



ATTACHMENTS FOR NEW HOLLAND LM430 & LM5000 SERIES TELEHANDLERS

OPERATOR'S & PARTS



PALADIN LIGHT CONSTRUCTION



SERIAL NUMBER: _____

MODEL NUMBER: _____

Manual Number: 76843

Part Number: 76843

Revision:

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FOREWORD

Although The Major has a variety of types of attachments available for LM430 and LM5000 Series telehandlers, we are continually designing new sizes and mountings. If your combination is not listed, please contact the factory. We have extensive mounting information available to generate the product you need.

Below is a listing of the attachments that are currently available for New Holland LM430 and LM5000 Series telehandlers. See the "Parts" section of this manual for the assemblies

DESCRIPTION & MOUNT	ASSEMBLY #	NH #	For Model #
Weld-On Adapter (Shown)	12076	741507019	LM430
1.75 Cubic Yard x 96" Bucket (Shown)	11109	741513029	LM430
1.75 Cubic Yard x 96" Bucket (Shown)	12600	749623009	LM5000
2.25 Cubic Yard x 96" Bucket (Shown)	11188	741514029	LM430
2.25 Cubic Yard x 96" Bucket (Shown)	12601	749624009	LM5000
3.25 Cubic Yard x 96" Bucket With Edge (Shown)	12602	749637009	LM5000
96" Bolt-On Cutting Edge (Shown)	11002	749625009	For Bucket #11109, 11188, 12600, 12601
12' Truss Boom (Shown)	12607	749630009	LM5000
48" Complete Versattach With Fork Option (Shown)	11291	741542019	LM430
48" Floating Pin Fork Carriage (Shown)	12598	749626009	LM5000
Bale Spear, Dual Round (Shown)	12108	741525019	LM430
Bale Spear, Dual Round (Shown)	12604	749629009	LM5000
Bale Carriage, Double Square (Shown)	12605	749631009	LM5000
Large Bale Grab (Shown)	12610	749640009	LM5000
Hay Grapple Bucket (Shown)	12603	749638009	LM5000
Silage Defacer (Shown)	12606	749639009	LM5000

PREFACE

GENERAL COMMENTS

Congratulations on the purchase of your new attachment! This product was carefully designed and manufactured to give you many years of dependable service. Only minor maintenance, such as cleaning and lubricating, is required to keep it in top working condition. Be sure to observe all maintenance procedures and safety precautions in this manual and on any safety decals located on the product, and on any equipment on which the attachment is mounted. Also, check load charts before operating the attachment.

This manual has been designed to help you do a better, safer job. Read this manual carefully and become familiar with its contents.

WARNING! Never let anyone operate this unit without reading the “Safety Precautions” and “Operating Instructions” sections of this manual.



Always choose hard, level ground to park the vehicle on, and set the brake so the unit cannot roll.

Unless noted otherwise, right and left sides are determined from the operator’s control position when facing the attachment.

NOTE: The illustrations and data used in this manual were current, according to the information available to us at the time of printing. However, we reserve the right to redesign and change the attachment as may be necessary, without notification.

BEFORE OPERATION

The primary responsibility for safety with this equipment falls to the operator. Make sure the equipment is operated only by trained individuals who have read and understand this manual. If there is any portion of this manual or function that you do not understand, contact your local authorized dealer or the manufacturer.

SAFETY ALERT SYMBOL



This is the “Safety Alert Symbol” used by this industry. This symbol is used to warn of possible injury. Be sure to read all warnings carefully. They are included for your safety and for the safety of others working with you.

SERVICE

When servicing your product, remember to use only manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation.

To facilitate parts ordering, record the model and serial number of your unit in the space provided on the cover of this manual. This information may be obtained from the identification plate located on the product.

The parts department needs this information to ensure that you receive the correct parts for your specific model.

SAFETY STATEMENTS



THIS SYMBOL BY ITSELF OR WITH A WARNING WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



DANGER

THIS SIGNAL WORD IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



WARNING

THIS SIGNAL WORD IS USED WHERE SERIOUS INJURY OR DEATH COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



CAUTION

THIS SIGNAL WORD IS USED WHERE MINOR INJURY COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

NOTICE

NOTICE INDICATES A PROPERTY DAMAGE MESSAGE.

GENERAL SAFETY PRECAUTIONS

WARNING!

READ MANUAL PRIOR TO INSTALLATION



Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual, as well as all manuals related to this equipment and the prime mover thoroughly before beginning installation, operation, or maintenance. **FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE PRIME MOVER'S MANUAL(S).**



READ AND UNDERSTAND ALL SAFETY STATEMENTS

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws, and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing, or operating this equipment.



KNOW YOUR EQUIPMENT

Know your equipment's capabilities, dimensions, and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to ensure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued, or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn or hard to read.

GENERAL SAFETY PRECAUTIONS

WARNING!



PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles, or a face shield when driving pins in or out, or when any operation causes dust, flying debris, or any other hazardous material.

WARNING!



LOWER OR SUPPORT RAISED EQUIPMENT

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels, or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or on blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.

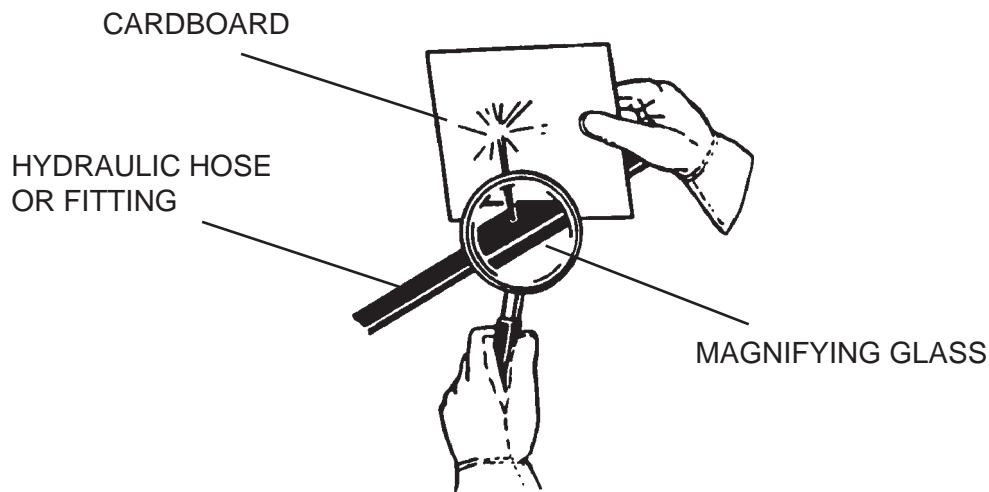
WARNING!



USE CARE WITH HYDRAULIC FLUID PRESSURE

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your prime mover's operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him or her to research it immediately to determine proper treatment.
- Wear safety glasses, protective clothing, and use a piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS! SEE ILLUSTRATION.**



GENERAL SAFETY PRECAUTIONS

WARNING!



DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life, and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any ROPS (Roll Over Protection Structure) or FOPS (Falling Object Protective Structure) equipment or device. Any modifications must be authorized in writing by the manufacturer.

WARNING!



SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tools for the job at hand. Make sure they are in good condition for the task required.
- Wear the protective equipment specified by the tool manufacturer.



SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements. See your machine's manual for these instructions.

- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operator's position.
- Never leave equipment unattended with the engine running, or with this attachment in a raised position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

EQUIPMENT SAFETY PRECAUTIONS

WARNING!



KNOW WHERE UTILITIES ARE

Observe overhead electrical and other utility lines. Be sure equipment will clear them. When digging, call your local utilities for location of buried utility lines, gas, water, and sewer, as well as any other hazard you may encounter.



OPERATING THE PRIME MOVER

Avoid steep hillside operation, which could cause the prime mover to overturn. Consult your machine operator's and safety manuals for maximum incline allowable.

When operating on a slope, keep the load low, and proceed with extreme caution. Do not drive **ACROSS** a steep slope - drive straight up and down.

With a **LOADED** attachment - face the attachment and load uphill.

With an **EMPTY** attachment - face the attachment downhill.



OPERATING ALL ATTACHMENTS

- Operate only from the operator's station with seatbelt properly attached.
- Do not exceed the lifting capacity of your prime mover and attachment. Always observe lift capacity limits listed in machine specifications or on load charts furnished with the prime mover.
- Reduce speed when driving over rough terrain, on a slope, or turning, to avoid overturning the vehicle.
- Never use the attachment for a work platform or personnel carrier.
- An operator must not use drugs or alcohol, which can change his or her alertness or coordination. An operator taking prescription or over-the-counter drugs should seek medical advice on whether or not he or she can safely operate equipment.
- Always check locking pins before operating any attachment.
- Before exiting the prime mover, lower the attachment to the ground, apply the brakes, turn off the prime mover's engine, and remove the key.



TRANSPORTING ALL ATTACHMENTS

- Travel only with the attachment in a safe transport position to prevent uncontrolled movement. Drive slowly over rough ground, and on slopes.
- When driving on public roads, use safety lights, reflectors, Slow Moving Vehicle signs, etc. to prevent accidents. Check local government regulations that may affect you.
- Do not drive close to ditches, excavations, etc., as a cave-in could result.
- Do not smoke when refueling the prime mover. Allow room in the gas tank for expansion. Wipe up any spilled fuel, and secure cap tightly, when done.



MAINTAINING ALL ATTACHMENTS

- Before performing maintenance, lower the attachment to the ground, apply the brakes, turn off the engine, and remove the key.
- Never perform any work on the equipment unless you are authorized and qualified to do so. Always read the operator's and service manual(s) before any repair is made. After completing maintenance or repair, check for correct functioning of the attachment. If not functioning properly, always attach a "DO NOT OPERATE" tag to the machine until all problems are corrected.
- Worn, damaged, or illegible safety decals must be replaced. New safety decals can be ordered from the manufacturer.
- Never make hydraulic repairs while the system is under pressure. Serious personal injury or death could result.
- Never work under a raised attachment.

EQUIPMENT SAFETY PRECAUTIONS



EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA DUST ALONG WITH OTHER HAZARDOUS DUSTS MAY CAUSE SERIOUS OR FATAL RESPIRATORY DISEASE.

It is recommended to use dust suppression, dust collection, and if necessary, personal protective equipment during the operation of any attachment that may cause high levels of dust.

ADDITIONAL EQUIPMENT SAFETY PRECAUTIONS

ADAPTERS

- Check for adapter fit-up compatibility before installation. Have all welding done by an experienced welder, or at a reputable custom fabrication and welding shop. Your judgment in locating, reinforcing, and welding will be necessary to get a secure and safe mounting for your specific attachment.

WARNING! REMOVE PAINT BEFORE WELDING OR HEATING



Hazardous fumes/dust can be generated when paint is heated by welding, soldering or using a torch. Do all work outside or in a well ventilated area and dispose of paint and solvent properly. Remove paint before welding or heating.

When sanding or grinding paint, avoid breathing the dust. Wear an approved respirator. If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

WARNING! CHECK ALL LOCKING PINS



To avoid Serious Personal Injury, make sure all locking pins are completely engaged, and that the attachment is securely latched. Failure to do so could result in separation of the attachment from the telehandler.

BUCKETS

- Be careful when handling loose objects. Lifting too high or rolling the bucket too far back could result in objects sliding rearward, down the arms onto the operator compartment.
- Never undercut a high bank. When working at the base of a bank, overhang, or stockpile, avoid dangers such as rock or earth slides, overhanging trees, or a cave-in, by proper job operation.

TRUSS BOOMS

- Be careful when handling large/loose objects. Lifting too high or rolling the boom too far back could result in these objects swinging. Swinging loads can cause vehicle tipover, which can result in serious injury or death.
- Do not use for towing or pulling horizontally.

EQUIPMENT SAFETY PRECAUTIONS

FORK CARRIAGES

- Always space the forks correctly for the load. Loads can fall off incorrectly spaced forks. Make sure the forks are completely under the load before lifting.
- Be careful when handling large/loose objects. Lifting too high or rolling forks too far back could result in these objects falling back on the operator. Unsecured loads can cause vehicle tipover, which can result in serious injury or death.
- Do not use the fork tines for prying or any purpose other than lifting.
- Never stack loads on uneven ground. Loads stacked on uneven ground can topple.
- Never lift a load with one fork. A load lifted with one fork can slip off and cause injury.
- Secure loads properly. Unsecured loads can fall unexpectedly. When transporting a load, keep the forks as close to the ground as possible.
- Keep the lifting surface of the forks level at all times.
- Do not handle round bales with fork lift tines.
- Don't obstruct your vision when traveling or working. Carry the forks low for maximum stability and visibility.

COMPLETE VERSATTACH WITH FORK OPTION

- Keep the attachment as close to the ground as possible (within 2-3 inches) during all "LOCK" and "UNLOCK" operations.
- Do a visual check each time the locking operation is performed, to verify completely the engagement of both locking pins. The attachment may drop without warning, if not properly attached.
- Move the valve handle for attachment operation after verifying that the attachment is securely attached to the versattach hitch.

BALE SPEAR AND BALE CARRIAGE

- Be careful when handling loose objects. When you have bales stacked, the top bale can fall off if you make a sharp turn, make a sudden stop, or roll the carriage too far back.
- Never stack loads on uneven ground. Loads stacked on uneven ground can topple.
- Do not handle more bales than your attachment was designed to lift.
- Be sure stack and load heights do not exceed the lifting capabilities of your telehandler.
- Always spear bales (round or square) with a slight downward motion. Spearing bales with a 5° angle on the spike will allow the bale to be dropped off the spike easier.
- Spear bales 1/4 to 1/2 the way up from the bottom edge of bale.
- Never use your telehandler to stop a rolling bale.
- Park and store these attachments with tines pointed down or against a bale, building, or other stable object.

LARGE BALE GRAB

- Never stack loads on uneven ground. Loads stacked on uneven ground can topple.

HAY GRAPPLE BUCKET

- Be careful when handling loose objects. Lifting too high or rolling the bucket too far back could result in objects sliding rearward, down the arms onto the operator compartment.

SILAGE DEFACER

- Clear the work area of all bystanders before operation.

INSTALLATION AND OPERATION

ATTACHING AND DETACHING EQUIPMENT

Please see your vehicle operator's manual for instructions on attaching and detaching your equipment.

WARNING!



To prevent serious personal injury or death, only attach equipment that is designed for your prime mover.

Specified lift capacities must not be exceeded, otherwise machine stability will not be sufficient. Always observe lift capacity limits listed in machine specifications.

OPERATING ALL ATTACHMENTS

- Read all Safety Precautions before operating your new attachment.
- For personal safety, lower the attachment to the ground, set the parking brake, shut off engine, and remove key before getting off of your prime mover.

SPECIAL OPERATING CONSIDERATIONS:

BUCKET OPERATION

A cutting edge assembly is recommended when operating on hard abrasive surfaces.

TRUSS BOOM OPERATION

Do not use the truss boom for towing or pulling horizontally.

WARNING! LARGE OR LOOSE OBJECTS



Use extreme caution when lifting large and/or loose objects. Lifting too high or rolling the boom back could result in these objects swinging. Swinging loads can cause vehicle tipover, which can result in serious injury or death.

ALL ATTACHMENTS WITH CYLINDERS

IMPORTANT: If your hydraulically operated attachment tilts or starts to drift due to oil leakage within the cylinder assembly, discontinue use until the problem has been corrected.

INSTALLATION AND OPERATION

FORK CARRIAGE OPERATION

There are two different fork carriage frames (fixed or floating) available, along with different length fork tines.

1. Approach the load in such a fashion that the weight will be centered between the fork tines. The heaviest side should be closest to the fork frame, and not near the tips of the fork tines.
2. Before lifting, make certain the fork tines are completely under the load, and level.
3. Lift the load slightly to make sure the load is stable. If the load appears unstable, lower and reposition the tines to achieve full stability.
4. Raise the telehandler to the MINIMUM height required for the terrain.
5. During material handling:
 - keep the fork tines level.
 - stop and start the telehandler gradually.
 - slow down before turning.
 - avoid obstacles, bumps, or holes.
6. Check the load frequently to ensure stability.

WARNING! Never exceed the recommended lifting capacity of any approved fork tines or the prime mover.



NOTE: Fork tine capacities are pounds per pair at a 24” load center. (The center of gravity of the allowable loads must be applied within the first 24” of the fork tines when measured from the front face of the vertical section of the fork tine out toward the tip of the horizontal section of the fork tine.)

INSTALLATION AND OPERATION

BALE SPEAR OPERATION

The bale spears are designed to handle up to 2 (two) round or 1 (one) square bale. Assembly #12108 is compatible with a LM430 telehandler, and Assembly #12604 is compatible with LM5000 Series telehandlers.

1. Always spear bales with a slightly downward motion. Spearing bales with a 5° angle on the spear, and lowering the boom as the spear is entering the bale(s) will allow the bale(s) to be dropped off the spear easier.
2. Push the spear(s) into the bale until the bale is against the frame.
3. Raise and roll back bale just high enough to provide ground clearance.
NOTE: If bale appears to be unstable, lower the bale, remove the spears and repeat steps 1 & 2 until the bale is secure. Stop and start loader gradually when lowering or lifting loads.
4. Operate the attachment only when properly seated at the operator's station.

BALE CARRIAGE (DOUBLE SQUARE) OPERATION

The large bale carriage was designed for handling two (2) large square bales, stacked one on top of the other. When handling bales, do not make sharp turns, sudden stops, or roll the carriage too far back.

1. Always spear square bales with a slightly downward motion 1/4 to 1/2 of the way up from the bottom edge of the bale. Spearing bales with a 5° angle on the spears, and lowering the boom as the spears are entering the bales will allow the bales to be dropped off the spears easier.
NOTE: Only handle the type and quantity of bales that your attachment was designed to lift.
2. Push the spears into the bales until the bales are against the frame.
3. Raise and roll back bale just high enough to provide ground clearance.
NOTE: If bales appear to be unstable, lower the bales, remove the spears, and repeat steps 1 & 2 until the bales are secure. Stop and start the telehandler gradually when lowering or lifting loads.

HAY GRAPPLE BUCKET OPERATION

Be careful when handling loose objects, lifting too high, or rolling the attachment too far back.

INSTALLATION AND OPERATION

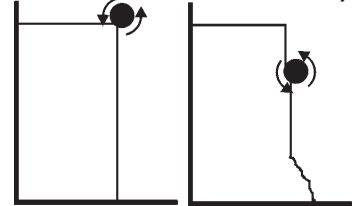
SILAGE DEFACER OPERATION

The silage defacer was designed to loosen haylage and silage from a tightly compacted bunker. It maintains a smooth, compacted bunker-face for reduced spoil, and the open design allows the operator to see the bunker face and the surrounding work area.

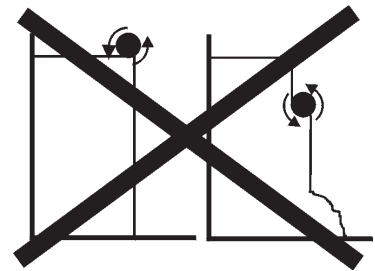
There are guides on the end of each arm to limit the depth of each cut. The guides can be easily adjusted by loosening the bolts and sliding the guide in or out until the desired cutting depth is reached.

1. Clear the area of all bystanders, and engage the defacer only from the operator's station.
2. Position the defacer at the top of the bunker and engage the auxiliary hydraulics. When the defacer has reached full speed, slowly lower into the silage at the desired cutting depth. Do not deface more than 1"-3" of material on each pass, depending on the material.
3. Keep defacer level while it is lowering, to help maintain an even cut.
4. Repeat steps #1 through #3 until the desired amount of silage has been obtained.

PROPER OPERATION (1"-3" MATERIAL PER PASS)



IMPROPER OPERATION



Silage Defacer Operating Tips

1. For best results do not force the defacer down through the material, but allow gravity and the removal of material to determine the downward speed.
2. To prevent attachment and property damage, avoid direct contact of tines with bunker walls and floor.
3. Due to silage piling up on the ground, to obtain a clean cut of the entire bunker face, you may wish to first cut the bottom 4 feet, and then reposition the defacer at the top, and finish the downward cut.
4. A 2" depth of cut is recommended to avoid stalling, and to obtain a clean face.

DANGER! ROTATING HAZARD! To prevent serious injury or death:



- Clear area of all bystanders.
- Operate the attachment only when properly seated at the operator's station. Before exiting the prime mover, lower the defacer to the ground, turn off the prime mover's engine, remove the key and apply the brakes.
- Do not leave operator's station until all movement has stopped.

INSTALLATION AND OPERATION

COMPLETE VERSATTACH WITH FORK OPTION OPERATION

The 48" Versattach #11291 is designed to be used as a fork carriage or a versattach hitch, when the forks and fork pin are removed.

Versattach Operation

The valve handle on the directional valve on the back of the versattach hitch switches the auxiliary hydraulics of your telehandler to activate either the locking pins or the attachment.

1. Once the hitch has been properly installed onto your LM430 telehandler, see "Attaching and Detaching Equipment", connect the two 36.50" hoses to the auxiliary hydraulics on your telehandler. Position the valve handle for activating the locking pins.
2. Install your desired attachment by following the operator's manual for your versattach attachment.

WARNING! Keep the attachment as close to the ground as possible (within 2-3 inches) during all "LOCK" and "UNLOCK" operations.



3. Secure the attachment onto the hitch by activating the locking pins.

WARNING! A visual check is required each time the locking operation is performed, to verify completely the engagement of both locking pins. The attachment may drop without warning, if not properly attached.



4. After verifying that the attachment is securely attached to the versattach hitch, move the valve handle for attachment operation.

NOTE: This will prevent inadvertently activating the locking pins during attachment operation.

5. Following all standard safety practices and the instructions in your attachment operator's manual, complete any hydraulic connections, (if required), on your attachment.

NOTE: Connect attachment auxiliary hydraulic couplers to the 3/8 body FF quick couplers on the top of the directional valve for attachment operation.

OPTIONAL FORK INSTALLATION AND OPERATION

1. Once the hitch has been properly installed onto your LM430 telehandler, see "Attaching and Detaching Equipment", connect the two 36.50" hoses to the auxiliary hydraulics on your telehandler.
2. Remove the ring grip pins from both sides of the frame and "open" the fork pin release handles.
3. On a hard, level surface, position the forks approximately 8" - 10" from each end of the fork pin.
4. With the versattach hitch tilted forward, slowly drive up to the fork pin and forks, aligning the fork pin notches on the hitch frame with the fork pin. When the fork pin is completely positioned in the hitch, roll the hitch back until the forks are off the ground slightly and the pin is seated in the frame.
5. Before exiting the telehandler, turn off the engine, apply the brakes, and remove the key.
6. Lock fork pin into place by "closing" the fork pin release handles and re-installing the ring grip pins to prevent the handles from inadvertently opening.
7. See "Fork Carriage Operation".

INSTALLATION AND OPERATION TROUBLESHOOTING

ATTACHMENTS WITH HYDRAULICS

<i>PROBLEM</i>	<i>POSSIBLE CAUSE</i>	<i>POSSIBLE REMEDY</i>
Excessive oil temperature.	1. Hydraulic oil level too low.	• Refer to skid-steer's owners manual.
	2. Obstruction in hydraulic lines.	• Remove obstruction and replace, if necessary.
	3. Couplers not engaged correctly.	• Engage couplers.
	4. Hydraulic system overloaded, and system relief open.	• Reduce load.

A Hydraulic cylinder not operating.	1. Insufficient hydraulic flow from the prime mover.	• Refer to prime mover's owners manual.
	2. Cylinder rod bent.	• Visually inspect the cylinder for damage.
	3. Cylinder seals damaged.	• Replace cylinder seals.
	4. Obstruction in hydraulic lines.	• Remove obstruction and replace, if necessary.

COMPLETE VERSATTACH WITH FORK OPTION

<i>PROBLEM</i>	<i>POSSIBLE CAUSE</i>	<i>POSSIBLE REMEDY</i>
Locking pins not engaging correctly.	1. Locking pins bent or installed incorrectly.	• Inspect pins and reinstall or replace, as necessary.
	2. Hydraulic cylinder damaged.	• Repair or replace as necessary.
	3. Couplers not completely engaged at valve.	• Engage couplers.

Locking pins not functioning.	1. Selector handle on directional valve not in correct position for locking pin operation.	• Check handle and position for locking pin operation.
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Attachment not operating.	1. Handle on directional valve not in correct position for attachment operation.	• Check for complete engagement of handle.
	2. Valve failure.	• Replair or replace, as necessary.
	3. Valve seals damaged.	• Replace valve seals.

HAY GRAPPLE

<i>PROBLEM</i>	<i>POSSIBLE CAUSE</i>	<i>POSSIBLE REMEDY</i>
Grapple not opening.	1. Hoses hooked up incorrectly.	• Check hoses, and change hoses around on one cylinder only.
	2. Hydraulic oil flow obstructed.	• Check hose for pinching and reposition, as necessary. Check for hose damage. • Check for obstruction in hydraulic lines and remove, as necessary..
	3. Cylinder rod bent.	• Visually inspect the cylinder for damage.

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INSTALLATION AND OPERATION TROUBLESHOOTING

SILAGE DEFACER

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Excessive noise.	1. Bearings worn and "squeaking".	• Check and replace, as necessary.
	2. Cutters bent.	• Repair or replace.
Decreased performance.	1. Chain loose.	• See "Troubleshooting Loose Chain".
	2. Cutters damaged.	• Check blades and repair or replace, as necessary. See "Silage Defacer Operation" in the "Installation and Operation" section of this manual.
Cutters not turning.	1. Chain broken.	• Repair or replace.
	2. Drive motor failure.	• Repair or replace.
	3. Drive motor key broken.	• Replace key.
	4. Sprocket damaged.	• Replace sprocket.
Loose Chain.	1. Cam lock not tight.	• Re-tension chain, and tighten mounting bolts on cam lock.
	2. Sprocket, bearing, or chain worn.	• Check, and replace any worn parts.

MAINTENANCE & SERVICE

GENERAL INFORMATION

Regular maintenance is the key to long equipment life and safe operation. Maintenance requirements have been kept to an absolute minimum. However, it is very important that these maintenance functions be performed as described in this section.

DAILY

- Check all bolts and nuts for tightness.
- Replace any missing bolts or nuts with approved replacement parts.
- Check hydraulic system for hydraulic oil leaks. See procedure below.
- Visually inspect the machine for worn parts or cracked welds, and repair, as necessary.

LUBRICATION

The only lubrication your attachment may need is the greasing of the cylinder ends and most pivot points. A grease fitting has been installed to facilitate this task. Following is a list of each of the attachments in this manual that require lubricating, and the number of grease fittings. We recommended that all grease fittings be lubricated after the initial 8 hours of operation, and then after every 40 hours of use thereafter.

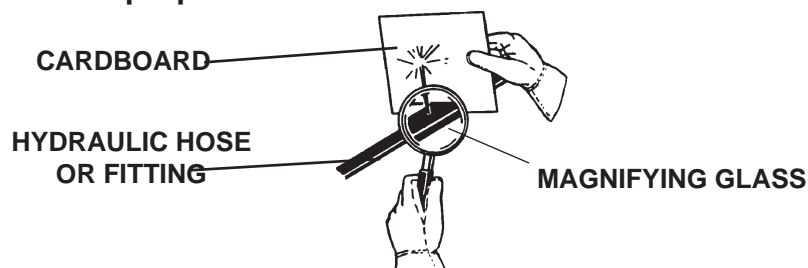
- Complete Versattach With Fork Options #11291 - 4 (one fitting on each locking pin, and one on each end of cylinder).
- Large Bale Grab #12610 - 4 (one fitting on each end of cylinders).
- Hay Grapple Bucket #12603 - 6 (one fitting on each pivot pin, and one on each end of cylinders).
- Silage Defacer #12606 - 2 (One fitting on each flange and bearing set).

WARNING! Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands to search for suspected leaks.



Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.

If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him or her to research it immediately to determine proper treatment.



IMPORTANT: When replacing parts, use only factory approved replacement parts. Manufacturer will not claim responsibility for use of unapproved parts or accessories and/or other damages as a result of their use.

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MAINTENANCE & SERVICE

DECAL IDENTIFICATION AND REPLACEMENT

Decal placement and identification for all of the attachments can be found on the parts diagrams and lists located at the back of this manual. The decals are identified by their part numbers with reductions of the actual decals located on the page. Use this information to order replacements for missing, illegible or damaged decals. When replacing parts with safety signs attached, the safety sign must also be replaced. All Safety Decals are free of charge. Contact your New Holland dealer for replacements.

REPLACING SAFETY SIGNS:

1. Clean the area of application with nonflammable solvent.
2. Wash the same area with soap and water, and then allow the surface to fully dry.
3. Remove the backing from the safety sign, exposing the adhesive surface.
4. Apply the safety sign to the location shown in the parts diagram, and smooth out bubbles.

Helpful Hints: (1) *Decals adhere to a warm surface better than a cold surface.* (2) *Applying heat (from a hair dryer) will greatly improve your ability to remove a damaged decal before preparing the surface for installation of a new one.*

MONTHLY OR EVERY 40 HOURS OF OPERATION

- Check all bolts, nuts and bearings for tightness. Tighten or replace, as needed.
- Clean equipment of dirt, oil, grease, etc. This will assist you in making a visual inspection, and help avoid overlooking worn or damaged components.
- Adjust and lubricate the drive chain on the Silage Defacer (Assembly #12606). (See Chain Adjustment.) **To lubricate the drive chain:** Remove the top chain cover and spray a chain lubricant along the top of the upper and lower portion of the drive chain.

WARNING! DO NOT OPERATE THE SILAGE DEFACER DURING ANY MAINTENANCE, OR WHILE THE TOP CHAIN COVER IS REMOVED.



- Adjust the shoe weldments on the silage defacer so material is removed, but the shoe is never less than 1/2" shorter than the blades.

CHAIN ADJUSTMENT ON SILAGE DEFACER (ASSEMBLY #12606)

We recommend adjusting the chain on the silage defacer after the initial 4 hours, and then monthly thereafter. **To Adjust the Chain:** Remove the top chain cover and loosen the two bolts on the motor mounting plate, and the one bolt on the cam lock. Insert a 1/2" ratchet into the cam lock, and rotate until the chain is tight. (A properly adjusted chain will have a minimal amount of chain deflection. Over-tensioning will cause premature wear.) **NOTE: If all of the cam lock adjustment is used and the chain and sprocket are still serviceable, you can remove a "half link" from the chain at the master link location.**

MAINTENANCE AND SERVICE

CYLINDER SEAL REPLACEMENT

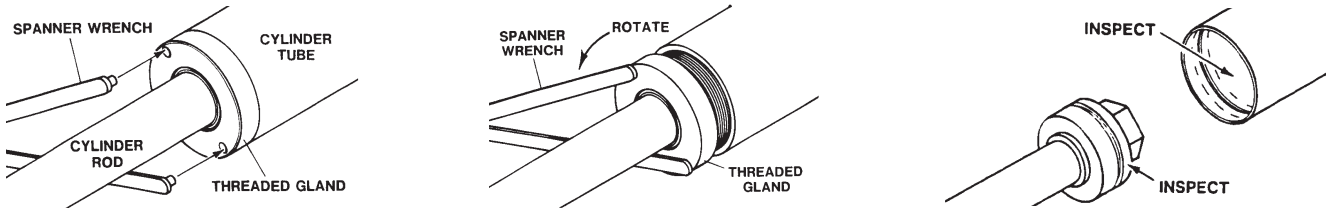
The following information is provided to assist you in the event you should need to repair or rebuild a hydraulic cylinder. When working on hydraulic cylinders, make sure that the work area and tools are clean and free of dirt to prevent contamination of the hydraulic system and damage to the hydraulic cylinders. Always protect the active part of the cylinder rod (the chrome section). Nicks or scratches on the surface of the rod could result in cylinder failure. Clean all parts thoroughly with a cleaning solvent before reassembly.

DISASSEMBLY PROCEDURE

IMPORTANT: Do not contact the active surface of the cylinder rod with the vise. Damage to the rod could result.

THREADED TYPE GLAND

1. Rotate the gland with a spanner wrench counterclockwise until the gland is free of the cylinder tube.
2. Pull the cylinder rod from the cylinder tube and inspect the piston and the bore of the cylinder tube for deep scratches or galling. If damaged, the piston AND the cylinder tube must be replaced.



3. Remove the hex nut, piston, flat washer or spacer tube (if so equipped), and gland from the cylinder rod. If the cylinder rod is rusty, scratched, or bent, it must be replaced.
4. Remove and discard all the old seals.

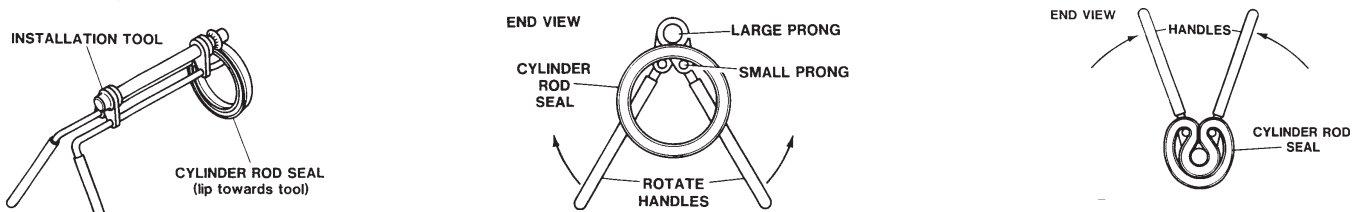


ASSEMBLY PROCEDURE

IMPORTANT: Replace all seals even if they do not appear to be damaged. Failure to replace all seals may result in premature cylinder failure. **NOTE:** Seal kits will service most cylinders of similar bore size and rod diameter.

1. Install the cylinder rod seal in the gland first. Be careful not to damage the seal in the process, as it is somewhat difficult to install.

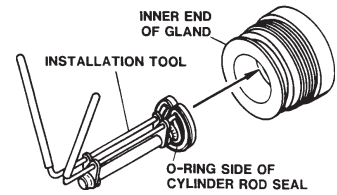
NOTE: A special installation tool (Part #65349) is available to help with installing the seal. Simply fit the end of the tool over the seal so that the large prong of the tool is on the outside of the seal, and the two smaller prongs on the inside. The lip of the seal should be facing towards the tool. Rotate the handles on the tool around to wrap the seal around the end of the tool.



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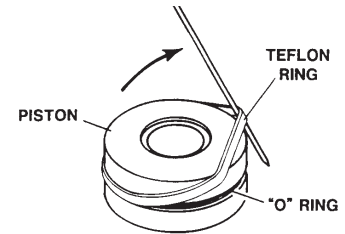
MAINTENANCE AND SERVICE

Now insert the seal into the gland from the inner end. Position the seal in its groove, and release and remove the tool. Press the seal into its seat the rest of the way by hand.



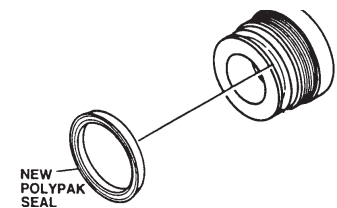
- Install the new piston ring, rod wiper, O-rings and backup washers, if applicable, on the piston.

Be careful not to damage the seals. Caution must be used when installing the piston ring. The ring must be stretched carefully over the piston with a smooth, round, pointed tool.



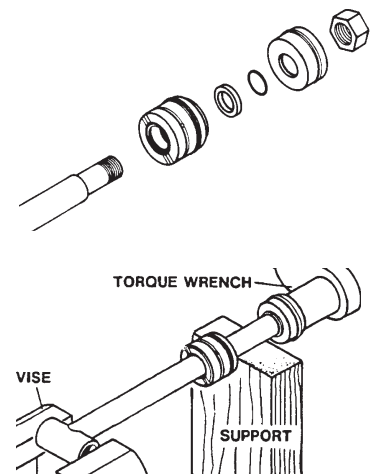
- After installing the rod seal inside the gland, as shown in step #1, install the external seal.

NOTE: Threaded glands may have been equipped with a separate O-ring and backup washer system or a polypak (all in one) type seal. Current seal kits contain a polypak (all in one) type seal to replace the discarded seal types on ALL THREADED GLANDS.



- Slide the gland onto the cylinder rod, being careful not to damage the rod wiper. Then install the spacer, or flat washer (if so equipped), small o-ring, piston, and hex nut onto the end of the cylinder rod.
- Secure the cylinder rod (mounting end) in a vise with a support at its center. Torque the nut to the amount shown for the thread diameter of the cylinder rod (see chart).

Thread Diameter	POUNDS - FEET
7/8"	150-200
*1"	230-325
1-1/8"	350-480
1-1/4"	490-670
1-3/8"	670-900
* 1" Thread Diameter WITH 1.25" Rod Diameter Min. 230 ft. lbs. Max. 250 ft. lbs.	



IMPORTANT: Do not contact the active surface of the cylinder rod with the vise. Damage to the rod could result.

- Apply a lubricant (such as Lubriplate #105) to the piston and teflon ring. Insert the cylinder rod assembly into the cylinder tube.

IMPORTANT: Ensure that the piston ring fits squarely into the cylinder tube and piston groove, otherwise the ring may be damaged and a leak will occur.

- Use a spanner wrench to rotate the gland clockwise into the cylinder. Continue to rotate the gland with the spanner wrench until it is tight.

WARNING! Cylinders serviced in the field are to be tested for leakage prior to the attachment being placed in work. Failure to test rebuilt cylinders could result in damage to the cylinder and/or the attachment, cause severe personal injury or even death.



SPECIFICATIONS

BUCKET SPECIFICATIONS				
	11109 <u>NH #741513029</u>	12600 <u>NH #749623009</u>	11188 <u>NH #741514029</u>	
Overall Height (inches)	38.59	37.64	41.67	
Overall Width (inches)	96	96	96	
Overall Length (inches)	38.15	41.35	45.12	
Capacity (cubic yards)	1.75	1.75	2.25	
Attachment Weight (lbs.)	1,075	1,215	1,225	
Shipping Weight (lbs.)	1,225	1,295	1,375	
	12601 <u>NH #749624009</u>	12602 <u>NH #749637009</u>		
Overall Height (inches)	41.67	43.72		
Overall Width (inches)	96	96		
Overall Length (inches)	48.26	61.23		
Capacity (cubic yards)	2.25	3.25		
Attachment Weight (lbs.)	1,340	1,526		
Shipping Weight (lbs.)	1,410	1,610		
TRUSS BOOM SPECIFICATIONS	COMPLETE VERSATTACH & FORK CARRIAGE SPECIFICATIONS			
	12607 <u>NH #749630009</u>	11291 <u>NH #741542019</u>	12598 <u>NH #749626009</u>	
Overall Height (inches)	29.82	Overall Height (inches) Without Forks	42.61	
Overall Width (inches)	36.50	Overall Width (inches)	48.87	
Overall Length (inches)	152.47	Attachment Weight (lbs.) Without Forks	52.97	
Attachment Weight (lbs.)	373	Shipping Weight (lbs.) Without Forks	640	
Shipping Weight (lbs.)	447		530	
			580	
BALE SPEAR SPECIFICATIONS	BALE CARRIAGE SPECIFICATIONS			
	12108 <u>NH #741525019</u>	12604 <u>NH #749629009</u>	12605 <u>NH #749631009</u>	
Overall Height (inches)	33.50	27.68	Overall Height (inches)	69.00
Overall Width (inches)	67.75	67.75	Overall Width (inches)	72.00
Overall Length (inches)	55.54	54.34	Overall Length (inches)	63.94
Stabilizing Tines	4	4	Stabilizing Tines	--
Primary Tines	2	2	Primary Tines	4
Attachment Weight (lbs.)	373	410	Attachment Weight (lbs.)	854
Shipping Weight (lbs.)	393	490	Shipping Weight (lbs.)	940
LARGE BALE GRAB SPECIFICATIONS	HAY GRAPPLE BUCKET SPECIFICATIONS	SILAGE DEFACER SPECIFICATIONS		
	12610 <u>NH #749640009</u>	12603 <u>NH #749638009</u>	12606 <u>NH #749639009</u>	
Overall Height (inches)	95.00	Overall Height (inches)	59.42	
Overall Width (inches)	84.75	Overall Width (inches)	96.00	
Overall Length (inches)	35.55	Overall Length (inches)	65.55	
Stabilizing Tines	4	Grapple Opening	74.72	
Primary Tines	5	Capacity (cubic yards)	2.15	
Attachment Weight (lbs.)	1,042	Attachment Weight (lbs.)	2,210	
Shipping Weight (lbs.)	1,150	Shipping Weight (lbs.)	2,310	
		Overall Height (inches)	24.50	
		Overall Width (inches)	96.00	
		Overall Length (inches)	59.46	
		Cutting Width	96	
		Attachment Weight (lbs.)	733	
		Shipping Weight (lbs.)	810	




BOLT TORQUE SPECIFICATIONS

GENERAL TORQUE SPECIFICATION TABLES

Use the following charts when determining bolt torque specifications when special torques are not given. Always use grade 5 or better when replacing bolts.




SAE BOLT TORQUE SPECIFICATIONS

NOTE: The following torque values are for use with extreme pressure lubricants, plating or hard washer applications. Increase torque 15% when using hardware that is unplated and either dry or lubricated with engine oil.

Bolt Size		SAE GRADE 5 TORQUE				SAE GRADE 8 TORQUE				Bolt head identification marks as per grade. NOTE: Manufacturing Marks Will Vary
		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		
Inches	Millimeters	UNC	UNF	UNC	UNF	UNC	UNF	UNC	UNF	
1/4	6.35	8	9	11	12	10	13	14	18	<p>GRADE 2</p>  <p>GRADE 5</p>  <p>GRADE 8</p> 
5/16	7.94	14	17	19	23	20	25	27	34	
3/8	9.53	30	36	41	49	38	46	52	62	
7/16	11.11	46	54	62	73	60	71	81	96	
1/2	12.70	68	82	92	111	94	112	127	152	
9/16	14.29	94	112	127	152	136	163	184	221	
5/8	15.88	128	153	174	207	187	224	254	304	
3/4	19.05	230	275	312	373	323	395	438	536	
7/8	22.23	340	408	461	553	510	612	691	830	
1	25.40	493	592	668	803	765	918	1037	1245	
1-1/8	25.58	680	748	922	1014	1088	1224	1475	1660	
1-1/4	31.75	952	1054	1291	1429	1547	1700	2097	2305	
1-3/8	34.93	1241	1428	1683	1936	2023	2312	2743	3135	
1-1/2	38.10	1649	1870	2236	2535	2686	3026	3642	4103	

METRIC BOLT TORQUE SPECIFICATIONS

NOTE: The following torque values are for use with metric hardware that is unplated and either dry or lubricated with engine oil. Reduce torque 15% when using hardware that has extreme pressure lubricants, plating or hard washer applications.

Bolt head identification marks as per grade.		
		

Size of Bolt	Grade No.	Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	5.6	1.0	3.6-5.8	4.9-7.9	-	-	-
	8.8		5.8-4	7.9-12.7		-	-
	10.9		7.2-10	9.8-13.6		-	-
M8	5.6	1.25	7.2-14	9.8-19	1.0	12-17	16.3-23
	8.8		17-22	23-29.8		19-27	25.7-36.6
	10.9		20-26	27.1-35.2		22-31	29.8-42
M10	5.6	1.5	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	8.8		34-40	46.1-54.2		35-47	47.4-63.7
	10.9		38-46	51.5-62.3		40-52	54.2-70.5
M12	5.6	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	8.8		51-59	69.1-79.9		56-68	75.9-92.1
	10.9		57-66	77.2-89.4		62-75	84-101.6
M14	5.6	2.0	49-56	66.4-75.9	1.5	52-64	70.5-86.7
	8.8		81-93	109.8-126		90-106	122-143.6
	10.9		96-109	130.1-147.7		107-124	145-168
M16	5.6	2.0	67-77	90.8-104.3	1.5	69-83	93.5-112.5
	8.8		116-130	157.2-176.2		120-138	162.6-187
	10.9		129-145	174.8-196.5		140-158	189.7-214.1
M18	5.6	2.0	88-100	119.2-136	1.5	100-117	136-158.5
	8.8		150-168	203.3-227.6		177-199	239.8-269.6
	10.9		175-194	237.1-262.9		202-231	273.7-313
M20	5.6	2.5	108-130	146.3-176.2	1.5	132-150	178.9-203.3
	8.8		186-205	252-277.8		206-242	279.1-327.9
	10.9		213-249	288.6-337.4		246-289	333.3-391.6

STORAGE

GENERAL INFORMATION

The following storage procedure will help you to keep your attachment in top condition. It will also help you get off to a good start the next time your equipment is needed. We therefore strongly recommend that you take the extra time to follow these procedures whenever your attachment will not be used for an extended period of time.

PREPARATION FOR STORAGE

1. Clean the attachment thoroughly, removing all mud, dirt, and grease.
2. Inspect for visible signs of wear, breakage, or damage. Order any parts required, and make the necessary repairs, to avoid delays when starting next season.
3. Tighten all loose nuts, capscrews, and hydraulic connections.
4. Lubricate all grease fittings.
5. Coat the exposed portions of the cylinder rods with grease.
6. Connect the hydraulic couplers together, or install covers, to protect the hydraulic system from contaminants.
7. Touch up all unpainted and exposed areas with paint, to prevent rust.
8. Replace decals, if damaged or in unreadable condition.
9. Store the attachment in a dry and protected place, with a cover, if possible. Leaving the attachment outside will materially shorten its life.

REMOVING FROM STORAGE

1. Remove all protective coverings.
2. Check hydraulic hoses for deterioration, and replace if necessary.

LIMITED WARRANTY

All new Major products are warranted to be free from defects in materials or workmanship which may cause failure under normal usage and service, when used for the purpose intended.

In the event of failure within twelve (12) months from initial retail sale, lease or rental date (excluding cable, ground engaging parts such as sprockets, digging chain, bearings, teeth, tamping and demolition heads, blade cutting edges, pilot bits, auger teeth, auger heads & broom bristles), if after examination, The Major determines failure was due to defective material and/or workmanship, parts will be repaired or replaced. The Major may request defective part or parts be returned prepaid to them for inspection at their place of business at Delhi, Iowa, or to a location specified by The Major.

Any claims under this warranty must be made within fifteen (15) days after the Buyer learns of the facts upon which such claim is based. All claims not made in writing and received by The Major within the time period specified above shall be deemed waived.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, AND THERE ARE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE MAJOR BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGE.

THE MAJOR'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES TO BUYER, RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING THE MAJOR'S NEGLIGENCE, IRRESPECTIVE OF WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PARTICULAR PRODUCTS WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED, OR, AT THE ELECTION OF THE MAJOR, THE REPAIR OR REPLACEMENT OF DEFECTIVE OR DAMAGED PRODUCTS.

PARTS

The following section contains detailed diagrams and parts lists which include your attachment. Please use these diagrams and parts lists to locate replacement parts, prior to contacting the parts department.

When servicing your attachment, remember to use only original manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation.

To facilitate parts ordering, have the model and serial number of your product ready, to ensure that you receive the correct parts for your specific attachment.

The model and serial number for your attachment should be recorded in the space provided on the cover of this manual. This information may be obtained from the serial number identification plate located on your attachment. **See the parts diagram for your attachment for the location.**

NOTE: Most daily and emergency orders received by 2:00 P.M. will be shipped the same day received, with “Emergency-Machine-Down” orders receiving first priority.



PARTS DEPARTMENT

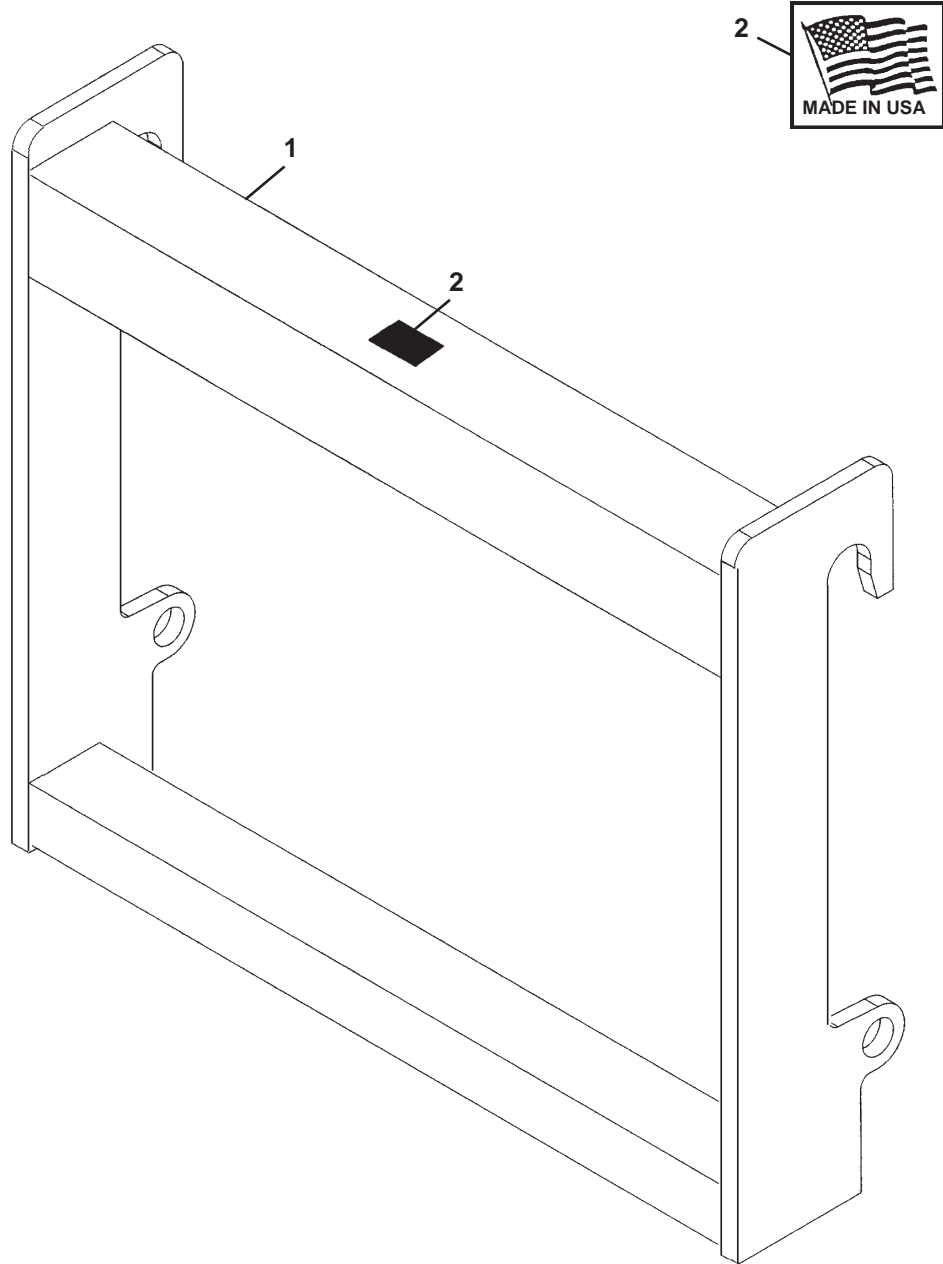
(563) 922-2981

(800) 922-2981

We Encourage Fax Orders

(563) 922-2593

WELD-ON ADAPTER
ASSEMBLY #12076 - NH #741507019
LM430 TELEHANDLER



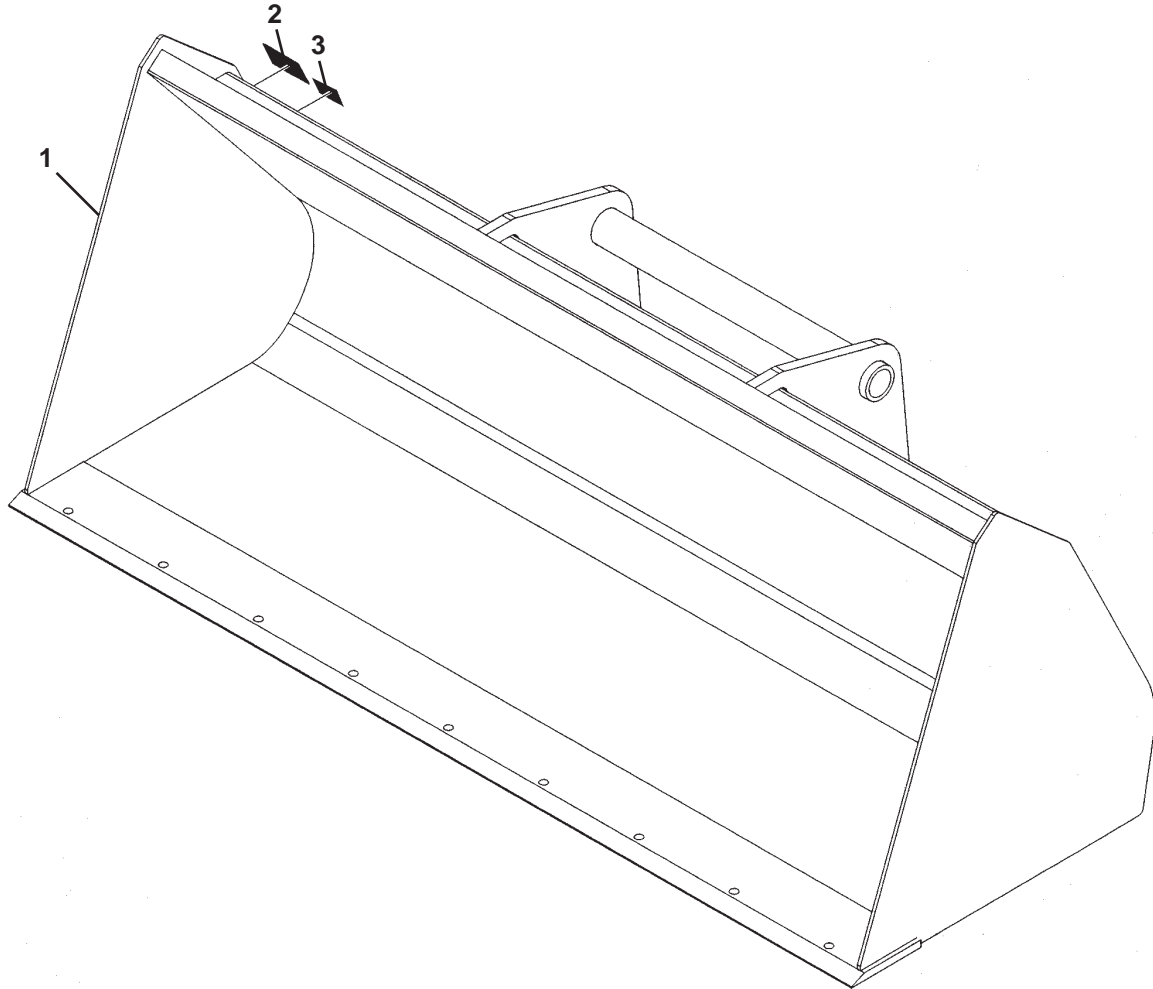
<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	32962	Adapter
2	1	4338	Made in USA Decal

M-1822 3-27-08

1.75 CUBIC YARD X 96" LIGHT MATERIAL BUCKET

ASSEMBLY #12600 - NH #749623009

LM5000 SERIES TELEHANDLERS



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	312265	1.75 Cubic Yard x 96" Bucket
2	1	-----	Serial Number Identification Tag Location
3	1	4338	Made in USA Decal

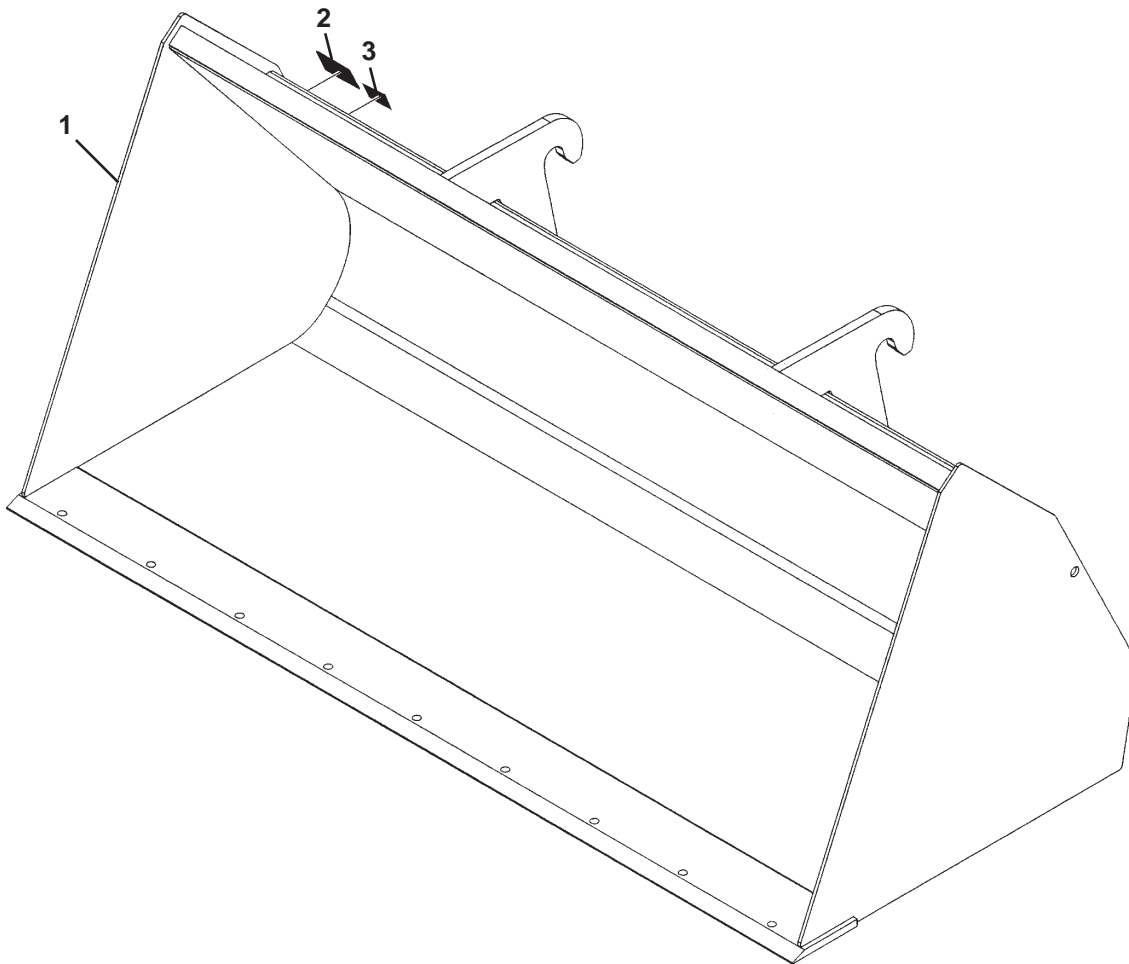
NOTE: Optional cutting edge #11002 (NH #749625009) is available for this bucket.

M-1808 1-10-08

2.25 CUBIC YARD X 96" LIGHT MATERIAL BUCKET

ASSEMBLY #11188 - NH #741514029

LM430 TELEHANDLER



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	104720	2.25 Cubic Yard x 96" Bucket
2	1	-----	Serial Number Identification Tag Location
3	1	4338	Made in USA Decal

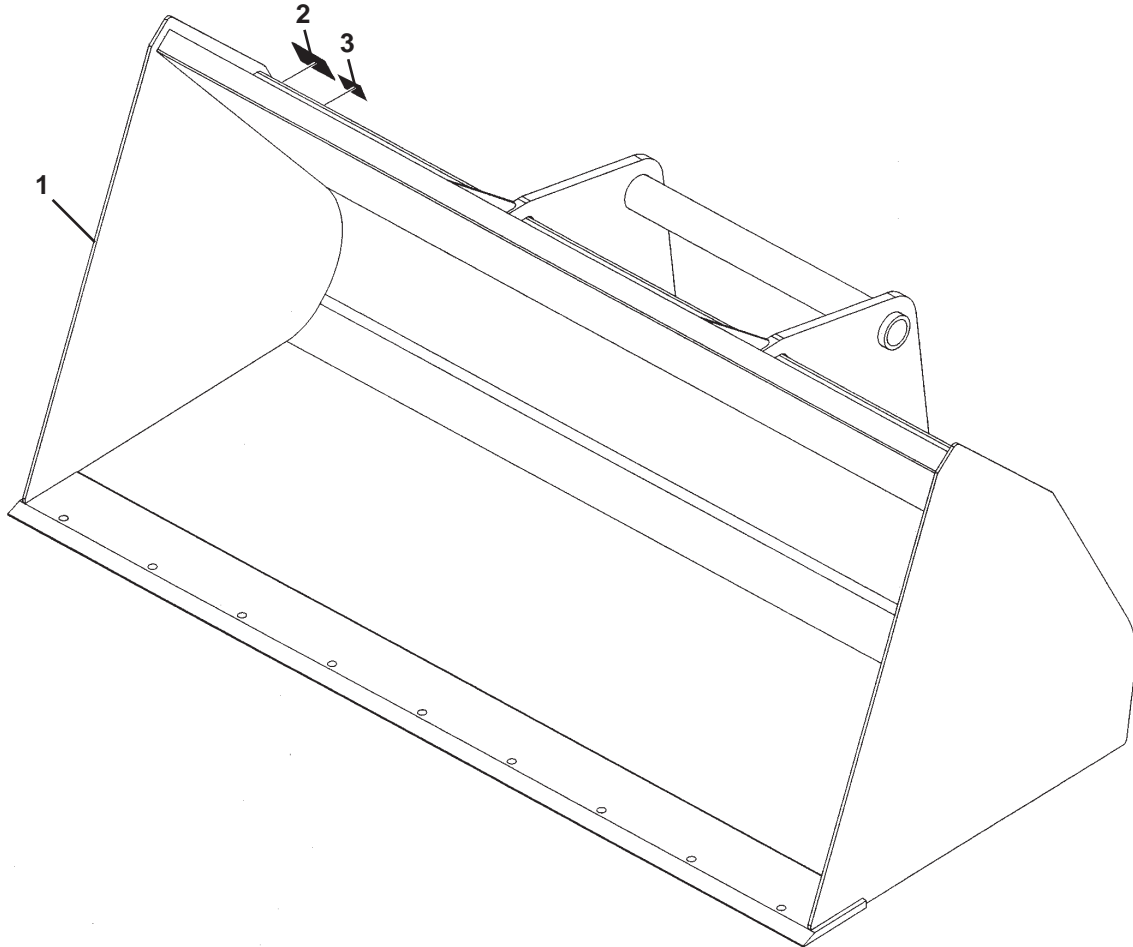
NOTE: Optional cutting edge #11002 (NH #749625009) is available for this bucket.

M-1807 1-23-08

2.25 CUBIC YARD X 96" LIGHT MATERIAL BUCKET

ASSEMBLY #12601 - NH #749624009

LM5000 SERIES TELEHANDLERS



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	308006	2.25 Cubic Yard x 96" Bucket
2	1	-----	Serial Number Identification Tag Location
3	1	4338	Made in USA Decal

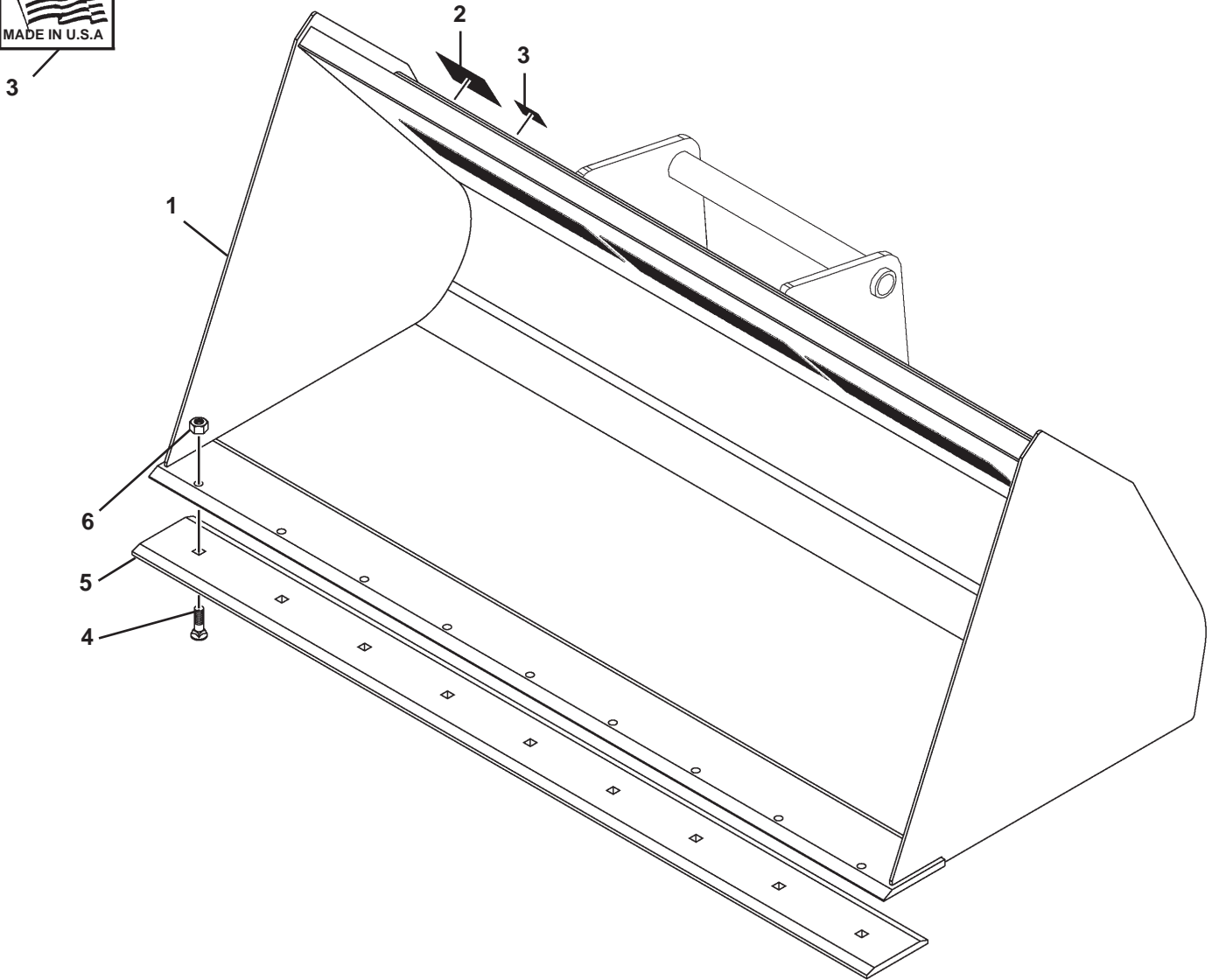
NOTE: Optional cutting edge #11002 (NH #749625009) is available for this bucket.

M-1809 1-10-08

3.25 CUBIC YARD x 96" HIGH VISIBILITY BUCKET

ASSEMBLY #12602 - NH #749637009

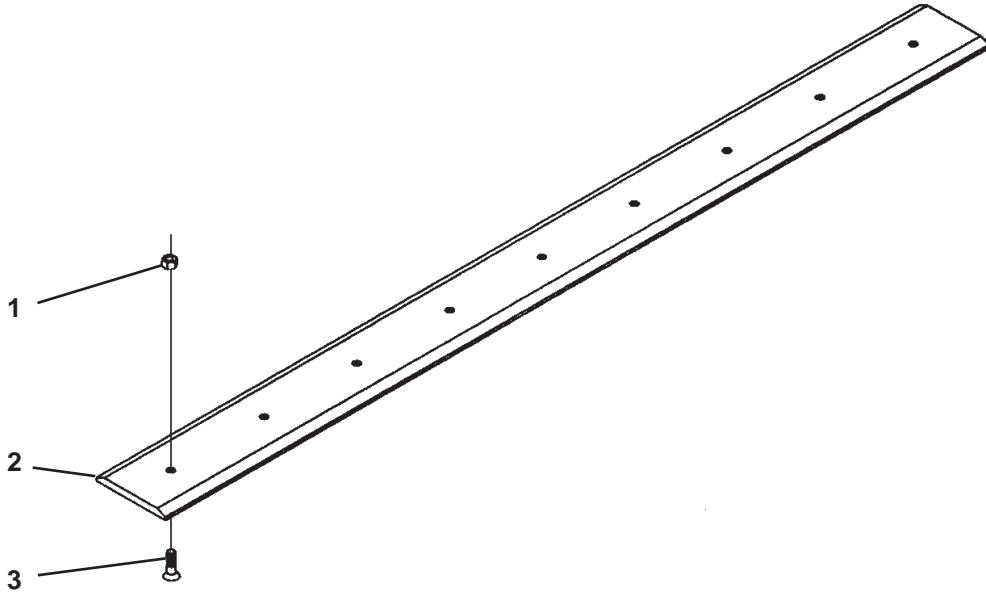
LM5000 SERIES TELEHANDLERS



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	316831	Bucket, 3.25 Cubic Yard x 96" Wide
2	1	----	Serial Number Identification Tag Location
3	1	4338	Made in USA Decal
4	9	1937*	.75" UNC x 2.50" Plow Bolt
5	1	12245*	Cutting Edge .75" x 8" x 96"
6	9	1936*	.75" UNC Deformed Lock Nut

* Bolt-On Cutting Edge Assembly #11002 (NH #749625009) includes all parts marked with an asterisk (*).

96" BOLT-ON CUTTING EDGE
 ASSEMBLY #11002 - NH #749625009



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	9	1936	.75" UNC Deformed Lock Nut
2	1	12245	Cutting Edge, .75" x 8.00" x 96.00"
3	9	1937	.75" UNC x 2.50" Plow Bolt

M-1795 1-23-08

12' TRUSS BOOM

ASSEMBLY #12607 - NH #749630009
LM5000 SERIES TELEHANDLERS



1



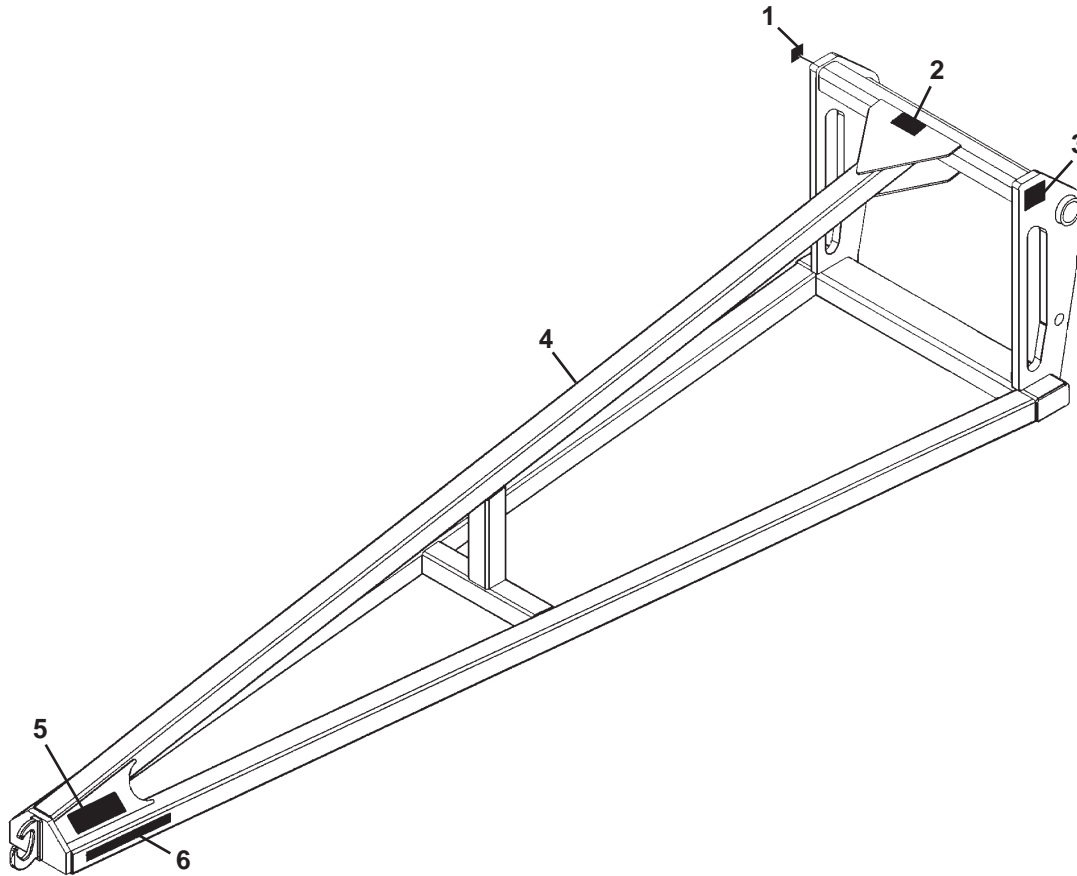
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5



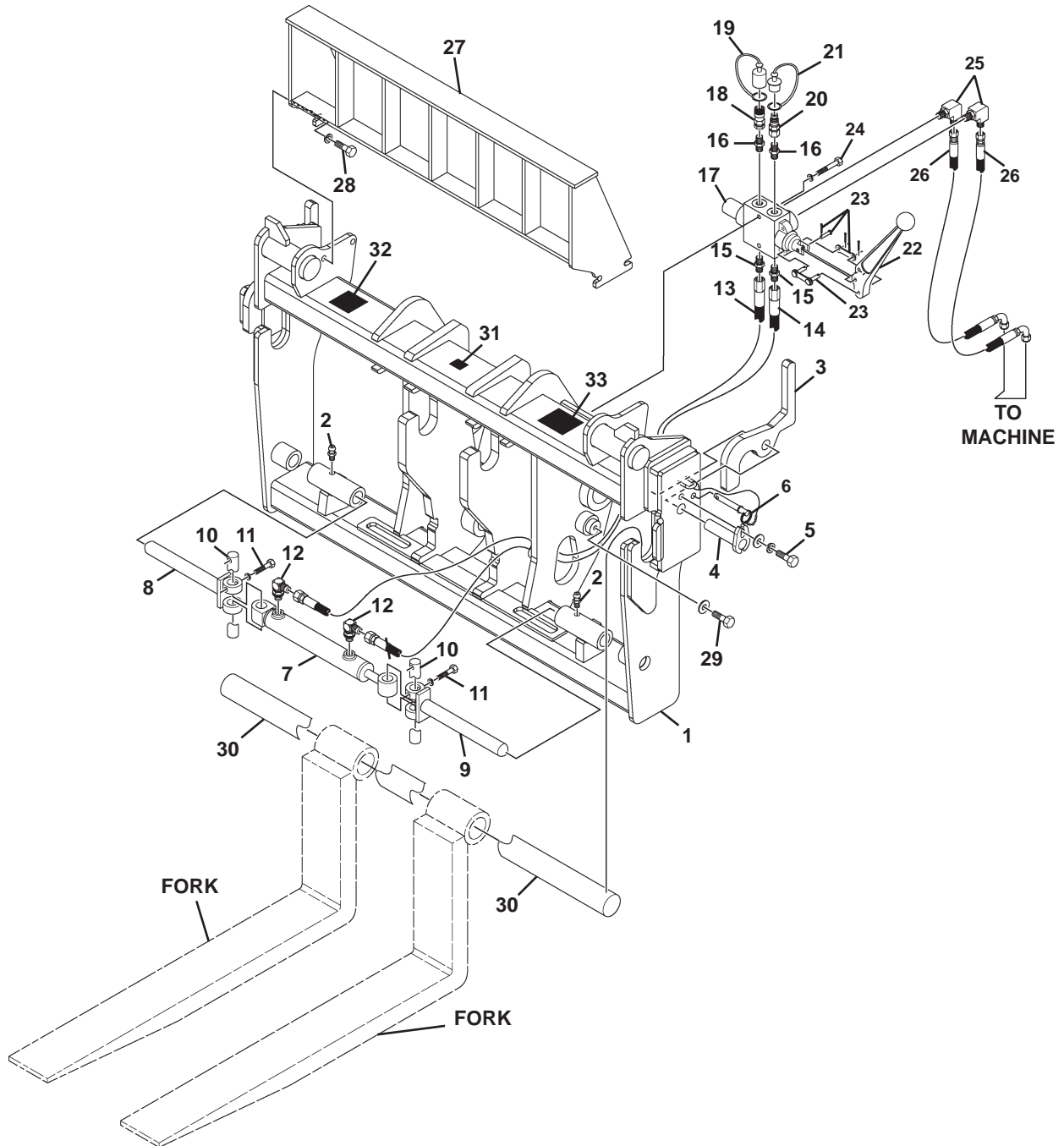
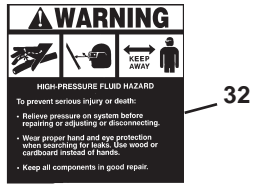
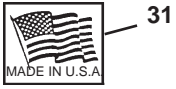
6



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	4338	Made in USA Decal
2	1	40561	Warning Decal, Do Not Tow
3	1	-----	Serial Number Identification Tag Location
4	1	17223	12' Truss Boom
5	2	40680	Danger Decal, Swinging Loads
6	2	40672	Capacity Decal

48" COMPLETE VERSATTACH WITH FORK OPTION

ASSEMBLY #11291 - NH #741542019
LM430 TELEHANDLER



48" COMPLETE VERSATTACH WITH FORK OPTION

ASSEMBLY #11291 - NH #741542019

LM430 TELEHANDLER

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	33992	Fork Carriage Frame
2	2	9371	Grease Zerk
3	2	11863	Fork Pin Release Handle
4	2	31991	Pin, 1" x 3"
5	2	1525	.38" Flat Washer
	2	1503	.38" Lock Washer
	2	1293	.38" UNF x 1.00" Hex Capscrew
6	2	12040	Ring Grip Pin
7	1	89309	Cylinder Assembly
8	1	15437	Right Locking Pin
9	1	15438	Left Locking Pin
10	2	15267	Pin, 1.00" x 4.38"
11	2	1503	.38" Lock Washer
	2	1046	.38" UNC x 1.75" Hex Capscrew
12	2	3434	90° Elbow, 6MBo-6MJ
13	1	37973	Hose .38" X 32" 6FJX-6FJX
14	1	11878	Hose .38" X 26.25" 6FJX-6FJX
15	2	30201	Straight Connector, 12MBo-6MJ
16	2	30245	Straight Connector, 12MBo-8MBo
17	1	45792	Directional Valve
		45793	Replacement Seal Kit
18	1	84928	Female Quick Coupler
19	1	32548	Female Dust Cover
20	1	84923	Male Quick Coupler
21	1	32549	Male Dust Cover
22	1	45817	Valve Handle
23	1	45818	Pin Kit Handle
24	2	1503	.38" Lock Washer
	2	1049	.38" UNC x 2.50" Hex Capscrew
25	2	30281	90° Elbow, 12MBo-8MFS
26	2	37892	Hose .50" X 36.75" 8FFS-16FDHOR 90°
27	1	11940	Load Guard
28	4	10024	.50" UNC x 1.00" Hex Capscrew, Grade 8
	4	1505	.50" Lock Washer
29	1	10024	.50" UNC x 1.00" Hex Capscrew, Grade 8
	2	1646	.50" Hard Flat Washer
30	1	11206	Fork Pin, 2.25" x 50.75"
31	1	4338	Made in USA Decal
32	1	40151	High Pressure Warning Decal
33	1	----	Serial Number Identification Tag Location

FORK OPTION:

Assembly #12006 - NH #741520019

Pallet Fork Set (2) 2"x4"x48"
(LM430 Telehandlers)

M-1840 1-25-08

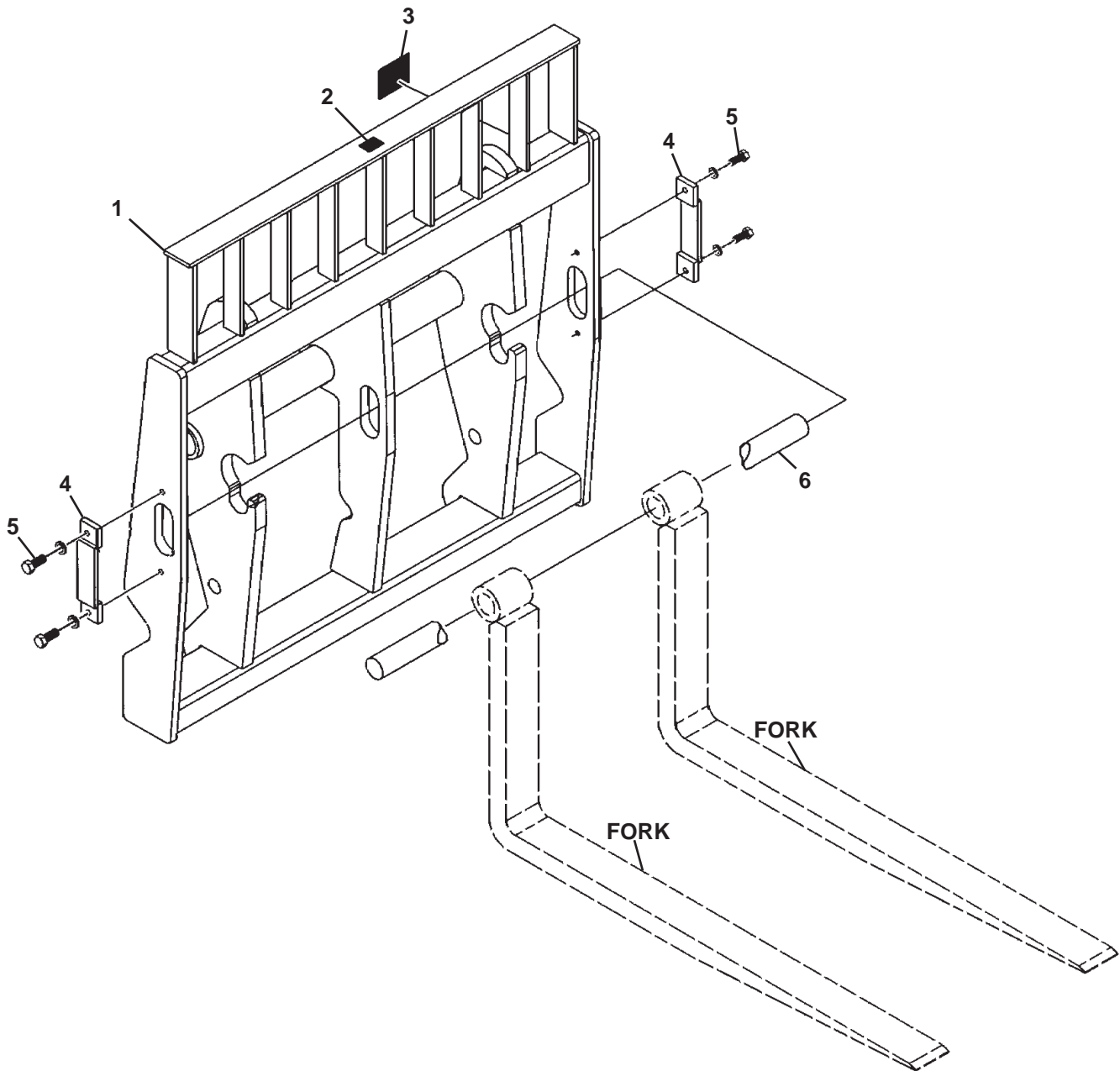
48" FLOATING PIN FORK CARRIAGE

ASSEMBLY #12598 - #NH 749626009

LM5000 SERIES TELEHANDLERS



2



M-1810 1-10-08

48" FLOATING PIN FORK CARRIAGE

ASSEMBLY #12598 - #NH 749626009

LM5000 SERIES TELEHANDLERS

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	18355	48" Fork Frame Carriage
2	1	4338	Made in USA Decal
3	1	-----	Serial Number Identification Tag Location
4	2	14002	Fork Pin Retainer
5	4	1339	.50" UNF x 1.25" Hex Capscrew
	4	1505	.50" Lock Washer
6	1	14338	Fork Pin, 2.00" x 50.25"

FORK OPTIONS:

Assembly #12456 - NH #749627009

Pallet Fork Set (2) 1.75"x4"x48"
(LM5000 Series Telehandlers)

Assembly #12458 - NH #749628009

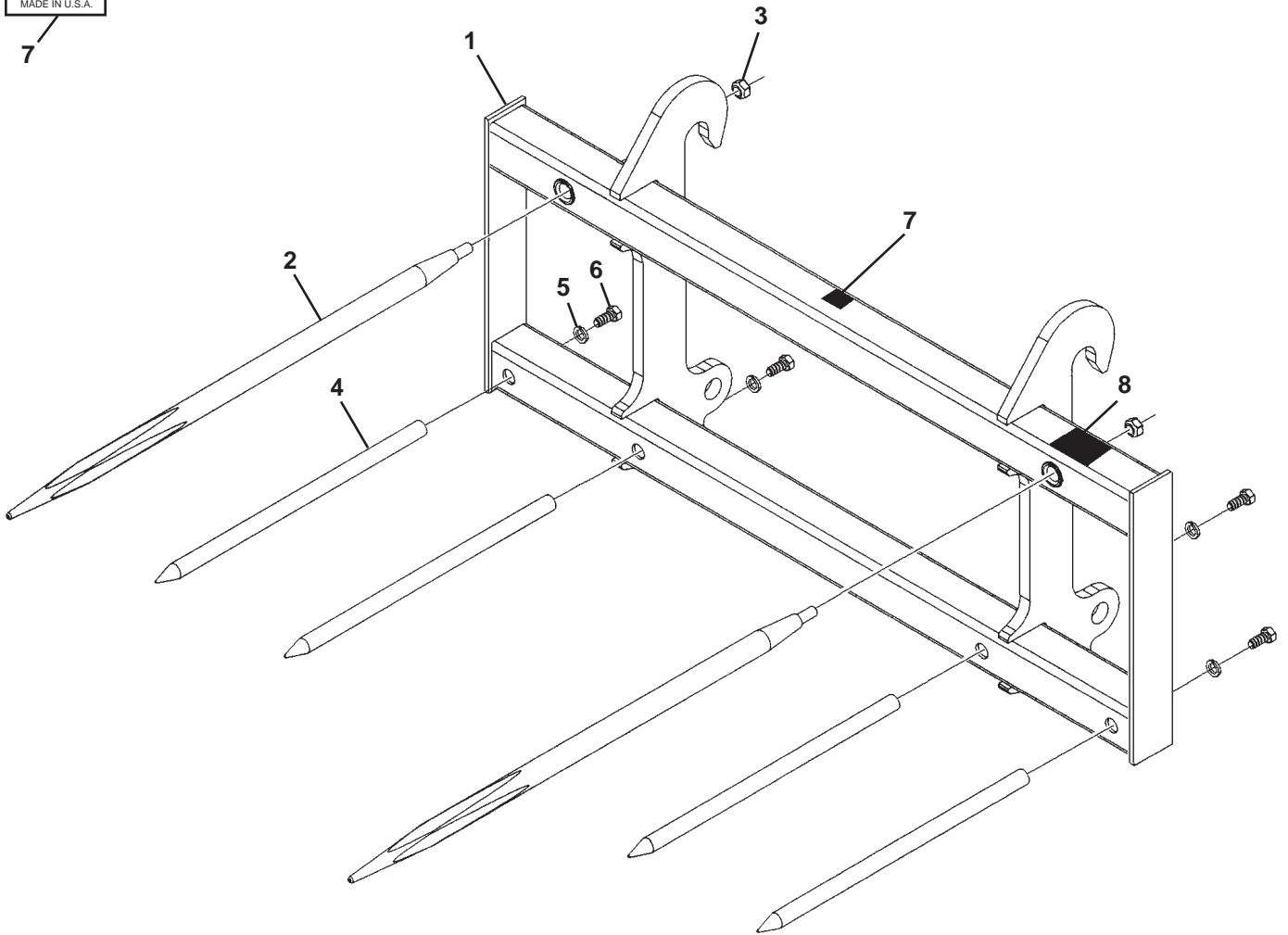
Pallet Fork Set (2) 2"x4"x60"
(LM5000 Series Telehandlers)

M-1811 1-10-08

BALE SPEAR - DUAL ROUND

ASSEMBLY #12108 - NH #741525019

LM430 TELEHANDLER



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	15055	Frame
2	2	07-10152	49" Spear (Includes Nut - Item #3)
3	2	07-10148	Replacement Hex Nut (Included With Item #2) Torque to 475 ft. lbs.
4	4	31930	Bale Spear
5	4	1507	.75" Lock Washer
6	4	10011	.75" UNF x 1.50" Hex Capscrew, Grade 8
7	1	4338	Made in USA Decal
8	1	----	Serial Number Identification Tag Location

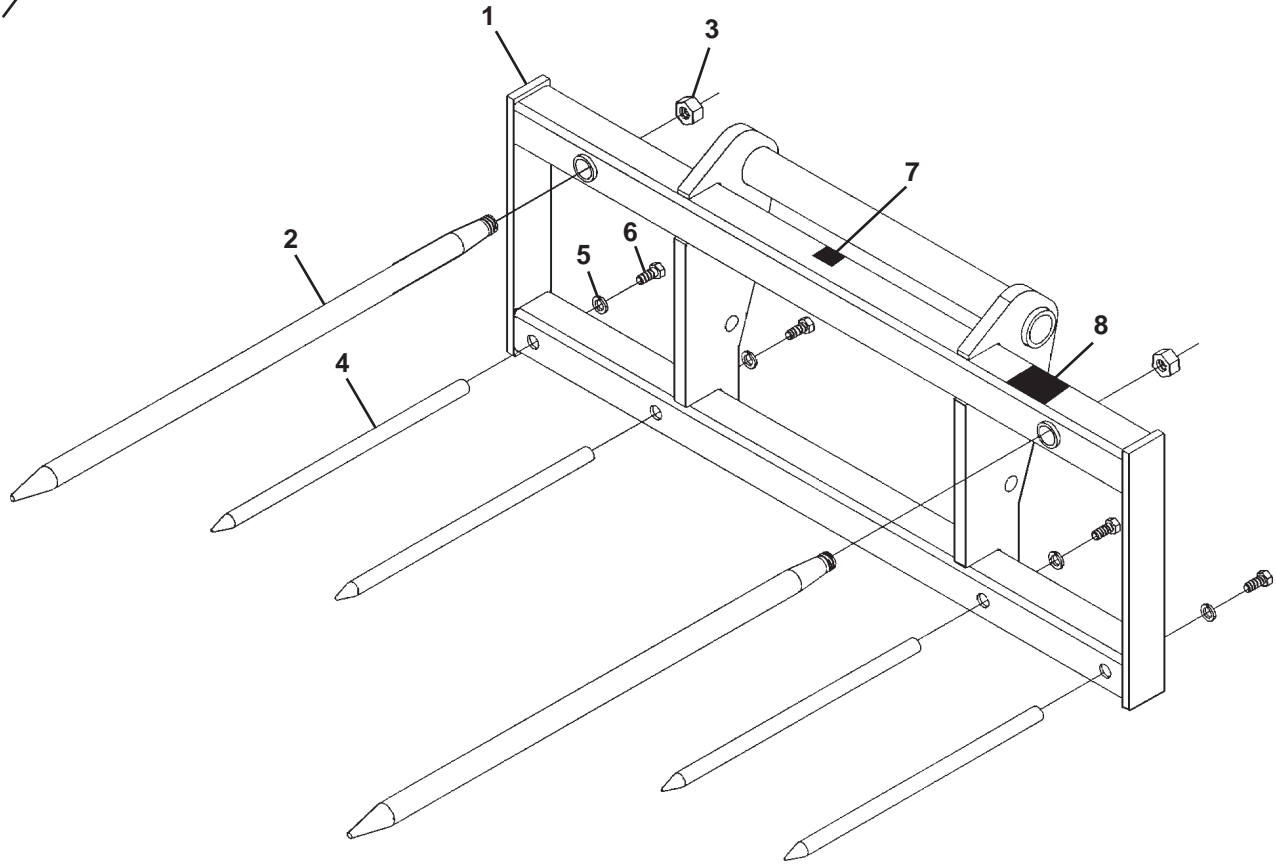
BALE SPEAR - DUAL ROUND

ASSEMBLY #12604 - NH #749629009

LM5000 SERIES TELEHANDLERS



7



<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	17008	Frame
2	2	07-10152	49" Spear (Includes Nut - Item #3)
3	2	07-10148	Replacement Hex Nut (Included With Item #2) Torque to 475 ft. lbs.
4	4	31930	Bale Spear
5	4	1507	.75" Lock Washer
6	4	10011	.75" UNF x 1.50" Hex Capscrew, Grade 8
7	1	4338	Made in USA Decal
8	1	----	Serial Number Identification Tag Location

BALE CARRIAGE - DOUBLE SQUARE

ASSEMBLY #12605 - NH #749631009

LM5000 SERIES TELEHANDLERS



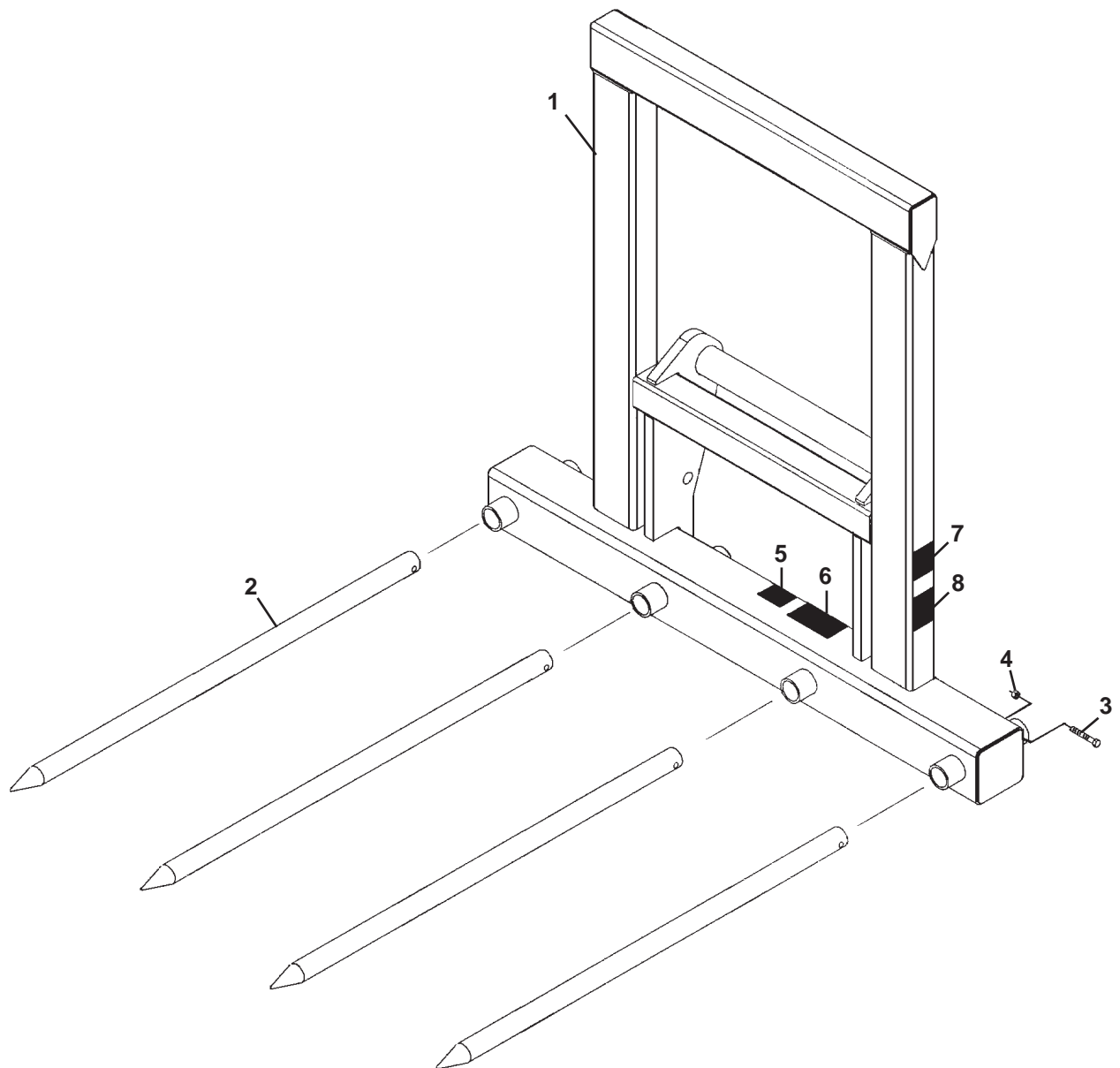
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7



8



M-1818 1-10-08

BALE CARRIAGE - DOUBLE SQUARE

ASSEMBLY #12605 - NH #749631009

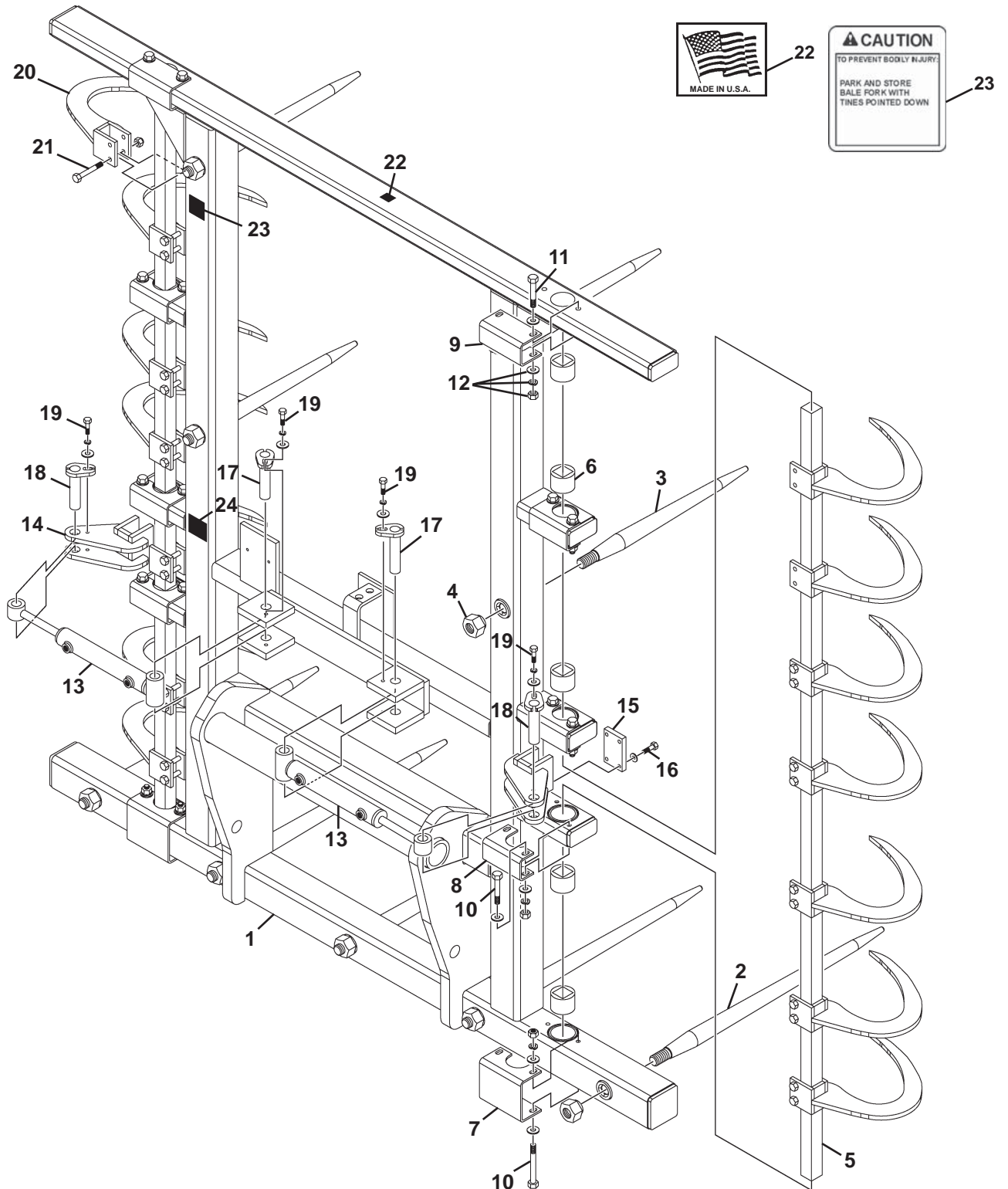
LM5000 SERIES TELEHANDLERS

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	100305	Frame
2	4	31146	Bale Spike
3	4	1098	.50" UNC x 3.50" Hex Capscrew
4	4	1841	.50" UNC Deformed Lock Nut
5	1	4338	Made in USA Decal
6	1	-----	Serial Number Identification Tag Location
7	2	40527	Caution Decal
8	2	40563	Warning Decal

LARGE BALE GRAB

ASSEMBLY #12610 - NH 749640009
LM5000 SERIES TELEHANDLERS

DIAGRAM 1 OF 2



M-1827 1-10-08

LARGE BALE GRAB
 ASSEMBLY #12610 - NH 749640009
 LM5000 SERIES TELEHANDLERS

LIST 1 OF 2

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	100306	Frame
2	5	14198	32.00" Long Spike (Includes Item 4)
3	4	14197	23.50" Short Spike (Includes Item 4)
4	9	14261	M20 Hex Nut
5	2	15963	Mounting Bar
6	12	14192	Bushing
7	2	14468	Bottom Retainer
8	6	14467	Middle Retainer
9	2	14473	Top Retainer
10	4	1057	.38" UNC x 5.00" Hex Capscrew
	4	1800	.38" Hard Flat Washer
11	16	1051	.38" UNC x 3.00" Hex Capscrew
	16	1800	.38" Hard Flat Washer
12	20	1800	.38" Hard Flat Washer
	20	1503	.38" Lock Washer
	20	1226	.38" UNC Hex Nut
13	2	88928	Cylinder Assembly
14	2	15905	Cylinder Pivot Clevis
15	2	15890	Clevis Plate
16	8	1811	.50" UNC x 1.50" Hex Capscrew, Grade 8
	8	1646	.50" Hard Flat Washer
17	2	14070	Pivot Pin, 1.00" x 4.72"
18	2	14174	Pivot Pin, 1.00" x 2.68"
19	4	1293	.38" UNF x 1.00" Hex Capscrew
	4	1503	.38" Lock Washer
	4	1514	.38" Flat Washer
20	14	14229	Hay Grab Hook
21	28	1050	.38" UNC x 2.75" Hex Capscrew
	28	1837	.38" UNC Deformed Lock Nut
22	1	4338	Made in USA Decal
23	2	40527	Caution Decal
24	1	----	Serial Number Identification Tag Location

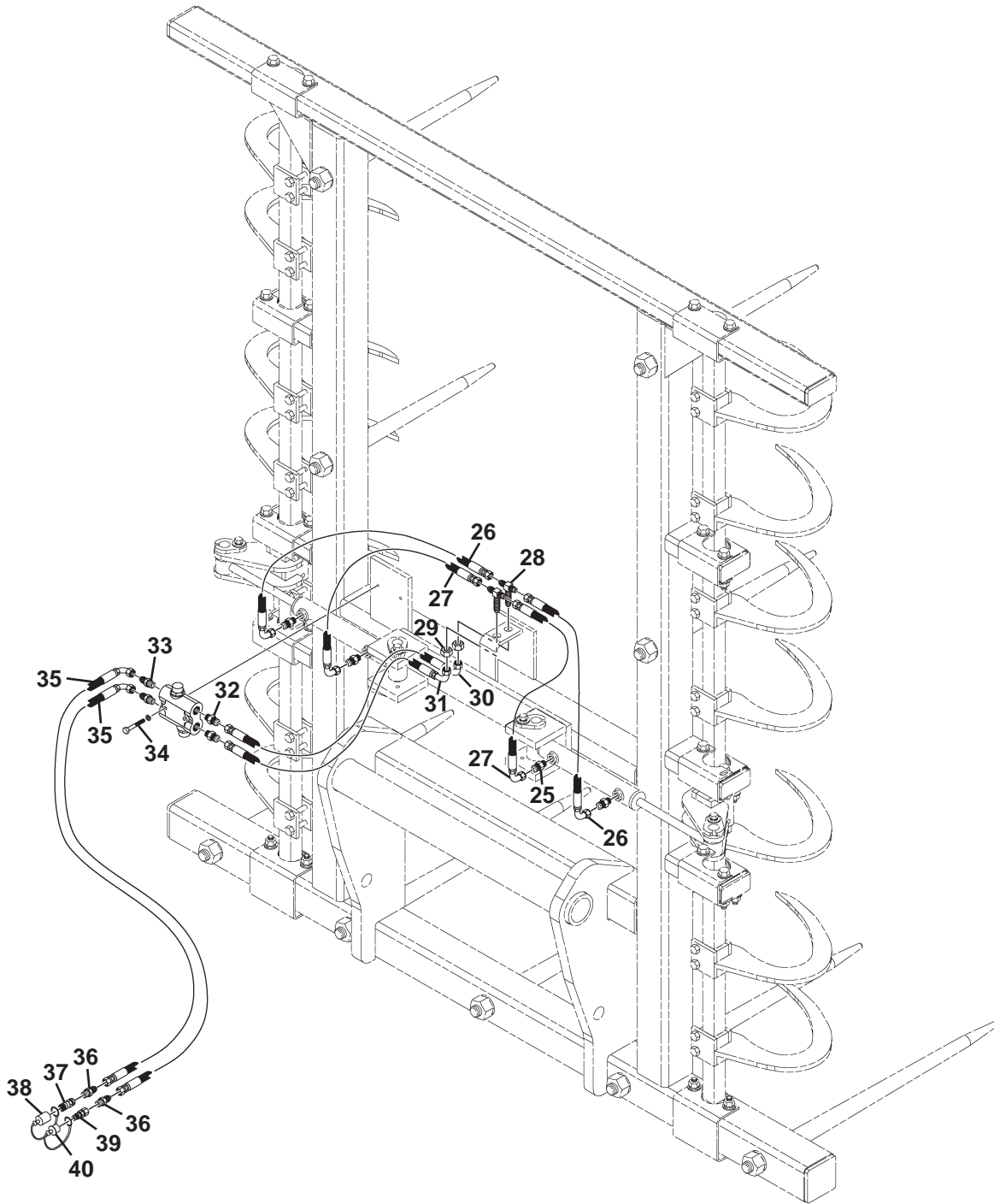
M-1828 1-10-08

LARGE BALE GRAB - HYDRAULICS

ASSEMBLY #12610 - NH 749640009

LM5000 SERIES TELEHANDLERS

DIAGRAM 2 OF 2



M-1829 1-10-08

LARGE BALE GRAB - HYDRAULICS

ASSEMBLY #12610 - NH 749640009

LM5000 SERIES TELEHANDLERS

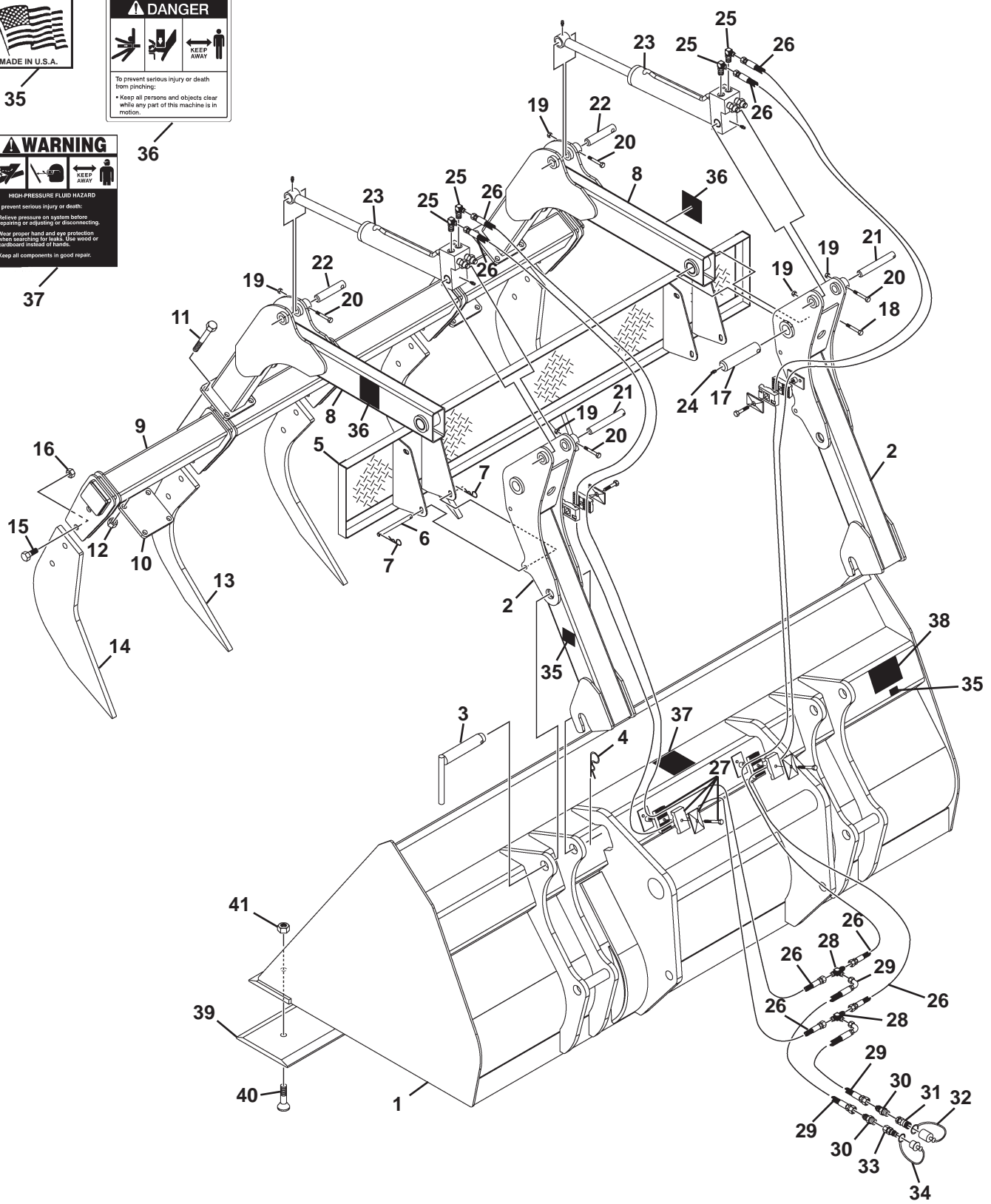
LIST 2 OF 2

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
25	4	30208	Straight Connector 6MBo-6MFF
26	2	37780	Hose .38" x 26.50" 6FFS-6FFS 90°
27	2	37779	Hose .38" x 19.50" 6FFS-6FFS 90°
28	2	30206	Bulkhead Tee 6MORFS-6MORFS-6MORFS
29	2	30207	Nut
30	1	37778	Hose .38" x 11.50" 8FFS-6FFS 90°
31	1	37840	Hose .38" x 10.75" 8FFS-6FFS 90°
32	4	30205	Straight Connector 12MBo-8MFF
33	1	14231	Retainer Valve 1000 PSI
34	2	1502	.31" Lock Washer
	2	1278	.31" UNF x 2.50" Hex Capscrew
35	2	38186	Hose .38" x 60" 8FFS-8FFS 90°
36	2	30237	Straight Connector 8MBo-8MFF
37	1	14175	Female Quick Coupler
38	1	17922	Dust Cover
39	1	14176	Male Quick Coupler
40	1	17921	Dust Cover

2.15 CUBIC YARD X 96" HAY GRAPPLE BUCKET

ASSEMBLY #12603 - NH 749638009
LM5000 SERIES TELEHANDLERS

DIAGRAM 1 OF 2



2.15 CUBIC YARD X 96" HAY GRAPPLE BUCKET

ASSEMBLY #12603 - NH 749638009

LM5000 SERIES TELEHANDLERS

LIST 1 OF 2

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	308294	Bucket Assembly
2	2	304622	Grapple Arm Support
3	2	304646	Pin
4	2	1991	Cotter Hairpin, .25"
5	1	304649	Spill Guard
6	4	304722	Spill Guard Pin, .50" x 5.97"
7	8	1617	Cotter Hairpin, .12"
8	2	304631	Grapple Arm
9	1	304637	Tine Bar
10	2	304636	Tine Bar Mounting Plate
11	8	10119	.62" UNC x 6.00" Hex Capscrew, Grade 8
12	8	1839	.62" UNC Deformed Lock Nut
13	3	304641	Inner Tine
14	2	304654	Outer Tine
15	10	10012	.75" UNC x 2.25" Hex Capscrew, Grade 8
16	10	1936	.75" UNC Deformed Lock Nut
17	2	304645	Grapple Arm Pivot Pin, 1.50" x 6.75"
18	2	1051	.38" UNC X 3.00" Hex Capscrew
19	6	1536	.38" UNC Nylock Hex Nut
20	4	1048	.38" UNC x 2.25" Hex Capscrew
21	2	304644	Cylinder Pin, 1.00" x 6.88"
22	2	304643	Cylinder Pin, 1.00" x 5.38"
23	2	33524	Cylinder
24	2	6616	Grease Fitting
25	4	30204	90° Elbow 6MBo-6MFS
26	4	37788	Hose .38" X 56" 6FFS-6FFS
27	4	81358	Replacement Hose Clamp
28	2	30203	Tee 6MFS-6MFS-6MFS
29	2	38330	Hose .38" X 70",6FFS-6FFS90°
30	2	30324	Straight Connector 8MBo-6MFS

2.15 CUBIC YARD X 96" HAY GRAPPLE BUCKET

ASSEMBLY #12603 - NH 749638009

LM5000 SERIES TELEHANDLERS



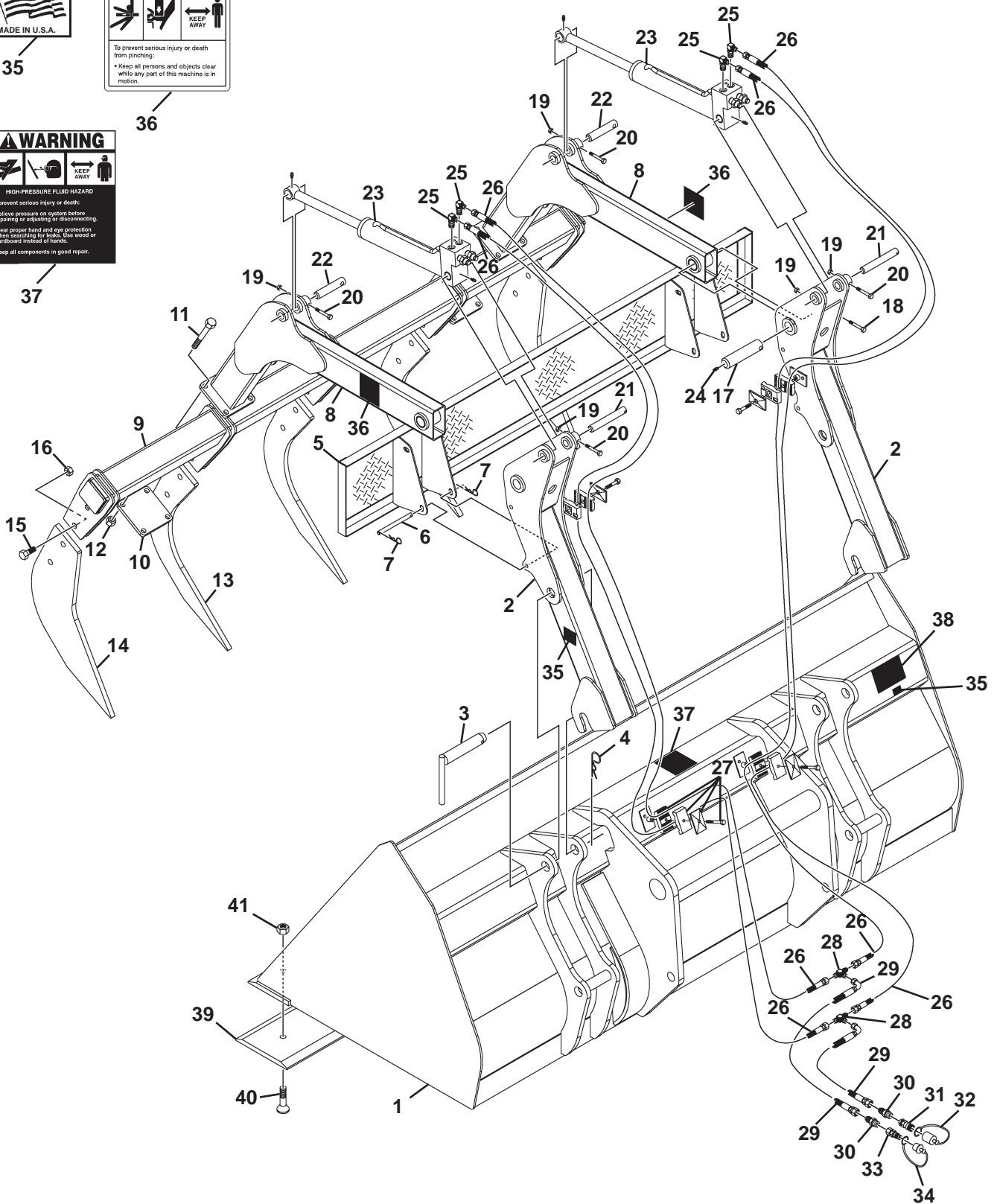
35



36



37



2.15 CUBIC YARD X 96" HAY GRAPPLE BUCKET

ASSEMBLY #12603 - NH 749638009
LM5000 SERIES TELEHANDLERS

LIST 2 OF 2

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
31	1	14175	Female Coupler
32	1	17922	Dust Cover
33	1	14176	Male Coupler
34	1	17921	Dust Cover
35	1	4338	Made in USA Decal
36	2	40149	Pinch Point Danger Decal
37	1	40151	High Pressure Warning Decal
38	1	-----	Serial Number Identification Tag Location
39	1	12245*	Cutting Edge
40	9	1937*	.75" UNC x 2.50" Plow Bolt
41	9	1936*	.75" UNC Deformed Lock Nut

* Bolt-On Cutting Edge Assembly #11002 (NH #749625009) includes all parts marked with an asterisk (*).

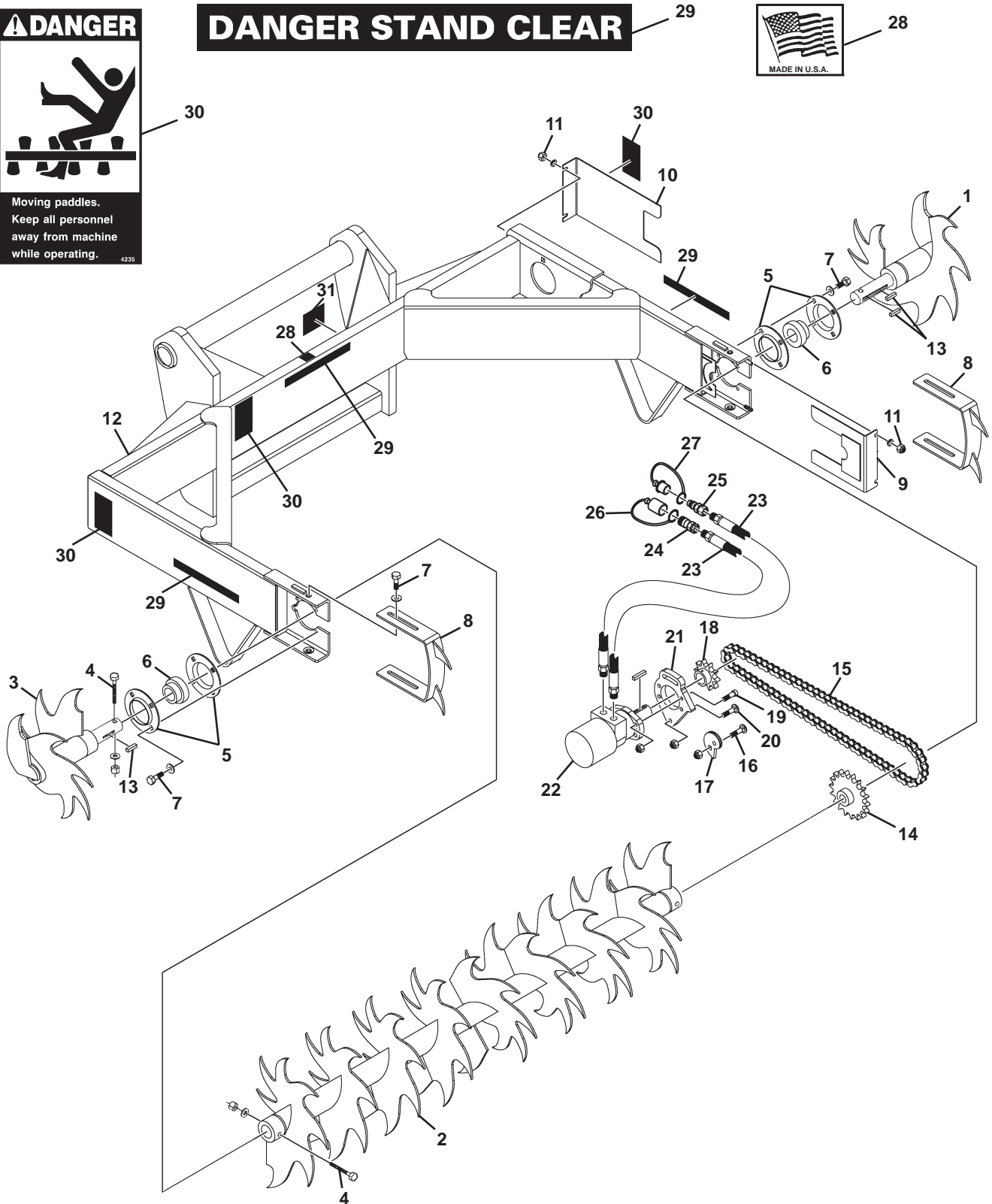
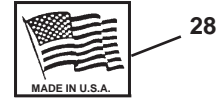
SILAGE DEFACER

ASSEMBLY #12606 - NH 749639009
LM5000 SERIES TELEHANDLERS

DIAGRAM 1 OF 2



DANGER STAND CLEAR



M-1831 1-10-08

SILAGE DEFACER
ASSEMBLY #12606 - NH 749639009
LM5000 SERIES TELEHANDLERS

LIST 1 OF 2

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	105447	Blade, Left End
2	1	105448	Blade, Center
3	1	105449	Blade, Right End
4	2	1051	.38" UNC x 3.00" Hex Capscrew
	2	1525	.38" Flat Washer
	2	1837	.38" UNC Deformed Lock Nut
5	2	89129	Flangette Set
	-	6616	Replacement Grease Fitting
6	2	89127	Ball Bearing With Collar
	-	1624	Replacement Set Screw
7	12	1088	.50" UNC x 1.00 Hex Capscrew
	12	1646	.50" Hard Flat Washer
8	2	33427	Shoe (Depth Guide)
9	1	15751	Bottom Chain Cover
10	1	32849	Top Chain Cover
11	4	1837	.38" UNC Deformed Lock Nut
	4	1514	.38" Flat Washer
12	1	100341	Silage Defacer Frame
13	3	105482	Square Key, .38" x 1.75"
14	1	32905	Sprocket, 18 Tooth, No. 80
15	1	32906	Drive Chain, No. 80, 73 Pitches
	-	53298	Replacement Master Link
16	1	1872	.50" UNC X 1.50" Carriage Bolt
	1	1790	.50" UNC Serrated Flange Lock Nut
17	1	32848	Cam Lock
18	1	33249	Sprocket, 10 Tooth, No. 80
19	4	22336	.50" UNC x 1.50" Socket Head Capscrew, Grade 8
	4	1228	.50" UNC Hex Nut
20	2	1872	.50" UNC X 1.50" Carriage Bolt
	2	1790	.50" UNC Serrated Flange Lock Nut

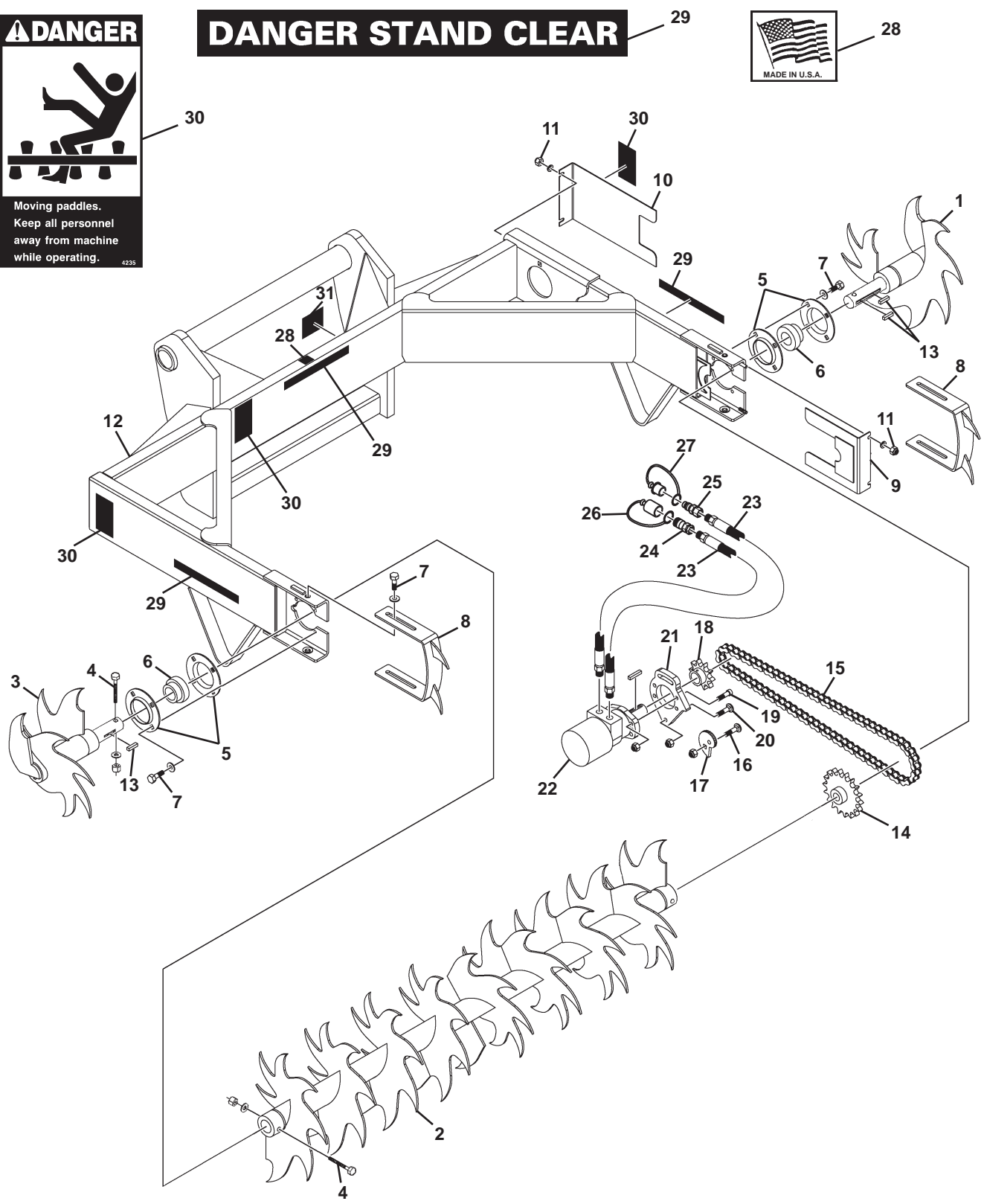
SILAGE DEFACER

ASSEMBLY #12606 - NH 749639009
LM5000 SERIES TELEHANDLERS

DIAGRAM 2 OF 2



DANGER STAND CLEAR 29



M-1833 1-10-08

SILAGE DEFACER
ASSEMBLY #12606 - NH 749639009
LM5000 SERIES TELEHANDLERS

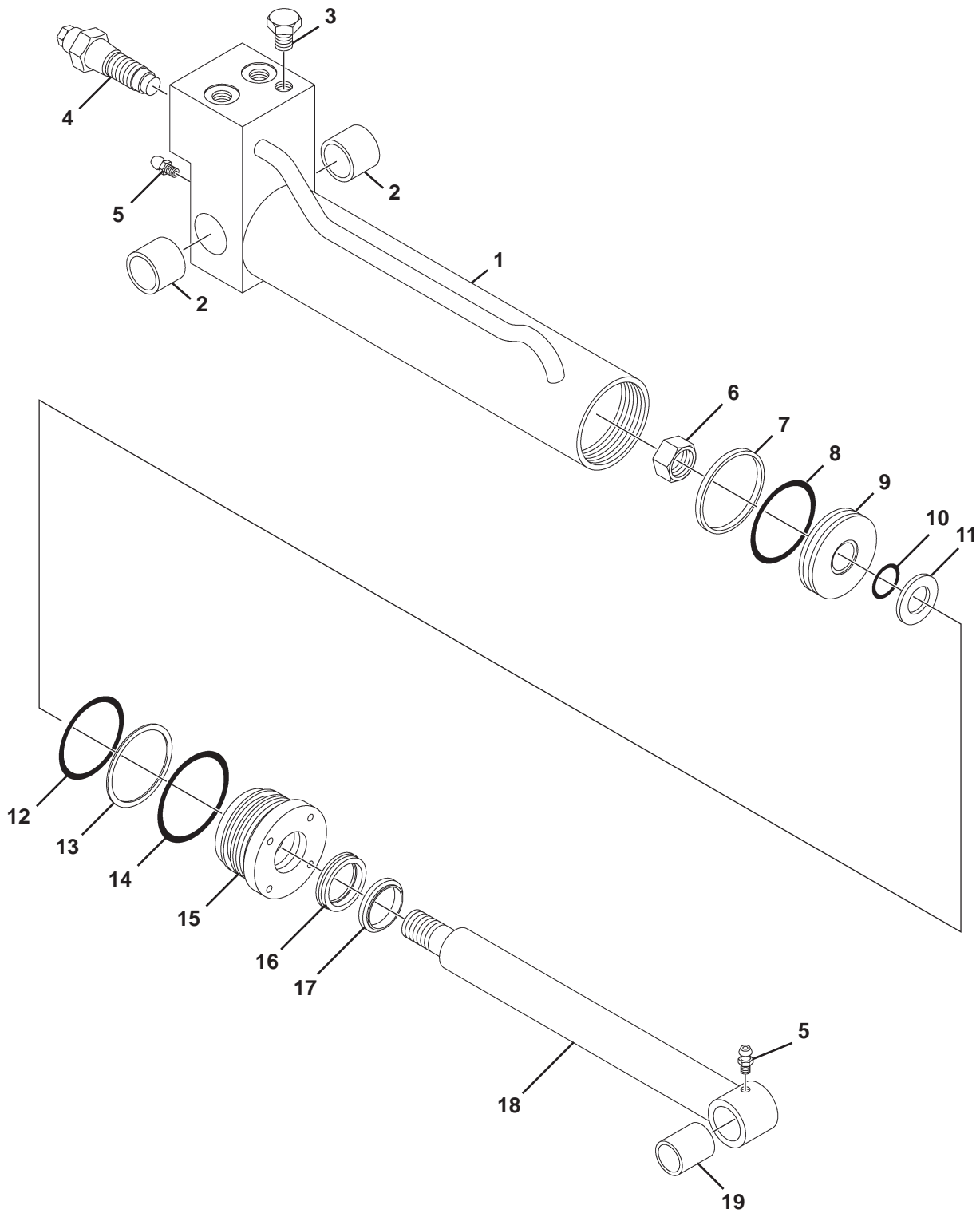
LIST 2 OF 2

21	1	32847	Motor Mounting Plate
22	1	33200	Motor
	-	5662	Replacement Key
23	2	38187	Hose Assembly .62" x 80" 10MBo-8MBo
24	1	14175	Female Quick Coupler
25	1	14176	Male Quick Coupler
26	1	17922	Female Dust Cover
27	1	17921	Male Dust Cover
28	1	4338	Made in USA Decal
29	3	4105	Stand Clear Decal Danger
30	3	4235	Moving Paddles Decal Danger
31	1	-----	Serial Number Identification Tag Location

M-1834 1-10-08

CYLINDER ASSEMBLY

ASSEMBLY #33524



M-1837 12-19-07

CYLINDER ASSEMBLY

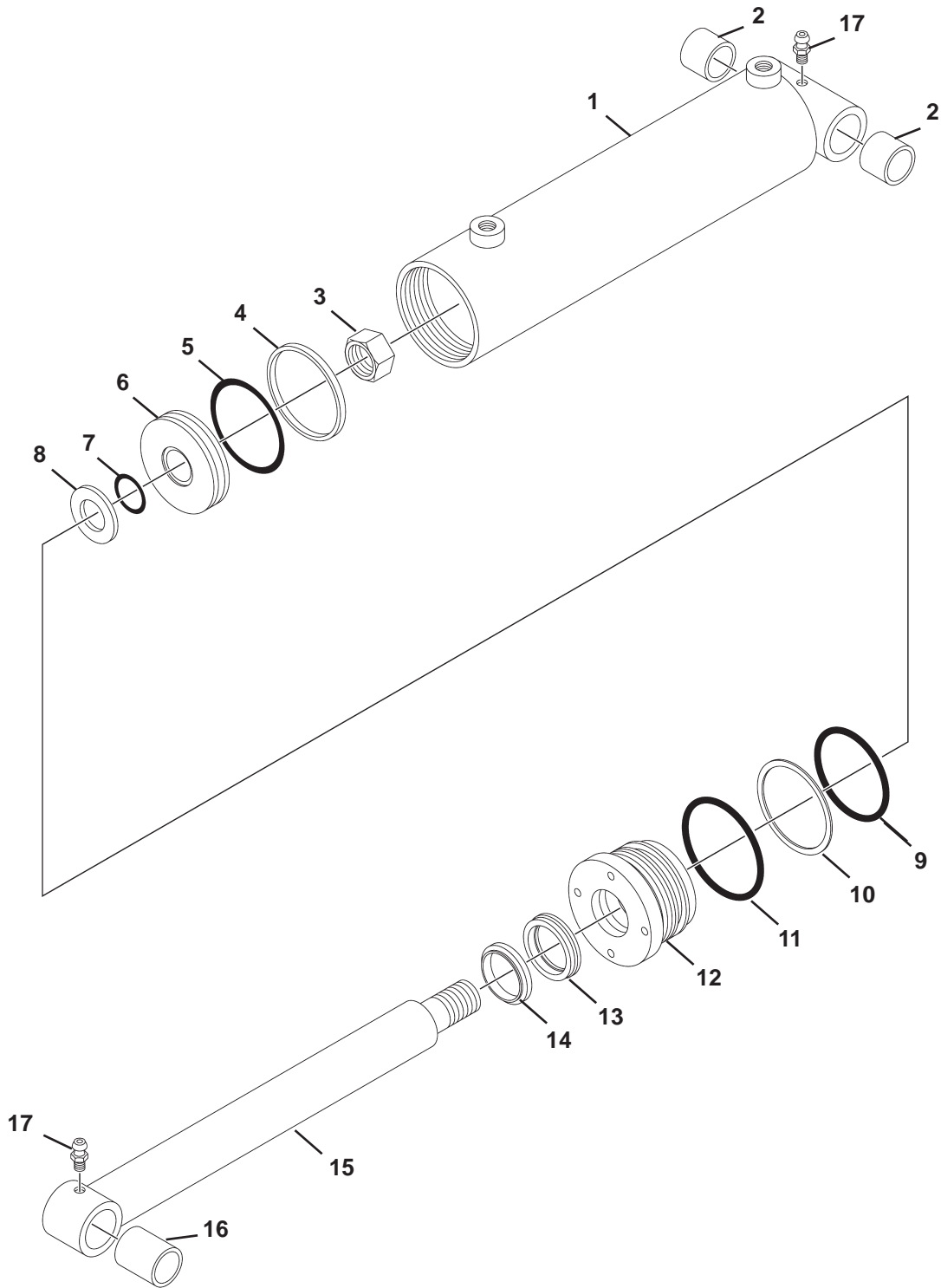
ASSEMBLY #33524

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	33525	Cylinder Tube, With Valve
2	2	88919	Bronze Bushing
3	1	3181	Plug
4	2	89120	Valve Cartridge - Over Center
5	2	6616	Grease Zerk
6	1	1483	Hex Nut
7	1	4644*	Piston Ring
8	1	4645*	O-Ring
9	1	50252	Piston
10	1	4641*	O-Ring
11	1	5421	Washer
12	1	4509*	O-Ring
13	1	4510*	Back-Up Washer
14	1	45250*	O-Ring
15	1	77458	Cylinder Gland
16	1	45219*	Poly-Pak Seal
17	1	45389*	Rod Wiper
18	1	88915	Piston Rod
19	1	88918	Bronze Bushing

NOTE: Seal Kit #45617 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #88928



CYLINDER ASSEMBLY

ASSEMBLY #88928

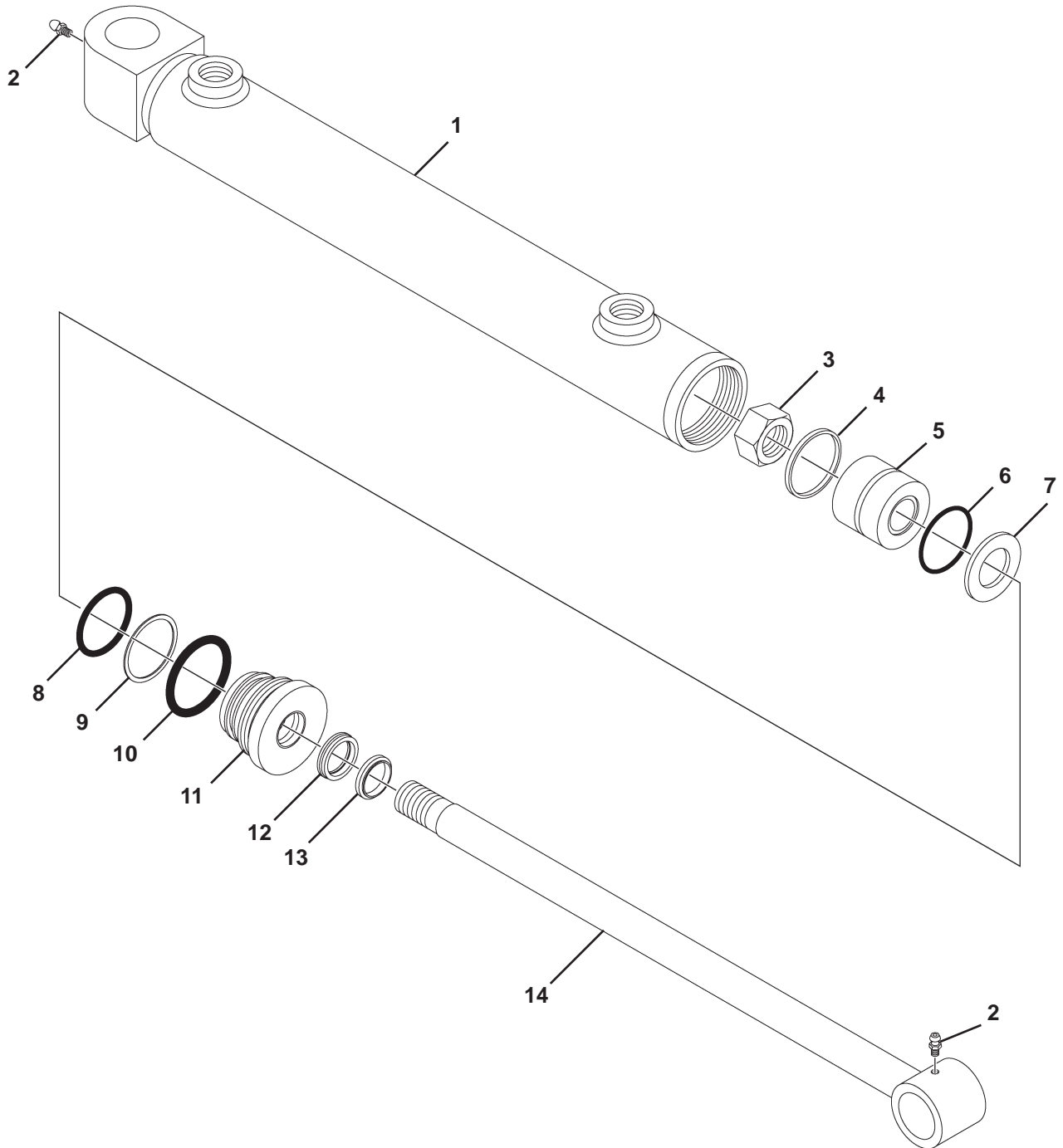
<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	88926	Cylinder Tube
2	2	88919	Bronze Bushing
3	1	1483	Hex Nut
4	1	4644*	Piston Ring
5	1	4645*	O-Ring
6	1	50252	Piston
7	1	4641*	O-Ring
8	1	5421	Washer
9	1	4509*	O-Ring
10	1	4510*	Back-Up Washer
11	1	45250*	O-Ring
12	1	77458	Cylinder Gland
13	1	45219*	Poly-Pak Seal
14	1	45389*	Rod Wiper
15	1	88927	Cylinder Rod
16	1	88918	Bronze Bushing
17	2	6616	Grease Zerk

NOTE: Seal Kit #45617 includes all parts marked with an asterisk (*). Parts are not sold separately.

M-1030 9-15-05

CYLINDER ASSEMBLY

ASSEMBLY #89309



M-1779 12-20-07

CYLINDER ASSEMBLY

ASSEMBLY #89309

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	89310	Cylinder Tube
2	2	6616	Grease Zerk
3	1	10003	.63" Deformed Lock Nut
4	1	45766*	Piston Ring
5	1	89204	Piston
6	1	45767*	O-Ring
7	1	10004	Washer
8	1	45768*	O-Ring
9	1	45769*	Back-Up Washer
10	1	4985*	O-Ring
11	1	89208	Cylinder Gland
12	1	45770*	Poly-Pak Seal
13	1	45771*	Rod Wiper
14	1	89202	Piston Rod

NOTE: Seal Kit #45773 includes all parts marked with an asterisk (*). Parts are not sold separately.

M-1780 12-20-07