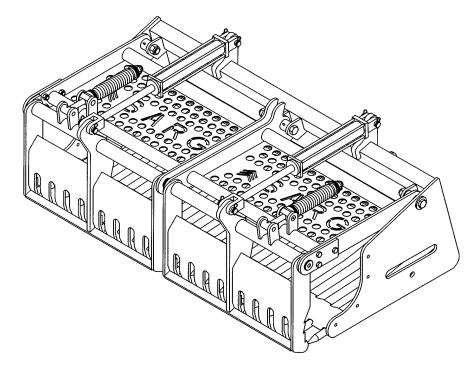
# OWNER'S/ OPERATOR'S MANUAL

MODEL NO.'s
SARG-72
SARG-84
SAMB-72
SAMB-84



For Safe Operation Read Rules And Instructions Carefully

SI NO LEEINGLES, PIDA AYUDA A AIGUIEN QUE SI LO LEA PARA QUE LE TRADUZCA LAS MEDIDAS DE SEGURIDAD.



# SKID STEER SWEEP ACTION ROCK GRAPPLE and MATERIAL BUCKET

Safety Instructions
Power Unit Preparation
Operating Instructions

Assembly & Mounting Maintenance Repair Parts

# **A CAUTION**

THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE THOROUGHLY UNDERSTOOD BEFORE ATTEMPTING TO BEGIN ASSEMBLING THIS MACHINE

- Select an area for assembly that is clean and free of any debris which might cause persons working on the assembly to trip.
- 2. Do not lift heavy parts or assemblies. Use crane, jack, tackle, fork trucks or other mechanical devices.
- Preview the assembly instructions in your operator's manual before proceeding further.
- 4. If the assembly instructions call for parts or assemblies to be blocked up, use only blocking material that is in good condition and is capable of handling the weight of the assembly to be blocked. Also insure that the blocking material is on a clean, dry surface.
- 5. Never put hands, or any part of body, under blocked up assemblies if at all possible.

- After completing assembly, thoroughly inspect the machine to be sure that all nuts, bolts, hydraulic fittings or any other fastened assemblies have been thoroughly tightened.
- 7. Before operating the machine, thoroughly read the operation section of your operator's manual.
- 8. Before operating, read the maintenance section of your operator's manual to be sure that any parts requiring lubrication, such as gearboxes, are full, to avoid any possible damage.
- Before operating equipment If you have any questions regarding the proper assembly or operation, contact your dealer or representative.

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# STATEMENT OF POLICY

It is the policy of Worksaver, Inc. to improve its products where it is possible and practical to do so. Worksaver, Inc. reserves the right to make changes or improvements in design and construction at any time, without incurring the obligation to make these changes on previously manufactured units.

#### TO THE OWNER:

Read this manual before using your Grapple Attachment. This manual is provided to give you the necessary operating and maintenance instructions for keeping your Grapple Attachment in top operating condition. Please read this manual thoroughly. Understand what each control is for and how to use it. Observe all safety signs on the machine and noted throughout the manual for safe operation of implement. Keep this manual handy for ready reference.

Like all mechanical products, it will require cleaning and upkeep. Lubricate the Grapple Attachment as specified.

Use only genuine Worksaver, Inc. service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model and serial number of your Grapple Attachment here:

Model:	Serial Number:				
Date Purchased:					

# RETAIL CUSTOMER'S RESPONSIBILITY

It is the Retail Customer and/or Operator's responsibility to read the Operator's Manual, to operate, lubricate, maintain, and store the product in accordance with all instructions and safety procedures. Failure of the operator to read the Operator's Manual is a misuse of this equipment.

It is the Retail Customer and/or Operator's responsibility to inspect the product and to have any part(s) repaired or replaced when continued operation would cause damage or excessive wear to other parts or cause a safety hazard.

It is the Retail Customer's responsibility to deliver the product to the authorized Worksaver Dealer, from whom he purchased it, for service or replacement of defective parts which are covered by warranty. Repairs to be submitted for warranty consideration must be made within forty-five (45) days of failure.

It is the Retail Customer's responsibility for any cost incurred by the Dealer for traveling to or hauling of the product for the purpose of performing a warranty obligation or inspection.

# LIMITED WARRANTY

Worksaver warrants to the original purchaser of any new SARG Grapple Attachment, that the equipment be free from defects in material and workmanship for a period of TWELVE (12) MONTHS COMMENCING ON THE DATE OF DELIVERY OF THE PRODUCT TO THE ORIGINAL PURCHASER. This warranty will apply if notified to Worksaver, Inc. within thirty (30) days after such defect is discovered.

The warranty registration must be completed and returned to Worksaver, Inc.

Replacement or repair parts installed in the equipment covered by this warranty are warranted for ninety (90) days from the date of purchase of such part or to the expiration of the applicable new equipment warranty period, whichever occurs later.

Such parts shall be provided at no cost to the user during regular working hours. Worksaver reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this warranty.

#### DISCLAIMER OF IMPLIED WARRANTIES & CONSEQUENTIAL DAMAGES

Worksaver shall not be liable for any incident or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory.

Worksaver's obligation under this warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, including implied warranties of merchantability and fitness for a particular purpose and any liability for incidental and consequential damages with respect to the sale or use of the items warranted. Such incidental and consequential damages shall include but not be limited to: transportation charges other than normal freight charges; cost of installation other than cost approved by Worksaver; duty; taxes; charges for normal service or adjustments; loss of crops or any other loss of income; rental of substitute equipment, expenses due to loss, damage, detention or delay in the delivery of equipment or parts resulting from acts beyond the control of Worksaver.

#### THIS WARRANTY SHALL NOT APPLY:

- 1. To vendor items which carry their own warranties, such as hydraulic cylinders, hydraulic hoses, and fittings.
- 2. If the unit has been subjected to misapplication, abuse, misuse, negligence, fire or other accident.
- 3. If parts not made or supplied by Worksaver have been used in connection with the unit, if, in sole judgement of Worksaver such use affects its performance, stability, or reliability.
- 4. If the unit has been altered or repaired outside of an authorized Worksaver dealership in a manner which, in the sole judgement of Worksaver affects its performance, stability or reliability.
- 5. To normal maintenance service and normal replacement items such as gearbox lubricant, hydraulic fluid, worn blades, or to normal deterioration of such things as hoses and exterior finish, due to use or exposure.
- 6. To expendable or wear items such as cutting edge, plow bolts, tine points and other items that in the company's sole judgement is a wear item.

NO EMPLOYEE OR REPRESENTATIVE OF WORKSAVER IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY UNLESS SUCH CHANGE IS MADE IN WRITING AND SIGNED BY WORKSAVER'S SERVICE MANAGER, POST OFFICE BOX 100, LITCHFIELD, ILLINOIS 62056-0100.

This warranty is subject to the warranty registration being submitted within sixty (60) days after purchase. For warranty services, contact your selling dealer.

# To the Owner/Operator/Dealer

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this attachment to be used with all its safety equipment properly attached to minimize the chance of accidents.

#### **BEFORE YOU START!!**

Read the safety messages on the implement and shown in your manual.

Observe the rules of safety and common sense!



THIS SYMBOL MEANS

- ATTENTION!

- BECOME ALERT!

- YOUR SAFETY IS INVOLVED!

THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY WARNING MESSAGES. CAREFULLY READ EACH WARNING MESSAGE THAT FOLLOWS. FAILURE TO UNDERSTAND AND OBEY A SAFETY WARNING, OR RECOGNIZE A SAFETY HAZARD, COULD RESULT IN AN INJURY OR DEATH TO YOU OR OTHERS AROUND YOU. THE OPERATOR IS ULTIMATELY RESPONSIBLE FOR THE SAFETY OF HIMSELF, AS WELL AS OTHERS, IN THE OPERATING AREA OF THE PRIME MOVER AND ATTACHED EQUIPMENT.

#### **UNDERSTAND SIGNAL WORDS**



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



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



Indicates a 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.

If you have questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or the manufacturer directly.

#### GENERAL INFORMATION

The purpose of this manual is to assist in assembling, mounting, operating, and maintaining your attachment. Read this manual carefully to obtain information and instructions that will help you realize years of safe and dependable service.

The illustrations and data used in this manual were current at the time of printing, but due to possible engineering and/or production changes, this product may vary slightly in detail. Worksaver, Inc. reserves the right to redesign and/or change components as may be necessary without notification to anyone.

Throughout this manual, references may be made to:

Prime Mover	The engine-driven machine to which this product must be attached.
Right, Left, Front, Rear	Directions that are determined in relation to the operator of the equipment when seated in the normal operation position.

#### **IMPORTANT SAFETY INFORMATION!**

#### **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.

#### 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!**



#### 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 modification must be authorized in writing by the manufacturer.

## SAFETY INSTRUCTIONS (continued)

#### **WARNING!**

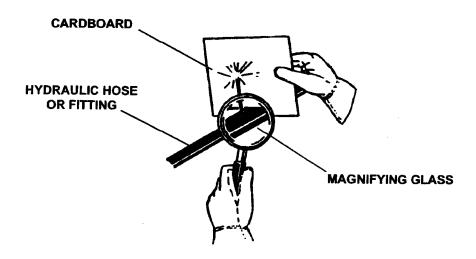


#### **USE CARE WITH HYDRAULIC FLUID PRESSURE**

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.
- Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid.
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research it immediately to determine proper treatment. Without immediate medical treatment, serious infection and reactions can occur.
- 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:



#### **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.

## **SAFETY INSTRUCTIONS** (continued)

#### WARNING!



#### 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.

- Operate only from the operator's station. Always use the seat belt if the prime mover has a ROPS. Do not use a seat belt if there is not ROPS. Check the seat belt daily and replace if frayed or damaged.
- Specified lift capacities must not be exceeded. See loader specifications.
- An operator must not use drugs or alcohol, which can change their alertness or coordination.
   An operator taking prescription or over-the-counter drugs should seek medical advice on whether or not they can safely operate equipment.
- Never use any of these attachments for a work platform or personnel carrier.
- · Always check locking pins before tilting or operating any attachment.
- 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 prime mover's engine running, or with this attachment in a raised position.
- Do not handle round bales unless loader is equipped with approved bale handling attachments.
- Do not detach loader from tractor with any of these attachments installed. Equip loader with material bucket when detaching.
- · Stop loader gradually when lowering or lifting loads
- Before exiting the prime mover, lower the attachment to the ground, apply the brakes, turn off the prime mover's engine, relieve hydraulic pressure, and remove the key.
- 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.
- A heavy load can cause instability of the prime mover. Use extreme care during travel. Slow down on turns and watch out for bumps. The prime mover may need additional counter-weights to counter-balance the weight of the attachment.
- Do not heap load heavy material where the combined weight of the bucket and the material could exceed the rated lifting capacity of the loader.
- Be sure the load does not stick out too far in front of the bucket. A light load sticking out too far can have the same tipping effect as a heavy load carried in close.
- Do not exceed the lift capacity of your loader. See loader specifications.
- Make sure all loads are secure before lifting. If lifting with the grapple and the load appears to be unstable, lower the load, open the grapple and reposition the load to attain full stability.

## **SAFETY INSTRUCTIONS** (continued)

#### 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. Beware of low electrical wires when loader is raised. Serious injury or death can result if contact is made.



#### TRANSPORTING ALL ATTACHMENTS

- Travel only with the attachment as close to the ground as possible. 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., cave in could result.
- When 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.

- Avoid sudden starts and stops while traveling up or downhill. Avoid parking on a slope. Slow
  down on sharp turns and slopes to prevent tipping and/or loss of control. Avoid slopes when
  surface is wet, slippery grass or soil. Be careful when changing directions on slopes.
- Use extra care when loading or unloading unit onto trailer or truck. NEVER secure rods or linkages on unit that could be damaged when transporting.
- Do not smoke when refueling. Allow room in the gas tank for expansion. Wipe up any spilled fuel. Secure cap tightly when done.



#### MAINTAINING ALL ATTACHMENTS

- Before working on this machine, drive to a level area, relieve hydraulic pressure, lower implement (or if working underneath, raise and block securely), shut off the engine, set the brakes, and remove the ignition keys. Relieve hydraulic pressure prior to doing any maintenance.
- Never work under equipment unless it is blocked securely. Never depend on hydraulic system to keep implement in raised position.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Worn, damaged, or illegible safety decals must be replaced. New safety decals can be ordered from your dealer or from the manufacturer.



#### STORAGE SAFETY

- Store the unit in an area away from human activity. Do not permit children to play on or around the stored unit.
- Make sure all parked machines are on a hard, level surface and engage all safety devices.
   Storage location should be level and solid to make connecting and unconnecting to prime mover easy.
- If blocking is used, make sure it is solid and secure before leaving area.

# SAFETY SIGNS





#### HIGH-PRESSURE FLUID HAZARD

To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.

101122

#### **BE CAREFUL!**

Use a clean, damp cloth to clean safety decals. Avoid spraying to close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.



# CRUSHING AND PINCHING HAZARD

- Be extremely careful with various parts of the machine. Moving parts can crush or pinch body parts.
- Operate controls from operator's seat only.
- Make sure parking brake is engaged before leaving operator's seat.
- Stand clear of machine while in operation or when it is being raised or lowered.

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

101288



**REMEMBER:** If Safety Signs have been damaged, removed, become illegible or parts replaced without Signs, new Safety Signs must be applied. New Safety Signs are available from your authorized distributor or factory.

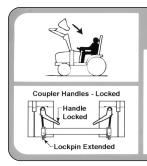
# SAFETY SIGNS

# **AWARNING**

- Read and follow owner's manual before installing, operating, or performing maintenance on this attachment. Observe safety recommendations in manual.
- Do not exceed weight limit of attachment or loader.
- Do not lift or carry anyone on attachment.
- Attachment should be used with the proper counterweight on rear of tractor. When handling loads on both ends of tractor, load rear first and unload last.
- Set wheels wide for increased stability.
- Never raise load to extreme heights on steep inclines.
- Keep load as low as practical to maximize power unit stability.
- Make sure latching mechanism is engaged and attachment is securely mounted to the loader.
- Do not stand or work under raised attachment.
- Stop engine, lower loader, relieve all hydraulic pressure, and lock brakes before leaving operator's seat.
- Failure to observe the above precautions can result in serious injury or death.

101310





# **A WARNING**

To avoid injury or death caused by falling attachment:

Lockpins must completely engage attachment plate slots.

101313

#### **BE CAREFUL!**

Use a clean, damp cloth to clean safety decals. Avoid spraying to close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.



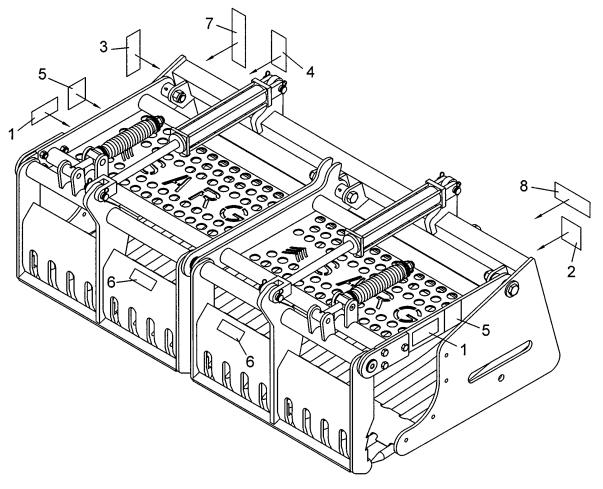
- Keep load centered on Grapple Rake and loader. Unbalanced loads increase possibility of tipping or roll-over.
- When handling brush or branches, be aware of branches that might contact power unit or operator.
- When cleaning up old building sites, check for live utility lines. Always be sure electric, gas, and water lines have been properly disconnected.
- Check material to be handled, especially at old building sites or dumps. Be alert for any hazardous material that could be released by grapple rake contact. If in doubt, check with professional waste haulers.
- When stacking logs, trees, or stumps always make sure the load will not roll back toward the power unit when released from grapple rake.
- Failure to observe the above warnings could result in serious injury or death.

101129

**REMEMBER:** If Safety Signs have been damaged, removed, become illegible or parts replaced without Signs, new Safety Signs must be applied. New Safety Signs are available from your authorized distributor or factory.

# **SAFETY SIGN LOCATION**

The types of safety signs and locations on the equipment are shown in the illustration below. Good safety requires that you familiarize yourself with various safety signs, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.



Ref. No.	Part No.	Description	No. Req'd.
1	101027	Safety Sign - Warning (Stand Clear)	2
2	101122	Safety Sign - Warning (High Pressure)	1
3	101129	Safety Sign - Warning (Grapple)	1
4	101288	Safety Sign - Warning (Crushing/Pinching Hazard)	1
5	101295	Safety Sign - Warning (Crush Hazard)	2
6	101297	Safety Sign - Warning (Pinch Point)	2
7	101310	Safety Sign - Warning (Read Owner's Manual)	1
8	101313	Safety Sign - Warning (Lockpins)	1

The model and serial number plate is located on the right side of the vertical part of the main frame.

The serial number is also stamped into the top cross tube of the mounting frame.

# INSTRUCTIONS

#### **GRAPPLE BUCKET INSTALLATION**

#### **Attachment to Prime Mover**

#### **WARNING!**



Improper attachment of the Grapple Bucket could result in injury or death. Do not operate this product until you have positive indication that the attachment is securely mounted.

- 1. Position the attachment on a level surface.
- 2. The guick attach coupler handles should be in the unlocked position with lock pins retracted, Figure 2.

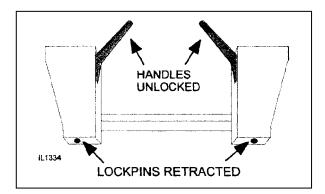


Figure 2. Quick Attach Coupler Handles - Unlocked

- 3. Enter the prime mover. Fasten seatbelt, start engine. Disengage the parking brake.
- 4. Follow the attaching procedure in the prime mover owner's manual. Align the attachment mechanism with the mounting on the grapple bucket, attach to the prime mover or loader.
- 5. Engage the parking brake and shut down the prime mover. Be sure to relieve pressure to the auxiliary hydraulic lines.
- 6. Unfasten safety restraints and exit the prime mover.
- 7. Engage the latching mechanism to secure attachment to loader. The lockpins must be completely extended and secured into the retaining slots provided on the attachment. Figure 3.
- 8. Make sure the hydraulic couplers are clean. Connect the hydraulic lines to the prime mover. Twist the collar of the quick couplers one-quarter turn to secure hydraulic connections. If attachment unit is being installed on a tractor loader, purchase proper couplers and hoses as required and attach to the loader as per the manufacturers instructions.

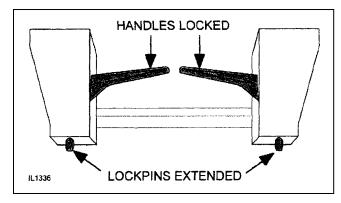


Figure 3. Attachment Coupler Handles - Locked

#### **WARNING!**



Attachment coupler handles must always be rotated to LOCK POSITION to prevent coupler latch from disengaging and attachment from falling off.

## **INSTRUCTIONS** (continued)

#### GRAPPLE BUCKET INSTALLATION

#### Attachment to Prime Mover - (continued)

- 9. Make sure hoses free from binding or obstructions.
- 10. Re-enter the primer mover. Fasten seatbelt and re-start engine.
- 11. Carefully raise the loader and cycle the rollback/tilt cylinders to check clearances and to ensure that the attachment is securely mounted.
- 12. Cycle the grapple clamp hydraulic cylinders several times full stroke to work the air out of the cylinders.

NOTICE: When shipped, the hydraulic cylinder(s) on this product contained air. Failure to remove all the air from the hydraulic cylinder(s) can cause uneven, jerky cylinder movement when the hydraulic controls are operated and possibly allow unwanted cylinder movement when those controls are not being operated.

#### REMOVING THE GRAPPLE BUCKET

#### **WARNING!**



Serious injury or death may result from disengaging the attachment when the attachment is in an unstable position or carrying a load. Place the attachment in a stable position before disengaging.

#### CAUTION



Hoses for the attachment must be disconnected before the quick attach is disengaged. Pulling the attachment with the hoses could result in damage to the prime mover or the attachment.

- 1. If possible, find a level solid location to place the attachment. This makes it easier to disconnect and to re-connect later on.
- 2. Lower the attachment to the ground.
- 3. Engage the parking brake and shut down the prime mover. Be sure to relieve pressure to the auxiliary hydraulic lines.
- 4. Unfasten safety restraints and exit prime mover.
- 5. Disconnect the attachment hydraulic lines from the prime mover. Connect quick couplers together to keep clean.
- 6. Disengage attachment-locking mechanism (mechanical type).
- 7. Enter prime mover, fasten safety restraints and start the prime mover.
- 8. Disengage attachment-locking mechanism (hydraulic type).
- 9. Disengage the parking brake, and back away from the attachment.

# **OPERATING INSTRUCTIONS**

The operator is responsible for the safe operation of this equipment. The operator must be properly trained. Operators should be familiar with the attachment, prime mover and all safety practices before starting operation. Make sure all operators have read the Owner's/Operator Manual and are familiar with the instructions and the safety rules of operation.

All reference to left, right, front, or rear are given from the operator's position, facing the direction of forward travel.

NOTE: Watch for and avoid hidden obstructions, i.e., stumps, rocks, concrete piers, or uneven slabs of concrete, when operating, or attachment damage may occur. Stop prime mover and implement immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.

The grapple buckets are designed to pick up bulky, unusually shaped, or long materials that would not stay in an ordinary bucket. This includes rocks and loose stumps.

NOTE: Make sure your skid steer unit is large enough to handle a Sweep Action Grapple type bucket. The Sweep Action Grapple buckets are heavier than most grapple buckets and when fully loaded, can exceed the capacity of smaller size skid steer units.

#### **Handling Medium to Large Size Rocks/Objects**

- Approach the load so that the weight will be centered on the bottom of the bucket. The heaviest side should be closest to the back of the bucket and not near the bucket edge.
- Before lifting, make certain the bucket is completely under the load and the bucket bottom is level or tilted back slightly.
- 3. Close the grapples as much as possible and lift the bucket slightly to be certain that the load is secure.

NOTE: If the load appears to be unstable, lower the bucket to the ground, open the grapple clamps and reposition the load to attain full stability. Repeat until complete stability is achieved.



#### **Handling Smaller Size Rocks/Objects**

Open the grapples all the way. Tilt the bucket forward (from  $5^{\circ}$  to  $35^{\circ}$  – depending on the terrain and size of the rocks/objects to be handled).

Move forward until the front tips of the bucket tines or cutting edge contact the rocks/objects. When the tines or front edge contact the rocks/objects close the grapple clamps.

The rear part of the grapple clamps will close until they encounter the rock/objects or reach their stop. Then the forward rake part of the grapple will close. This action will either clamp the rock or object to the bucket or "sweep" it into the bucket.

NOTE: When picking up smaller rocks/items, it is suggested that the bolt-on side plates are used. (See photo)



# **OPERATING INSTRUCTIONS** (continued)

NOTE: If the rock or object is clamped or pinched against the front of the bucket and you want it in the bucket, re-open the grapple clamp partially and then re-close or re-clamp. (Might require being done more than once.)

If you are picking up rocks and there is loose dirt involved, tilt the bucket back and raise the bucket. Keeping the grapple clamp closed, tilt the bucket forward and back a few times. This will cause the rocks to change position in the bucket and allow the dirt to sift through the rocks and out the bottom of the bucket.

Once the dirt is removed, you can transport the load to where you want to dump it.

#### **WARNING!**



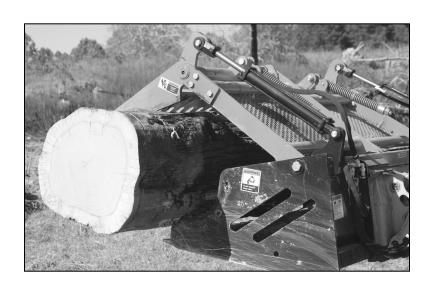
The front "Rake" part of the grapple is spring loaded to the "open" position. When the skid steer engine is turned off, the front part of the grapple will move to a partially open position.

Always operate the hydraulic control and allow the front grapple rake to open before leaving the skid steer.

#### **Handling Logs/Limbs**

When handling logs or limbs it will be best to remove the bolt-on side plates. This will provide a "Ledge" to help hold logs or larger size limbs.

Long logs or trees may be too long and too large to be handled safely. Cutting them into more manageable size pieces with a cham saw is recommended.



#### WARNING!



Do not let a long log or tree extend too far out the side of the bucket. This will put excess weight outside the safe lifting envelope of the skid steer and could cause the unit to tip over on its side.

When using the grapples as a rake to drag materials into position for pick up, THE GRAPPLE CLAMPS MUST BE COMPLETELY OPEN.

NOTICE: Applying a raking-type force to partially open grapple clamps will greatly magnify the fluid pressure in the hydraulic hoses, fittings, and cylinders and may cause component failure.

## **OPERATING INSTRUCTIONS** (continued)

#### **During Use**

#### WARNING!



Avoid serious injury.

- THE GRAPPLE MOVES QUICKLY! Do not allow anyone near the grapples.
- · Never get between the grapple and the bucket.
- Do not lift any load that is taller than the height of the fully opened grapple.
- Do not roll back this product so far that the load falls off toward or on the operator.
- When stacking debris or loading vehicles, make sure you are operating in an area AWAY FROM OVERHEAD WIRES.
- · Avoid holes, ditches, and obstructions which may cause prime mover to tip.
- Never allow anyone to walk or work under a raised loader.
- Operate the loader hydraulic controls smoothly, avoiding jerky operation.
- Stop loader gradually when lowering or lifting loads.
- Be sure that people, livestock, or pets are not standing near the machine while operating.
- Do not lift or carry anyone on loader or in bucket or attachment.

#### WARNING!



- Never load heavy material where the combined weight of the attachment and material could exceed the rated lifting capacity of the loader.
- Operate the attachment only when properly seated at the operator's station.
- Do not exceed the lift capacity of your loader. See loader specifications.
- · Do not handle round bales.
- Be sure the load does not stick out too far in front of the bucket. A light load sticking out too far can have the same unbalanced or tipping effect as a heavy load carried in close.
- When using the grapple, lift the load slightly and make sure that the load is secure. If the load appears to be unstable, lower the load, open the grapple and reposition the load to attain full stability.
- Reduce speed when driving over rough terrain, on a slope, or turning, to avoid overturning the vehicle.
- Avoid side slope travel whenever possible. Drive up the slope to pick up a load and then down in reverse. Carry loads as close to the ground as possible.
- Before exiting the prime mover, lower the bucket to the ground, turn off the prime mover's engine, relieve hydraulic and spring pressure, remove the key and apply the brakes.

# **OPERATING INSTRUCTIONS** (continued)

#### **Transporting the Load**

#### **WARNING!**



#### Avoid serious injury.

- Raise the load to the <u>minimum</u> height required for the terrain that must be crossed with the load.
- Operate the prime mover so that the load always remains level and secure.
- · Accelerate, turn, and brake gradually.
- Avoid any obstacles, bumps, or holes in your intended path.
- Frequently check the load to make sure that the load has not become unstable.
- · Drive slowly over rough ground and on slopes.

#### **Storage**

- Storage location should be level and solid to make connecting and disconnecting easy.
- · Always store in a clean, dry location away from children and livestock.
- Always relieve hydraulic line pressure before detaching from the prime mover.
- Leaving the unit outside will materially shorten its life.
- · Clean the unit thoroughly, removing all mud, dirt and grease.
- Inspect for visible signs of wear, breakage, or damage. Order any parts required, and make the necessary repairs to avoid delays when starting the next job.
- Tighten loose nuts, capscrews, and hydraulic connections.
- · Cap hydraulic couplers to protect against contaminates and secure hoses off the ground.
- · Touch up all unpainted surfaces with paint, to prevent rust.
- · Coat the exposed portions of the cylinder rod with grease.
- · Grease the unit.

# **OWNER SERVICE**

#### WARNING!



NEVER GO UNDERNEATH EQUIPMENT. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

Read Manual for service instructions or have service performed by a qualified dealer.

#### WARNING!



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

Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, relieve hydraulic pressure, remove key, and unfasten seat belt. Never leave equipment unattended with engine running.

#### **General Information**

Your attachment was designed to be almost maintenance free. Little effort is needed to keep it in top condition. It is, however, important to follow these procedures to get full performance and longevity out of the equipment.

#### **Spring Replacement**

The front rake part of the grapple clamp is spring loaded. If it becomers necessary to remove or change a spring – **ALWAYS** open the front rake clamp part fully to reduce the spring pressure.

Stand to the side when removing the nut that is compressing the spring.

When installing a spring, tighten the nut to pre-load the spring. The spring should be compressed to a 13.125 inch length to properly apply the pre-load.

Make sure that you replace the three (3) 1.0" flat washers on each end of the spring.

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.

#### Lubrication

The lubrication your Grapple Bucket will need is the greasing of the grapple clamp pivot points. Grease fittings have been installed in each clamp pivot to facilitate this task.

We recommend greasing these fittings both before and after the initial eight (8) hours of use and then every (24) hours of use thereafter.

Thoroughly clean the grease zerks before servicing. Dirt mixed with lubricant will rapidly wear parts. Keep it clean.

## SERVICE INSTRUCTIONS (continued)

#### DAILY OR EVERY 8 HOURS OF OPERATION

Replace any missing bolts or nuts with approved replacement parts.

Check hydraulic system for leaks. See procedure below.

Visually inspect the machine for worn parts or cracked welds. Repair as necessary.

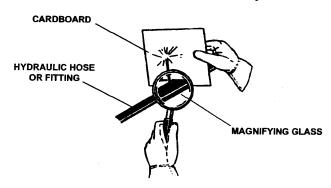
#### **WARNING!**



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.



#### SAFETY SIGN IDENTIFICATION AND REPLACEMENT

Safety Sign 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 safety signs are identified by their part numbers with reductions of the actual safety signs located on the page. Use this information to order replacements for missing, illegible or damaged safety signs. When replacing parts with safety signs attached, the safety sign must also be replaced. All Safety Signs are free of charge. Contact your local dealer or manufacturer for replacements.

#### **Replacing Safety Signs**

- 1. Clean the area of application with nonflammable solvent.
- 2. Wash the same area with soap and water.
- 3. Allow the surface to fully dry.
- 4. Remove the backing from the safety sign exposing the adhesive surface.
- 5. Apply the safety sign to the location shown in the parts diagram.
- 6. Smooth out any 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.

#### **WARNING!**



#### DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the 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.

## SERVICE INSTRUCTIONS (continued)

# INSTALLATION OR REPLACING CUTTING EDGE ON MATERIAL GRAPPLE BUCKET

The Material Grapple Bucket can be equipped with a replaceable, reversible 3/4" X 8" cutting edge. See parts list for length and part number for your model.

- 1. Raise the Material Grapple Bucket about 10" 12".
- 2. Place a 6" X 6" block under both ends of the bucket about 10" behind the welded leading edge of the bucket. Then lower the bucket so it rests securely on the blocks.
- 3. Place two smaller blocks under the cutting edge so when the cutting edge is loose from the bucket it doesn't fall on the ground. (These blocks will also support the cutting edge when bolting it back on the bucket).

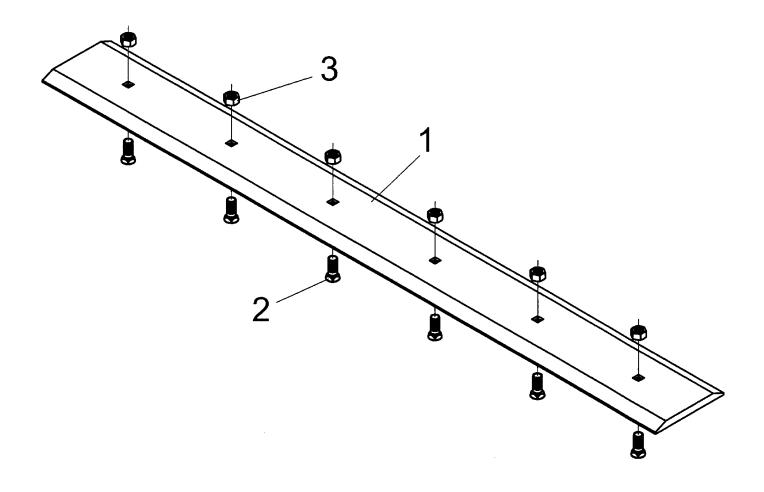
NOTE: Do not block the machine any higher than necessary to remove or install the cutting edge.

- 4. Refer to parts drawings/schematics on page 19 for proper parts identification. Remove the <sup>3</sup>/<sub>4</sub>" hex nuts and plow bolts that secure the cutting edge to the bucket. Turn the cutting edge end for end and use the new edge or replace it if both edges have been used.
- 5. Attach the cutting edge to the material bucket and secure with the plow bolts and hex nuts previously removed.

NOTE: If the plow bolts or hex nuts are worn, replace with new ones.

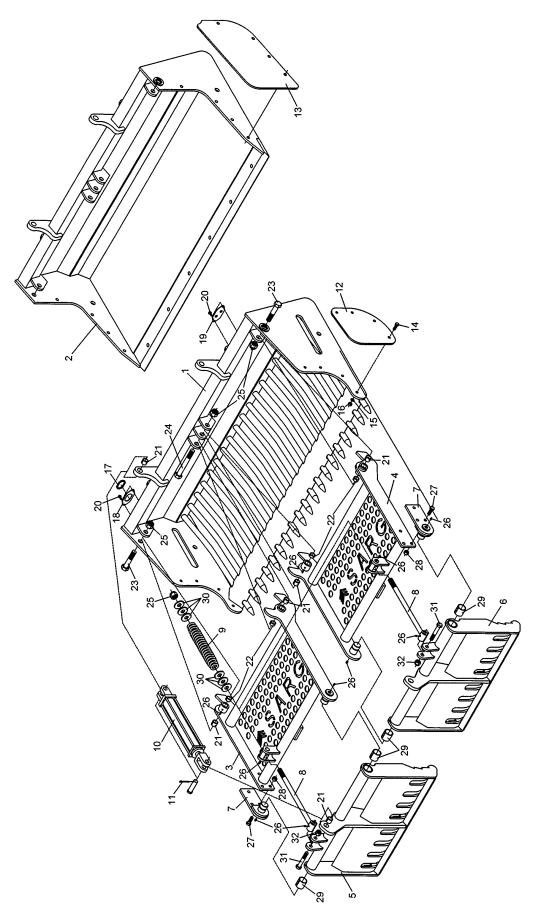
6. Torque the hex nuts to specifications given in bolt torque chart, page 21.

# REPLACEMENT BLADE KIT PARTS LIST



Ref. No.	Part No.	Description	No. Reg'd.
1	811791	Cutting Edge 3/4" x 8" x 72" DB (SAMB-72)	1
	811871	Cutting Edge 3/4" x 8" x 84" DB (SAMB-84)	1
2	2503325	Bolt 3/4"-10NC x 2" #3 Plow Head Gr. 5	Var.
3	2500095	Nut 3/4"-10NC Stamplock Hex Gr. 5	Var.

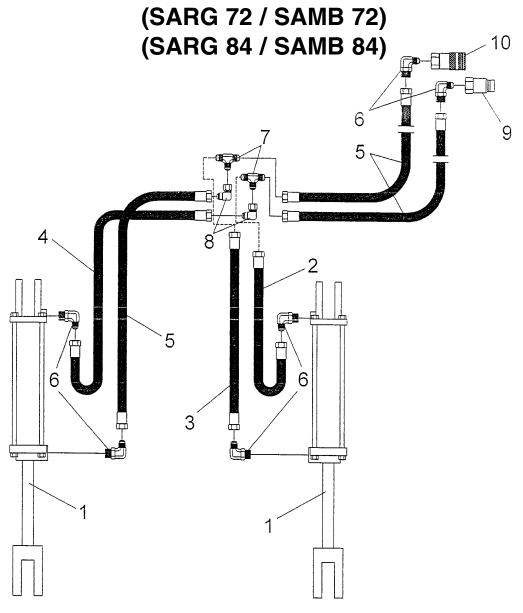
# SARG 72/84 and SAMB 72/84 PARTS DIAGRAM



# SARG 72/84 and SAMB 72/84 PARTS LIST

Ref. No.	Part No.	Description	No. Req'd.
1	812121	Main Frame (SARG-72)	1
	812163	Main Frame (SARG-84)	1
2	812181	Main Frame (SAMB-72)	1
	812191	Main Frame (SAMB-84)	1
3	812132	RH Rear Clamp Weldment (SARG-72 / SAMB-72)	1
	812168	RH Rear Clamp Weldment (SARG-84 / SAMB-84)	1
4	812141	LH Rear Clamp Weldment (SARG-72 / SAMB-72)	1
	812171	LH Rear Clamp Weldment (SARG-84 / SAMB-84)	1
5	812142	RH Rake Weldment (SARG-72 / SAMB-72)	1
	812172	RH Rake Weldment (SARG-84 / SAMB-84)	1
6	812150	LH Rake Weldment (SARG-72 / SAMB-72)	1
	812175	LH Rake Weldment (SARG-84 / SAMB-84)	1
7	812151	Bolted Stub End	2
8	812154	Spring Shaft Weldment	2
9	812161	Spring	2
10	2504275	Hydraulic Cylinder 2 x 14	2
11	2504121	Cotter Pin 3/16" x 1 1/2"	4
12	812157	Side Plate, Bolt-On (SARG-72 / SARG-84)	2
13	812183	Side Plate, Bolt-On (SAMB-72 / SAMB-84)	2
14	2503145	Bolt 1/2"-13NC x 1 1/2" Hex Head Gr. 5	8
15	2502002	Washer 1/2" Spring Lock	8
16	2500003	Nut 1/2"-13NC Full Hex	8
17	2505790	Grommet	1
18	811785	Plate, Short Grommet Cover	1
19	812149	Cover Plate w/Fitting Holes	1
20	2503356	Screw, Thread Cutting 5/16"-18 x 3/4" Slotted Hex Head	4
21	2505035	Spring Bushing 1.25 x 1.00 x 1.00	8
22	2505034	Spring Bushing 1.25 x 1.00 x 0.63	4
23	2503310	Bolt 1"-8NC x 5" Hex Head Gr. 5	2
24	2503259	Bolt 1"-8NC x 8" Hex Head Gr. 5	1
25	2500045	Nut 1"-8NC Nylock Hex	5
26	2504049	Drive Zerk 5/16"	12
27	2503175	Bolt 5/8"-11NC x 1 3/4" Hex Head Gr. 5	6
28	2500094	Nut 5/8"-11NC Toplock Hex Gr. 5	6
29	2505047	Spring Bushing 2.00 x 1.75 x 2.00	4
30	2501001	Washer 1" Flat	12
31	2503254	Bolt 3/4"-10NC x 4 1/2" Hex Head Gr. 5	2
32	2500037	Nut 3/4"-10NC Nylock Hex	2

# **HYDRAULIC DIAGRAM & PARTS LIST**



Ref. No.	Part No.	Description	No. Req'd.
1	2504275	Hydraulic Cylinder 2 x 14	2
2	2505793	Hose, Hydraulic 1/4" ID x 20"	1
3	2505794	Hose, Hydraulic 1/4" ID x 28"	1
4	2505678	Hose, Hydraulic 1/4" ID x 72"	1
5	2505679	Hose, Hydraulic 1/4" ID x 84"	3
6	2505681	Elbow, 90° Adj. 9/16"-18 to 3/4"-16	6
7	2505795	Tee, Tube 9/16"-18 Male	2
8	2505682	Elbow, 90° Swivel 9/16"-18	2
9	2505688	Coupling, SAE 1/2" Male - 3/4"-16 O-Ring	1
10	2505689	Coupling, SAE 1/2" Female - 3/4"-16 O-Ring	1

# **BOLT TORQUE CHART**

Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.

All torque values are given to specifications used on hardware defined by SAE J1701 & J1701M JUL96.



SAE SERIES TORQUE CHART



(No Dashes)

SAE Bolt Head Identification



SAE Grade 5 (3 Radial Dashes)



SAE Grade 8 (6 Radial Dashes)

A Diameter (Inches)		MARKING ON HEAD						
	Wrench	SA	E 2	SA	Æ 5	SA	E 8	
	Size	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	
1/4"	7/16"	6	8	10	13	14	18	
5/16"	1/2"	12	17	19	26	27	37	
3/8"	9/16"	23	31	35	47	49	67	
7/16"	5/8"	36	48	55	75	78	106	
1/2"	3/4"	55	75	85	115	120	163	
9/16"	13/16"	78	106	121	164	171	232	
5/8"	15/16"	110	149	170	230	240	325	
3/4"	1-1/8"	192	261	297	403	420	569	
7/8"	1-5/16"	306	416	474	642	669	907	
1."	1-1/2"	467	634	722	979	1020	1383	



METRIC SERIES TORQUE CHART

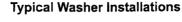


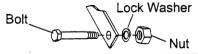
Metric Grade 8.8 Metric Bolt Head Identification



Metric Grade 10.9

		COARSE THREAD			FINE THREAD				(A)	
( <b>A</b> )	Wrench		MARKING ON HEAD			RKING ON HEAD MARKING ON HEAD				
Diameter & Thread Pitch		Metric 8.8		Metric 10.9		Metric 8.8		Metri	c 10.9	Diameter & Thread Pitch
(Millimeters)	Size	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	(Millimeters)
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0





Flat Washer



8/9/00

# **A SAFETY REQUIREMENTS**

#### AVOID ACCIDENTS BY FOLLOWING ALL OF THE SAFETY REQUIREMENTS LISTED BELOW.

- Machinery should be operated only by those who are responsible and are authorized to do so.
- Stop the engine, lower all equipment, lock the brakes, and remove the ignition key before dismounting from the tractor.
- Never stand between tractor and implement while tractor is being backed to hitch.
- Loose fitting clothing should not be worn, to avoid catching on various parts.
- Detach implement in area where children normally do not play.
- When performing adjustments or maintenance on an implement, first lower it to the ground or block it securely at a workable height.
- Only a qualified operator should be permitted on tractor when in operation; no riders allowed.
- Make certain everyone is in the clear before starting tractor or raising or lowering equipment.
- Operate the tractor and implement only while seated in the driver's seat.

- Reduce speed when transporting mounted implements to avoid bouncing and momentary loss of steering control.
- A heavy load can cause instability of the tractor. Use extreme care during road travel. Slow down on turns and watch out for bumps. Tractor may need front counterweights to counter-balance the weight of the implement.
- Reduce speed on hillsides or curves so there is no danger of tipping.
- · Avoid driving too close to the edge of ditches or creeks.
- Do not transport implement on public roads without reflectors and slow moving vehicle emblem in daylight and with approved warning lights at night and other periods of poor visibility.
- Due to the width of some implements, use extra caution on highways, farm roads, and when approaching gates.
- Always be sure the implement is in the proper position for transport.
- Keep alert and watch the front as well as the rear when working with the implement.

OWNER'S/ OPERATOR'S MANUAL

MODEL NO.'s

**SARG-72** 

**SARG-84** 

**SAMB-72** 

**SAMB-84** 

Please work, drive, play and live each day with care and concern for your safety and that of your family and fellow citizens.

# SWEEP ACTION ROCK GRAPPLE and MATERIAL BUCKET

WHEN ORDERING REPAIR PARTS,
ALWAYS GIVE THE FOLLOWING INFORMATION:

- 1. PART NUMBER
- 2. PART DESCRIPTION
- 3. MODEL NUMBER
- 4. NAME OF ITEM

Please work, drive, play, and live each day with care and concern for your safety and that of your family and fellow citizens.

MARCH 2015

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