

FALL 2010

3PT & QUICK ATTACH BALE SPEARS
& 3PT BALE CARRIER

Operator's Manual

MODERN
AG PRODUCTS, LTD.


YOU'RE ALWAYS AHEAD...WITH A MODERN BEHIND.

318-1006-I
318-1005-I
020-1500
020-1502

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www.modernusa.com

Go Galvanized!

SAFETY SECTION

The SAFETY ALERT SYMBOL  indicates that there is a potential hazard to personal safety involved and extra safety precautions must be taken. When you see this symbol on your machine or in this manual, be alert and carefully read the message that follows it.

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT SAFETY INFORMATION!

Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tractor, before assembly or operating, to acquaint yourself with the machines. It is the implement owner's responsibility, if this machine is used by any person other than yourself, is loaned or rented, to make certain that the operator, prior to operating: 1. Reads and understands the operator's manuals. 2. Is instructed in safe and proper use.

The use of this equipment is subject to certain hazards which cannot be protected against by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using. If there is something in this manual you do not understand, ask your supervisor, or your dealer, to explain it to you.



OPERATION



The use of this equipment is subject to certain hazards which cannot be protected against by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using. If there is something in this manual you do not understand, ask your supervisor, or your dealer, to explain it to you.

Most accidents occur because of neglect or carelessness. Keep all helpers and bystanders at a safe distance. **REMEMBER FALLING BALES CAN ROLL OR TUMBLE.**

Always insert spears into the bale securely. Failure to insert spears into bale can allow bale to roll in an uncontrolled direction.

Do not handle bales that exceed the bale weight limitations of the implement.

Operate the hydraulic controls smoothly, avoiding jerky operation.

Carry the bale slowly and as low as possible to the ground.

Never use the tractor or implement to stop a rolling bale.

Only use a tractor equipped with a ROPS cab or rollover protective structure.

When stacking bales, **ALWAYS MAKE SURE BALES ARE PLACED SO THE STACK IS STABLE.**

Always load rear of tractor first and unload last when using a front loader.

Beware of lift clearance when raising loader or implement to maximum height.

Keep alert and watch the rear as well as the front when working with attached implements.

SAFETY SECTION

Stop loader gradually when lowering or lifting loads.

Operate hydraulic controls from operator's seat only. Remain at controls until operating cycle is complete.

Allow for additional length of implement and bale on tractor while turning.

Never allow anyone to walk or work under a raised implement.

Be sure that people, livestock, or pets are not standing near the machine while operating.

Do not use implement for a work platform.

Do not lift or carry anyone on attachment.

ALWAYS lower implement to the ground or block securely before performing any maintenance work.

Stay alert for holes, rocks and roots in the terrain and other hidden hazards. Keep away from drop-offs.

Use extreme care and maintain minimum ground speed when transporting on hillside, over rough ground and when operating close to ditches or fences. Be careful when turning sharp corners.

Reduce speed on slopes and sharp turns to minimize tipping or loss of control. Be careful when changing directions on slopes. Do not start or stop suddenly on slopes. Avoid operation on steep slopes.

When using a unit, a minimum 20% of tractor and equipment weight must be on tractor front wheels. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a front end loader, front wheel weights, ballast in tires or front tractor weights. When attaining a minimum 20% of tractor and equipment weight on the front wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. Do not guess or estimate!

Avoid excessive speed during operation.

ALWAYS lower spear points to the ground when parking tractor. Raised spear points could cause injury to people or livestock.

Always shut off tractor and shift to "Park" or set brakes when leaving tractor. Always lower bucket or attachment to ground. Remove key when leaving tractor unattended.

Before operating equipment: if you have any questions regarding the proper assembly or operation, contact your dealer or representative.



Comply with state and local laws governing highway safety and movement of farm machinery on public roads.

The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use.

Local laws should be checked for all highway lighting and marking requirements.

When driving the tractor and equipment on the road or highway under 20 mph (32 kph) at night or during the day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.

Always be sure the implement is in the proper raised position for transport.

Reduce speed when transporting mounted implements to avoid bouncing and momentary loss of steering control.

Transporting large round bales on front loaders can limit visibility. Keep load low and go slow if visibility is obstructed. Always use extra care.

SAFETY SECTION

Transporting large round bales on front loaders can limit visibility. Keep load low and go slow if visibility is obstructed. Always use extra care.

Make sure large round bales transported on tractor do not obstruct visibility of tractor's flashing lights or SMV sign.

Use extreme care and maintain minimum ground speed when transporting on hillside, over rough ground and when operating close to ditches or fences. Be careful when turning sharp corners.

Never allow riders on either tractor or implement. Falling off can kill.



MAINTENANCE



Keep all persons away from operator control area while performing adjustments, service, or maintenance.

Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.

When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.

Never use your hands to locate a hydraulic leak on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate the skin. Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid. If injured by escaping hydraulic fluid, see a doctor at once. Gangrene and death can result. Without immediate medical treatment, serious infection and reactions can occur.

Never replace hex bolts with less than grade five bolts unless otherwise specified, i.e. shear bolts. Refer to bolt torque chart for head identification marking.

Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.

If equipment has been altered in any way from original design, the manufacturer does not accept any liability for injury or warranty.



STORAGE



Following operation or when unhooking, stop the tractor, set the brakes, disengage the PTO, shut off the engine and remove the ignition keys.

Store the unit in an area away from human activity.

Do not permit children to play on or around the stored unit.

Do not park equipment where it will be exposed to livestock for long periods of time. Damage and livestock injury could result.

Make sure all parked machines are on a hard, level surface and engage all safety devices.

If blocking is used, make sure it is solid and secure before leaving area.

REQUIREMENTS & PREPERATION

The quick attach bale spears are designed to handle up to 2,500 lbs. bales. Rear 3 pt. hitch mounted bale spears & carrier are designed, depending on model, to handle up to 2,000 lb. bales. All models feature a tapered "forged" spring steel spear designed for tight center bales allowing easier spear penetration into and withdrawal from bales. A special tapered socket provides support for the spear.

The 3 pt. & quick attach spear models fit most Category I.

NOTE: The maximum load for the attachments is as follows:

Model Capacity
318-1006-I (Quick Attach) 2,500 lbs.
318-1005-I (Quick Attach) 2,500 lbs.
020-1500 (3pt) 2,000 lbs
020-1502 (3pt) 2,000 lbs

TRACTOR REQUIREMENTS AND PREPARATION:

The required size of the tractor and front loader will be determined by the size and weight of the bales to be handled.

Remember, high moisture hay (silage) bales are very heavy in relation to similar size dry hay bales. Always use a tractor large enough to safely handle your bales.

Check the tractor's hydraulic lift system. It should operate up and down smoothly and hold its position when set. Refer to your tractor owner's manual or dealer for any adjustments necessary to put the hydraulic lift system in good working order.

Check the hydraulic system. Be sure the tractor hydraulic oil and filter have been serviced according to the tractor manufacturer's recommendations.

Tractor should be equipped with stabilizer bars, adjustable sway chains, or sway blocks to keep the implement from swinging side to side. Smaller size tractors may need front counter weights to counter-balance the weight of the implement.

It is recommended that the tractor be equipped with a Rollover Protection System (ROPS) and a seat belt that is used.



Be sure your tractor is in good condition. Read all the safety precautions and make sure all tractor operators are familiar with the safety rules of operation.



When using the unit, a minimum 20% of tractor and equipment weight must be on tractor front wheels. Without this weight, tractor could tip up, causing possible loss of control and possible personal injury or death. The weight may be attained with a front end loader, front wheel weights, ballast in tires or front tractor weights. When attaining a minimum 20% of tractor and equipment weight on the front wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. DO NOT GUESS OR ESTIMATE!



A heavy load can cause instability in driving a tractor. Make sure the front of the tractor is properly counter-balanced with weights. Always drive slowly – especially around turns. An unstable tractor could steer badly and possibly tip over, causing injury or death.



Do not exceed the maximum recommended large round bale weight listed for each of the loader spear models. Damage to the equipment or serious personal injury could result.

ASSEMBLY & OPERATION

ASSEMBLY:

It is suggested that all the instructions be read before beginning assembly. Check the exploded view of the 3 pt. bale spear model you have in this manual to get an idea of the relationship between the parts.

ALL MODELS:

Install the long forged main spear into the socket in the main frame. The threads and nut are metric – be sure correct tools are used. Locate the lift pins for your hitch and tighten securely.

OPERATION:

Make sure all operators have read all the safety warnings and precautions in this manual and those in the tractor operator's manual.

Be sure tractor is properly counterbalanced with weights before attempting to lift any load with the Bale Spear Attachment.

If you are handling bales with both the front end loader and the 3 pt. hitch on the tractor, always load the 3 pt. attachment first and unload last.

With the tractor, push the spear into the large hay bale. Make sure you have penetrated the hay bale far enough so the bale doesn't want to come off the end of the spear.

If, when you initially pick the bale up, it tends to droop rearward, this would indicate you have not penetrated the bale far enough.

NOTE: Soft center bales will tend to droop after being lifted by a single spear. Placing the spear in a lower position will allow for more lifting height and lessen the load on the stabilizer spears.

NOTE: Always make sure bale spear fully penetrates the bale. Partial penetration locates all the weight of the bale on the outer end and can damage spear. Not covered under warranty.

NOTE: In cold weather, a bale frozen to the ground may exceed the lifting capacity of spear. Damage to spear may occur. Not covered under warranty.



DANGER

HANDLE ROUND BALES SAFELY:

Improper use of loaders to handle round bales can result in serious injury or death to the tractor/loader operator. This could be caused by the bale rolling back down the loader into the operator's station.

For optimum stability and visibility:

- Do not handle bales that exceed the bale weight limitations of the bale spear.
- Carry the bale slowly and as low as possible to the ground.
- Operate the hydraulic controls smoothly, avoiding jerky operation.
- Never use the tractor to stop a rolling bale.
- Only use a tractor equipped with a ROPS cab or rollover protective structure.
- Travel slowly over rough ground or when making turns.
- Allow for additional length of bale on tractor while turning.
- Use particular care when working on inclines and hillsides.

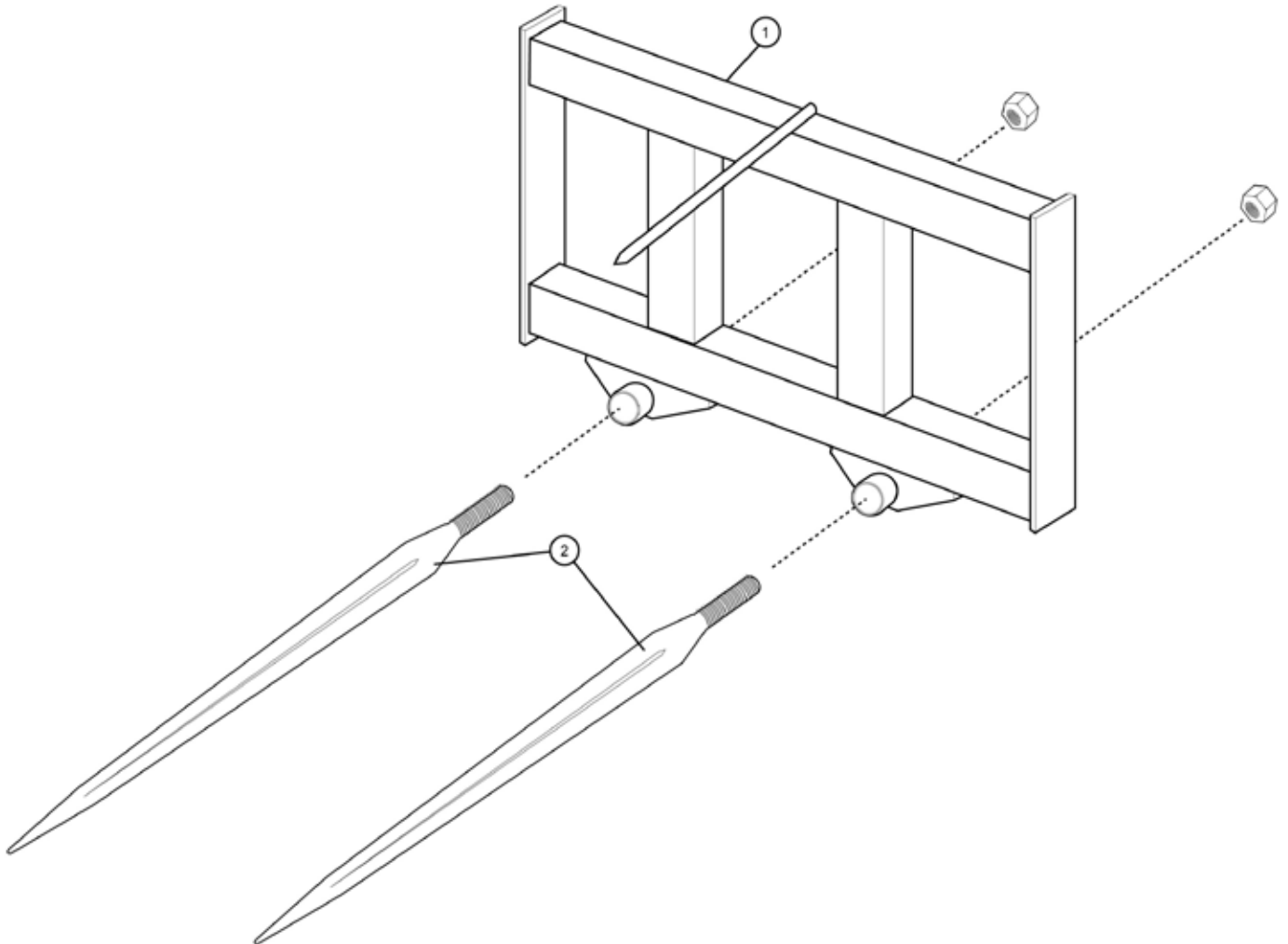
MAINTENANCE:

Periodically check all bolts to make sure they are tight.

Check the large nut on the forged spears to make sure it is tight.

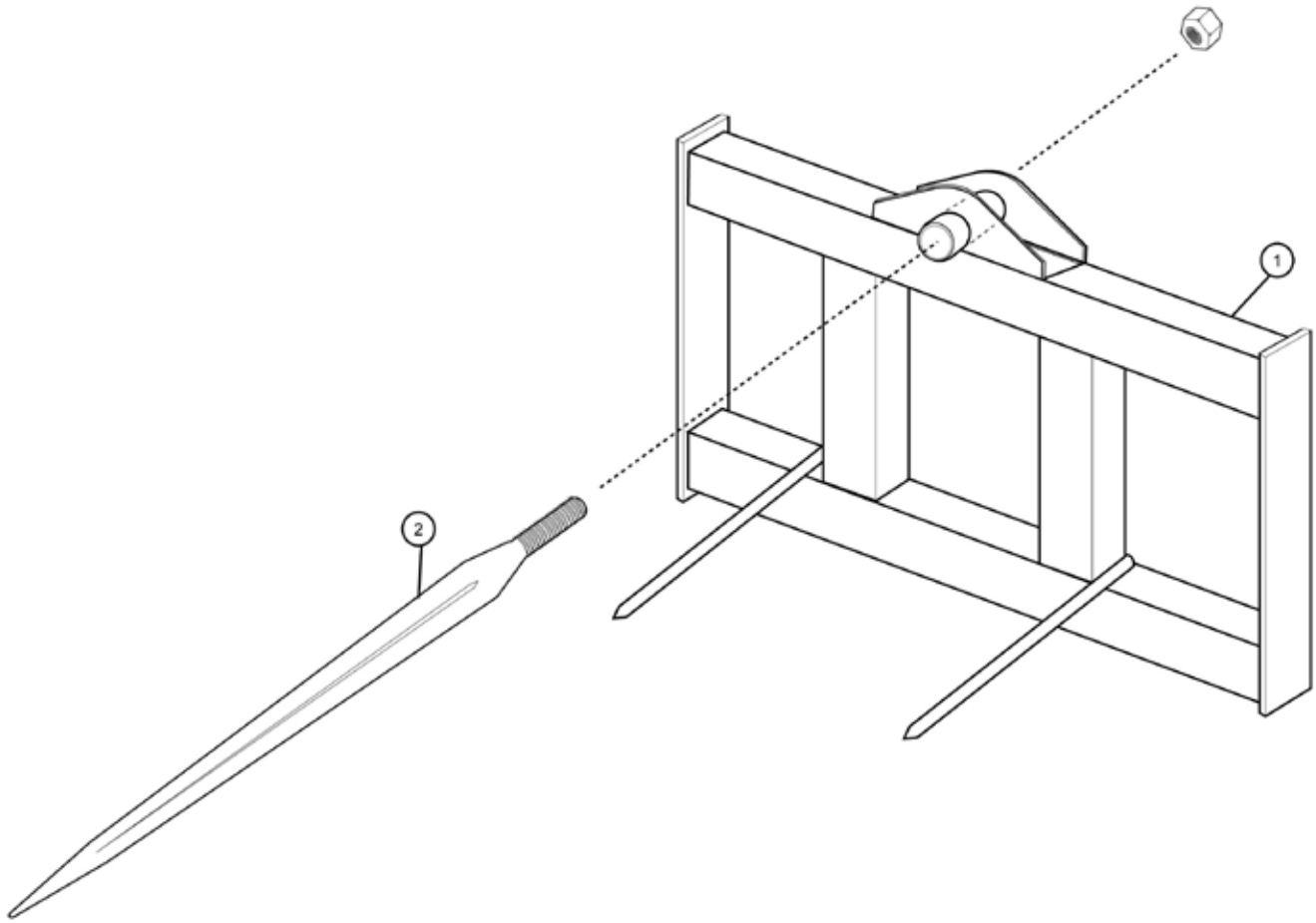
Replace safety signs and instruction decals if damaged or missing.

318-1006-I • MAIN ASSEMBLY



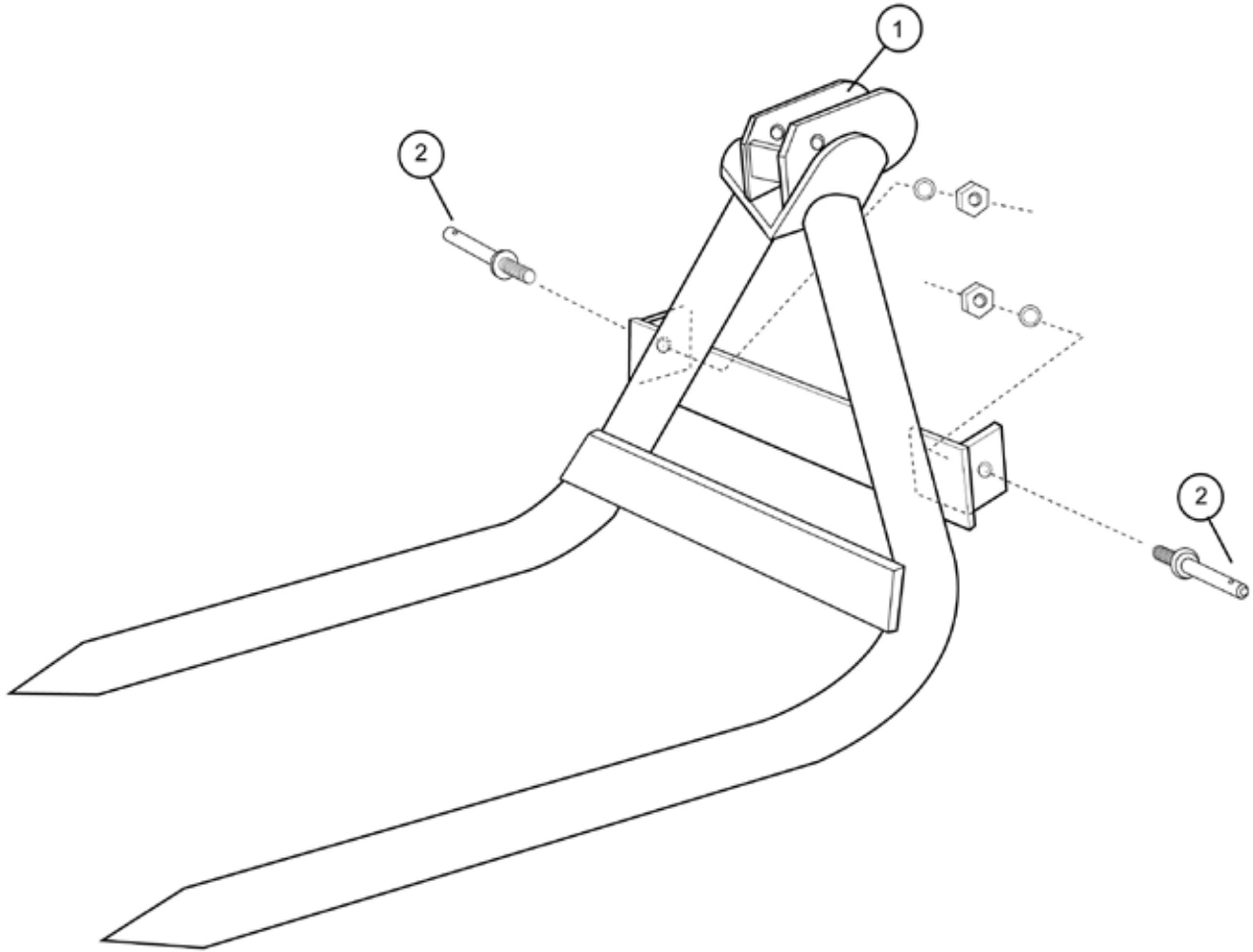
ITEM	PART NO.	QUANTITY	DESCRIPTION
1	115-8002	1	Double Hay Spear Weldment
2	161-1001	2	Bale Spear 49-1/4" with nut

318-1005-I • MAIN ASSEMBLY



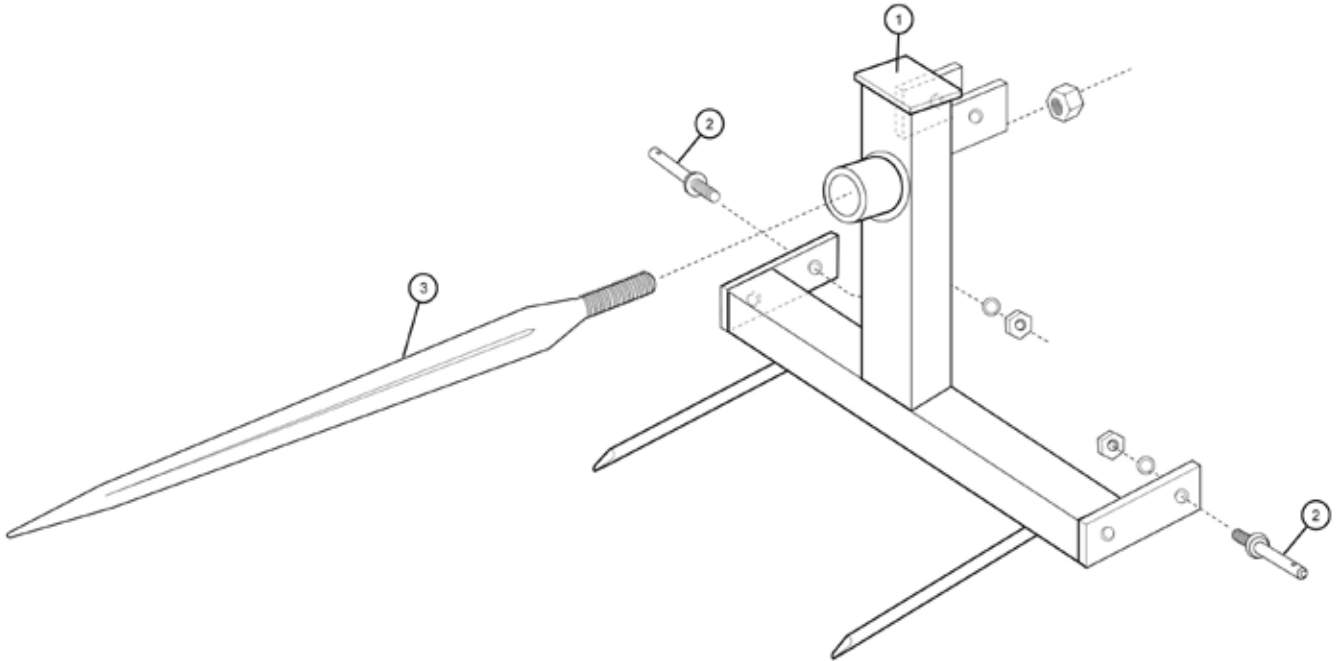
ITEM	PART NO.	QUANTITY	DESCRIPTION
1	115-8001	1	Single Hay Spear Weldment
2	161-1001	2	Bale Spear 49-1/4" with nut

020-1500 • MAIN ASSEMBLY



ITEM	PART NO.	QUANTITY	DESCRIPTION
1	115-4444	1	Bale Carrier Weldment
2	150-10	2	Lift Pin

020-1502 • MAIN ASSEMBLY



ITEM	PART NO.	QUANTITY	DESCRIPTION
1	115-39202	1	Bale SPear Carrier Weldment
2	150-10	2	Lift Pin
3	161-1001	1	Bale Spear 49-1/4" with nut

LIMITED WARRANTY POLICY & REGISTRATION

Modern, Inc. warrants its products for a period of one year after date of sale by authorized dealer to be free from defects in material and workmanship, and will replace at its factory, any parts that will be returned, with shipping charges prepaid, and when examined by us, will disclose it to be defective. This warranty will not apply to implements or parts that have been subjected to misuse, negligence, accident, or that have been altered or repaired.

1. Parts may not be returned without authorization by ModernAg Products.
2. All products returned under warranty inspection claim must be returned PREPAID to our factory.
3. Our obligation under the above warranty is limited to repair or replacement at our factory of any part or parts which Modern, Inc. decides to be defective.
4. Products or parts that have been examined by Modern, Inc. and determined to be improperly operated, damaged by accident or negligence, field repaired or altered, are not covered by this warranty.
5. Modern, Inc. reserves the right to change our specification and designs at any time.
6. This warranty will not obligate Modern, Inc. to bear any cost of labor for field replacement, testing, or adjustment.

DEALER: I hereby certify that:

1. The machine has been correctly assembled in accordance with manufacturers instructions.
2. All bolts have been checked and tightened.
3. All other pre-delivery checks have been completed as per operators manual.
4. Purchaser was given operators manual and instructed in safe and correct usage of machine and on limitation of warranty.
5. Machine was tested and operates correctly.

PURCHASER: I hereby certify that:

1. The machine is correctly assembled.
2. Receipt of the operators manual which I have read and clearly understood.
3. I have a clear understanding of the warranty limitations.
4. I have a clear understanding on the correct and safe operation of the machine
5. That the machine needs regular maintenance as per instructions in operators manual.
6. I have a clear understanding on the capacity of this machine and am aware of its limitations.

MODEL _____

SERIAL # _____

DEALER _____

DATE DELIVERED _____

DEALER'S STAMP

MAIL TO:

PURCHASERS ADDRESS:

