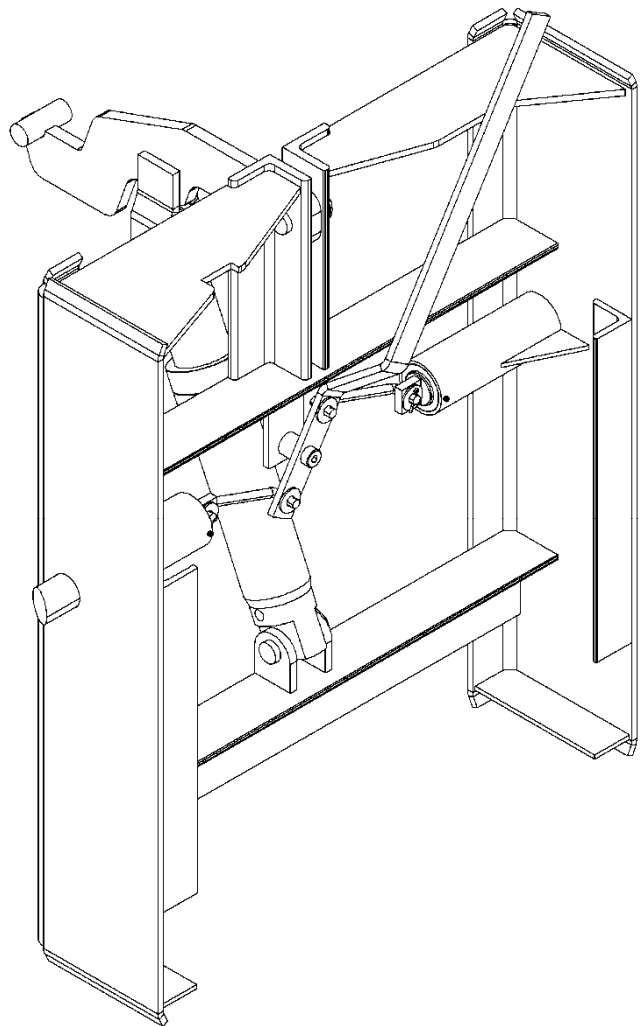


HUSTING HITCH

HENKE MODEL: HH29 & HH34

For Medium and Heavy – Duty Trucks



Husting Hitch Truck Portion
(34" Version Shown)

SERIAL NUMBER _____

**PARTS BOOK AND INSTALLATION MANUAL
VERSION 1.3, MARCH 2017**



HENKE MANUFACTURING CORPORATION

MANUFACTURERS OF SNOW REMOVAL EQUIPMENT FOR 100 YEARS

3070 WILSON AVE. LEAVENWORTH, KS 66048 PHONE (913)682-9000 FAX (913)682-0300

WEBSITE ADDRESS: WWW.HENKEMFG.COM EMAIL: PARTS@HENKEMFG.COM

Thank you for your purchase of a Henke Husting Hitch for your snow fighting needs.

HH29_&_HH34_NO_ATT_SEPT98_TO_PRES_8420302_02_013.DOCX

Introduction

Please read this manual in its entirety before installing or operating the wing.

The items listed in this product manual may ship loose with the Hitch. If any items appear to be missing, or if you need assistance of any kind, please call Henke Manufacturing at (913) 682-9000 or toll-free at (888) 682-9010.

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SAFETY SECTION

Safety Section 1-1

SAFETY

SAFETY

GENERAL SAFETY INSTRUCTIONS AND PRACTICES

A careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this Implement. This equipment should only be operated by those persons who have read the manual, who are responsible and trained, and who know how to do so responsibly.



The Safety Alert Symbol combined with a Signal Word, as seen below, is used throughout this manual and on decals which are attached to the equipment. The Safety Alert Symbol means: "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!" The Symbol and Signal Word are intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this equipment.

Practice all usual and customary safe working precautions and above all--- remember safety is up to YOU. Only YOU can prevent serious injury or death from unsafe practices.



Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR VERY SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, MAY result in MINOR INJURY.

Important


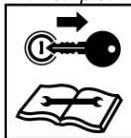

Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

NOTE: *Identifies points of particular interest for more efficient and convenient operation or repair.*

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in this Manual and in the Safety Messages on the implement. Always follow the instruction in this manual and use good common sense to avoid hazards.



Pictographs are used throughout this manual to help bring your visual attention to safety issues.

SAFETY HAZARD	SAFETY AVOIDANCE	SAFETY PREVENTION
<p>Pictograph surrounded by a triangle indicates a Safety Hazard that must be avoided.</p> <p><i>Example:</i></p>  <p>Equipment contacting overhead electrical lines</p>	<p>Pictograph by itself or inside a box indicates an avoidance procedure that should be followed to prevent injuries.</p> <p><i>Example:</i></p>  <p>Always shut off engine and remove key before working on equipment.</p>	<p>A circle with a slash through it indicates an action that is prohibited.</p> <p><i>Example:</i></p>  <p>No Smoking</p>

NOTE: *If you want a translation of this safety section in one of the following Languages, please contact: Translations at 1502 E. Walnut Street Seguin, TX 78155; Fax: (830) 372-9529; Safety Section Translations are available in Spanish, Portuguese, French, German, Russian. P-GS-01*

SAFETY

OPERATOR SAFETY

			
Read and understand Operator's Manual	Wear Hard Hat, Safety Glasses & Safety Shoes	Never use Drugs or Alcohol when operating equipment	Wear Safety Vest when operating on or near roads



TO AVOID SERIOUS INJURY OR DEATH DO THE FOLLOWING:

- **READ, UNDERSTAND** and **FOLLOW** Operator's Manual instructions, Warnings and Safety Messages.
- **WEAR SAFETY GLASSES**, safety shoes, hard hat and gloves when operating or repairing equipment
- **DO NOT WEAR** loose clothing or jewelry to avoid rotating parts entanglement injury.
- **DO NOT USE DRUGS** or **ALCOHOL** before or while operating equipment.
- **DO NOT ALLOW** anyone to operate equipment under the influence of drug or alcohol.
- **CONSULT** medical professional for medication impairment side effects.
- **STAY ALERT**, prolonged operation can cause fatigue; **STOP** and **REST**.

GENERAL OPERATING SAFETY

VISIBILITY CONDITIONS WHEN PLOWING:

- **OPERATE IN DAYLIGHT** or with lights that give at least 100 yards clear visibility.
- **BE ABLE TO SEE** and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects.

GROUND SPEED WHEN PLOWING:

- **NORMAL SPEED** range is between 5 to 45mph.
- **ADJUST plowing SPEED** for terrain conditions.
- **REDUCE plowing SPEED** when near steep slopes, ditches, drop-offs, overhead obstructions, and power lines.

SAFETY SIGNS AND WARNING DECALS:

- **REPLACE** missing, damaged or unreadable safety signs immediately.

SHIELDING:

- **NEVER** remove protective shields and guards! **NEVER** modify or cut protective shields or guards!

PROLONGED OPERATION IN COLD WEATHER:

- May Cause Operator Hypothermia affecting safe operation of implement.
- Wear appropriate clothing and take scheduled breaks.
- If possible shut down equipment, exit cab, and warm body in properly heated area.
- **NEVER** operate implement in fatigued or impaired mental state.

COMMUNICATION:

- Verbal Communication can be difficult and dangerous near implement.
- Operating instructions and directions should be made prior to starting implement.
- If communication is necessary completely shutdown and exit implement.
- **NEVER** allow anyone to approach implement while in operation.

RIDING PASSENGERS:

- Never allow passengers whose presence distracts from safe operation or transporting of implement
- If passengers presence is needed, passenger must be seated securely and belted in passenger seat.
- **DO NOT** allow passenger in any other area of implement, other than in passenger seat during operation or transport.

CHEMICAL HAZARD

- Wear appropriate PPE when handling chemicals. Refer to Chemical MSDS sheets.
- Always wear safety glasses, shield, gloves, and apron.
- Wear Respirator when required.

PN P-OS-01

SAFETY

SAFETY

PERSONAL PROTECTION EQUIPMENT - PPE

			
Wear Safety Glasses	Wear Hard Hat	Wear Safety Shoes & Protective Gloves	Wear Safety Reflective Vest

Always wear all protective clothing and personal safety devices issued to you or called for by job conditions. This should always include:

- Hard hat - when working around raised hopper.
- Steel toed Safety shoes.
- Safety glasses, goggles or face shield.
- Close fitted clothing.
- Heavy gloves (chemical resistant).
- Reflective clothing.

PN PPE-02

SALT AND MATERIAL SPREADING

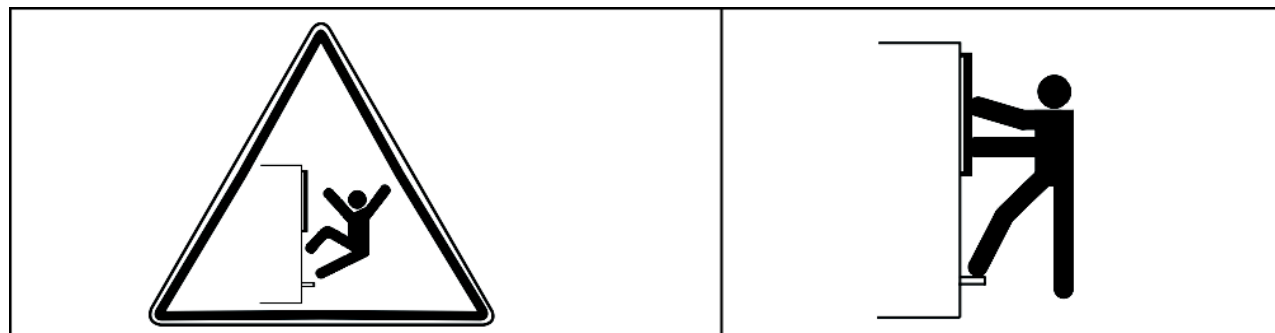
		
Wear Respirator	Chemical, Dust Hazard	Wear face protection - Face Shield or Goggles

When spreading salt or other materials make sure to wear appropriate protective clothing and personal safety devices such as respirator, heavy gloves that are chemical resistant, face shield, or goggles.

PN PPE-03

SAFETY

CRUSHING HAZARDS



Always use three point contact



TO AVOID SERIOUS INJURY OR DEATH FROM FALLING OFF VEHICLE, EQUIPMENT RUN OVER, ROLLOVER AND CRUSHING BY FALLING IMPLEMENT:

CRUSHING BY FALLING from EQUIPMENT

- **ALWAYS BUCKLE UP** seat belt when operating vehicle and equipment.
- **ONLY OPERATE** vehicle and equipment while seated in vehicle seat.
- **STOP VEHICLE ENGINE**, place transmission into park, engage parking brake, and remove key.

TO AVOID FALLING OFF OR BEING CRUSHED BY EQUIPMENT

- Use extreme care when climbing onto vehicle or attachment. Also always use three point contact using available handles and steps on vehicle or power unit while exiting.
- Removing the vehicle key is a lockout procedure to prevent a coworker from starting the vehicle while someone is working on attachment.
- Never Attempt to mount the vehicle or attachment while unit is moving.
- Do not remove safety latches or chains on stowed equipment unless stowed equipment is being held in place by active hydraulic power or other secure method to prevent it from dropping.

TO AVOID CHILDREN FALLING OFF OR BEING CRUSHED BY EQUIPMENT:

- **NEVER ALLOW** children to play on or around vehicle or equipment.

PN P-CH-01

SAFETY

CONNECTING OR DISCONNECTING IMPLEMENT SAFETY

		
Foot Crushing Hazard	Hand Crushing Hazard	Stop Vehicle, Remove Key and Read Manual



TO AVOID SERIOUS INJURY OR DEATH FROM BEING CRUSHED BY VEHICLE OR ATTACHMENT:

WHEN ATTACHING UNIT TO VEHICLE:

- **DO NOT ALLOW BYSTANDERS** between vehicle and plow.
- Keep hands and body clear of the attachment and the attachment mounts.

BEFORE connecting and disconnecting Plow Components:

- **STOP VEHICLE ENGINE**, place transmission into park, engage parking brake, and remove key.

WHEN connecting and disconnecting Plow:

- DO NOT crawl or walk under the Plow when in storage position.
- Make sure Plow is properly attached to vehicle and the retaining pins, hardware, chains, and cables securely lock the Attachment into position.
- DO NOT attempt to disconnect trip edge by hand. Trip devices are spring loaded and sudden movement can occur resulting in serious injuries. *PN P-CD-01*

SAFETY

RUN OVER HAZARDS

		
Operator Run over hazard	Rider fall off Run over hazard	Rider fall off Run over hazard



TO AVOID SERIOUS INJURY OR DEATH FROM FALLING OFF VEHICLE OR EQUIPMENT RUN OVER:

- **ONLY** start vehicle while seated in vehicle seat.
- **ALWAYS BUCKLE UP** seat belt when operating vehicle and equipment.
- **ONLY OPERATE** vehicle and equipment while seated in vehicle seat.
- **NEVER ALLOW RIDERS** on vehicle or implement.
- Ensure area is clear around vehicle and equipment before starting or operating equipment.

WHEN MOUNTING AND DISMOUNTING VEHICLE:

- **ONLY** mount or dismount when vehicle and moving parts are stopped.
- **STOP ENGINE**, engage parking brake, lower implement, allow all moving parts to stop and remove key before dismounting from vehicle. *PN P-RO-01*

SAFETY

SAFETY

THROWN OBJECTS HAZARDS

		
Plow Thrown Objects Hazard	Inspect Area Remove foreign objects	Do Not let Plow contact solid objects



PLOW IS CAPABLE OF PROPELLING OBJECTS UP TO 75 FEET.

TO AVOID SERIOUS INJURY TO OPERATOR OR PASSERSBY FROM THROWN OBJECTS:

- KEEP bystanders 100 feet away
- Stop plowing if bystanders are within the potential thrown area.

STOP PLOWING IF PASSERSBY ARE WITHIN 100 FEET:

- Make sure no bystander, animal or obstruction such as vehicle, building or street sign are within the width of plow.
- Avoid hitting solid, or oversized objects. Objects could become airborne and cause personal injury or damage to equipment.
- Remove or mark any foreign objects that could be propelled or cause damage to plow.

PLOW OPERATION:

- DO NOT exceed Plow's rated plowing speed.
- Ensure plow is equipped with warning signals to alert motorist and pedestrians.
- Always turn on all safety lights and flashers when operating plow. *PN P-TO-01*

SAFETY

BLADE CONTACT HAZARDS

		
Do not put fingers underneath Plow blade	Do not put foot underneath Plow blade	Stop Tractor Remove Key Read Manual

⚠ DANGER

KEEP AWAY FROM BLADE TO AVOID SERIOUS INJURY OR DEATH FROM BLADE CONTACT:

- **STAY AWAY** and **KEEP HANDS, FEET** and **BODY AWAY** from plow blade and parts until engine has come to a complete stop.
- **DO NOT** put hands or feet under plow blade.
- **STOP**, disengage power and ensure plow is resting and supported on blocks before adjusting plow blade.
- **STOP, LOOK**, and **LISTEN** before approaching the plow to make sure engine has stopped. PN P-BC-01

HIGH PRESSURE OIL LEAK HAZARD

		
High pressure oil penetrating skin	High pressure oil eroding skin	Using cardboard to check for oil leaks

⚠ DANGER

TO AVOID SERIOUS INJURY OR DEATH FROM HIGH PRESSURE HYDRAULIC OIL LEAKS PENERATING SKIN:

- **DO NOT OPERATE** equipment with oil or fuel leaks.
- **KEEP** all hydraulic hoses, lines and connections in **GOOD CONDITION** and **TIGHT** before applying system pressure.
- **RELIEVE HYDRAULIC PRESSURE** before disconnecting lines or working on the system.
- **REMOVE** and replace hose if you suspect it leaks. Have dealer test it for leaks.

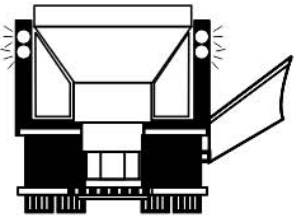


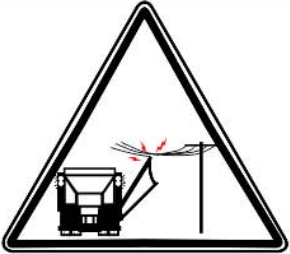
HIGH PRESSURE FLUID LEAKS CAN BE INVISIBLE.

WHEN CHECKING FOR HYDRAULIC LEAKS AND WORKING AROUND HYDRAULIC SYSTEMS:

- **ALWAYS WEAR** safety glasses and impenetrable gloves.
- **USE** paper or cardboard to search for leaks.
- **DO NOT USE** hands or body parts to search for leak.
- **KEEP** hands and body **AWAY** from pin holes and nozzles ejecting hydraulic fluid.
- Injected Hydraulic fluid may cause gangrene if not surgically removed immediately by a doctor familiar with this form of injury. PN HP01

SAFETY

TRANSPORTING HAZARDS

			
Use reflectors and Flashing Lights	Loss of Control Speeding and Stopping Hazard	Engage Transport Pins on Plow	Plow contacting overhead electrical lines



TO AVOID SERIOUS INJURY AND DEATH WHEN OPERATING OR TRANSPORTING EQUIPMENT:

- **KEEP** transport speed to the posted speed limit to maintain control of equipment.
- **REDUCE SPEED** on inclines, on turns and in poor plowing conditions.
- **DO NOT TOW** with trucks or other vehicles use a flatbed vehicle to transport.
- **FOLLOW** all local traffic regulations.

BEFORE TRANSPORTING OR TOWING IMPLEMENT:

- Ensure equipment has been stowed in transport position and secured with safety latches or chains.

VEHICLE INSPECTION:

- **CHECK** steering and braking for proper operation and in good condition.
- **CHECK** that transport pins are engaged.
- **CHECK** reflectors and warning lights for proper operation and visibility behind unit.
- **ROUTINELY** inspect the equipment's headlights, brake lights, backup lights, and turn signal lights for operational condition.
- Always turn on all safety lights and flashers when you operate the implement.
- **CHECK** that your driving vision is not impaired by cab while seated in vehicle seat.
- **ADJUST** your operating position, mirrors, and implement transport for clear vision for traveling and traffic conditions.

DETERMINE STOPPING CHARACTERISTICS OF VEHICLE AND IMPLEMENT FOR TRANSPORTING OR OPERATING:

- With added weight and severe weather conditions stopping distances may increase.
- Only operate at speeds that you can properly control equipment.

DETERMINE MAXIMUM TURNING SPEED BEFORE OPERATING ON ROADS OR UNEVEN GROUND:

- **TEST** equipment in slowly increasing speed on turns to determine it can be operated at higher speeds.
- **USE REDUCED** turning speeds on sharp turns to avoid equipment turning over.
- Center of gravity may have shifted with equipment installation.

WHEN OPERATING OR TRANSPORTING EQUIPMENT:

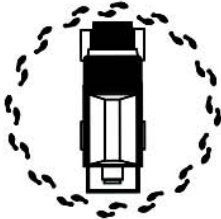
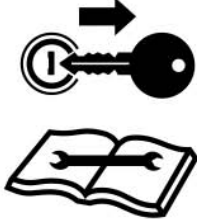

- Always **WEAR SEAT BELT** when operating or transporting spreader.
- **USE** low speeds to avoid overturn while operating or transporting.
- **USE** low speeds and gradual steering on curves, hills, rough or uneven surfaces and on wet roads.
- Use extreme caution when operating the equipment in traffic.
- Use all equipped warning signals to alert motorists and pedestrians of the presence of the equipment
- **DO NOT** leave piled material on roadway. Material can be a hazard to other motorists.

TO AVOID SERIOUS INJURY OR DEATH FROM ELECTRICAL CONTACT WHEN WORKING AROUND ELECTRICAL POWER LINES AND UTILITY LINES:

- **INSPECT** area for overhead power lines, obstructions, cables and utility lines, municipal, or other type structure.
- **KEEP** Plow 10 feet or greater distance from all power lines and overhead obstructions.
- **DO NOT** allow Plow to contact with any utility, municipal, or type of structures and obstructions. *P-TH-01*

SAFETY

HAZARDS WITH MAINTENANCE OF IMPLEMENT

		
Periodically inspect all moving parts and tighten all fasteners	Stop engine and remove key before conducting maintenance	Secure body with blocks before doing any maintenance



AVOID SERIOUS INJURY OR DEATH FROM COMPONENT FAILURE BY KEEPING IMPLEMENT IN GOOD OPERATING CONDITION BY PERFORMING PROPER SERVICE, REPAIRS, AND MAINTENANCE.

BEFORE PERFORMING SERVICE, REPAIRS, AND MAINTENANCE ON THE IMPLEMENT:

SECURE EQUIPMENT FOR SERVICE

BLOCK OUT POTENTIAL ENERGY HAZARDS; Rotating Parts, Raised Components, Hydraulic Pressure.

- **STOP ENGINE**, engage parking brake, and allow all moving parts to stop and remove key before dismounting from vehicle seat.
- Securely block up raised equipment. Use large blocks on soft or wet soil.
- **PUSH** and **PULL** Remote Hydraulic Cylinder lever to relieve hydraulic pressure.
- **DISCONNECT IMPLEMENT** Hydraulic **HOSES** from vehicle.

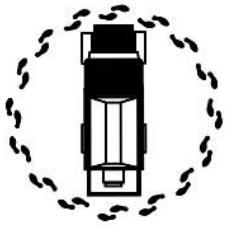
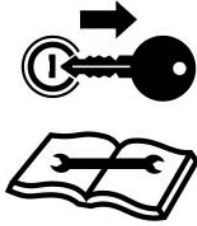

WEAR SAFETY GLASSES, PROTECTIVE GLOVES and follow SAFETY PROCEDURES when performing service, repairs, and maintenance on the implement:

- Always **WEAR** protective **GLOVES** when handling chemicals or worn component with sharp edges.
- Always **WEAR GLOVES** and **SAFETY GLASSES** when servicing components.
- **AVOID CONTACT** with hot hydraulic oil or chemicals.
- **SECURELY** support or **BLOCK UP** raised implement, framework, and lifted components before working underneath equipment.
- **STOP** any implement movements and **SHUT-OFF VEHICLE** engine before doing any work procedures.
- **USE** step ladder or raised stands to reach high equipment areas inaccessible from ground.
- **ENSURE** good footing by standing on solid flat surfaces when getting on implement to perform work.
- **FOLLOW** manufacturer's instructions in handling oils, solvents, cleansers, and other chemical agents.
- **DO NOT** change any factory-set hydraulic calibrations to avoid component or equipment failures.
- **DO NOT** modify or alter implement, functions or components.
- **DO NOT WELD** or straighten broken, cracked or broken blade

PN P-HM-01

SAFETY

HAZARDS WITH MAINTENANCE OF IMPLEMENT CONTINUED

		
Periodically inspect all moving parts and tighten all fasteners	Stop engine and remove key before conducting maintenance	Secure body with blocks before doing any maintenance

WARNING

AVOID SERIOUS INJURY OR DEATH FROM COMPONENT FAILURE BY KEEPING IMPLEMENT IN GOOD OPERATING CONDITION BY PERFORMING PROPER SERVICE, REPAIRS AND MAINTENANCE.

PERFORM SERVICE, REPAIRS, LUBRICATION AND MAINTENANCE OUTLINED IN IMPLEMENT MAINTENANCE SECTION:

- **INSPECT** before each use for loose fasteners, worn or broken parts, leaky or loose fittings, missing or broken cotter keys and washers on pins, and all moving parts for wear.
- **REPLACE** Blade or any worn or broken parts with authorized service parts.
- **LUBRICATE** unit as specified by lubrication schedule.
- Ensure all fluid levels are properly filled.
- **NEVER** lubricate, adjust or remove material while it is running or in motion.
- **TORQUE** all bolts and nuts as specified.
- Check tire conditions.
- Never remove debris or unclog jams from spring pressurized pinch points by hand.
- Avoid contact with recently used equipment that may still be hot.
- Ensure the scheduled maintenance is up to date.
- Do Not modify or alter equipment/plow.
- Do Not leave snow plow unattended while snow plow wing is in an unsecured raised position.
- Do Not crawl or walk under unsecured raised equipment.

SAFETY SHIELDS, GUARDS AND SAFETY DEVICES INSPECTION:

- **KEEP** all Steel Guards, Bands, and Skid Shoes in place and in good condition.
- Maintain Safety Signs and Decals in good readable condition.
- **REPLACE** any missing, broken or worn safety shields, guards and safety devices.
- Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.
- Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. **PN P-HM-02**

SAFETY

PARTS INFORMATION

HENKE Snow Plows use balanced and matched system components for plows, hitches, and other components. These parts are made and tested to HENKE specifications. Non-genuine or "will fit" parts do not consistently meet these specifications. The use of non-genuine or "will fit" parts may reduce Snow Plow performance, void HENKE warranties, and present a safety hazard. Use genuine HENKE parts for economy and safety. (SNPG-6)

SEE YOUR HENKE DEALER

Operator's & Parts Manuals



www.algqr.com/hpm

SAFETY

MAINTENANCE

TORQUE SPECIFICATIONS - DRY TORQUE

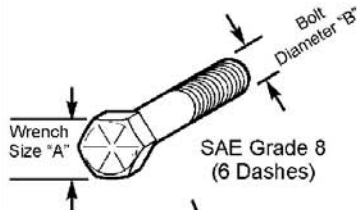
AMERICAN Bolt Head Markings



SAE Grade 2
(No Dashes)



SAE Grade 5
(3 Dashes)



SAE Grade 8
(6 Dashes)

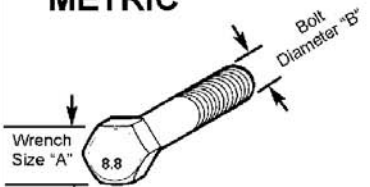


All Capscrews
SAE Grade 8

Proper torque for American fasteners.
Recommended Torque in Foot Pounds (Newton Meters).*

WRENCH SIZE (IN.) "A"	BOLT DIAMETER (IN.) "B" AND THREAD SIZE	SAE GRADE 2	SAE GRADE 5	SAE GRADE 8
7/16	1/4 - 20 UNC	6 (7)	8 (11)	12 (16)
7/16	1/4 - 28 UNF	6 (8)	10 (13)	14 (18)
1/2	5/16 - 18 UNC	11 (15)	17 (23)	25 (33)
1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
9/16	3/8 - 16 UNC	20 (27)	31 (42)	44 (60)
9/16	3/8 - 24 UNF	23 (31)	35 (47)	49 (66)
5/8	7/16 - 14 UNC	32 (43)	49 (66)	70 (95)
5/8	7/16 - 20 UNF	36 (49)	55 (75)	78 (106)
3/4	1/2 - 13 UNC	49 (66)	76 (103)	106 (144)
3/4	1/2 - 20 UNF	55 (75)	85 (115)	120 (163)
7/8	9/16 - 12 UNC	70 (95)	109 (148)	153 (207)
7/8	9/16 - 18 UNF	79 (107)	122 (165)	172 (233)
15/16	5/8 - 11 UNC	97 (131)	150 (203)	212 (287)
15/16	5/8 - 18 UNF	110 (149)	170 (230)	240 (325)
1-1/8	3/4 - 10 UNC	144 (195)	266 (360)	376 (509)
1-1/8	3/4 - 16 UNF	192 (260)	297 (402)	420 (569)
1-5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821)
1-5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905)
1-1/2	1 - 8 UNC	250 (339)	644 (873)	909 (1232)
1-1/2	1 - 12 UNF	274 (371)	705 (955)	995 (1348)
1-1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (1381)
1-11/16	1-7/8 - 7 UNC	354 (480)	795 (1077)	1288 (1745)
1-11/16	1-1/8 - 12 UNF	397 (538)	890 (1206)	1444 (1957)
1-7/8	1-1/4 - 7 UNC	500 (678)	1120 (1518)	1817 (2462)
1-7/8	1-1/4 - 12 UNF	553 (749)	1241 (1682)	2013 (2728)
2-1/16	1-3/8 - 6 UNC	655 (887)	1470 (1992)	2382 (3228)
2-1/16	1-3/8 - 12 UNF	746 (1011)	1672 (2266)	2712 (3675)
2-1/4	1-1/2 - 6 UNC	870 (1179)	1950 (2642)	3161 (4283)
2-1/4	1-1/2 - 12 UNF	979 (1327)	2194 (2973)	3557 (4820)

METRIC



Numbers appearing on bolt heads
indicate ASTM class.

*Use 75% of the specified torque value for plated fasteners. Use 85% of the specified torque values for lubricated fasteners.

Proper torque for Metric fasteners.
Recommended torque in Foot Pounds (Newton Meters).*

WRENCH SIZE (mm) "A"	BOLT DIA. (mm) "B"	ASTM 4.6	ASTM 8.8	ASTM 9.8	ASTM 10.9
8	5	1.8 (2.4)		5.1 (6.9)	6.5 (8.8)
10	6	3 (4)		8.7 (12)	11.1 (15)
13	8	7.3 (10)		21.1 (29)	27 (37)
16	10	14.5 (20)		42 (57)	53 (72)
18	12	25 (34)	74 (100)	73 (99)	93 (126)
21	14	40 (54)	118 (160)	116 (157)	148 (201)
24	16	62 (84)	167 (226)	181 (245)	230 (312)
30	20	122 (165)	325 (440)		449 (608)
33	22		443 (600)		611 (828)
36	24	211 (286)	563 (763)		778 (1054)
41	27		821 (1112)		1138 (1542)
46	30	418 (566)	1119 (1516)		1547 (2096)

Mnt-B-0005

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IN SEASON MAINTENANCE

Snow removal equipment must be cared for and maintained regularly. Daily or pre-route inspection and maintenance are necessary. Failure to do so may affect efficiency and safety.

A visual inspection must be carried out after every 8 hours of operation. Look for damaged components, bends, cracked welds or hydraulic leaks. **REPAIR IMMEDIATELY!** It is recommended to re-torque all bolts after the first 8 hours of use and to regularly check for loosened or missing fasteners. Replace any damaged or missing fasteners immediately.

Because of the environment in which snow equipment is expected to operate, hydraulic lines, fasteners, wearable or replaceable items and warning decals may become damaged by snow, ice and road debris. These items must be inspected daily and replaced if necessary to avoid equipment damage or personal injury.

Lubrication of moving parts is of the utmost importance. Exposure to snow, ice, salt and road debris will wash away lubrication quickly and it may be necessary to inspect and reapply lubrication more than once a day.

END OF SEASON MAINTENANCE

GROUND ENGAGING COMPONENTS

- **CUTTING EDGES & GUARDS:** Replace any broken cutting edges, unevenly or excessively worn cutting edges, and broken or worn wear guards.
- **RUNNING GEAR:** Replace broken, worn, or missing running gear shoes, and any damaged adjuster leg components. Grease internal threads and sliding members (it's best to disassemble and grease directly; zerks aren't as effective at greasing these areas).
- **HARDWARE:** Replace missing or broken bolts. Proper torque is important! Use grade 8 plow bolts for steel cutting edges.

HYDRAULICS

- **HOSES:** Plug or cap any QC fittings or any open hose ends. Inspect hoses for any leaks or potential leaks. Secure hoses with hose clamps.
- **CYLINDERS:** Check for leaks, and any chrome rod dents or scratches. Apply a light coat of oil or grease on exposed rod surfaces.

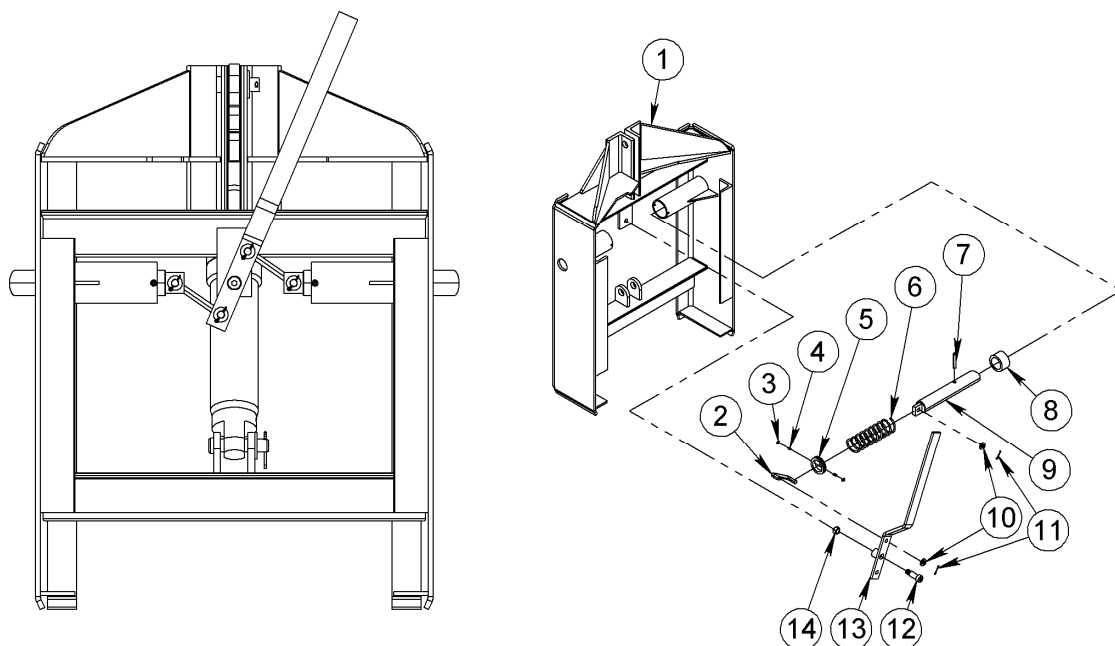
FRAME AND MOLDBOARD

- **JOINTS:** Check pins, bushings, and pivot bolts for wear. Make sure all keepers are in place. Make sure shear bolts and pins are same as original equipment (usually grade 2). Some drivers don't like replacing shear pins and will install grade 8 replacements to avoid replacing during a storm. These items are designed to shear to protect the driver and the equipment. **CHECK WELDMENTS FOR CRACKS.**

CABLE AND SHEAVES (IF APPLICABLE)

- **CABLE:** Check cable thoroughly for fraying, kinks, and abnormal wear. Make sure cable is properly routed and seated in all sheaves. Verify that cable clamps have the proper torque and are in the correct orientation and spacing. Cable shall be checked prior to each use or after every 8 hours, whichever comes first.
- **SHEAVES:** Verify that sheave, bushings and retaining pins are in good condition and adequately greased. Make sure that sheaves, bushings and pins do not have any abnormal wear and rotate without restriction.

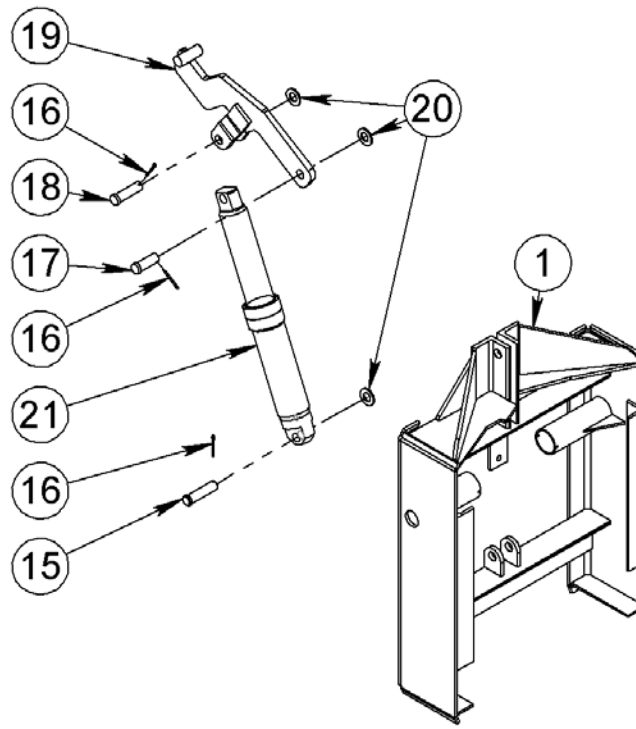
REPLACE WORN OR BROKEN PARTS FOUND BY ABOVE INSPECTIONS



**FIGURE 2-1 – Guide Pin and Handle Assembly
29" or 34" Hustling Hitch**

**TABLE 2-1 – Guide Pin and Handle Assembly, Parts List
29" or 34" Hustling Hitch**

Item No.	Qty.	Part No.	Description
1	1	139-0612 139-0607	29" Hustling Hitch Male Weldment 34" Hustling Hitch Male Weldment
2	2	1300-1238 1300-1221	Guide Pin Linkage, HH29" Guide Pin Linkage, HH34"
3	4	7030035	Jam Nut, 1/4-28
4	4	7020132	Set Screw 1/4-28 x 0.5
5	2	1300-1228	Retaining Ring
6	2	7070019	Spring C, 8 x 2.42 x .207 (Spring sits between 1300-1228 Retaining Ring and 7050006 Roll Pin)
7	2	7050006	Roll Pin, 3/8 X 2.5
8	2	1300-1205	Guide Pin Bushing (Position Guide Pin Bushing before positioning 139-0601 Guide Pin)
9	2	139-0601 149-0693	Standard Guide Pin Roller Guide Pin (Optional)
10	4	7040042	Flat Washer, 1/2 Hardened, SAE
11	4	7050044	Cotter Pin, 1/8 X 1
12	1	7020281	Socket Head Shoulder Screw 3/4 x 1.5 5/8-11
13	1	139-0604 139-0602	Lever Assembly HH29" Lever Assembly HH34"
14	1	7030113	Nylock Nut, 5/8-11 Gr. 2, Thin (Install with Locking Portion at Bottom)



**FIGURE 2-2 – Arm and Cylinder Assembly
29” or 34” Husting Hitch**

**TABLE 2-2 – Arm and Cylinder Assembly, Parts List
29” or 34” Husting Hitch**

Item No.	Qty.	Part No.	Description
15	1	7050098	Clevis Pin, 1 x 4
16	3	7050003	Cotter Pin, 3/16 X 2
17	1	7050100	Clevis Pin, 1 X 2.75
18	1	7050082	Clevis Pin, 1.0 X 3.5
19	1	139-1325	Lift Arm, Husting Hitch
20	3	7040013	Flat Washer, 1" Hardened, SAE
21	1	7080704	Hydraulic Cylinder 3 x 10 x 3, Single Acting
		7080726	Hydraulic Cylinder 3 x 10 x 2, Double Acting
		7080700	Hydraulic Cylinder 4 x 10 x 4, Single Acting
		7080736	Hydraulic Cylinder 4 x 10 x 2, Double Acting

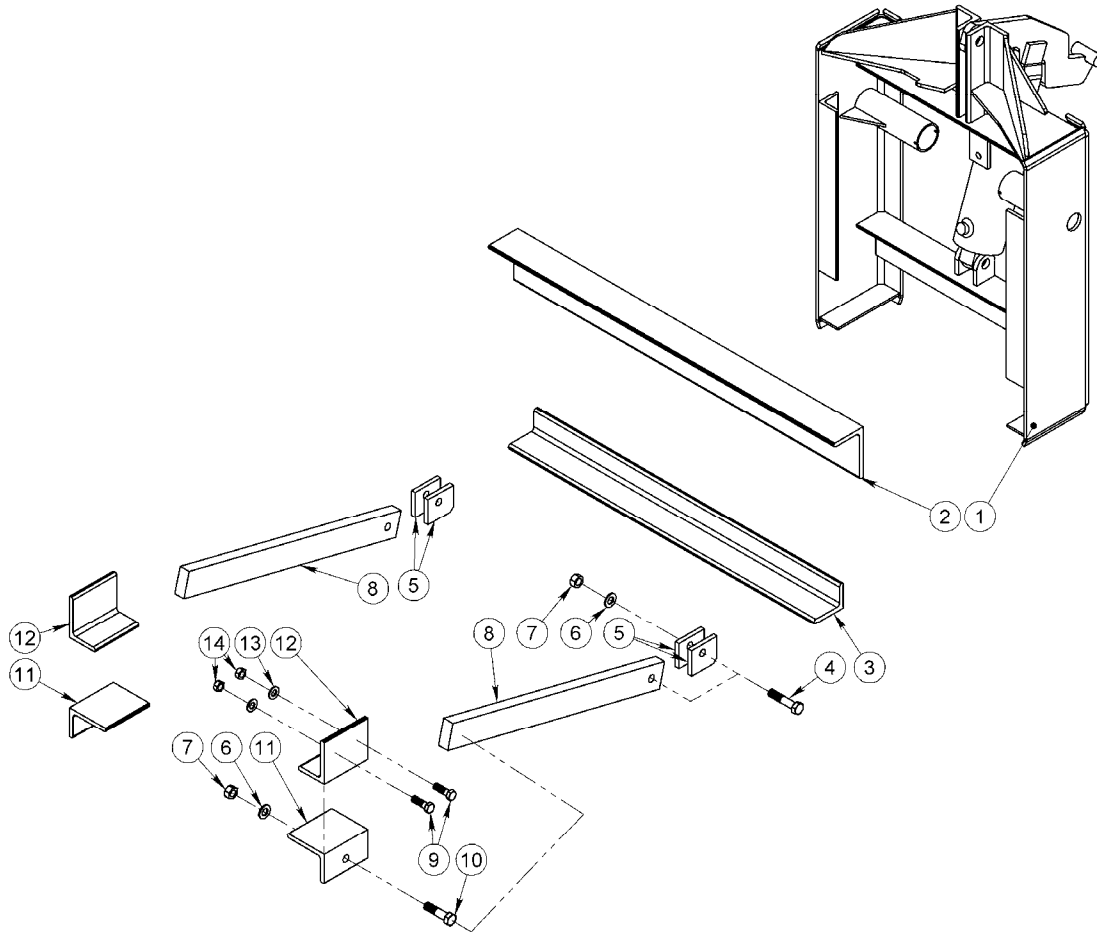


FIGURE 3-1 – Typical Thrust Arm Attachment, Parts View

TABLE 3-1 – Typical Thrust Arm Attachment, Parts List

Item No.	Qty.	Part No.	Description
1	1	N/A	Male Portion Husting Hitch
2	1	1300-0067 3900-0752	Standard Upper Mounting Angle Wide-Tie Mounting Angle (for Wider Truck Frames 42-50")
3	1	1300-0068 3900-0511	Standard Lower Mounting Angle Wide-Tie Mounting Angle (for Wider Truck Frames 42-50")
4	2	7020082	Hex Capscrew, 3/4-10 X 3.5 GR. 8
5	4	1300-0074	Attach Ear
6	4	7040007	Flat Washer 3/4, Hardened, SAE
7	4	7030030	Toplock Nut, 5/8-11 GR. C
8	2	1300-3102	Thrust Arm
9	12	7020060	Hex Capscrew, 5/8-11 X 2 GR. 8
10	2	7020080	Hex Capscrew, 3/4-10 X 3.0 GR. 8
11	2	1300-0078	Adjusting Angle
12	2	1300-0077	Frame Attach Angle
13	12	7040006	Flat Washer 5/8, Hardened, SAE
14	12	7030084	Toplock Nut, 5/8-11 GR. C

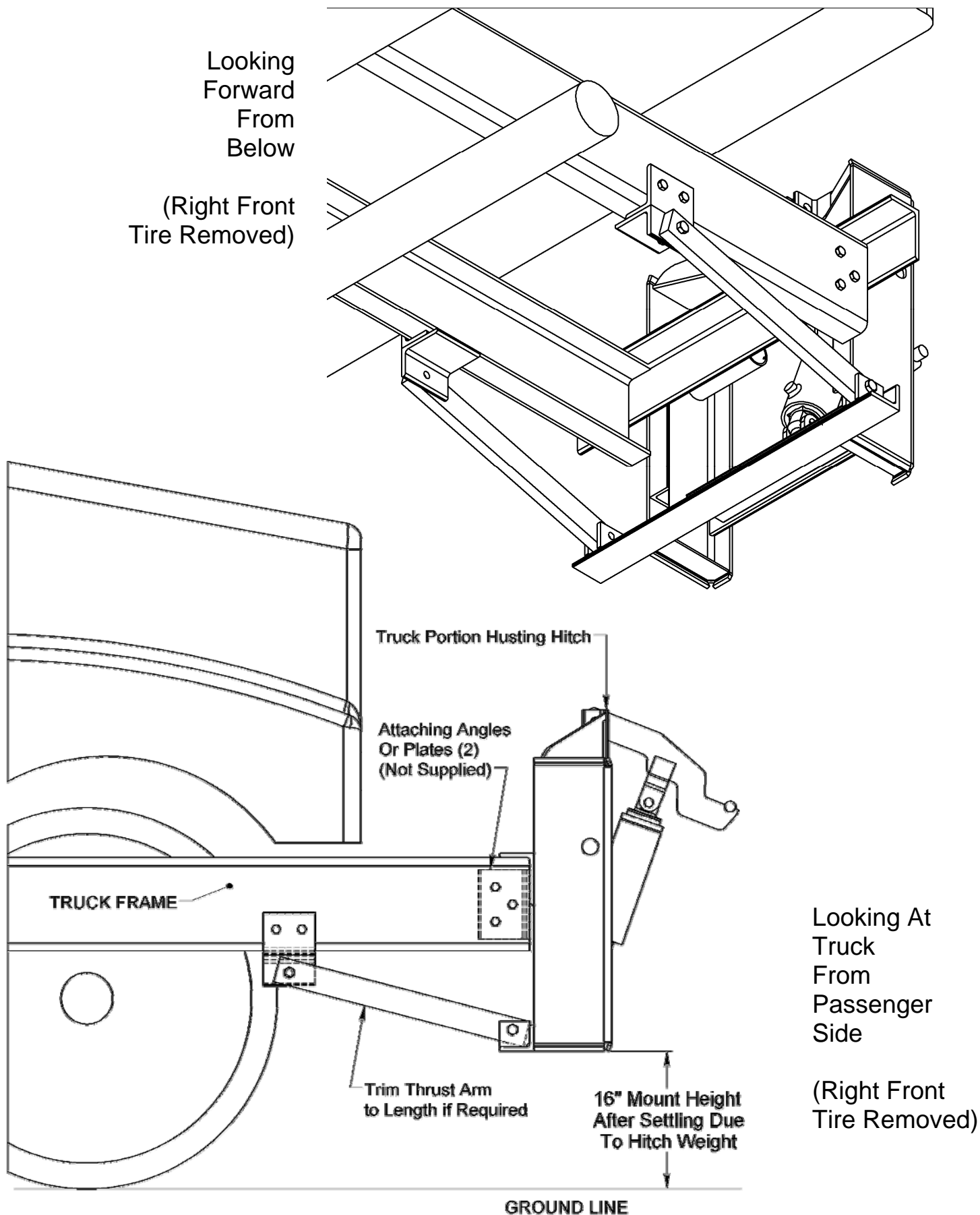


FIGURE 3-2 – Typical Thrust Arm Mounting of Husting Hitch

Thrust Arm Attaching Kit Mounting Instructions

I GETTING STARTED & BASIC PRECAUTIONS

1. Read all instructions before installation or use of your Hitch and Attachment.
2. Park the truck on a flat, level surface. Ensure frame is level side-to-side.
3. Chock the tires. Refer to truck owner's manual for information about chocking the tires.
4. Be sure that the battery is disconnected when welding any items that are attached to the truck.
5. Attaching items to the frames:
 - a.) **Never weld items to a truck frame.** Always use bolts.
 - b.) Attempt to use existing bolt holes for attachment where available (assuming they are located properly and of the proper size).
 - c.) It is generally not advisable to bolt through the upper and lower flanges of the truck frame. When bolting a hitch to the front of the frame rails, however, bolting through the upper or lower flanges is typically not a problem, because the frame sees very little loading in this area. See vehicle manufacturer for Specific information.
 - d.) When bolting through the side (web) of the truck frame, try to avoid bolting extremely close to the upper and lower flanges. Again, this rule can be relaxed for areas at the very front of the frame. See vehicle manufacturer for specific information.
6. When welds are called out in the instructions, use continuous 5/16" minimum fillet welds unless otherwise specified or appropriate.
7. Bolt Torques: Torque all mounting bolts to the values noted below before placing hitch in service.

IMPORTANT: SEE TORQUE VALUE TABLES 4-1 & 4-2 AT THE END OF THIS BOOK.

II HITCH MOUNTING

1. Determine method for mounting hitch to front of frame. The hitch must be securely attached to the front of the frame rails using heavy-duty structural members. See Figures 3-1 and 3-2.
 - a.) The bumper is usually removed for hitch mounting.
 - b.) The supplied **1300-0067 or 3900-0752 (Item 2, Fig 3-1)** upper mounting angle can be mounted across the top of the frame rails, then secured with bolts. If the existing bumper brackets are strong enough, they can be used to secure the upper mounting angle. If the existing bumper brackets are not strong enough, structural angles can be used (such as a Henke P/N 1300-0340, 6x4x1/2 angle x 8" long; not supplied with standard attaching kit). Additional strength may be obtained by installing bolts through the top of the upper mounting angle directly into the top flanges of the frame rails on each side. The 5/8" Gr. 8 bolts supplied may be useful in attaching the upper mounting angle.
 - c.) Trucks without an extended frame may require "frame extensions" to be installed to properly position the hitch. If extensions are required, use heavy structural members, such as 6x4x1/2" angle.
2. Determine what initial mounting height must be used to obtain the final hitch operating height shown in Figure 3-2. It is necessary to account for height changes which may occur due to the weight of the hitch (approx. 500 to 600 lbs.), the weight of the load in the bed, etc. The installer should attempt to determine the typical loading, and resulting frame height, of the truck as it will be used in snowplowing operations.
3. Position the male portion hushing hitch at the proper height and ensure that it is level front-to-back and especially left-to-right. When properly positioned, weld the rear angles of the hitch to the upper mounting angle installed in Step 2a, or to the appropriate structural members if the upper mounting angle was not used.
4. Determine how to best locate the **1300-3102 (Item 8, Fig. 3-1) thrust arms**, which run from the angle on the lower rear of the hitch to the truck frame (see Fig. 3-1 or 3-2). These thrust arms provide essential support to the hitch and truck frame and are effective in transferring a portion of the load created by plowing snow into a more rearward portion of the frame. They must be located to avoid various truck components, which vary widely depending on truck make & model, optional equipment, etc. The Henke standard attaching kit allows for both left-to-right and front-to-back variation in thrust arm mounting position.
5. After determining the proper mounting location of the thrust arms, install the thrust arms:
 - a.) Secure the 1300-3102 thrust arms to the 1300-0068 or 3900-0511 lower mounting angle (**Items 8 & 3, Fig. 3-1**) on the lower rear of the hitch using **(2) 1300-0074 ears, (1) 7020082 3/4-10 x 3.5 Gr. 8 bolt, (1) 7040007 hardened**

- flat washer, and (1) 7030030 3/4-10 Gr. C toplock nut (Items 4, 5, 6, & 7, Fig. 3-1) per thrust arm. Tack weld the 1300-0074 ears in place.**
- b.) Determine the proper location of the **rear attaching angles (1300-0077 & 1300-0078) (Items 11 & 12, Fig. 3-1)** on the truck frame. Attach each 1300-0077 angle to the truck frame using a minimum of **(2) 5/8" Gr. 8 bolts, nuts, and washers (Items 9, 13, & 14, Fig. 3-1).**
 - c.) Position each **1300-0078 angle (Item 11, Fig. 3-1)** at the proper width to line up with the corresponding **1300-3102 thrust arm (Item 8, Fig. 3-1)**, then weld the 1300-0078 angle to the 1300-0077 angle. **DO NOT WELD ANYTHING TO THE TRUCK FRAME.**
 - d.) If necessary, trim each 1300-3102 thrust arm to fit. Drill a 25/32" hole in the appropriate location in each thrust arm to line up with the existing hole in the **1300-0078 angle (Item 11, Fig. 3-1)**, then secure the brace to the angle using **(1) 7020080 3/4-10 x 3 Gr. 8 bolt, (1) hardened flat washer, and (1) toplock nut per brace (Items 6, 7, & 10, Fig. 3-1).** Alternately, the 1300-3102 thrust arms may be securely welded to the 1300-0078 angles.
- 6. Verify that all items requiring weld have been fully welded. Verify that all attaching fasteners are fully **torque per tables 4-1 & 4-2.**
 - 7. Prime and paint hitch bracing as necessary.
 - 8. Plumb hydraulics to hitch lift cylinder. Be sure to plumb in such a way that cylinder can go through its full range of motion, without resulting in hose twisting or interference.
 - 9. Verify proper hydraulic function and fix any leaks. Check hydraulic fluid level and refill as necessary.

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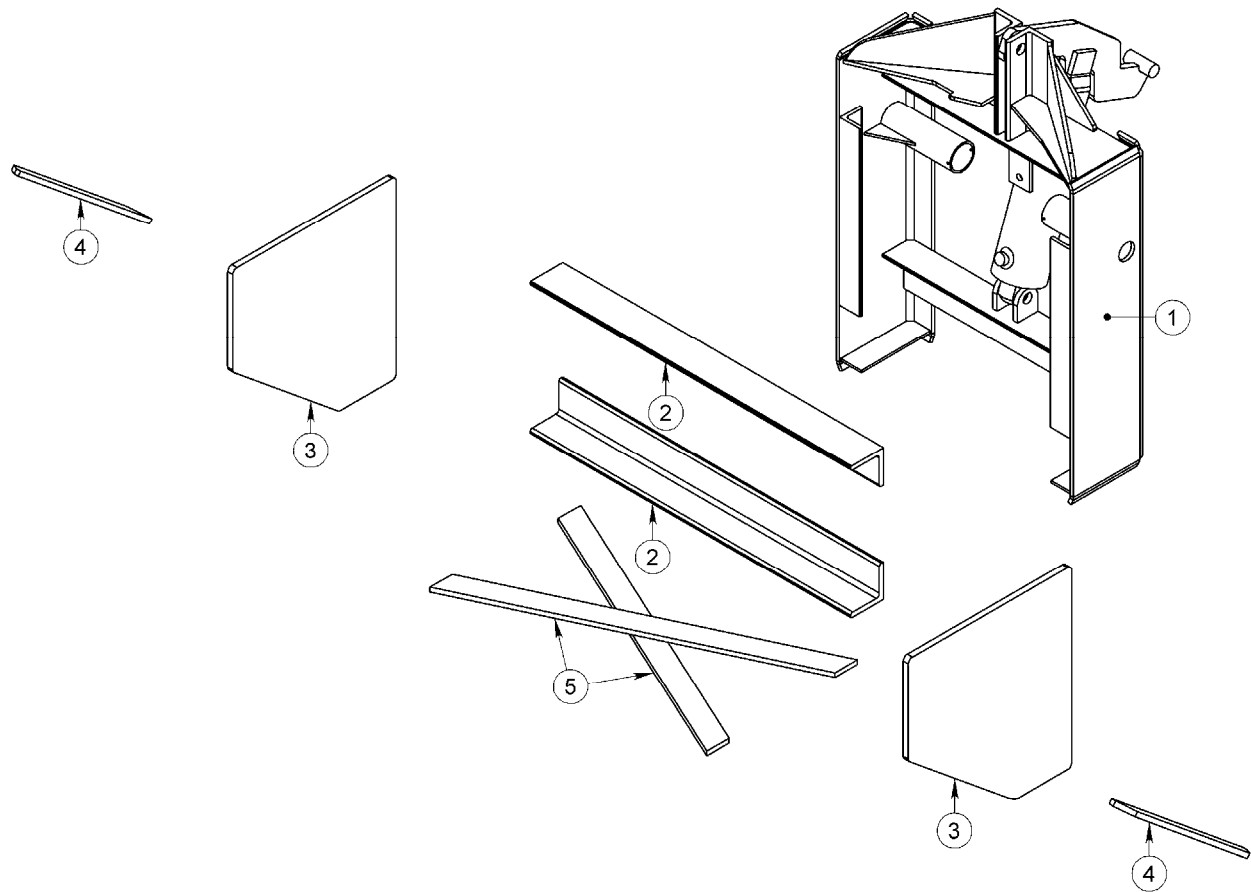


FIGURE 3-3 – Typical Sideplate Attachment, Parts View

TABLE 3-2 – Typical Sideplate Attachment, Parts List

Item No.	Qty.	Part No.	Description
1	1	N/A	Male Portion Hasting Hitch
2	2	Varies	Mounting Angle
3	2	Varies	Side Plate
4	2	Varies	Side Brace
5	2	Varies	Cross Brace

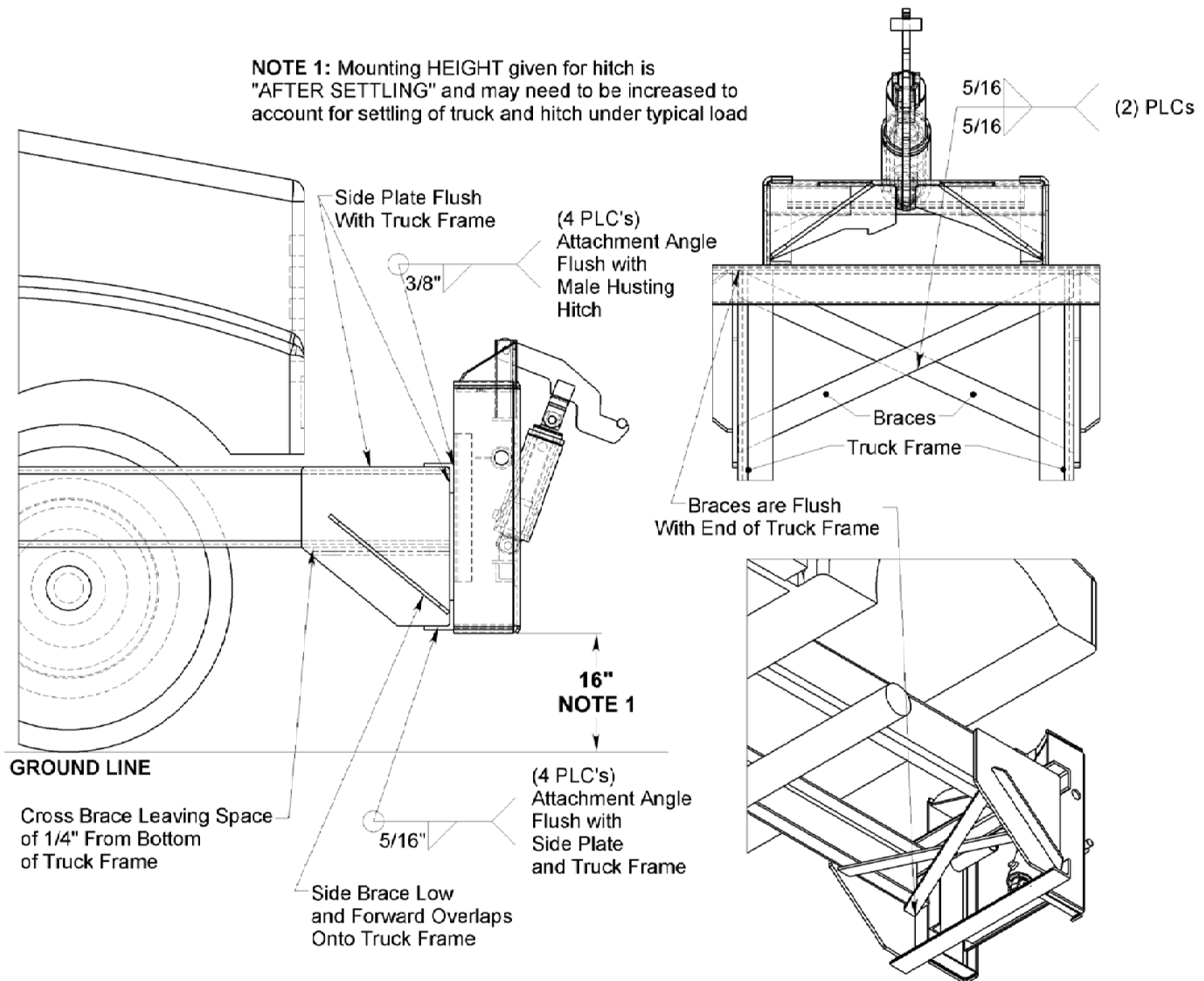


FIGURE 3-4 – Typical Side Plate Mounting of Husting Hitch

Sideplate Attaching Kit Mounting Instructions

I GETTING STARTED & BASIC PRECAUTIONS

1. Read all instructions before installation or use of your Hitch and Attachment.
2. Park the truck on a flat, level surface. Ensure frame is level side-to-side.
3. Chock the tires. Refer to truck owner's manual for information about chocking the tires.
4. Be sure that the battery is disconnected when welding any items that are attached to the truck.
5. Attaching items to the frames:
 - a.) **Never weld items to a truck frame.** Always use bolts.
 - b.) Attempt to use existing bolt holes for attachment where available (assuming they are located properly and of the proper size).
 - c.) It is generally not advisable to bolt through the upper and lower flanges of the truck frame. When bolting a hitch to the front of the frame rails, however, bolting through the upper or lower flanges is typically not a problem, because the frame sees very little loading in this area. See vehicle manufacturer for Specific information.
 - d.) When bolting through the side (web) of the truck frame, try to avoid bolting extremely close to the upper and lower flanges. Again, this rule can be relaxed for areas at the very front of the frame. See vehicle manufacturer for specific information.
6. When welds are called out in the instructions, use continuous 5/16" minimum fillet welds unless otherwise specified or appropriate.
7. Bolt Torques: Torque all mounting bolts to the values noted below before placing hitch in service.

IMPORTANT: SEE TORQUE VALUE TABLES 4-1 & 4-2 AT THE END OF THIS BOOK.

II HITCH MOUNTING

1. Determine method for mounting hitch to front of frame. The hitch must be securely attached to the front of the frame rails using the heavy-duty structural members provided. See Figures 3-3 and 3-4, and Table 3-2.
2. Refer to the attached installation drawing (Figure 3-4) and exploded view (Fig. 3-3) for additional information.
3. If desired, trim frame rail extensions prior to hitch mounting. Before trimming, verify that plow in fully reversed position will not interfere with the truck fenders or other items, and that the hood is able to fully open.
4. Mount the sideplates (Item 3, Fig. 3-3) to the outside of the truck frame rails. They should be flush with the top and front of the frame rails. Verify sideplates are in a position that will locate the hitch vertically.
5. Bolt the sideplates to the frame, using a minimum of (8) 5/8" Grade 8 bolts, (8) hardened washers, and (8) toplock nuts per sideplate. Try to use as many existing bolt holes as possible. Avoid locating bolts near the very top or very bottom of the frame rails. Do not weld to the truck frame rails. Torque all toplock nuts per section tables 4-1 & 4-2.
6. Center each mounting angle (Item 2, Fig. 3-3) left-to-right, each laying horizontally and flush against top and front (or bottom and front) of both side plates. Weld each mounting angle flush against top (or bottom) and front of side plates, using continuous 5/16" minimum fillet welds all around (see Figure 3-4).
7. Position (2) Cross Braces (Item 5, Fig. 3-3) and (2) Side Braces (Item 4, Fig. 3-3) as shown in Figure 6 as close as possible. Tack weld in place. DO NOT weld to Truck Frame. Fully weld all around using continuous 5/16" minimum fillet welds. (Be sure to remove any paint from parts as necessary before welding.) NOTE: You should leave 1/4" vertical space between Truck Frame and Top Cross Brace to avoid trapping moisture.
8. Carefully hoist the Husting Hitch truck portion into place. The bottom of the Husting Hitch truck portion should be 16" from the ground after the truck settles due to the hitch weight and typical truck load. Be certain that the hitch is level left-to-right and vertical. Weld the mounting angles to the rear of the Husting Hitch truck portion, using continuous 3/8" minimum fillet welds all around (be sure to remove paint from the hitch as necessary before welding).

CAUTION: USE OVERHEAD HOIST OR OTHER APPROPRIATE METHOD TO RAISE OR LOWER HITCH! THE MALE PORTION OF THE HITCH CAN WEIGH OVER 500 LBS.!

9. Verify that all items requiring weld are fully welded. Verify that all attaching fasteners are fully torque per tables 4-1 & 4-2.

10. Prime and paint hitch bracing as necessary.
11. Plumb hydraulics to hitch lift cylinder. Be sure to plumb in such a way that cylinder can go through its full range of motion, including folded-down position, without resulting in hose twisting or interference.
12. Verify proper hydraulic function and fix any leaks. Check hydraulic fluid level and refill as necessary.

TABLE 4-1 – Dry Torque Values (Ft.-Lbs.) - for Toplock (All-Metal) or Nylock Nuts ONLY (See Page Notes)

Bolt Size (in.)	Grade 2 Bolts	Grade 5 Bolts	Grade 8 Bolts
1/4-20	4	6	8
5/16-18	7	11	13
3/8-16	11	17	24
1/2-13	28	44	55
5/8-11	50	84	110
3/4-10	95	150	185
7/8-9	140	220	270
1-8	205	330	430

DO NOT USE THIS TABLE FOR NON-LOCKING NUTS

TABLE 4-2 – Dry Torque Values (Ft.-Lbs.) for Standard Non-Locking Nuts ONLY (See Page Notes)

Bolt Size (in.)	Grade 2 Bolts	Grade 5 Bolts	Grade 8 Bolts
1/4-20	5.5	9	12.5
5/16-18	11	18	26
3/8-16	20	33	46
1/2-13	50	80	115
5/8-11	100	160	225
3/4-10	175	280	400
7/8-9	175	450	650
1-8	270	675	975

DO NOT USE THIS TABLE FOR LOCKING NUTS

Page Notes:

1. "Dry" means plain or zinc-plated fasteners without any lubrication.
2. Fastener Grade Identification:
 - a. Grade 8 bolts are identified by having (6) radial marks on the top of the bolt head. Grade 8 nuts are identified by having radial marks on (2) adjacent corners.
 - b. Grade 5 bolts are identified by having (3) radial marks on the top of the bolt head. Grade 5 nuts are identified by having radial marks on (2) NON-adjacent corners.
 - c. Grade 2 bolts and nuts are identified by having (0) radial marks.

TABLE 5-1 – Cutting Edges

6" STEEL	1/2" THICK	5/8" THICK	3/4" THICK
2FT.	Call	7150119	7150189
3FT.	7150153	7150120	7150073
4FT.	7150154	7150129	7150072
5FT.	7150007	7150184	7150026
6FT.	Call	Call	7150004
7FT.	Call	Call	7150028
8FT.	7150172	Call	Call
9FT.	Call	Call	7150036
10FT.	7150008	7150090	7150197
11FT.	7150009	7150089	7150031
12FT.	7150010	7150082	7150032

CP 6" STEEL	1/2" THICK	5/8" THICK	3/4" THICK
3FT.	7150186	Call	Call
4FT.	7150187	Call	Call

CP 10" STEEL	1/2" THICK	5/8" THICK	3/4" THICK
10FT.	Call	Call	7150050

CARBIDE	3/4" THICK
3FT.X5" TALL	Call
3FT.X6" TALL	7150035
3FT.X8" TALL	7150163
4FT.X5" TALL	7150123
4FT.X6" TALL	7150025
4FT.X8" TALL	7150164
5FT.X8" TALL	7150097
6FT.X6" TALL	7150124

8" STEEL	1/2" THICK	5/8" THICK	3/4" THICK
2FT.	7150039	7150077	Call
3FT.	7150037	7150078	Call
4FT.	7150038	7150079	Call
5FT.	7150011	Call	7150054
6FT.	7150005	7150081	7150055
8FT.	7150012	Call	7150042
9FT.	7150013	7150045	7150046
10FT.	7150014	7150043	7150047
11FT.	7150015	7150040	7150048
12FT.	7150016	7150044	7150049

CP 8" STEEL	1/2" THICK	5/8" THICK	3/4" THICK
3FT.	7150021	Call	Call
4FT.	7150022	Call	Call
10FT.	7150017	Call	7150171
11FT.	7150018	7150169	Call
12FT.	7150019	7150056	Call

RUBBER Notes 5&6	1 1/2" THICK X10" Tall CP	RETAINING STRIP
8FT.	3500-0008	3500-0026
9FT.	3500-0009	1300-2223
10FT.	3500-0010	1300-0394
11FT.	3500-0011	1300-0395
12FT.	3500-0012	1300-0396
14FT.	3500-0014	1300-0401
16FT.	3500-0016	1300-0402

SNOW BASKET	1" THICK X10" Tall CP
8FT.	7150052
9FT.	7150053
10FT.	7150088

NOTES:


1. For Cutting Edges Not Listed Call Henke Manufacturing at 1-888-682-9010.
2. Except as noted, all cutting edges have 1.5" gauge line (distance from top edge to center of holes)
3. "CP" = Center Punched
4. All edges shown are punched for 5/8" bolts.
5. For rubber cutting edges, 6" tall center punched steel edges, Items 7150186 & 7150187 may be used to provide proper support behind the rubber edge.
6. Henke's rubber cutting edges feature a minimum tensile strength of 2000 psi and a maximum DIN rating of 150, and last much longer in service than lower quality rubber cutting edges available from some other suppliers.
7. Polyurethane cutting edges also available - call for price and availability.

TABLE 5-2 – Cutting Hardware

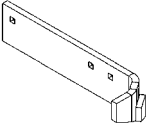
TYPE	LENGTH	PART NO.	USES/NOTES
PLOWBOLTS 5/8-11 GRADE 8	2" 2 ½" 3" 3 ½" 4" 4 ½" 5" 6"	7150001 7150003 7150002 7150103 7150105 7150106 7150108 7150107	FOR STANDARD CUTTING EDGES AND WEAR GUARDS
CARRIAGE BOLTS 5/8-11 GRADE 8	3" 4" 5" 6"	7020280 7020287 7020359 7020363	FOR SOME WRAPAROUND CURB GUARDS (SQUARE HOLES, NOT COUNTER SUNK)
HEX BOLTS	4" 4 ½" 5"	7020064 7020128 7020295	RUBBER AND POLY CUTTING EDGES (USE NYLOCK NUTS ONLY)
TOPLOCK NUT 5/8-11 GRADE C	N/A	7030084	USE WITH STEEL OR CARBIDE CUTTING EDGES
NYLOCK NUT 5/8-11 GRADE 8	N/A	7030095	USE WITH RUBBER OR POLY CUTTING EDGES

TABLE 5-3 – Henke Curb Guards & Wear Guards

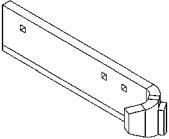
Wrap-Around Curb Guards, Steel

	7150122	6", Left
	7150121	6", Right
	7150117	8", Reversible

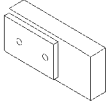
Wrap-Around Curb Guards, Chrome-Carbide Weld Deposit on Wrap-Around Corner

	7150125	6", Left
	7150126	6", Right
	7150115	8", Left
	7150118	8", Right

Wrap-Around Curb Guard + Wear Guard, Chrome-Carbide Weld Deposit on Wrap-Around Corner + on Bottom Wear Edge


	7150113	6", Left
	7150114	6", Right
	7150130	8", Left
	7150131	8", Right

Bolt-On Curb Guards (Bolts to Outside of End Rib)


	139-1046	Bolt-On Guard Assy.
	1300-1633	Optional spacer (Required for Tripedge applications)

Henke Wear Guards and Wear Shoes


Wear Guards, Standard Length (9"), with Chrome-Carbide Weld Deposit (Mount in front of cutting edge)

	7140106	6", Reversible
	7140107	8", Reversible


Wear Guards, Long Length (21"), with Chrome-Carbide Weld Deposit (Mount in front of cutting edge)

	7140108	6", Reversible
	7140008	8", Reversible

Cast Wear Shoes (Mount behind cutting edge)w

	7140004	Wear shoe for 6" cutting edges, or 8" center-punched edges
	7140002	Wear shoe for 8" cutting edges

Bottom Angle Saver (Mount behind of Bottom Angle)

	199-0280	Bottom Angle Saver with Carbide Strip
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HENKE

LIMITED WARRANTY

1. LIMITED WARRANTIES

- 1.1. Henke warrants for one year from the purchase date to the original non-commercial, governmental, or municipal purchaser ("Purchaser") and warrants for twelve months to the original commercial or industrial purchaser
- 1.2. Manufacturer will repair or replace for the Purchaser any part or parts found, upon examination at one of its factories, to be defective under normal use and service due to defects in material or workmanship.
- 1.3. This limited warranty does not apply to any part of the goods which has been subjected to improper or abnormal use, negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong fuel, oil, or lubricants, or which has served its normal life. This warranty does not include normal wear items such as cutting edges, wear guards, scarifier teeth, etc. or improper installation. HMC warranty for any purchased components, such as hydraulic cylinders will be superseded by, and equal to the component manufacturer warranty.
- 1.4. Except as provided herein, no employee, agent, Dealer, or other person is authorized to give any warranties of any nature on behalf of Manufacturer.

2. REMEDIES AND PROCEDURES.

- 2.1. Warranty claims must be filled within 30 days of repair work during the one year warranty period and will be honored only if the completed warranty registration form has been returned. Henke reserves the right to require proof of purchase of original Henke replacement parts. If warranty is approved any allowed shipping expenses will be based on and will not exceed standard base shipping charges.
- 2.2. Purchaser claims must be made in writing to the Authorized Dealer ("Dealer") from whom Purchaser purchased the goods or an approved Authorized Dealer ("Dealer") within 30 days after Purchaser learns of the facts on which the claim is based.
- 2.3. Purchaser is responsible for returning the goods in question to the Dealer.
- 2.4. If after examining the goods and/or parts in question, Manufacturer finds them to be defective under normal use and service due to defects in material or workmanship, Manufacturer will:
 - a) Repair or replace the defective goods or part(s) or
 - b) Reimburse Purchaser for the cost of the part(s) and reasonable labor charges (as determined by Manufacturer) if Purchaser paid for the repair and/or replacement prior to the final determination of applicability of the warranty by Manufacturer.
 - c) The choice of remedy shall belong to Manufacturer.
- 2.5. Purchaser is responsible for any labor charges exceeding a reasonable amount as determined by Manufacturer and for returning the goods to the Dealer, whether or not the claim is approved. Purchaser is responsible for the transportation cost for the goods or part(s) from the Dealer to the designated factory.

3. LIMITATION OF LIABILITY.

- 3.1. MANUFACTURER DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES WITH RESPECT TO THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- 3.2. MANUFACTURER MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY, OR SUITABILITY FOR USE OF THE GOODS.
- 3.3. EXCEPT AS PROVIDED HEREIN, MANUFACTURER SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO PURCHASER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS, OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY THE GOODS INCLUDING, BUT NOT LIMITED TO, ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE GOODS OR ANY BREACH OF THIS WARRANTY. NOTWITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, MANUFACTURER'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY PURCHASER OR OTHERS SHALL NOT EXCEED THE PRICE OF THE GOODS.
- 3.4. NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS WARRANTY OR TRANSACTIONS UNDER THIS WARRANTY MAY BE BROUGHT MORE THAN TWO (2) YEARS AFTER THE CAUSE OF ACTION HAS OCCURRED.

4. MISCELLANEOUS.

- 4.1. Proper Venue for any lawsuits arising from or related to this limited warranty shall be only in Leavenworth County, Kansas.
- 4.2. Manufacturer may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
- 4.3. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.
- 4.4. Applicable law may provide rights and benefits to purchaser in addition to those provided herein.

KEEP FOR YOUR RECORDS

Henke Implement Model _____ Serial Number(s) _____
Date Purchased _____ Purchased From (Dealer) _____

Attention:
READ YOUR OPERATORS MANUAL

Henke Manufacturing
An Alamo Group Company
3070 Wilson Ave
Leavenworth, KS 66048



Dealer Warranty Procedure

For units delivered within the past 12 months, report any warranty problems needing repair to our Product support department. Please have information ready regarding:

1. Henke unit model and serial number,
2. Model of equipment Henke unit is attached to (prime mover)
3. Description of the problem and any helpful information by the end user. (Photos are always helpful).

Measurements or photos may be requested by Henke engineering for any issues regarding prime mover proximity and clearance, or any other unique considerations of fit and adaptability. These may be necessary for a proper repair recommendation and procedure.

Henke will respond with a written labor hour allowance for Henke participation on a faxed claim form and will ship any required replacement parts. If necessary, a repair procedure will be included on the claim form. A parts invoice will be generated to confirm shipment of the replacement parts.

If defective parts are needed for analysis, Henke will request their return. Any such returned items are to be labeled with the **claim number** and returned to:

**Henke Manufacturing Corp.
ATTN: Product Support
3070 Wilson Ave.
Leavenworth, KS. 66048
RGA#_____**

The dealer should perform repairs as agreed on a dealer warranty repair order. Return the claim form with a copy of the dealer warranty repair order and service report. Credit as agreed will be issued to the dealer upon receipt of the dealer warranty repair order invoice (Pro-forma invoice), and upon receipt, inspection and warranty confirmation of the returned parts if any.

Parts & Service Assistance

Parts and service assistance is available, Monday through Friday, from **8:00 am to 5:00 pm, CST. Call 913-682-9000.**

Our web site, **www.henkemfg.com**, is a quick source for parts pricing, and many common parts diagrams.

Parts purchase orders may be faxed in at any time to **913-682-0300**. Faxed orders are encouraged, as they help insure order accuracy and follow up. Include any special instructions, such as drop ship addresses on your order.