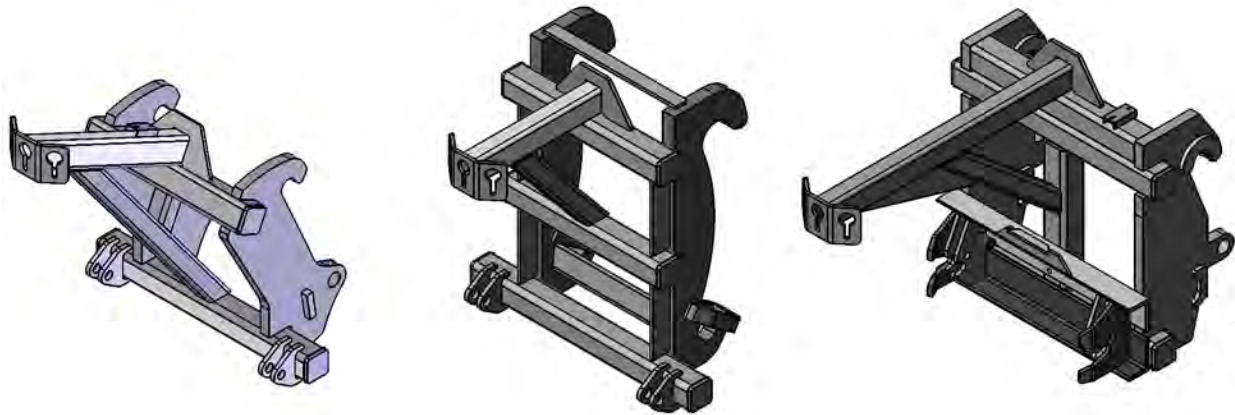


COUPLER ADAPTER WITH ARM

HENKE MODEL: CA ARM

Wheel Loaders And Motor Graders



THIS BOOK INCLUDES :

- WELD-ON AND BOLT-ON HOOKS
- UNIVERSAL PIN-ON (Shown)
- UQH
- QUICK LINK (Shown Far Right)
- QCP
- PA/DE DOT STYLE

PARTS AND INSTALLATION MANUAL: # 8543021-01

VERSION 014, JULY 2018

MY SERIAL NUMBER: _____



HENKE MANUFACTURING CORPORATION
MANUFACTURERS OF SNOW REMOVAL EQUIPMENT FOR OVER 100 YEARS
3070 WILSON AVE. LEAVENWORTH, KS 66048
Phone: (913) 682-9000 Fax: (913) 682-0300
www.henkemfg.com, parts@henkemfg.com

CA_COUPLER_ADAPTER_W_ARM_EFF_ALL_8543021_01_014

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Introduction

Thank you for your purchase of a HENKE Coupler Adapter (CA ARM). This Parts and Installation Manual should be read in its entirety, including the safety section, before installation, operation, or maintenance is performed to minimize installation and operation problems.

In addition to their field-proven standard units, Henke designs and manufactures snow fighting equipment to meet specific customer requirements.

The field hardware required to install your new Henke product is listed in tables in the parts section of this book. Be sure to check that all parts listed in this document were shipped with your Loader Adapter (either attached or loose). In the unlikely situation that parts are missing please contact **Henke Manufacturing** at **(913) 682-9000** or **service@henkemfg.com** before continuing the installation.

Contact Your Local Dealer For Parts & Service

Henke's Dealer Network is a key component in providing our customers with the quickest most efficient access to Henke's Parts and Technical Service teams. For Parts Replacement, Technical Service, & Customer Support Inquiries, please contact your local Henke dealer first.

Find your dealer using our website Dealer Locator: <http://henkemfg.com/dealer-locator/>

If you do not have a local dealer, contact Henke directly, as listed below.

Replacement Parts

Henke's Parts team will assist in parts replacement and preventative parts stocking program.

Dealers and individual owners without a local dealer can contact us via email, website, or phone.



parts@henkemfg.com



<http://henkemfg.com/parts-and-service/>



888 682-9010 x3

This will direct your inquiry to the entire Parts team, insuring the most prompt attention possible. All inquiries are processed in the order they are received.

NOTE:	<ul style="list-style-type: none">• We can prepare a personalized wear parts recommendation and optionally include your seasonal purchasing summary. Just ask.• Call Henke's Technical Service team in the unlikely event that your order is missing parts.
--------------	--

Technical Service & Customer Support Inquiries

Henke Technical Service can assist in optimizing your Henke equipment, and increasing up-time by providing technical guidance and support for issues as they occur.

Dealers and individual owners without a local dealer can contact us via email, website, or phone.



service@henkemfg.com



<http://henkemfg.com/parts-and-service/>



888 682-9010 x6

This will direct your inquiry to the entire Tech Service team, insuring the most prompt attention possible. All inquiries are processed in the order they are received.

We truly appreciate your business.

Henke Parts and Technical Service Teams

Is This Your Product Manual?

Important

- We strongly recommend verifying your product's serial number and product manual number and revision with Henke's Parts Department before you order parts.
- Henke prides itself on service and support of all of our products including current, legacy, custom, and standard designs. Therefore, many of Henke products appear similar, but are different enough to justify having separate part manuals.
- Product manuals shown on product pages of the Henke website are only for standard, current production products.
- Product manuals may be updated at anytime.

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CHAPTER 1: SAFETY

**PLEASE READ ENTIRE BOOK BEFORE INSTALLATION, OPERATION, OR
MAINTENANCE.**

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.



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

SAFETY

OPERATOR SAFETY

				
Read and understand Operator's Manual	Always wear Safety Glasses, Gloves, and Respirator	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

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

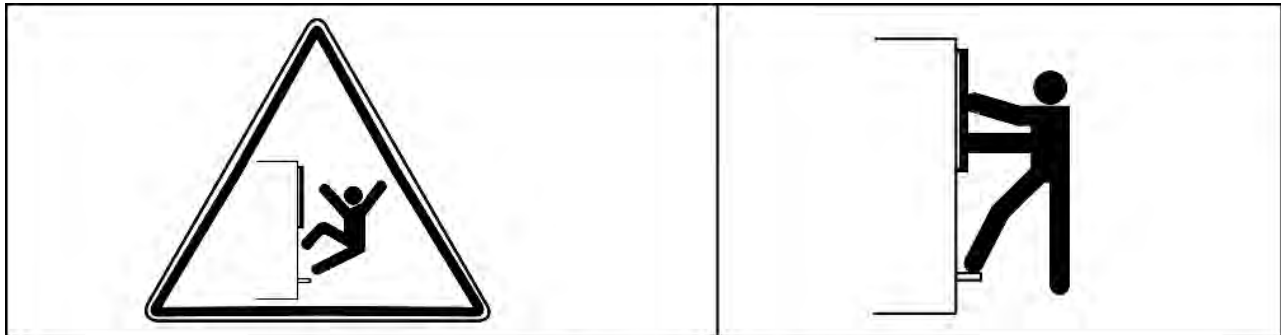
		
Wear Respirator	Chemical, Dust Hazard	Wear face protection - Face Shield or Goggles

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

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 ATTACHEMENT:

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 ever, 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



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



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*

SAFETY

SAFETY

HIGH PRESSURE OIL LEAK HAZARD

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



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 motorist and pedestrians of the presence of the equipment
- **DO NOT** leave piled material on roadway. Material can be a hazard to other motorist.




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

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 safety prop 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.

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, 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 safety prop 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.

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 DEVICE 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.



Operating, servicing and maintaining this equipment can expose you to chemicals including gasoline, diesel fuel, lubricants, petroleum products, engine exhaust, carbon monoxide, and phthalates, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. 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. For more information go to www.P65Warnings.ca.gov. This website, operated by California's Office of Environmental Health Hazard Assessment, provides information about these chemicals and how individuals may be exposed to them. *PN P-HM-02*

SAFETY

SAFETY

PARTS INFORMATION

PARTS INFORMATION

HENKE Spreaders use balanced and matched system components for spreaders, conveyors, 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 Spreader performance, void HENKE warranties, and present a safety hazard. Use genuine HENKE parts for economy and safety. (SNPG-7)

SEE YOUR HENKE DEALER

Operator's & Parts Manuals



www.algqr.com/hpm

SAFETY

DECALS

COUPLER ADAPTER

Use the following decals from sheet 7332005.

Henke Part No.	Qty.	Description
7331003	1	Use genuine Henke replacement parts
7331005	1	Stop Engine Stay clear of moving parts
7331007	1	Read and understand operator's manual If you cannot read English get assistance
7331010	2	Keep Clear, Pinch Point

NOTE: You may not use all decals on sheet 7332005. Follow installation instructions. Discard extra decals.

Other Attachments and Decals

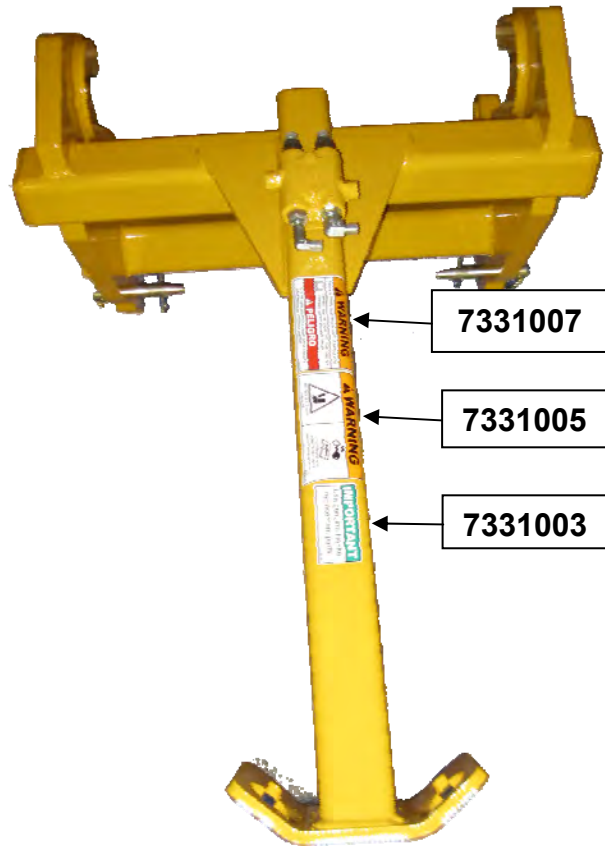
7300049	1	Clear Product Manual Tube
7300049	2	Blue Tube Caps
7330012	1	Serial Tag 2000- Plate
7330023	4	Tack - Serial Tag

Instructions:

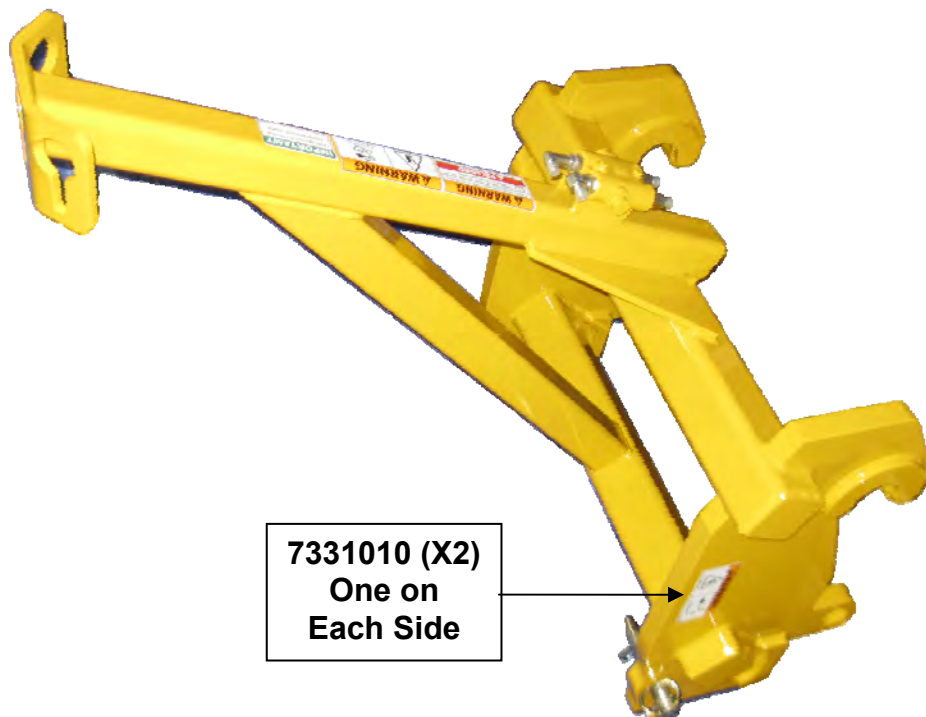
Follow these instructions to position the above items to your Henke product for safety and professional appearance. Apply on clean surfaces only. They should be properly applied and kept in good condition. If a decal is worn out, torn, or otherwise defaced, call us for an immediate replacement at 1-913-682-9000, or 1-888-682-9010.

DECALS

1. Position 7331003, 7331005, & 7331007 as shown.



2. Position 7331010 (Qty.2) as shown.




DECALS

3. Position 7330012 Serial Plate (Qty.1) as shown, on NON-Driver's Side, Top Tube.



California Proposition 65 Decal, 7331051



	<ul style="list-style-type: none">• Operating, servicing and maintaining this equipment can expose you to chemicals including gasoline, diesel fuel, lubricants, petroleum products, engine exhaust, carbon monoxide, and phthalates, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. 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. For more information go to www.P65Warnings.ca.gov. This website, operated by California's Office of Environmental Health Hazard Assessment, provides information about these chemicals and how individuals may be exposed to them.
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CHAPTER 2: PARTS AND ASSEMBLIES

**PLEASE READ ENTIRE BOOK BEFORE INSTALLATION, OPERATION, OR
MAINTENANCE.**

Pin-On Style Adapter, Weld-On Coupler

Figure 2-1: Pin-On Style Adapter, Weld-On Coupler, Parts View

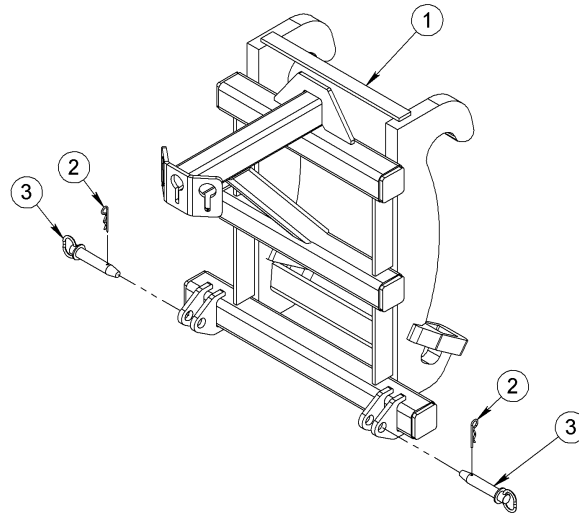


Table 2-1: Pin-On Style Adapter, Weld-On Coupler, Parts List

Item No.	Qty.	Part No.	Description
1	1	Call Henke	Pin-On Style Adapter, Weld-On Coupler - Coupler Styles Vary
2	2	7050081	Hair Pin, #8, 0.177 X 3.75
3	2	139-0021	Hitch Pin, 1.25 x 4.75 Grip

Bolt-On Style Adapter, Bolt-On Coupler

Figure 2-2: Bolt-On Style Adapter, Bolt-On Coupler, Parts View

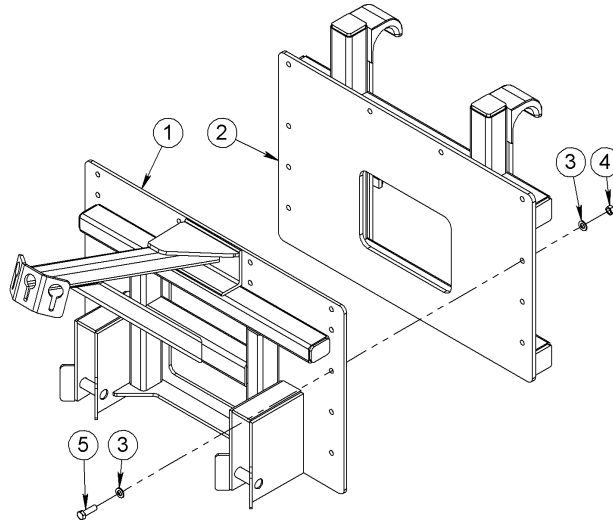


Table 2-2: Bolt-On Style Adapter, Bolt-On Coupler, Parts List

Item No.	Qty.	Part No.	Description
1	1	Call Henke	Bolt-On Style Truck Plow Adapter - Styles Vary (UQH Style Shown)
2	1	Call Henke	Bolt-On Coupler - Styles Vary (JRB 416 Style Shown)
3	Varies	7040007	Flat Washer, 3/4 Hardened, SAE
4	Varies	7030030	Toplock Nut, 3/4-10 GR.C
5	Varies	7020255	Hex Capscrew, 3/4-10 x 2.5 GR.8

Scarifier Sockets Coupler

Figure 2-3: Pin-On Style Adapter, Scarifier Sockets Coupler, Parts View

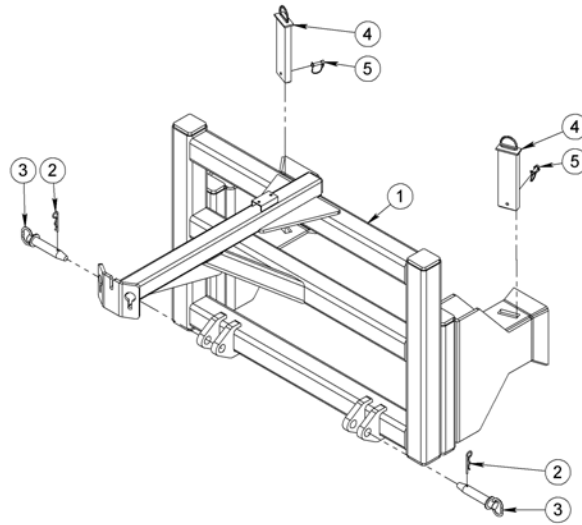


Table 2-3: Pin-On Style Adapter, Scarifier Sockets Coupler, Parts List

Item No.	Qty.	Part No.	Description
1	1	Call Henke	Pin-On Style Adapter, Scarifier Sockets Coupler - Coupler Styles Vary
2	2	7050081	Hair Pin, #8, 0.177 X 3.75
3	2	139-0021	Hitch Pin, 1.25 x 4.75 Grip
4	2	189-0007	Pin Assembly, Scarifier Socket
5	2	7050088	Safety Snap Pin, 3/8 x 1.38

Quick-Link Sub-Assembly

Figure 2-4: Quick-Link Sub-Assembly, Parts View

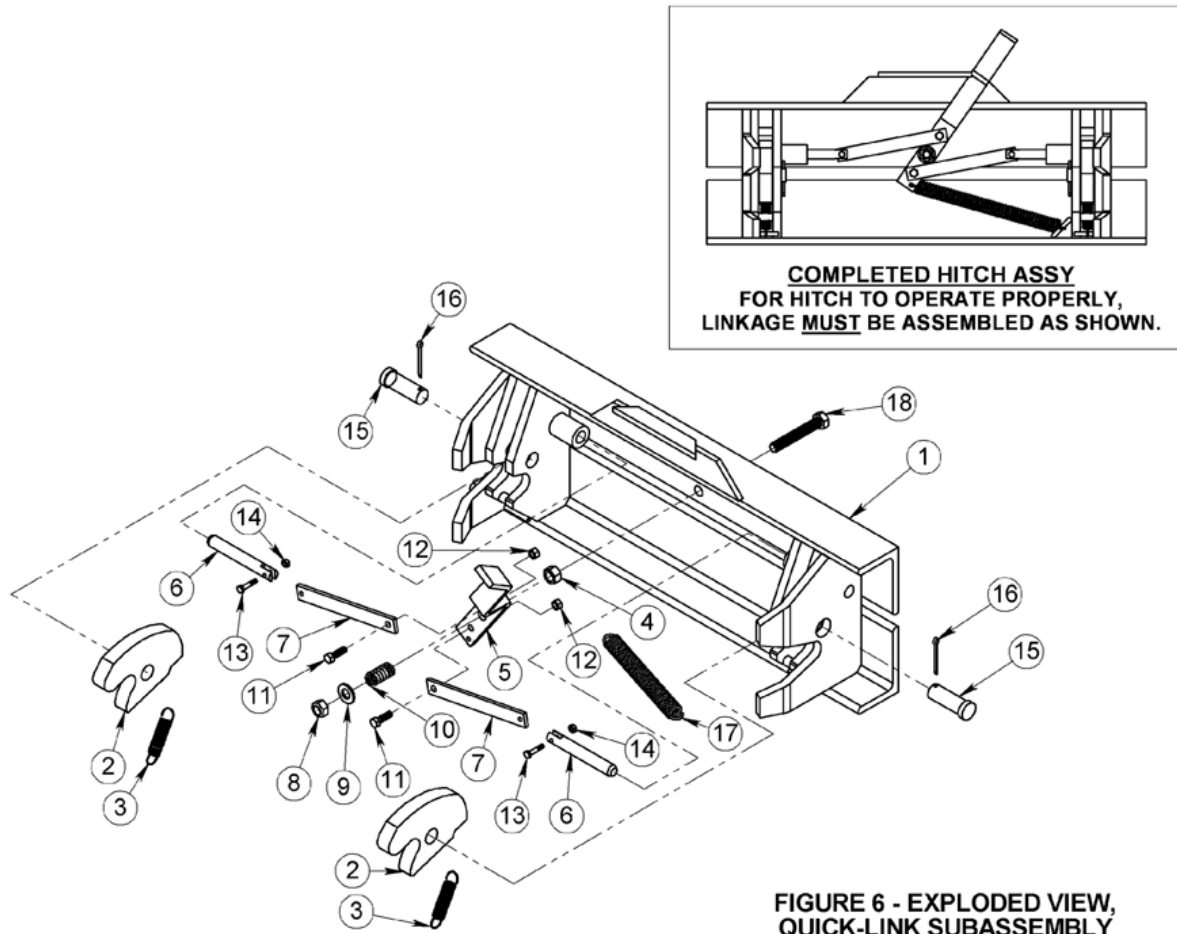


FIGURE 6 - EXPLODED VIEW, QUICK-LINK SUBASSEMBLY

Table 2-4: Quick-Link Sub-Assembly, Parts List

Item No.	Qty.	Part No.	Description
1	1	299-0024	Quick-Link Subassembly Weldment
2	2	299-0047	Latch Assembly
3	2	7070069	Extension Spring - Small
4	1	7030010	Nut, 5/8-11 GR.8
5	1	2900-0147	Handle
6	2	2900-0144	Pin
7	2	2900-0145	Pin Linkage
8	1	7030084	Toplock Nut, 5/8-11 GR. C
9	1	7040006	Flat Washer, hardened, 5/8, SAE
10	1	7070070	Compression Spring
11	2	7020030	Hex Capscrew, 3/8-16 x 1.25 GR. 2
12	2	7030006	Nylock nut, 3/8-16 GR.2
13	2	7020309	Hex Capscrew, 1/4-20 x 1.25 GR. 2
14	2	7030044	Nylock Nut, 1/4-20 GR. 2
15	2	7050100	Clevis Pin, 1 x 2.75
16	2	7050003	Cotter Pin, 3/16 x 2
17	1	7070068	Extension Spring - Large
18	1	7020276	Hex Capscrew, 5/8-11 x 4 GR. 5

PA/DE Style Sub-Assembly

Figure 2-5: PA/DE Style Sub-Assembly, Parts View

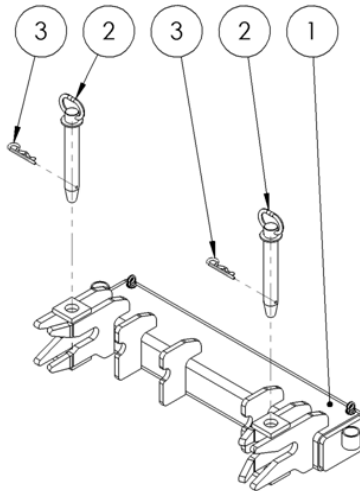


Table 2-5: PA/DE Style Sub-Assembly, Parts List

Item No.	Qty.	Part No.	Description
1	1	Call Henke	PA/DE Style Sub-Assembly
2	2	7050104	Hitch Pin, 1.25 x 7" Grip
3	2	7050081	Cotter Pin, #8, 0.177 x 3.75" (Included in 7050104)
4	2	3700-1593	Chain, 3/16 GR.30 x 15.75"
5	2	7060041	Quick Link, 3/16"

QCP Sub-Assembly Adapter

Figure 2-6:QCP Sub-Assembly Adapter, Parts View

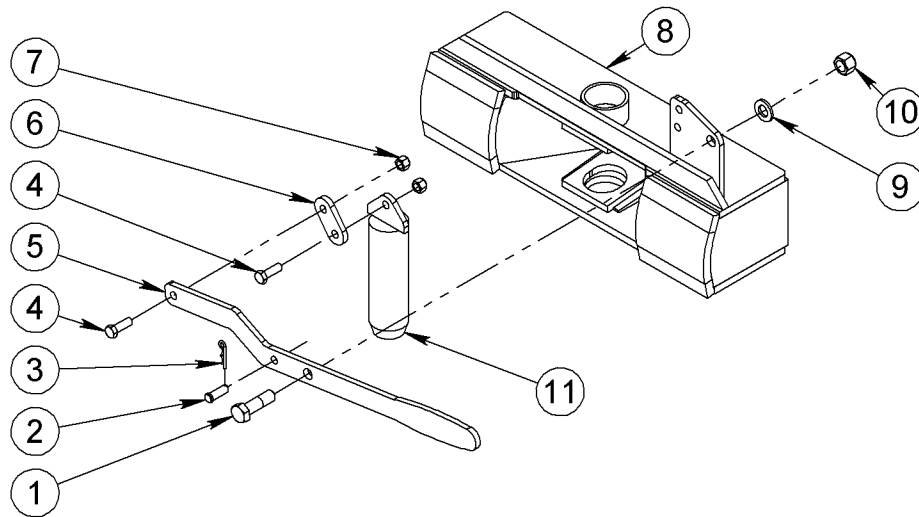


Table 2-6:QCP Sub-Assembly Adapter, Parts List

Item No.	Qty.	Part No.	Description
1	1	7020255	Hex Capscrew, 3/4-10 x 2.5 GR.8
2	1	7050009	Clevis Pin, 1/2 x 1.5
3	1	7050110	Hair Pin, #16 .125 x 1.94
4	2	7020130	Hex Capscrew, 1/2-13 x 1.5 GR.8
5	1	1400-1225	Lift Arm, QCP
6	1	1300-1881	Lift Linkage
7	2	7030101	Nylock Nut, 1/2-13
8	1	Call Henke	QCP Adapter
9	1	7040007	Flat Washer, 3/4 Hardened, SAE
10	1	7030096	Nylock Nut, 3/4-10 GR.8
11	1	149-0599	Lift Pin Assembly, QCP

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CHAPTER 3: MAINTENANCE

**PLEASE READ ENTIRE BOOK BEFORE INSTALLATION, OPERATION, OR
MAINTENANCE.**

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!** 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.

CABLE AND SHEAVES

- **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 proper torque and are in 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

Torque Specifications, Mild Steel

TORQUE SPECIFICATIONS - DRY TORQUE

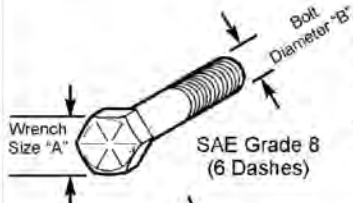
AMERICAN Bolt Head Markings



SAE Grade 2
(No Dashes)



SAE Grade 5
(3 Dashes)



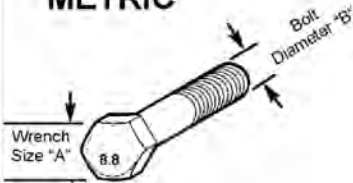
SAE Grade 8
(6 Dashes)



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 UNF	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	260 (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	1-1/8 - 7 UNC	354 (480)	795 (1077)	1268(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.

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)

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

Mnt-B-0005

CHAPTER 4: WARRANTY & DEALER PROCEDURE

**PLEASE READ ENTIRE BOOK BEFORE INSTALLATION, OPERATION, OR
MAINTENANCE.**

HENKE LIMITED WARRANTY

1.0 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
 - 1.1.1 Parts manufactured by Henke are warranted to be free from defects in materials and/or workmanship for a period of 12 months from date of purchase when used under normal operating conditions, used in a proper application and have been provided any/all maintenance is performed as recommended.
 - 1.1.2 Any parts or accessories not manufactured by Henke are warranted only to the extent that the manufacturer's warranty may be passed on to the purchaser and such parts and accessories are not subject to Henke's warranty or to any other warranty expressed or implied.
- 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.

2.0 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.
 - 2.3.1 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:
 - 2.3.2 Repair or replace the defective goods or part(s) or
 - 2.3.3 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.
 - 2.3.4 The choice of remedy shall belong to Manufacturer.
- 2.4 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.

3.0 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. NOT WITHSTANDING 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.

4.0 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.

5.0 KEEP FOR YOUR RECORDS:

ATTENTION: Purchaser should fill in the blanks below for his reference when buying repair parts and/or for proper machine identification when applying for warranty.

Henke Product Model: _____

Serial Number: _____

Date Purchased: _____

Dealer: _____

Important

READ YOUR OPERATOR'S
MANUAL

HENKE MANUFACTURING
An Alamo Group Company
3070 WILSON AVE.
LEAVENWORTH, KS 66048



(888) 682-9010

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 CORPORATION
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 inquiries may be emailed at any time to parts@henkemfg.com. Emails are encouraged, as this will direct your inquiry to the entire parts and service team, insuring the most prompt attention possible. All inquiries are processed in the order they are received.

Parts and service assistance is also available, Monday through Friday, from 7:00 am to 4:30 pm, CST, call **(913) 682-9000 x3**, or Toll Free **(888) 682-9010 x3**.

Our web site, www.henkemfg.com, is a quick source for parts pricing, and many common parts diagrams. Go to www.henkemfg.com/parts-and-service/ to submit a quick request ticket for parts.