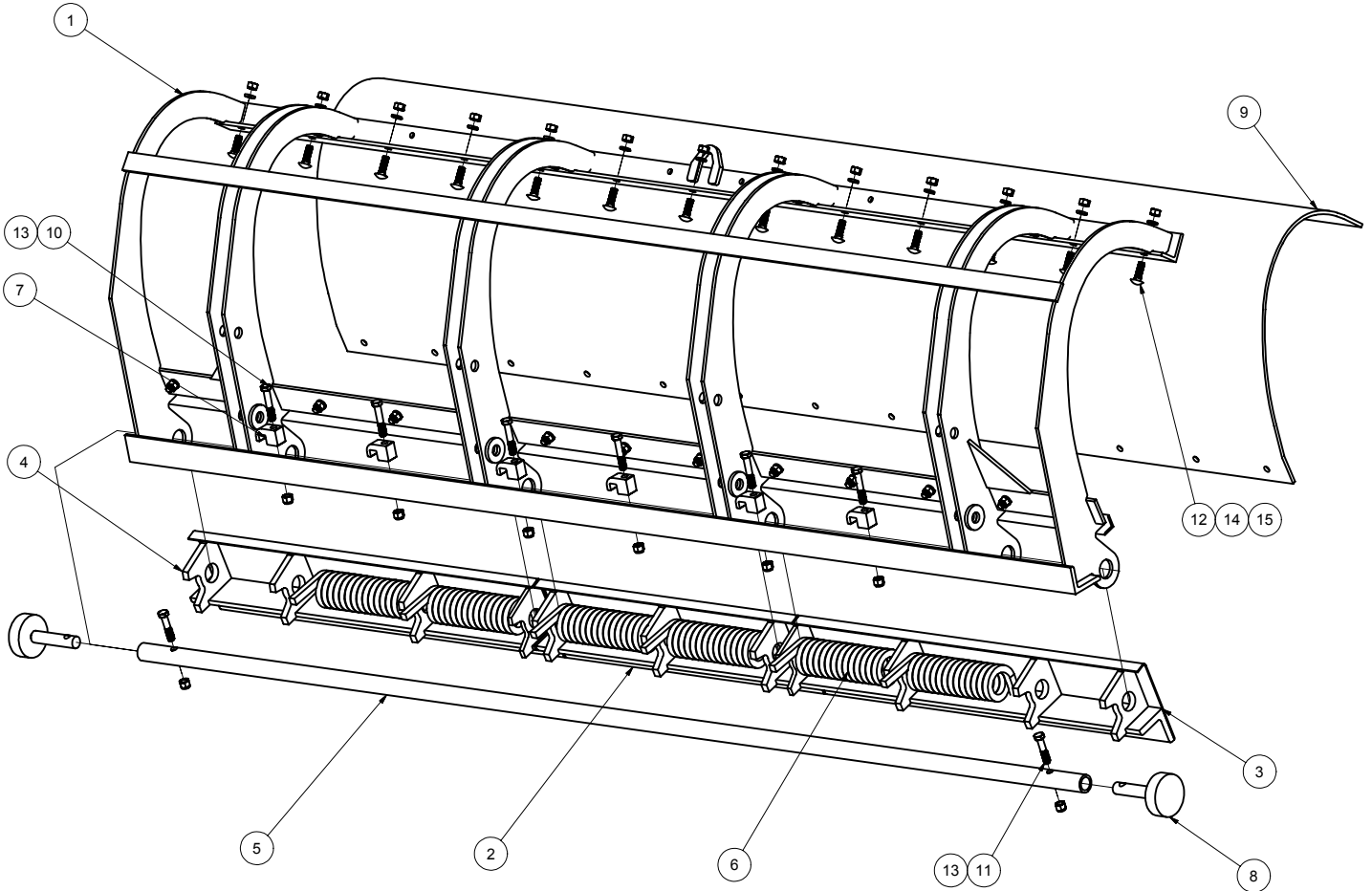


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MOLDBOARD ASS'Y VCM 3911TE - HDP 12 IN

ITEM ID	ITEM NO	DESCRIPTION	QTY REQ	OPTIONAL
1	202100978	MOULDBOARD WELD'T 3911TE-HDP	1	
2	202100951	TRIP EDGE WELD'T CTR 11FT 12IN	1	
3	202100943	TRIP EDGE WELD'T RTH 11FT 12IN	1	
4	202100950	TRIP EDGE WELD'T LTH 11FT 12IN	1	
5	202100981	TRIP EDGE MTG TUBE 11FT TE-HD	1	
6	20580038	SPRING TORSION FRINK 39 SERIES	6	
7	202100989	TRIP SPRING RETAINER CLAMP	6	
8	202100969	CURB SHOE WELD'T	2	
9	202100974	MOLDBOARD SKIN POLY 3911TE-HDP	1	
10	3SK3722	BOLT HEX 5/8 X 3 1/2 UNC ZINC	6	
11	3SK3711	BOLT HEX 5/8 X 3 UNC ZINC	2	
12	221834	BOLT CARRIAGE 5/8 X 2 UNC ZINC	26	
13	3SK3781	NUT HEX TOPLOCK 5/8" UNC ZINC	8	
14	3SK3785	NUT HEX 5/8 UNC ZINC	26	
15	3SK3772	LOCKWASHER SPLIT 5/8 ZINC	26	

MOLDBOARD ASS'Y VCM 3911TE - HDP 12 IN



ITEM	DRAWING NO.	ALT. ITEM NO.	DESCRIPTION	QTY
1	202100978	0051-4-89	MOULDBOARD WELD'T 3911TE-HDP	1
2	202100951	0051-3-74	TRIP EDGE WELD'T CTR 11FT 12IN	1
3	202100943	0051-3-73	TRIP EDGE WELD'T RTH 11FT 12IN	1
4	202100950	0051-3-72	TRIP EDGE WELD'T LTH 11FT 12IN	1
5	202100981	0051-5-32	TRIP EDGE MTG TUBE 11FT TE-HD	1
6	20580038	0051-6-106	SPRING TORSION FRINK 39 SERIES	6
7	202100989	0051-5-525	TRIP SPRING RETAINER CLAMP	6
8	202100969	0051-1-2	CURB SHOE WELD'T	2
9	202100974	0051-5-171	MOLDBOARD SKIN POLY 3911TE-HDP	1
10	3SK3722		BOLT HEX 5/8 X 3 1/2 UNC ZINC	6
11	3SK3711		BOLT HEX 5/8 X 3 UNC ZINC	2
12	221834		BOLT CARRIAGE 5/8 X 2 UNC ZINC	26
13	3SK3781		NUT HEX TOPLOCK 5/8" UNC ZINC	8
14	3SK3785	81069H	NUT HEX 5/8 UNC ZINC	26
15	3SK3772	81070C	LOCKWASHER SPLIT 5/8 ZINC	26

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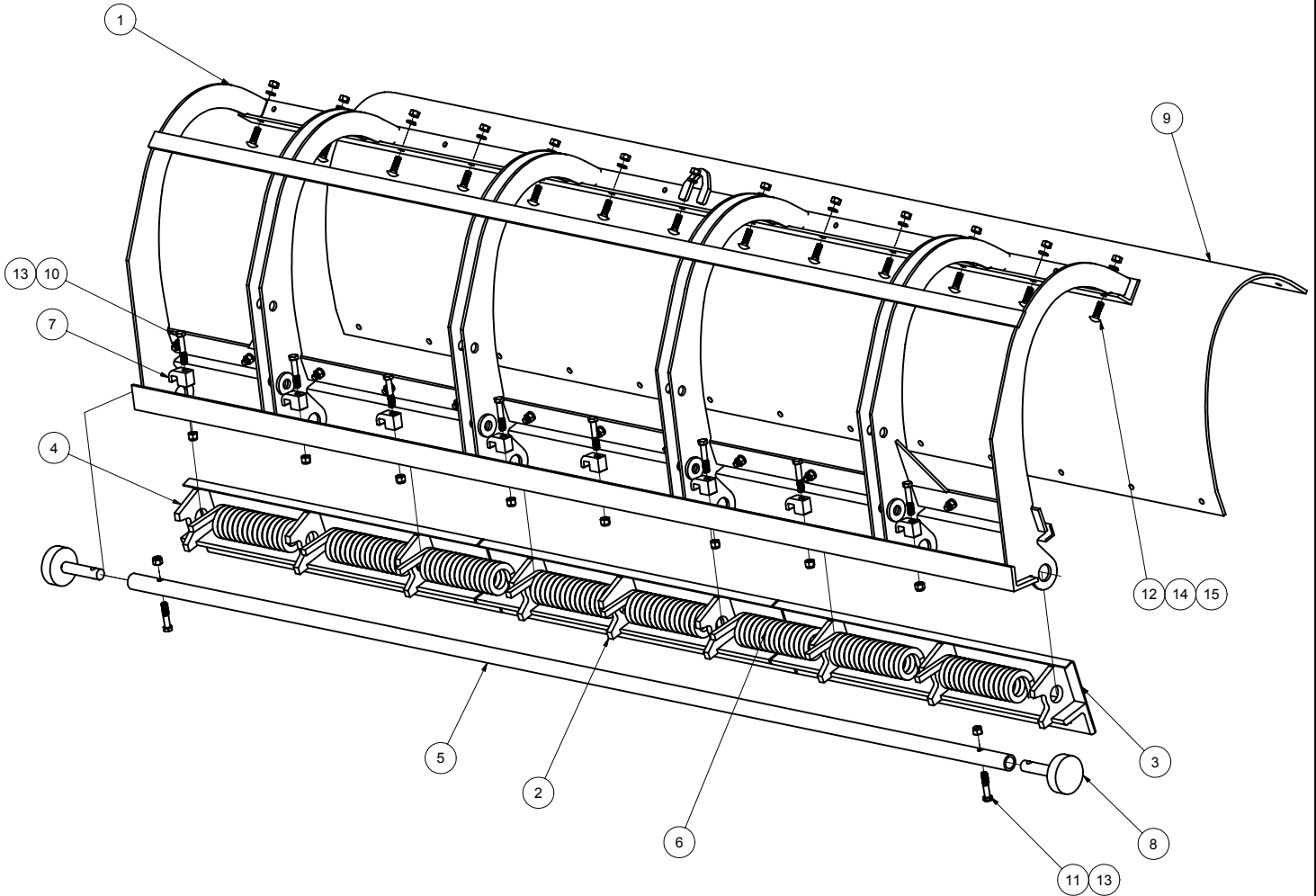


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MOLDBOARD ASS'Y VCM 3912TE - HDP 12 IN

ITEM ID	ITEM NO	DESCRIPTION	QTY REQ	OPTIONAL
1	202101005	MOLDBOARD WELD'T VCL 3912TE - HDP	1	
2	202101019	TRIP EDGE WELD'T CTR 10/12FT 12IN	1	
3	202101018	TRIP EDGE WELD'T RTH 12FT 12IN	1	
4	202101020	TRIP EDGE WELD'T LTH 12FT 12IN	1	
5	202101017	TRIP EDGE MTG TUBE 12FT TE-HD	1	
6	20580038	SPRING TORSION FRINK 39 SERIES	8	
7	202100989	TRIP SPRING RETAINER CLAMP	8	
8	202100969	CURB SHOE WELD'T	2	
9	202101015	MOLDBOARD SKIN POLY 3912TE-HDP	1	
10	3SK3722	BOLT HEX 5/8 X 3 1/2 UNC ZINC	8	
11	3SK3711	BOLT HEX 5/8 X 3 UNC ZINC	2	
12	221834	BOLT CARRIAGE 5/8 X 2 UNC ZINC	26	
13	3SK3781	NUT HEX TOPLOCK 5/8" UNC ZINC	10	
14	3SK3785	NUT HEX 5/8 UNC ZINC	26	
15	3SK3772	LOCKWASHER SPLIT 5/8 ZINC	26	

MOLDBOARD ASS'Y VCM 3912TE - HDP 12 IN



ITEM	DRAWING NO.	ALT. ITEM NO.	DESCRIPTION	QTY
1	202101005	0051-4-96	MOLDBOARD WELD'T VCL 3912TE-HDP	1
2	202101019		TRIP EDGE WELD'T CTR 10/12FT 12IN	1
3	202101018		TRIP EDGE WELD'T RTH 12FT 12IN	1
4	202101020		TRIP EDGE WELD'T LTH 12FT 12IN	1
5	202101017		TRIP EDGE MTG TUBE 12 FT TE-HD	1
6	20580038	0051-6-106	SPRING TORSION FRINK 39 SERIES	8
7	202100989	0051-5-525	TRIP SPRING RETAINER CLAMP	8
8	202100969	0051-1-2	CURB SHOE WELD'T	2
9	202101015		MOLDBOARD SKIN POLY 3912TE-HDP	1
10	3SK3722		BOLT HEX 5/8 X 3 1/2 UNC ZINC	8
11	3SK3711		BOLT HEX 5/8 X 3 UNC ZINC	2
12	221834		BOLT CARRIAGE 5/8 X 2 UNC ZINC	26
13	SK3781		NUT HEX TOPLOCK 5/8" UNC ZINC	10
14	3SK3785	81069H	NUT HEX 5/8 UNC ZINC	26
15	3SK3772	81070C	LOCKWASHER SPLIT 5/8 ZINC	26

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