



22956 Highway 61 Morley, MO 63767 Phone: (573) 262-3545 Fax: (573) 262-3369

# Owners Manual

## AHW 025 MID-MOUNT HYDRAULIC WING





22956 Highway 61 Morley, MO 63767 Phone: (573) 262-3545 Fax: (573) 262-3369

**\*\*\* LIMITED WARRANTY \*\*\***

**Viking - Cives Midwest, Inc.** warrants products of its manufacture against defects in workmanship and material for a period of one year from date of shipment to customer; and 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 Midwest, Inc.** This warranty will not apply to any product which shall have been repaired or altered outside of the **Viking - Cives Midwest, Inc.** factory in any way so as, in **Viking - Cives Midwest, Inc.** sole judgment, to affect its stability or reliability, nor which has been subjected to misuse, negligence or accident.

The obligations of **Viking - Cives Midwest, Inc.** under this limited warranty are limited to the replacement of defective parts as set forth above; such obligations are exclusive and in lieu of all other remedies, warranties, guarantees or liabilities, express or implied, with respect to each product delivered hereunder, arising by law or otherwise (including without limitation any obligation or liability of **Viking - Cives Midwest, Inc.**, arising from negligence or with respect to fitness for a particular purpose, merchantability, loss or use, revenue or profit, or any incidental, indirect, special or consequential damages or injuries; and all other remedies, warranties, guarantees, or liabilities are hereby expressly excluded and disclaimed. This limited warranty shall not be extended, altered, or varied except by a written instrument signed by **Viking - Cives Midwest, Inc.**

**Viking - Cives Midwest, Inc.** assumes no responsibility for engines, electrical equipment, or any other equipment and accessories not manufactured by **Viking - Cives Midwest, Inc.**

## ORDERING PARTS

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

1. Place orders direct with Viking - Cives Midwest, Inc. / 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. **Note: A purchase order is required for the warranty parts.**
6. Give specific shipping instructions.

**VIKING - CIVES MIDWEST, INC.** – 22956 Hwy 61 Morley, MO 63767  
(573) 262-3545 Phone; (573) 262-3369 Fax



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### **WARRANTY REQUEST PROCEDURE**

All repairs considered for warranty that are performed outside of Viking - Cives Midwest, Inc.; require prior written authorization from Viking - Cives Midwest, Inc. 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 Viking - Cives Midwest, Inc. with all required 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 Midwest, Inc. customer service to obtain a Return Goods Authorization (RGA) number. Any product arriving at Viking - Cives Midwest, Inc. 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 Midwest, Inc. 22956 Highway 61 Morley, MO 63767. **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) A Purchase order must be received for the replacement parts.
  - b) An invoice will be generated for the value of the replacement item(s).
  - c) The defective part(s) must be returned (prepaid) to Viking - Cives Midwest, Inc.
  - d) Upon receiving the defective part(s) Viking - Cives Midwest, Inc. 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 Midwest, Inc.** 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 Midwest, Inc. facility that may be considered for warranty the following steps must occur. **Notification of Viking - Cives Midwest, Inc. customer service must take place prior to the start of any repairs.**

- (1) Contact Viking - Cives Midwest, Inc. 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 Midwest, Inc., attention Customer Service Department.
- (3) Once the WCF report has been reviewed warranty authorization will be granted or denied. **NOTE: Viking - Cives Midwest, Inc. 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:**

Service Department – DeWayne Stroder (573) 262-3545; (573) 262-3369 fax



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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 indicated 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. Check all components for loose and/or missing fasteners, if required tighten and/or replace.
3. 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.
4. Visually inspect all hydraulic connections and hoses for cracks and/or leaks. Rupturing hoses may produce a high-pressure stream of hot hydraulic oil.
5. Check all cables and chains for excessive wear or damage.
6. Visually inspect plow units. Check cutting edges. 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.
7. 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-cab 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. See cab control layout. All levers are clearly marked as to the equipment/function they control.
3. To raise the plow or wing, pull back on the appropriate control level, to lower the plow or wing, push the control level forward. **NOTE:** The in cab controls are proportional to the hydraulic valve, therefore the further the control lever is moved the faster the plow or wing will raise or lower.
4. 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.
5. 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 Midwest, Inc.

#### REGISTRATION OF EQUIPMENT AND WARRANTY INFORMATION

Before using equipment check for damage. Report any damage to equipment at once to Viking-Cives Midwest, Inc. The warranty period becomes effective upon date of delivery of equipment unless other arrangements have been made with a Viking-Cives Midwest, Inc. distributor or Viking-Cives Midwest, Inc. 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 winter conditions with bad weather and snow & ice conditions. Due to these adverse operating conditions it is important that you the operator use good safety practices at all times 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 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 and 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 SEQUENCE AND GUIDELINES

These mounting instructions are intended as a guide to aid you in the installation of your AHW-025 Mid-Mount Hydraulic Wing. All dimensions noted in the instructions are approximate and may vary due to make and model of chassis, tire size, type of suspension, spring deflection, customer preference and interference caused by immovable objects such as a transfer case. Viking-Cives assumes no responsibility for improper installation unless installed at an approved Viking-Cives location. The end-user and the installer prior to installation should discuss mounting location in order to achieve the best possible installation.

1. Layout chassis frame rails, following layout drawings supplied, identifying any chassis components such as air tanks or battery boxes, which may have to be moved.
2. Layout side mounting plates and support masts as indicated (for dimensions see table below).
  - a. Drill and bolt side plates to chassis frame as necessary. When mounting side plates use existing frame holes when possible.

#### MID-MOUNT WING INSTALLATION W/ STANDARD NON-TRIP MOLDBOARD AND NON-TRIP HINGE

|   | 7 FT.    | 8 FT.    | 9 FT.    |
|---|----------|----------|----------|
| A | 13"      | 13"      | 13"      |
| B | 45"      | 50"      | 55"      |
| C | 12 ½"    | 12 ½"    | 12 ½"    |
| D | 26 3/16" | 26 3/16" | 26 3/16" |
| E | 29 ¾"    | 29 ¾"    | 29 ¾"    |
| F | 45 1/8"  | 50 1/8"  | 55 1/8"  |

#### MID-MOUNT WING INSTALLATION W/ NON-TRIP MOLDBOARD AND TRIP HINGE

|   | 7 FT.    | 8 FT.    | 9 FT.    |
|---|----------|----------|----------|
| A | 13"      | 13"      | 13"      |
| B | 45"      | 50"      | 55"      |
| C | 12 ½"    | 12 ½"    | 12 ½"    |
| D | 26 3/16" | 26 3/16" | 26 3/16" |
| E | 24 ¼"    | 24 ¼"    | 24 ¼"    |
| F | 45 1/8"  | 50 1/8"  | 55 1/8"  |

#### MID-MOUNT WING INSTALLATION W/ TRIP EDGE MOLDBOARD AND NON-TRIP HINGE

|   | 7 FT.    | 8 FT.    | 9 FT.    |
|---|----------|----------|----------|
| A | 16"      | 16"      | 16"      |
| B | 45"      | 50"      | 55"      |
| C | 12 ½"    | 12 ½"    | 12 ½"    |
| D | 26 3/16" | 26 3/16" | 26 3/16" |
| E | 29 ¾"    | 29 ¾"    | 29 ¾"    |
| F | 45 1/8"  | 50 1/8"  | 55 1/8"  |



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3. Install front mast and rear support tube.
  - a. Slide front mast assembly and rear support tube into side plate cutouts.
  - b. Locate front mast 24  $\frac{1}{4}$ " (*measurement E*) from face of front right side mounting plate to outer edge of vertical support channel
  - c. Locate rear support tube 26" (*measurement D*) from face rear right side mounting plate to outside edge of tube end plate.
  - d. Install eight 4" x 3" x  $\frac{1}{2}$ " x 6" angles to secure mast assembly and support tube in place. Bolt right side angles to side mounting plates with  $\frac{5}{8}$ " x 2" bolts, nuts, and lock washers and weld to the top and bottom of the tube. Weld the left side angles to the side mounting plates and bolt through the tubes with  $\frac{5}{8}$ " x 6" bolts, nuts, and lock washers. By following *this installation sequence, the front mast assembly and rear support tube will remain removable and easily re-installed.*
4. Layout and install pipe brace between front mast and rear support tube.
  - a. Weld mounting angles to right hand inside of front mast and rear support tubes (locate as shown).
  - b. Attach cast-mounting balls to mounting angles with fasteners. Measure and cut pipe brace to suit, weld pipe to cast-mounting balls.
5. Install moldboard assembly onto front wing post mounting block using 1  $\frac{1}{4}$ " x 6  $\frac{1}{2}$ " bolt supplied.
6. Next layout and install rear push arm.
  - a. Attach push arm to the rear support tube on right hand side.
  - b. Next install the rear push arm-mounting bracket to the moldboard. Layout the mounting bracket onto the moldboard so that you obtain a 90-degree angle with the push arm and the rear cross beam. Location may vary based on moldboard length and distance between front mast and rear support tube.
  - c. Attach push arm to the moldboard
7. Hydraulics Installation—Various hydraulic arrangements / options are available and care must be taken to use the correct drawings for your specific application. When running control cables and/or hydraulic hoses, care must be taken not to run these items too close to moving parts and/or hot engines. Do not kink or severely bend cable or hoses, at any point where items cross any surfaces where abrasion could occur, protect cable or hose with armor. Whenever possible, secure the cables and/or hoses with ties, to the chassis frame.
8. 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.
  - a. Install chassis mounted hydraulic components (i.e. hydraulic pump/PTO, main valve bank, etc.)
  - b. Install heel lift cylinder from front post block to cylinder link in center of moldboard using pins provided.
  - c. Install hydraulic plumbing for front and heel lift cylinders
9. Final installation and inspection
  - a. Operate wing and build wing stop on rear tube so wing will not hit body in up position.
  - b. Install safety chain around push arm for securing wing in raised travel position
  - c. Check all components for loose and/or missing fasteners, if required tighten and/or replace.
  - d. Visually inspect all hydraulic connections and hoses for leaks
  - e. Visually inspect all caution and warning decals, replace decals if missing. All decals should be complete and legible.



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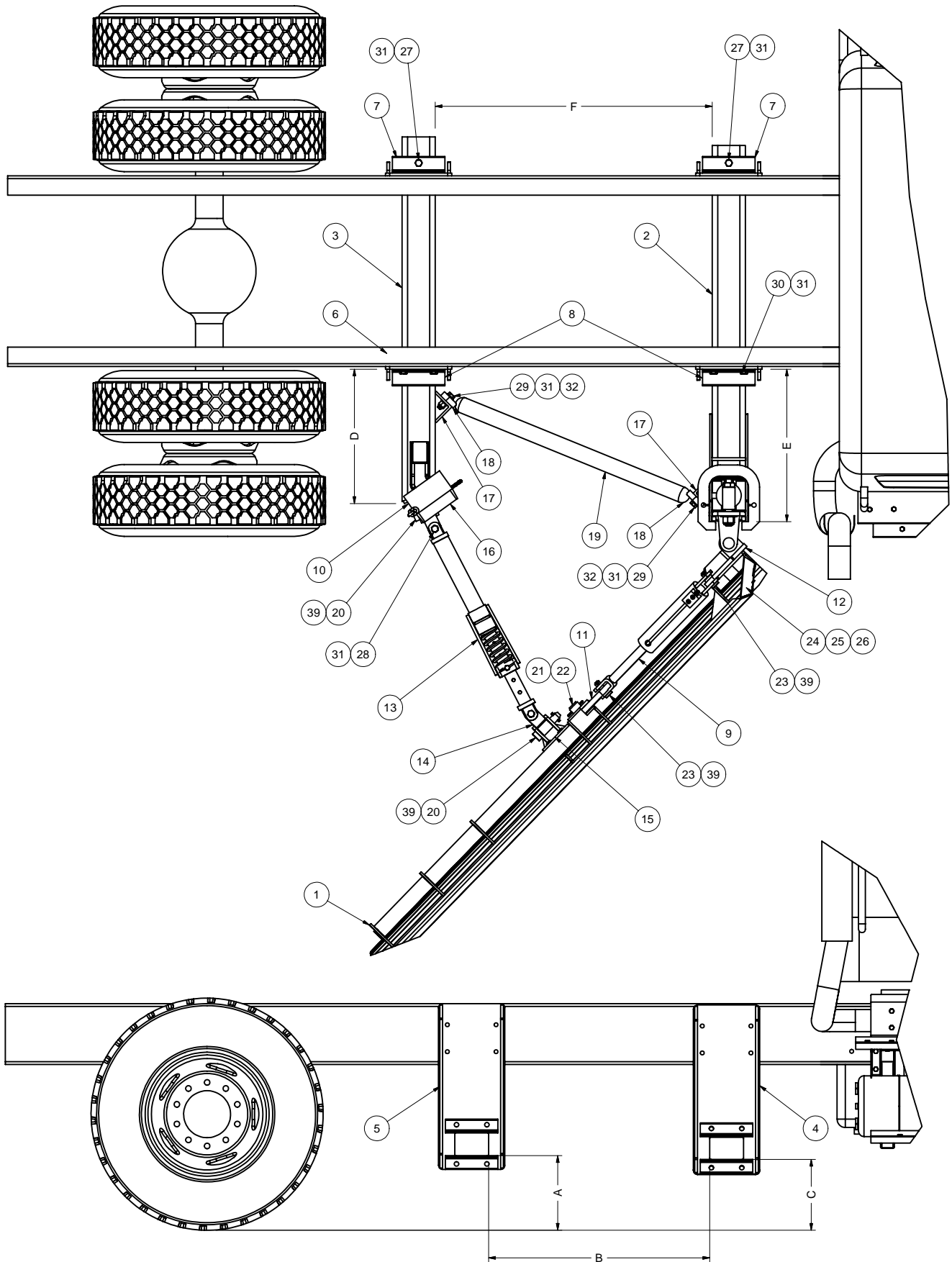
### AHW-025 MID-MOUNT WING KIT COMPLETE

For ordering complete kits, please reference table below.  
These kits come complete with all standard items and necessary installation hardware.

| ITEM ID | ITEM NO  | DESCRIPTION                         | QTY |
|---------|----------|-------------------------------------|-----|
|         | 01401158 | MID MOUNT WING KIT AHW-025 6FT 12IN | 1   |
|         | 01401068 | MID MOUNT WING KIT AHW-025 7FT 12IN | 1   |
|         | 01401168 | MID MOUNT WING KIT AHW-025 8FT 12IN | 1   |
|         | 01401165 | MID MOUNT WING KIT AHW-025 9FT 12IN | 2   |

### AHW-025 MID-MOUNT WING KIT INSTALLATION

| ITEM ID | ITEM NO    | DESCRIPTION                                | QTY |
|---------|------------|--|-----|
| 1       | 00401494   | ANGLE 3 X 3 X 3/8 – 11                     | 4   |
| 2       | 00401495   | ANGLE 4 X 3 X 1/2 - 6                      | 8   |
| 3       | 00402187   | ANGLE 4 X 4 X 3/8 – 4                      | 2   |
| 4       | 01001167   | HINGE BLOCK WELDT AHW-025                  | 1   |
| 5       | 01001170   | FRAME MOUNTING PLATE 12" X 28"             | 2   |
| 6       | 01001176   | WING POST ASSY AHW-025                     | 1   |
| 7       | 01001177   | FRAME MTG PALTE 18" X 28"                  | 2   |
| 8       | 01001178   | REAR CROSS TUBE WELDT                      | 1   |
| 9       | 01201065   | PUSH ARM ASSY AHW-025                      | 1   |
| 10      | A/R        | MOLDBOARD ASSY AHW-025                     | 1   |
| 11      | 01900155   | PIPE BRACE KIT 2 7/8 BALL – 48.000 IN LONG | 1   |
| 12      | 0540246    | CYLINDER HYD DA 3X10                       | 1   |
| 13      | HW14C-10   | LOCKWASHER SPLIT 5/8 ZINC                  | 6   |
| 14      | HW30A-10   | NUT HEX 5/8 UNC ZINC                       | 6   |
| 15      | HW36D-16   | NUT HEX ELASTIC 1 UNC ZINC                 | 2   |
| 16      | HW40A-1016 | BOLT HEX 5/8 X 2 UNC ZINC                  | 4   |
| 17      | HW40A-1048 | BOLT HEX 5/8 X 6 UNC ZINC                  | 2   |
| 18      | HW40A-1628 | BOLT HEX 1 X 3 1/2 UNC ZINC                | 2   |





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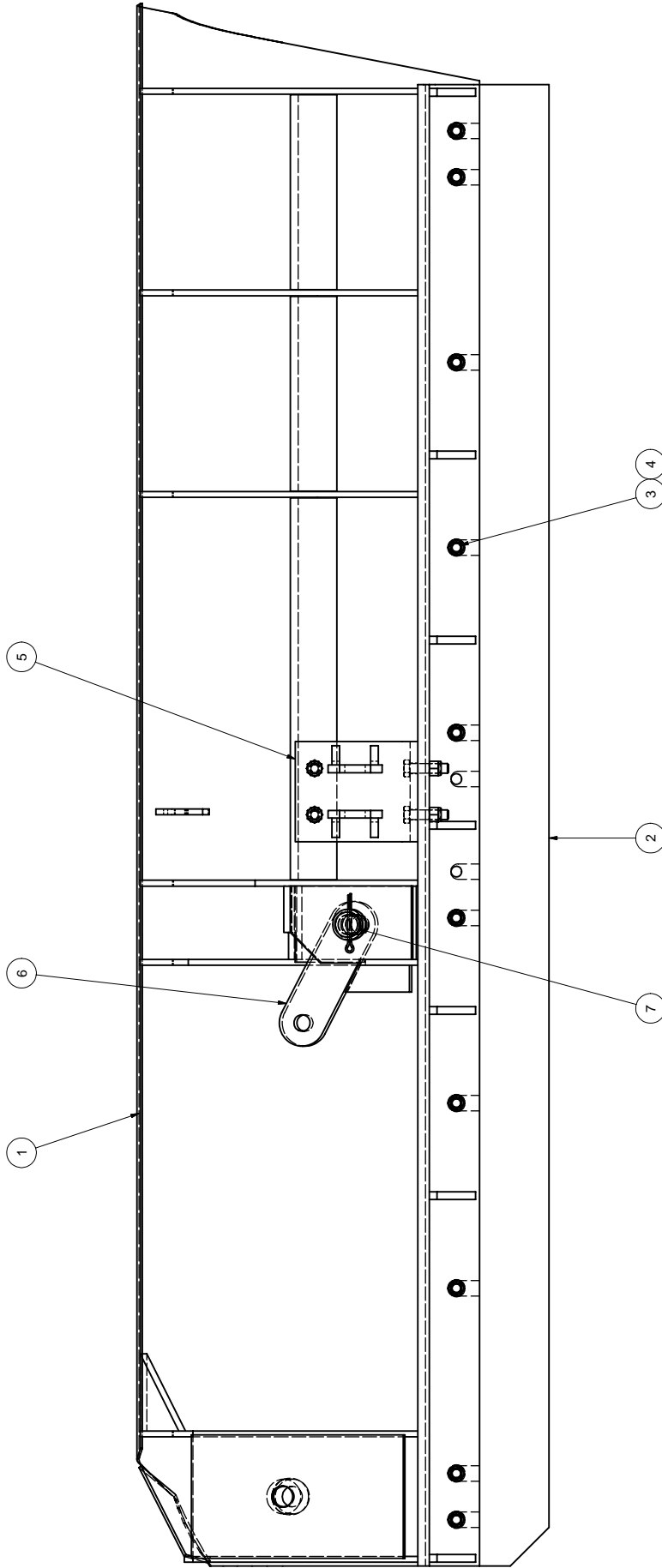
### AHW-025 MID-MOUNT SET UP ASSEMBLY

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                                   | QTY |
|---------|------------|----------|---|-----|
| 1       | 21401088   |          | 7' MID-MOUNT MOLDBOARD ASSEMBLY RTH           | 1   |
|         | 21401089   |          | 7' MID-MOUNT MOLDBOARD ASSEMBLY LTH           | 1   |
|         | 21401051   |          | 7' MID-MOUNT TRIP EDGE MOLDBOARD ASSEMBLY RTH | 1   |
|         | 21401093   |          | 7' MID-MOUNT TRIP EDGE MOLDBOARD ASSEMBLY LTH | 1   |
|         | 21401082   |          | 8' MID-MOUNT MOLDBOARD ASSEMBLY RTH           | 1   |
|         | 21401087   |          | 8' MID-MOUNT MOLDBOARD ASSEMBLY LTH           | 1   |
|         | 21401084   |          | 8' MID-MOUNT TRIP EDGE MOLDBOARD ASSEMBLY RTH | 1   |
|         | 21401092   |          | 8' MID-MOUNT TRIP EDGE MOLDBOARD ASSEMBLY LTH | 1   |
|         | 21401086   |          | 9' MID-MOUNT MOLDBOARD ASSEMBLY RTH           | 1   |
|         | 21401090   |          | 9' MID-MOUNT MOLDBOARD ASSEMBLY LTH           | 1   |
|         | 21401085   |          | 9' MID-MOUNT TRIP EDGE MOLDBOARD ASSEMBLY RTH | 1   |
|         | 21401091   |          | 9' MID-MOUNT TRIP EDGE MOLDBOARD ASSEMBLY LTH | 1   |
| 2       | 21001004   |          | WING POST ASSY AHW-025                        | 1   |
| 3       | 201001178  |          | REAR CROSS TUBE WELDT                         | 1   |
| 4       | 21403066   |          | MID-MOUNT FRONT CHEEK PLATE WELDT             | 2   |
| 5       | 21403065   |          | MID-MOUNT REAR CHEEK PLATE WELDT              | 2   |
| 6       | 21412011   |          | VIKING CHEEK PLATE BACKSIDE GUSSET            | 8   |
| 7       | 21406024   |          | VIKING CROSS TUBE MTG ANGLE 1 HOLE            | 4   |
| 8       | 21406025   |          | VIKING CROSS TUBE MTG ANGLE 2 HOLE            | 4   |
| 9       | 20540248CB | 80143B   | CYLINDER HYD DA 3 X 10                        | 1   |
| 10      | 21403084   |          | AHW025 REAR POST CARRING/STOP WELDT           | 1   |
| 11      | 200401422  |          | LINK 1.063D 7.188 1.313D                      | 1   |
| 12      | 201001167  |          | HINGE BLOCK WELDT AHW 025                     | 1   |
| 13      | 201201065  |          | PUSH ARM AHW 025                              | 1   |
| 14      | 20017167-4 |          | PIVOT BLOCK 3.500 X 0.813 DIA                 | 2   |
| 15      | 21403067   |          | PUSH ARM MTG BRKT WELDT                       | 1   |
| 16      | 280572C    |          | RUBBER BUMPER MC21685T11                      | 1   |
| 17      | 00402187   |          | ANGLE 4 X 4 X 3/8 - 4                         | 2   |
| 18      | 280370A    | 80370A   | COMPRESSION END BRACE 2 7/8 BALL              | 2   |
| 19      | 01900045   | 0T129    | TUBE RD 2.875N 2.469N 60.000S                 | 1   |
| 20      | 20P010     |          | PIN 1 1/4 X 4 3/8 UH                          | 2   |
| 21      | 280507     | 80508A   | COTTER PIN 1/4 X 3 ZINC                       | 2   |
| 22      | 20900125   |          | PIN 1.250 DIA X 3.406 BODY                    | 1   |
| 23      | 20P148A    |          | PIN 1 X 3                                     | 2   |
| 24      | 21415002   | 81023C   | BOLT HEX 1 1/4 X 6 UNC ZINC DRILLED           | 1   |
| 25      | HW30C-20   | 81006    | NUT HEX SLOTTED 1 1/4 UNC ZINC                | 1   |
| 26      | HW16A-20   | 81015A   | FLATWASHER SAE 1 1/4 ZINC                     | 1   |
| 27      | HW40A-1248 | 81068F   | BOLT HEX 3/4 X 6 UNC ZINC                     | 2   |
| 28      | HW40A-1230 | 81068E   | BOLT HEX 3/4 X 3 1/4 UNC ZINC                 | 2   |
| 29      | HW40A-1224 |          | BOLT HEX 3/4 X 3 UNC ZINC                     | 2   |
| 30      | 3SK3800    |          | BOLT HEX 3/4 X 2 1/2 UNC ZINC                 | 8   |
| 31      | HW30E-12   |          | NUT HEX TOPLOCK 3/4 UNC ZINC                  | 14  |
| 32      | 3SK3820    | 81062X   | FLATWASHER SAE 3/4 ZINC                       | 4   |
| 33      | HW40A-1020 | 81075E   | BOLT HEX 5/8 X 2 1/2 UNC ZINC                 | 2   |
| 34      | HW40A-1016 | 81073D   | BOLT HEX 5/8 X 2 UNC ZINC                     | 2   |
| 35      | HW36D-10   |          | NUT HEX TOPLOCK 5/8 UNC ZINC                  | 4   |
| 36      | HW40A-0616 |          | BOLT HEX 3/8 X 2 UNC ZINC                     | 2   |
| 37      | HW30E-06   | 81086C   | NUT HEX TOPLOCK 3/8 UNC ZINC                  | 2   |
| 38      | HW14A-06   |          | FLATWASHER SAE 3/8 ZINC                       | 4   |
| 39      | HW13C-1238 |          | ROLL PIN 3/8 X 2 ZINC                         | 4   |



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## AHW025 MID-MOUNT 8' WING ASSEMBLY PART #21401082



NOTE: ITEM #5, ITEM #6, AND ITEM #7 ARE NOT PART OF ASSEMBLY #21401082 IT IS SHOWN JUST AS A REPRESENTATION OF HOW IT SHOULD BE JUST BEFORE BEING MOUNTED TO THE TRUCK.

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



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**AHW-025 MID-MOUNT 8' WING ASSEMBLY  
PART # 2140182**

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                       | QTY |
|---------|------------|----------|-----------------------------------|-----|
| 1       | 201401131  |          | 8 FT MID-MOUNT WING RTH WELDT     | 1   |
| 2       | 280032     |          | BLADE 5/8 X 8 X 96 (2" TOP PUNCH) | 1   |
| 3       | HW40B-1020 | 81074C   | BOLT PLOW 5/8 X 2 1/2 UNC ZINC    | 10  |
| 4       | HW36D-10   |          | NUT HEX TOPLOCK 5/8 UNC ZINC      | 10  |
| 5       | 21403067   |          | PUSH ARM MTG BRKT WELDT (MODOT)   | 1   |
| 6       | 200401422  |          | LINK 1.063D 7.188 1.313D          | 1   |
| 7       | 20900125   |          | PIN 1.250 DIA X 3.406 BODY        | 1   |

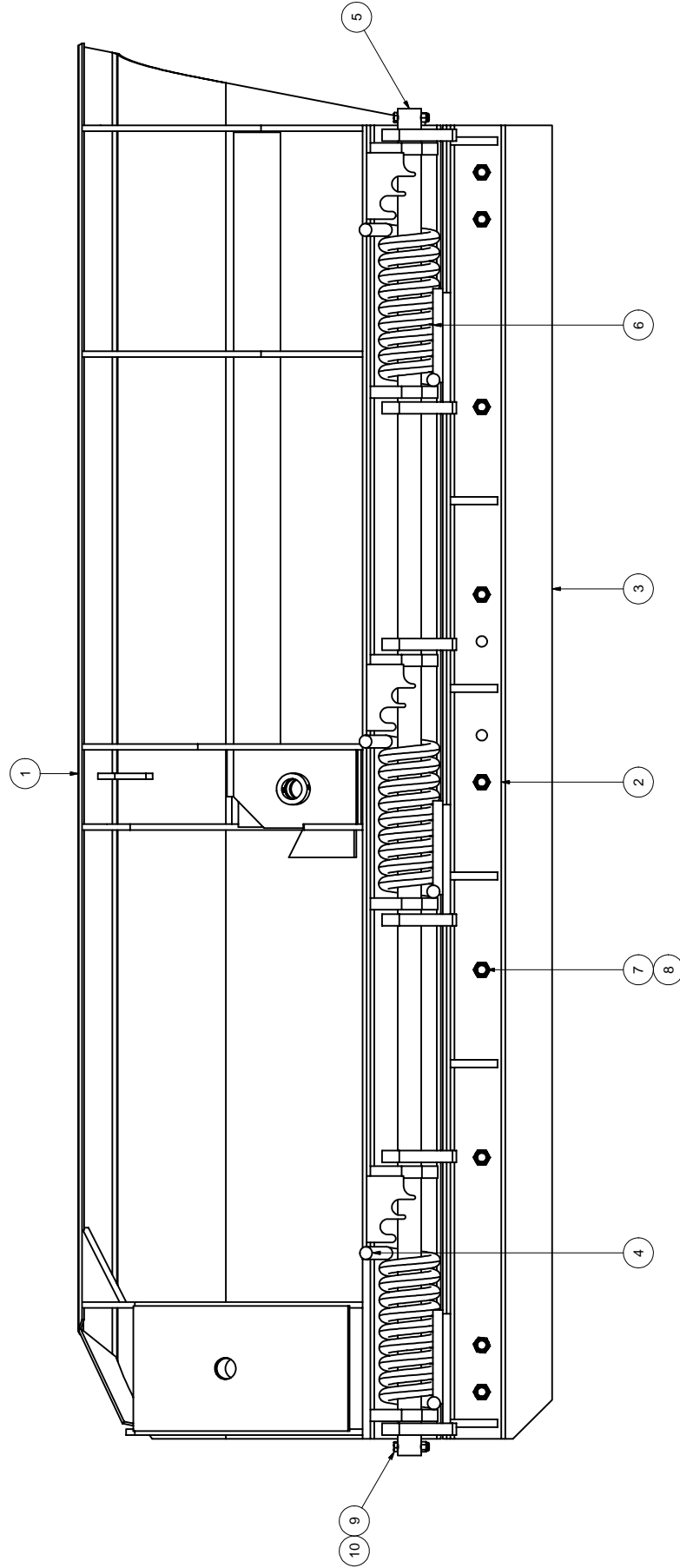
Note: Item # 5, 6, and 7 are not part of assembly #21401082.

It is shown just as a representation of how it should be just before being mounted to the truck



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## AHW025 MID-MOUNT 7' TRIP EDGE WING ASSEMBLY PART #21401051



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



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**AHW-025 MID-MOUNT 7' TRIP EDGE WING ASSEMBLY  
PART # 21401051**

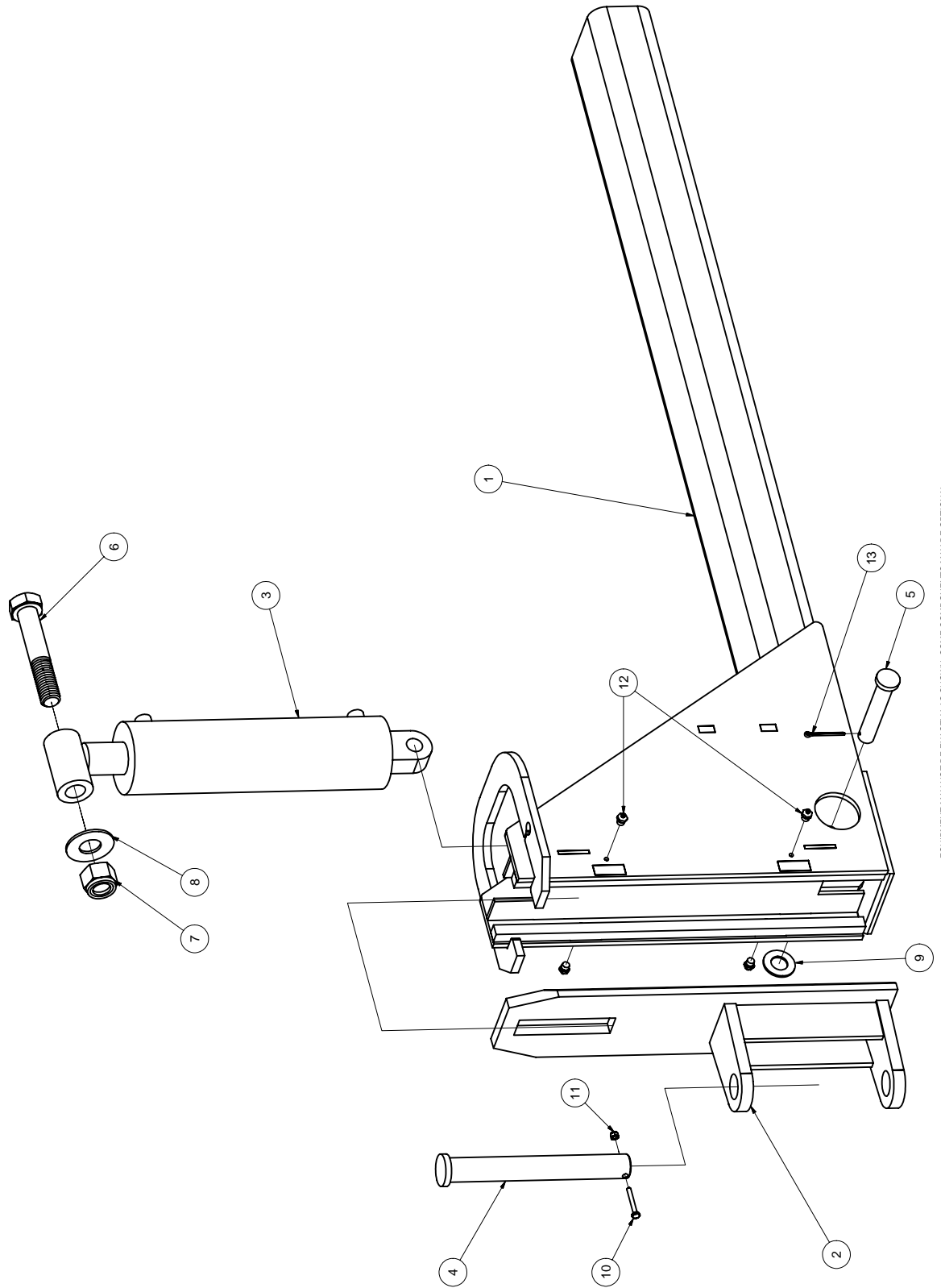
| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                          | QTY |
|---------|------------|----------|--------------------------------------|-----|
| 1       | 21403052   |          | 7 FT MID MOUNT TRIP EDGE WELDT       | 1   |
| 2       | 21403017   |          | 7 FT TRIP EDGE BASE ANGLE            | 1   |
| 3       | 25000013   |          | BLADE 5/8 X 6 X 84 1 1/2" TOP MARGIN | 1   |
| 4       | 280416     |          | MW SMALL TRIP EDGE SPRING TORSION    | 3   |
| 5       | 21429012   |          | SPRING RETAINER TUBE 14' J-PLOW      | 1   |
| 6       | 22110000   |          | FH 5/8 X 1 X 6                       | 3   |
| 7       | HW40B-1020 | 81074C   | BOLT PLOW 5/8 X 2 1/2 UNC ZINC       | 9   |
| 8       | HW36D-10   |          | NUT HEX TOPLOCK 5/8 UNC ZINC         | 9   |
| 9       | HW40A-0616 |          | BOLT HEX 3/8 X 2 UNC ZINC            | 2   |
| 10      | HW30E-06   | 81086C   | NUT HEX TOPLOCK 3/8 UNC ZINC         | 2   |
| 11      | 280556     |          | COTTER PIN 1/4 X 2 ZINC              | 1   |





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## MID-MOUNT AHW025 FRONT POST ASSEMBLY PART #21001004



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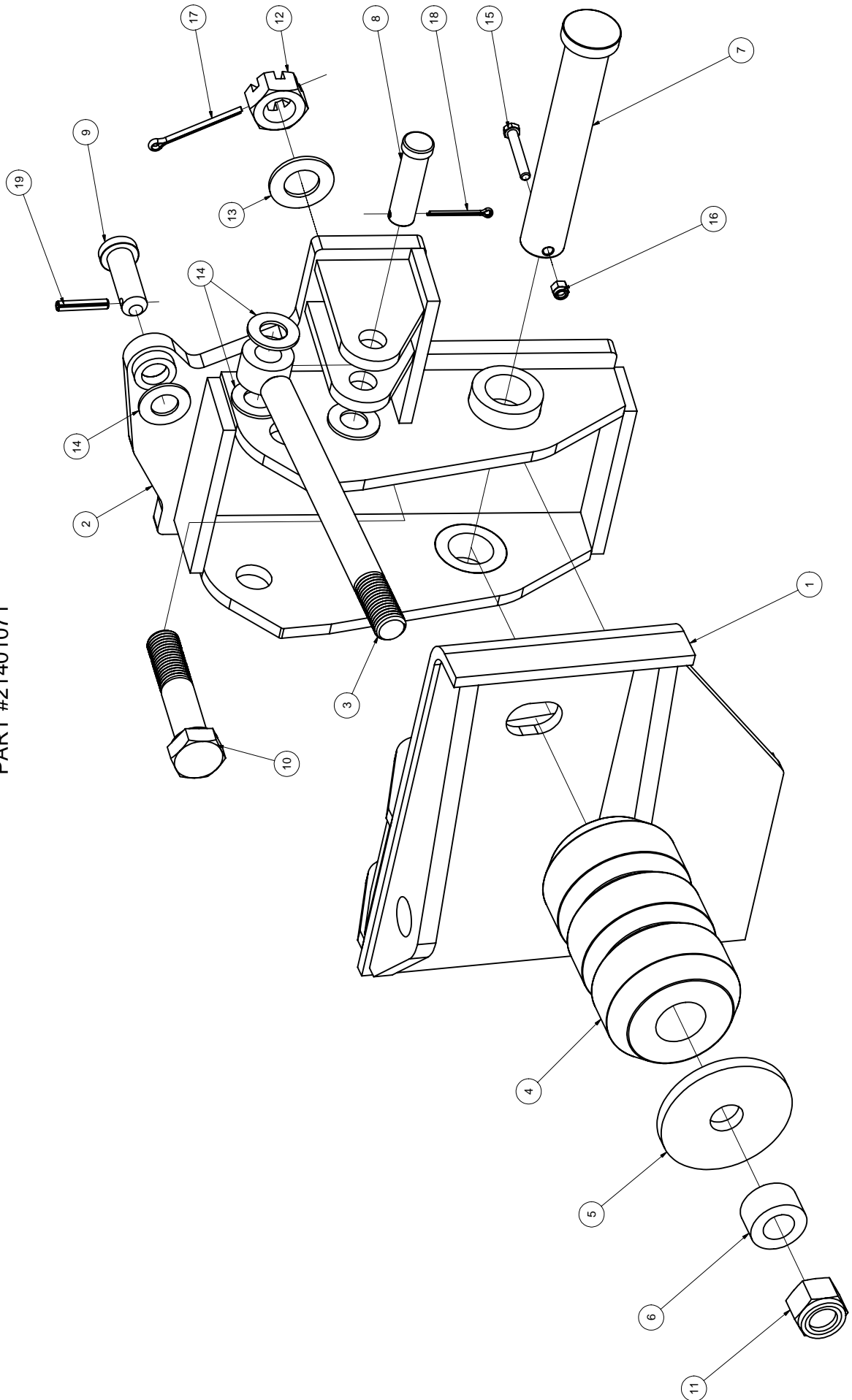
**AHW-025 MID-MOUNT FRONT POST ASSEMBLY  
PART # 21001004**

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                  | QTY |
|---------|------------|----------|------------------------------|-----|
| 1       | 21003021   |          | WINT POST WELDT AHW-025      | 1   |
| 2       | 201001168  |          | SLIDE WELDT AHW-025          | 1   |
| 3       | 20540247   | 80143B   | CYLINDER HYD DA 4 X 12       | 1   |
| 4       | 20900128   |          | PIN 1.500 DIA X 11.438 BODY  | 1   |
| 5       | 3SK3421    |          | PIN 1 X 5 ½                  | 1   |
| 6       | 281023G    |          | BOLT HEX 1 ¼ X 7 UNC ZINC    | 1   |
| 7       | HW30E-20   | 80999D   | NUT HEX TOPLOCK 1 ¼ UNC ZINC | 1   |
| 8       | HW14B-20   | 81015    | FLATWASHER USS 1 ¼ ZINC      | 1   |
| 9       | HW14A-16   | 81013A   | FLATWASHER SAE 1 ZINC        | 1   |
| 10      | HW40A-0416 |          | BOLT HEX ¼ X 2 UNC ZINC      | 1   |
| 11      | HW36D-04   |          | NUT HEX TOPLOCK ¼ UNC ZINC   | 1   |
| 12      | 260106     |          | GREASE FITTING ¼ NPT STR     | 4   |
| 13      | 3SK3450    | 80518    | COTTER PIN 3/16 X 2 ZINC     | 1   |



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# AHW025 MID-MOUNT FULL TRIP HINGE ASSEMBLY RTH PART #21401071



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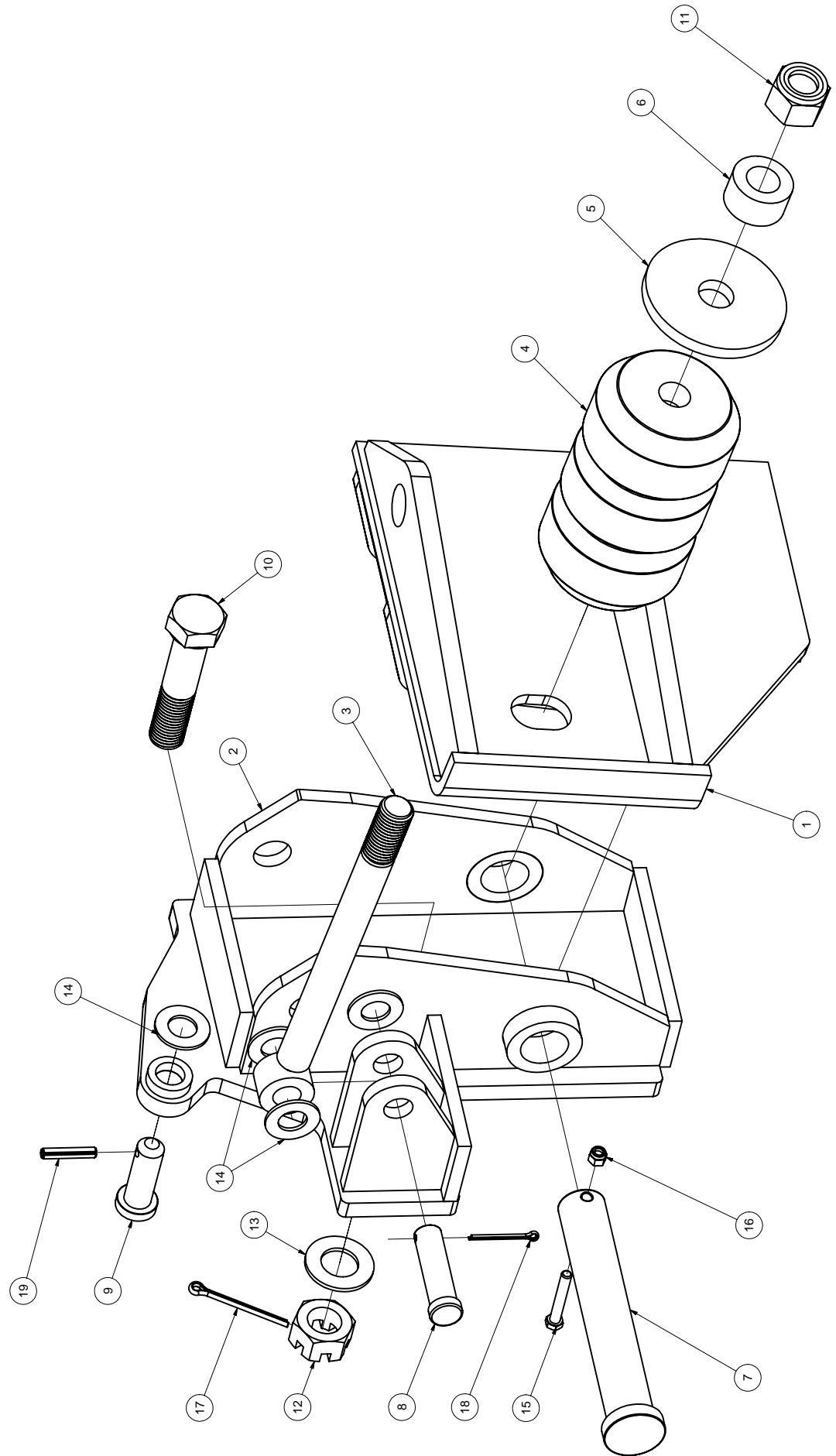
**AHW-025 MID-MOUNT FULL TRIP HINGE RTH**  
**PART # 21401071**

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                         | QTY |
|---------|------------|----------|-------------------------------------|-----|
| 1       | 21403059   |          | POST HALF TRIP HINGE WELDT RTH      | 1   |
| 2       | 21403061   |          | PLOW HALF TRIP HINGE WELT RTH VCM   | 1   |
| 3       | 21403058   |          | CONNECTING ROD TRIP BUSHING         | 1   |
| 4       | 21415000   |          | RUBBER TIMBERIN TRIP HINGE          | 1   |
| 5       | 21405080   |          | RETAINING PLATE TIMBERIN BUSHING    | 1   |
| 6       | 21429009   |          | CONN. ROD TO TIMBERIN SPACE BUSHING | 1   |
| 7       | 20908010   |          | 1 3/4 PIVOT PIN TRIP HINGE          | 1   |
| 8       | 20908008   |          | CONNECTING ROD TO TIMBERIN PIN TH   | 1   |
| 9       | 20P148A    |          | PIN 1 X 3                           | 1   |
| 10      | 21415002   | 81023C   | BOLT HEX 1 1/4 X 6 UNC ZINC DRILLED | 1   |
| 11      | HW30E-20   | 80999D   | NUT HEX TOPLOCK 1 1/4 UNC ZINC      | 1   |
| 12      | HW30C-20   | 81006    | NUT HEX SLOTTED 1 1/4 UNC ZINC      | 1   |
| 13      | HW16A-20   | 81015A   | FLATWASHER SAE 1 1/4 ZINC           | 1   |
| 14      | HW14A-16   | 81013A   | FLATWASHER SAE 1 ZINC               | 4   |
| 15      | 3SK3589    |          | BOLT HEX 3/8 X 2 1/2 UNC ZINC       | 1   |
| 16      | HW30E-06   | 81086C   | NUT HEX TOPLOCK 3/8 UNC ZINC        | 1   |
| 17      | 280507     | 80508A   | COTTER PIN 1/4 X 3 ZINC             | 1   |
| 18      | 3SK3450    | 80518    | COTTER PIN 3/16 X 2 ZINC            | 1   |
| 19      | HW13C-1238 |          | ROLL PIN 3/8 X 2 ZINC               | 1   |



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# AHW025 MID-MOUNT FULL TRIP HINGE ASSEMBLY LTH PART #21401072



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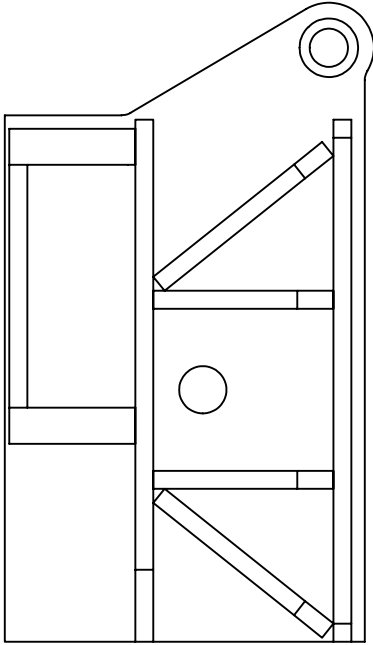


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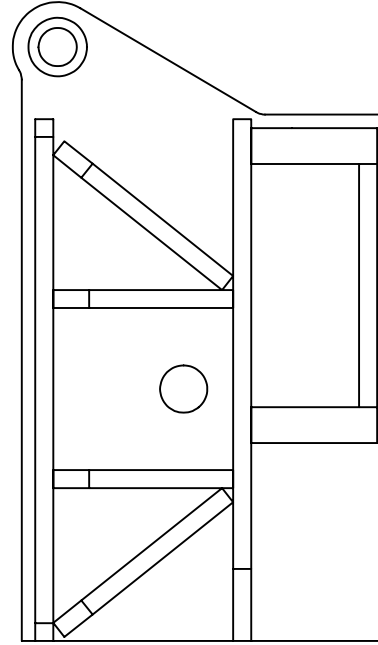
AHW-025 MID-MOUNT FULL TRIP HINGE LTH  
PART # 21401072

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                         | QTY |
|---------|------------|----------|-------------------------------------|-----|
| 1       | 21403056   |          | POST HALF TRIP HINGE WELDT LTH      | 1   |
| 2       | 21403062   |          | PLOW HALF TRIP HINGE WELT LTH VCM   | 1   |
| 3       | 21403058   |          | CONNECTING ROD TRIP BUSHING         | 1   |
| 4       | 21415000   |          | RUBBER TIMBERIN TRIP HINGE          | 1   |
| 5       | 21405080   |          | RETAINING PLATE TIMBERIN BUSHING    | 1   |
| 6       | 21429009   |          | CONN. ROD TO TIMBERIN SPACE BUSHING | 1   |
| 7       | 20908010   |          | 1 3/4 PIVOT PIN TRIP HINGE          | 1   |
| 8       | 20908008   |          | CONNECTING ROD TO TIMBERIN PIN TH   | 1   |
| 9       | 20P148A    |          | PIN 1 X 3                           | 1   |
| 10      | 21415002   | 81023C   | BOLT HEX 1 1/4 X 6 UNC ZINC DRILLED | 1   |
| 11      | HW30E-20   | 80999D   | NUT HEX TOPLOCK 1 1/4 UNC ZINC      | 1   |
| 12      | HW30C-20   | 81006    | NUT HEX SLOTTED 1 1/4 UNC ZINC      | 1   |
| 13      | HW16A-20   | 81015A   | FLATWASHER SAE 1 1/4 ZINC           | 1   |
| 14      | HW14A-16   | 81013A   | FLATWASHER SAE 1 ZINC               | 4   |
| 15      | 3SK3589    |          | BOLT HEX 3/8 X 2 1/2 UNC ZINC       | 1   |
| 16      | HW30E-06   | 81086C   | NUT HEX TOPLOCK 3/8 UNC ZINC        | 1   |
| 17      | 280507     | 80508A   | COTTER PIN 1/4 X 3 ZINC             | 1   |
| 18      | 3SK3450    | 80518    | COTTER PIN 3/16 X 2 ZINC            | 1   |
| 19      | HW13C-1238 |          | ROLL PIN 3/8 X 2 ZINC               | 1   |

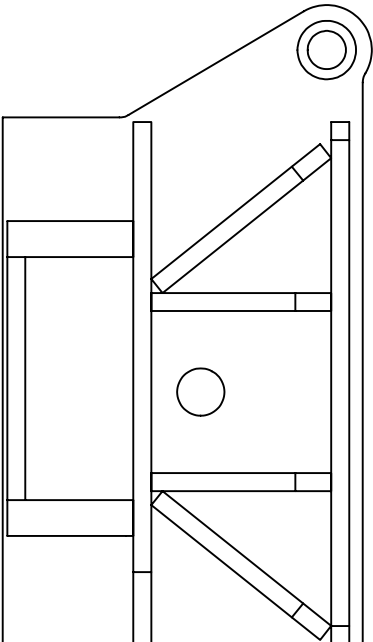
## AHW025 MID-MOUNT FRONT HINGES NON-TRIP



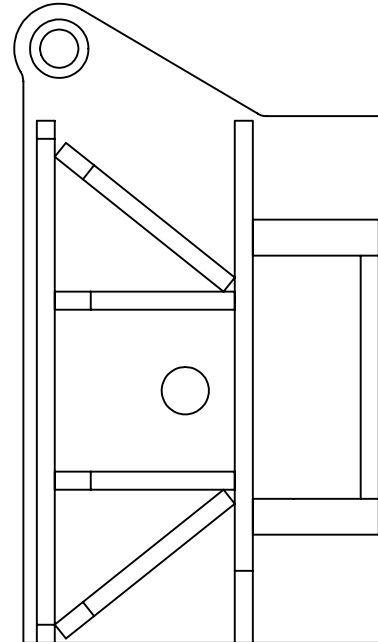
RIGHT HAND NON-TRIP EDGE MOLDBOARD HINGE WELD'T  
PART #01001167



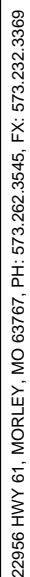
LEFT HAND NON-TRIP EDGE MOLDBOARD HINGE WELD'T  
PART #01001286



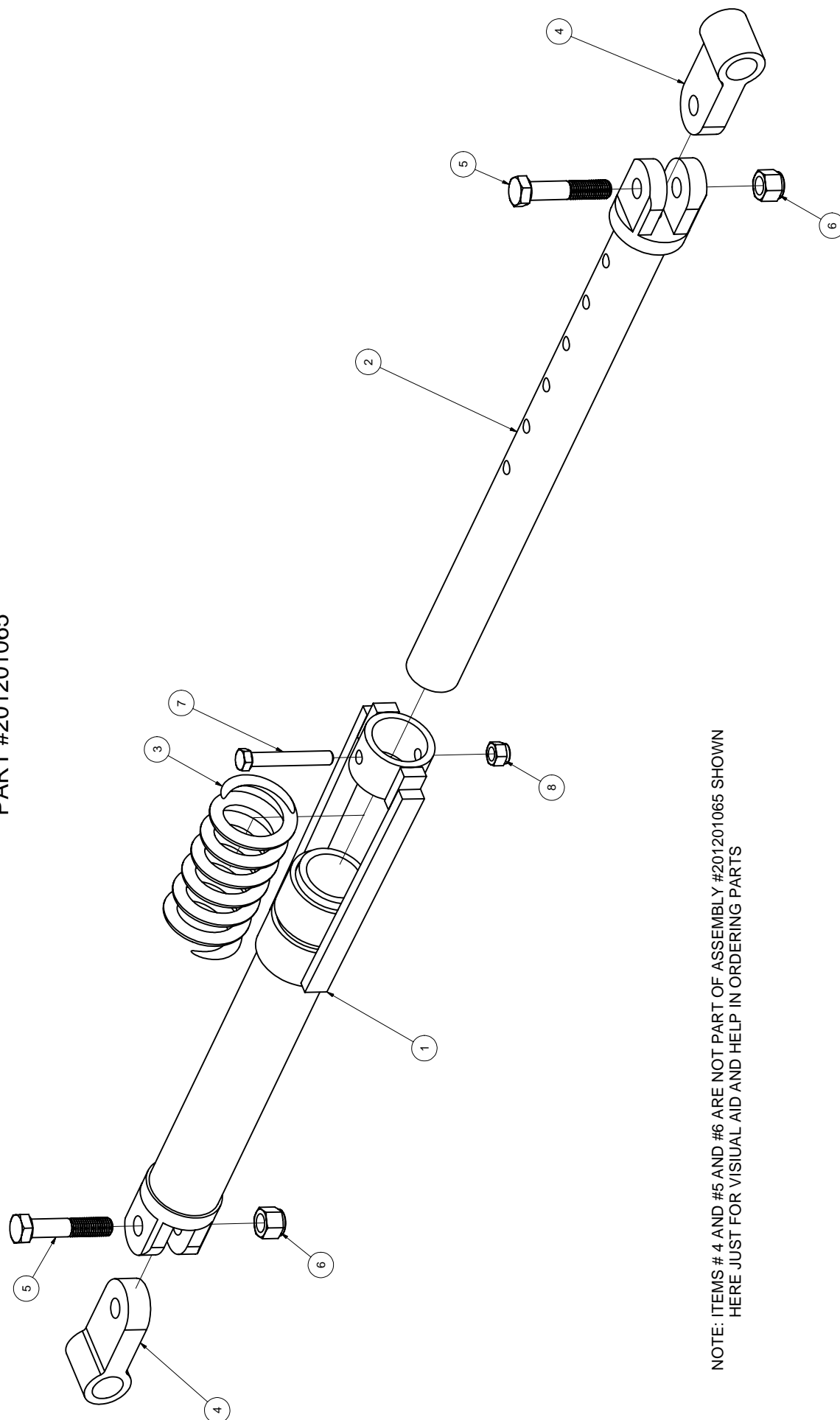
RIGHT HAND TRIP EDGE MOLDBOARD HINGE WELD'T  
PART #01001166



LEFT HAND TRIP EDGE MOLDBOARD HINGE WELD'T  
PART #21003024



AWH025 MID-MOUNT STANDOFF ARM ASSEMBLY WITH PIVOT BLOCKS  
PART #201201065



NOTE: ITEMS # 4 AND #5 AND #6 ARE NOT PART OF ASSEMBLY #201201065 SHOWN  
HERE JUST FOR VISUAL AID AND HELP IN ORDERING PARTS

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**AHW-025 MID-MOUNT WING STANDOFF ARM ASSY W/ PIVOT BLOCKS  
PART # 201201065 (40")**

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                            | QTY |
|---------|------------|----------|--|-----|
| 1       | 201201064  |          | PUSH ARM WELDT AHW-025 OUTER (40 INCH) | 1   |
| 2       | 201201060  |          | PUSH ARM WELDT AHW-025 INNER           | 1   |
| 3       | 0580024    |          | AHW-025 PUSH ARM COMPRESSION SPRING    | 1   |
| 4       | 20017167-4 |          | PIVOT BLOCK 3.500 X 0.813 DIA          | 2   |
| 5       | HW40A-1230 | 81068E   | BOLT HEX 3/4 X 3 3/4 UNC ZINC          | 2   |
| 6       | HW30E-12   |          | NUT HEX TOPLOCK 3/4 UNC ZINC           | 2   |
| 7       | 213268     |          | BOLT HEX 9/16 X 3 3/4 UNC ZINC GRADE 5 | 1   |
| 8       | 21137270   |          | NUT HEX TOPLOCK 9/16 UNC ZINC          | 1   |

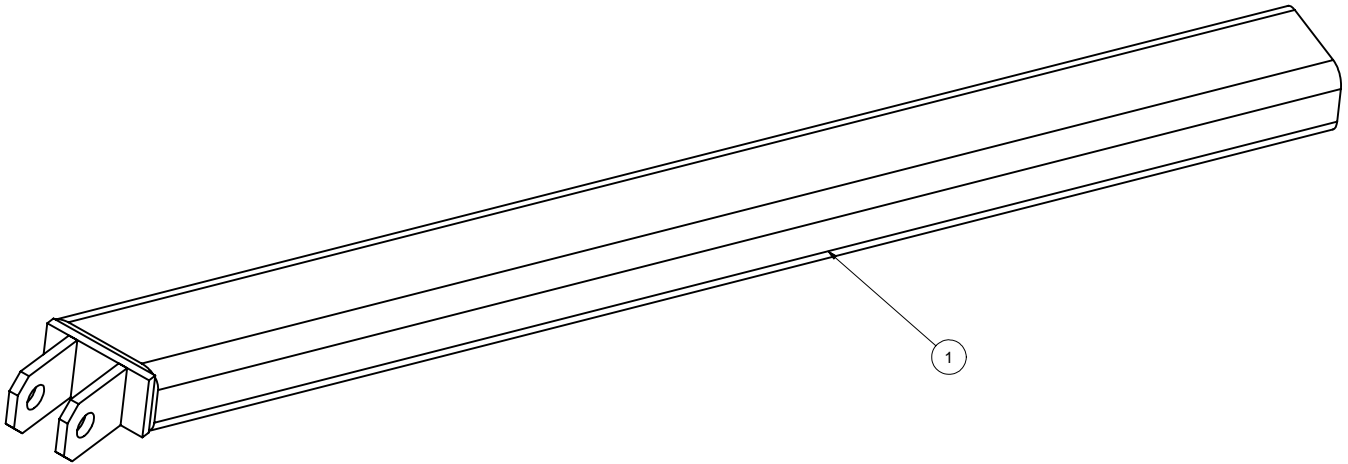
Note: Items # 4, 5, and 6 are not part of assembly 201201065.  
Shown here just for visual aid and help in ordering parts.

**AHW-025 MID-MOUNT WING STANDOFF ARM ASSY W/ PIVOT BLOCKS  
PART # 201201095 (66")**

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                            | QTY |
|---------|------------|----------|--|-----|
| 1       | 1201095    |          | PUSH ARM WELDT AHW-025 OUTER (66 INCH) | 1   |
| 2       | 201201060  |          | PUSH ARM WELDT AHW-025 INNER           | 1   |
| 3       | 0580024    |          | AHW-025 PUSH ARM COMPRESSION SPRING    | 1   |
| 4       | 20017167-4 |          | PIVOT BLOCK 3.500 X 0.813 DIA          | 2   |
| 5       | HW40A-1230 | 81068E   | BOLT HEX 3/4 X 3 3/4 UNC ZINC          | 2   |
| 6       | HW30E-12   |          | NUT HEX TOPLOCK 3/4 UNC ZINC           | 2   |
| 7       | 213268     |          | BOLT HEX 9/16 X 3 3/4 UNC ZINC GRADE 5 | 1   |
| 8       | 21137270   |          | NUT HEX TOPLOCK 9/16 UNC ZINC          | 1   |

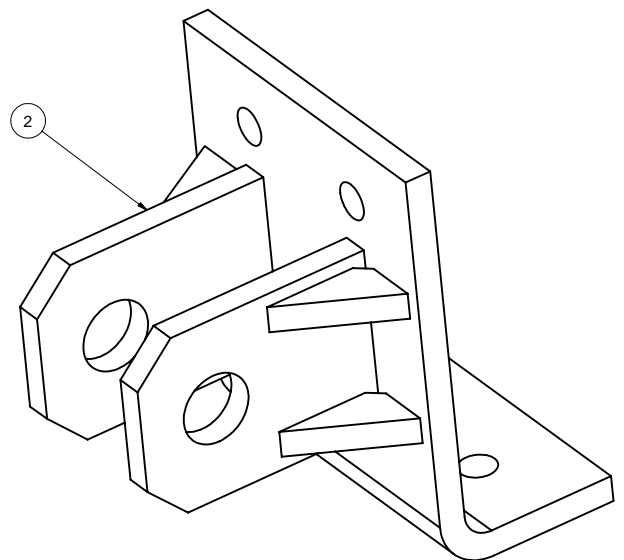
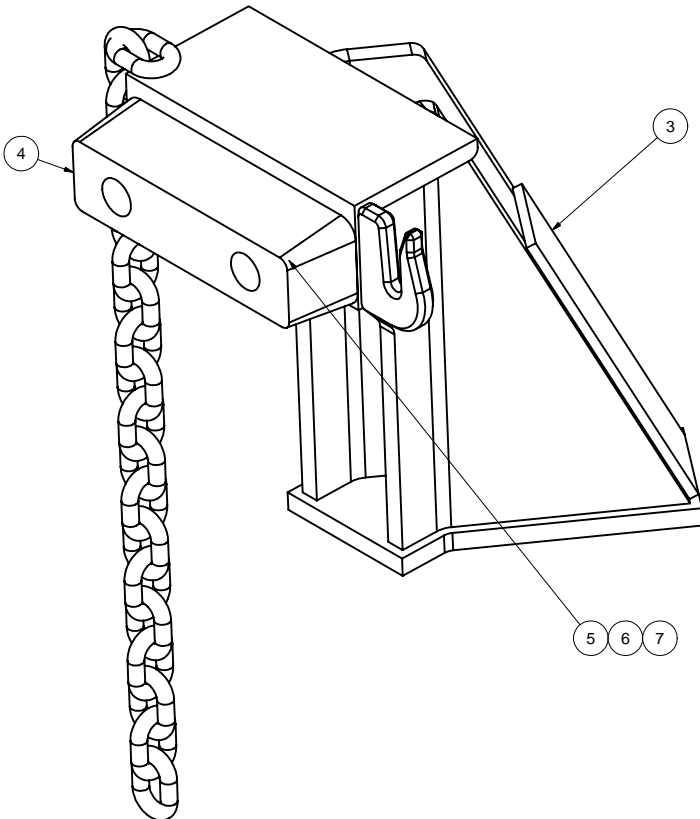
Note: Items # 4, 5, and 6 are not part of assembly 201201095.  
Shown here just for visual aid and help in ordering parts.

**AHW025 REAR POST WELDMENT  
PART #201001178**



**REAR POST CARRING/STOP ASSEMBLY  
PART #21401083**

**PUSH ARM MOUNTING BRACKET WELDMENT  
PART #21403067**

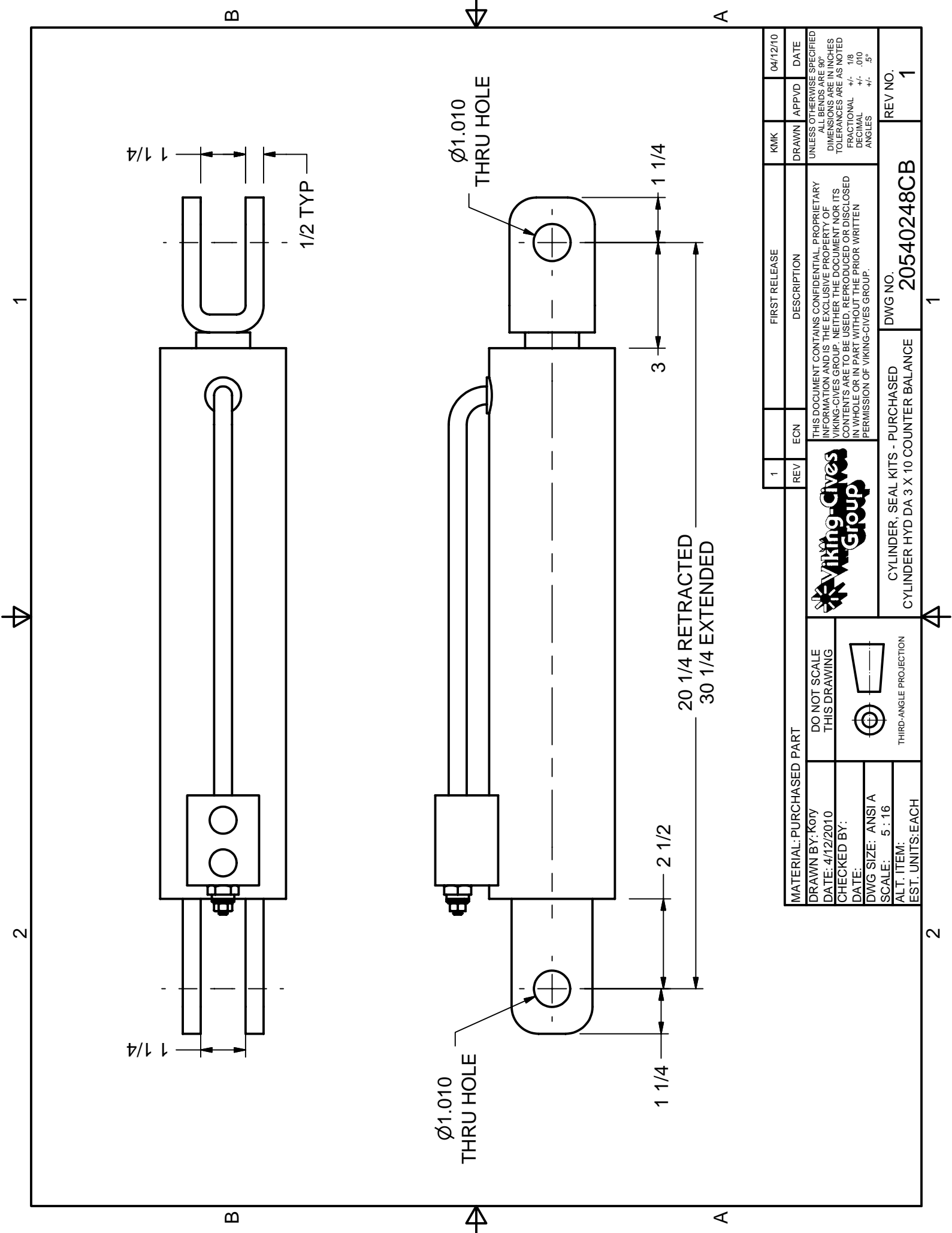







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AHW-025 MID-MOUNT WING REAR POST WELDMENT  
PART # 201001178

| ITEM ID | ITEM NO    | ALT ITEM | DESCRIPTION                         | QTY |
|---------|------------|----------|-------------------------------------|-----|
| 1       | 201001178  |          | REAR CROSS TUBE WELDT               | 1   |
| 2       | 21403067   |          | PUSH ARM MOUNTING BRACKET WELDT     | 1   |
| 3       | 21403084   |          | AHW025 REAR POST CARRING/STOP WELDT | 1   |
| 4       | 280572C    |          | RUBBER BUMPER MC21685T11            | 1   |
| 5       | HW40A-0616 |          | BOLT HEX 3/8 X 2 UNC ZINC           | 2   |
| 6       | HW30E-06   | 81086C   | NUT HEX TOPLOCK 3/8 UNC ZINC        | 2   |
| 7       | HW16A-06   |          | FLATWASHER SAE 3/8 ZINC             | 2   |



|                          |  |   |  |   |             |       |       |      |
|--------------------------|--|---|--|---|-------------|-------|-------|------|
| MATERIAL: PURCHASED PART |  | REV   |  | ECN   | DESCRIPTION | DRAWN | APPVD | DATE |
| DRAWN BY: Kory           |  |    |  | THIS DOCUMENT CONTAINS CONFIDENTIAL, PROPRIETARY INFORMATION AND IS THE EXCLUSIVE PROPERTY OF VIKING-CIVES GROUP. NEITHER THE DOCUMENT NOR ITS CONTENTS ARE TO BE USED, REPRODUCED OR DISCLOSED IN WHOLE OR IN PART WITHOUT THE PRIOR WRITTEN PERMISSION OF VIKING-CIVES GROUP. |             |       |       |      |
| DATE: 4/12/2010          |  |   |  |   |             |       |       |      |
| CHECKED BY:              |  |   |  | UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. TOLERANCES ARE AS NOTED: FRACTIONAL +/- .18 DECIMAL +/- .010 ANGLES +/- .5°   |             |       |       |      |
| DATE:                    |  |   |  |   |             |       |       |      |
| DWG SIZE: ANSI A         |  |   |  |   |             |       |       |      |
| SCALE: 5 : 16            |  |   |  |   |             |       |       |      |
| ALT. ITEM:               |  |  |  | CYLINDER, SEAL KITS - PURCHASED<br>CYLINDER HYD DA 3 X 10 COUNTER BALANCE   |             |       |       |      |
| EST. UNITS: EACH         |  |   |  |   |             |       |       |      |
| DWG NO. 20540248CB       |  |   |  | REV NO. 1   |             |       |       |      |