

BOX SCRAPERS

BSS54

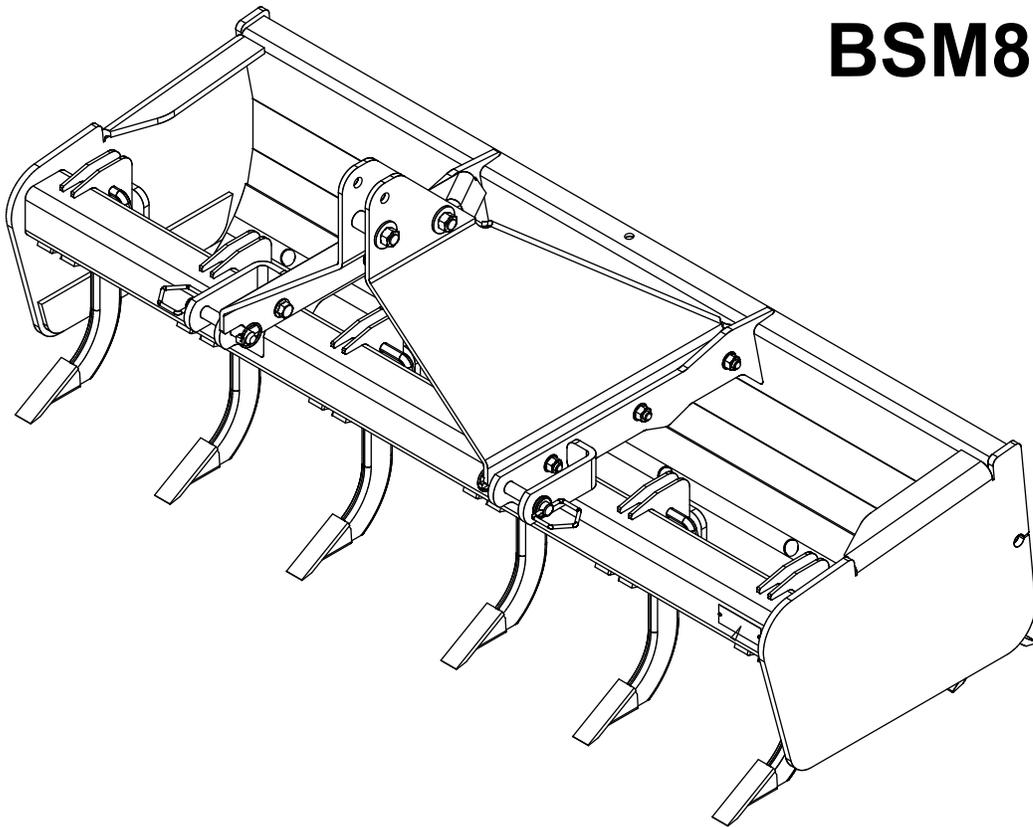
BSS60

BSS65

BSS72

BSM72

BSM84



MAN0761
(Rev 06/07/2023)

OPERATOR'S MANUAL

TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Woods® dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Checklists in the Operator's Manual are completed before releasing equipment to the owner.

The dealer must complete the Product Registration included with the Operator's Manual. The customer must sign the registration which certifies that all Dealer Checklist items have been completed. The dealer is to return the prepaid postage portion to Woods, give one copy to the customer, and retain one copy.

Failure to register the product does not diminish customer's warranty rights.

TO THE OWNER:

Read this manual before operating your Woods equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer. To obtain complete warranty details, visit WoodsEquipment.com/warranty. You may also request a hard copy by calling 1-800-319-6637 or mail your request to: Woods Equipment Company, Attn: Warranty Dept. 2606 South Illinois Route 2, Oregon, IL 61061. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Woods dealer has trained mechanics, genuine Woods service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine Woods service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

Model: _____ **Date of Purchase:** _____

Serial Number: (see Safety Decal section for location) _____

Provide this information to your dealer to obtain correct repair parts.

Throughout this manual, the term **NOTICE** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING**, and **DANGER** are used in conjunction with the Safety-Alert Symbol (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety.



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**IMPORTANT
or NOTICE**

Is used to address practices not related to physical injury.

NOTE

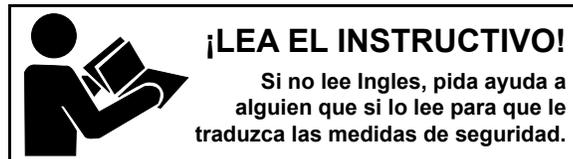
Indicates helpful information.

2 Introduction

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 **This Operator's Manual should be regarded as part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.**

SPECIFICATIONS

	BSS54	BSS60	BSS65	BSS72	BSM72	BSM84
Width	54"	60"	65"	72"	72"	84"
Height to Top Link Pin	34"	34"	34"	34"	34"	34"
Depth	29.6"	29.6"	29.6"	29.6"	29.6"	29.6"
Number of Cutting Edges	2	2	2	2	2	2
Cutting Edge Size	1/2" x 6" (Reversible)					
Approximate Weight	486 lbs	514 lbs	528 lbs	551 lbs	680 lbs	750 lbs
Number of Shanks/Points	4	5	5	6	6	7
Floating Hinged Tailgate	No	No	No	No	Optional	Optional
Tractor HP Requirement	45 hp max	45 hp max	45 hp max	45 hp max	65 hp max	65 hp max
Tractor Hitch Class	Cat 1					
SAE Quick Hitch	Yes	Yes	Yes	Yes	Yes	Yes
Scarifier Depth Range	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"
Heaped Capacity	9.7 ft ³	10.8 ft ³	11.7 ft ³	13.0 ft ³	13.0 ft ³	15.1 ft ³

GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your Rear Blade. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature, due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing. However, due to possible inline production changes, your machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification.

Throughout this manual, references are made to right and left directions. These are determined by standing behind the tractor facing the direction of forward travel.

4 *Introduction*

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SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

TRAINING

- Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.) Failure to follow instructions or safety rules can result in serious injury or death.
- If you do not understand any part of this manual and need assistance, see your dealer.
- Know your controls and how to stop engine and attachment quickly in an emergency.
- Operators must be responsible, trained, familiar with the instructions and be physically capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.
- Never allow children or untrained persons to operate equipment.

PREPARATION

- Check that all hardware is properly installed. Always tighten to torque chart specifications unless instructed otherwise in this manual.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head.
- Make sure attachment is properly secured, adjusted, and in good operating condition.

- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.
- A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and equipment. Do not estimate.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)

OPERATION

- Do not operate or transport equipment while under the influence of alcohol or drugs.
- Always comply with all state and local lighting and marking requirements.
- Operate only in daylight or good artificial light.
- Keep bystanders away from equipment.
- Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.
- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.
- Never allow riders on power unit or attachment.
- Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting power unit engine.
- Look down and to the rear and make sure area is clear before operating in reverse.
- Use extreme care when working close to fences, ditches, other obstructions, or on hillsides.
- Do not operate or transport on steep slopes.
- Do not stop, start, or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



- Watch for hidden hazards on the terrain during operation.
- Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.
- Do not allow bystanders within 25 feet of the area when operating, attaching, removing, assembling, or servicing equipment.
- Do not operate box scraper at speeds above 5 mph.

TRANSPORTATION

- Before transporting, pivot the unit so red reflectors face the rear.
- Always comply with all state and local lighting and marking requirements.
- Never allow riders on power unit or attachment.
- Do not operate or transport on steep slopes.
- Do not operate or transport equipment while under the influence of alcohol or drugs.

MAINTENANCE

- Before performing any service or maintenance, lower attachment to ground, turn off engine, set parking brake, and remove key.
- **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.
 - Service work does not require going underneath.
 - Read Operator's Manual for service instructions or have service performed by a qualified dealer.

- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.
- Never perform service or maintenance with engine running.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Eye protection must be used when removing or installing scarifier shank clips.
- Tighten all bolts, nuts, and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)

STORAGE

- Block equipment securely for storage.
- Keep children, bystanders, and animals away from the equipment and the storage area.
- Lock scarifier bar in lowered position for storage.

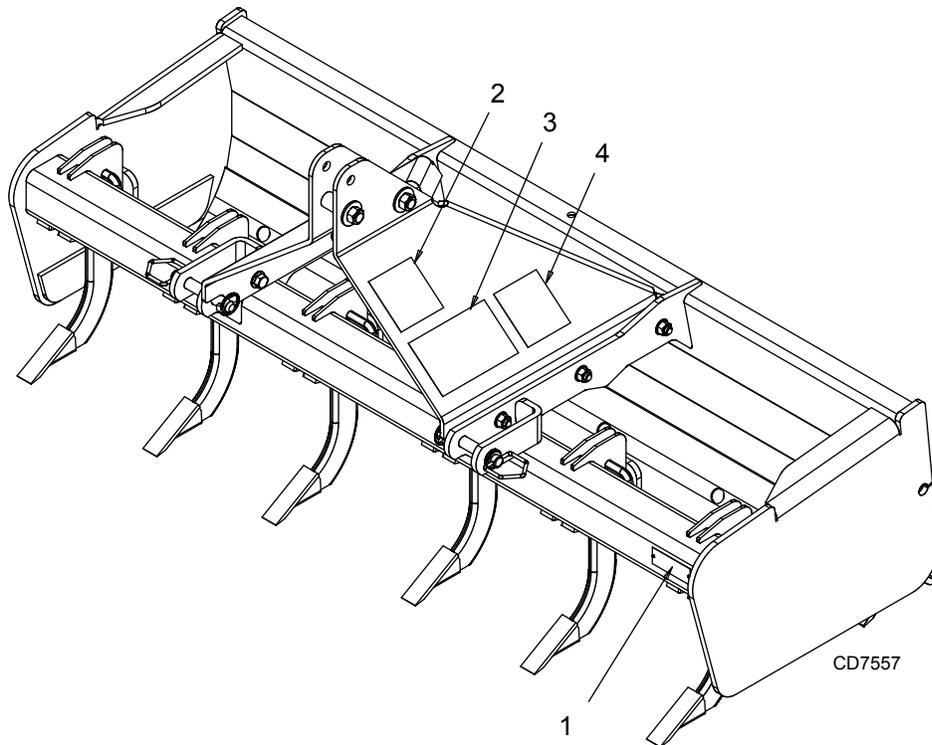
SAFETY & INSTRUCTIONAL DECALS



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Replace Immediately If Damaged!



1 - Serial Number Plate



2 - PN 55122

⚠ WARNING	
TO AVOID SERIOUS INJURY OR DEATH:	
■ Read Operator's Manual before operating, servicing or repairing equipment. Follow all safety rules and instructions. (Manuals are available from dealer or call 1-800-319-6637.)	
■ Operate from tractor seat only.	
■ Lower equipment to ground, stop engine, remove key and set brake before dismounting tractor.	
■ Never allow children or untrained persons to operate equipment.	
■ Never allow riders.	
■ Keep bystanders away from equipment during operation.	
■ Keep all shields in place and in good condition.	
■ Do not transport towed or semi-mounted units over 20 mph.	
FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.	
<small>55122-D</small>	

BE CAREFUL!

Keep safety decals clean and visible.

Use a clean, damp cloth to clean safety decals.

Avoid spraying too 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.

Replace safety decals if they are missing or illegible.

Replacement safety decals can be ordered free from your Woods dealer. To locate your nearest dealer, check the Dealer Locator at www.WoodsEquipment.com, or in the United States and Canada call 1-800-319-6637.

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Safety 7

SAFETY & INSTRUCTIONAL DECALS

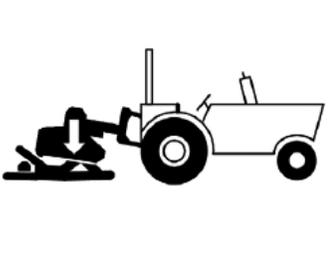


ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Replace Immediately If Damaged!

3 - PN 55121

 WARNING	
	<p>FALLING OFF CAN RESULT IN BEING RUN OVER.</p> <ul style="list-style-type: none">■ Tractor must be equipped with ROPS (or ROPS CAB) and seat belt. Keep foldable ROPS systems in “locked up” position at all times.■ Buckle Up! Keep seat belt securely fastened.■ Allow no riders.
	<p>RAISED IMPLEMENT CAN DROP AND CRUSH.</p> <ul style="list-style-type: none">■ Never go underneath raised implement which can drop from equipment or tractor 3-point hitch hydraulic leak down, hydraulic system failures, movement of control levers or mechanical linkage failures.■ Service work does not require going underneath implement. Read manual instructions.
<p>FALLING OFF OR GOING UNDERNEATH IMPLEMENT CAN RESULT IN SERIOUS INJURY OR DEATH.</p> <p>55121-C</p>	

4 - PN 1003751

 WARNING			
			
<p>CRUSHING AND PINCHING HAZARD</p> <ul style="list-style-type: none">■ Be extremely careful handling various parts of the machine. They are heavy and hands, fingers, feet, and other body parts could be crushed or pinched between tractor and implement.■ Operate tractor controls from tractor seat only.■ Do not stand between tractor and implement when tractor is in gear.■ Make sure parking brake is engaged before going between tractor and implement.■ Stand clear of machine while in operation or when it is being raised or lowered.			
<p>FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.</p> <p>1003751-A</p>			

OPERATION

The operator is responsible for the safe operation of this equipment. The operator must be properly trained. Operators should be familiar with the equipment, the tractor, and all safety practices before starting operation. Read the safety rules and safety decals on page 5 through page 8.

The box scrapers are designed for a wide range of applications: scarifying, scraping, leveling, grading, and backfilling.

PRE-OPERATION CHECKLIST

(OWNER'S RESPONSIBILITY)

- _____ Review and follow all safety rules and safety decal instructions on pages 5 through 8.
- _____ Check that equipment is properly and securely attached to tractor.
- _____ Check that all safety decals are installed and in good condition. Replace if damaged
- _____ Check that all hardware and cotter pins are properly installed and secured.
- _____ Check that all lubrication points are greased.
- _____ Check that blade cutting edge is in good condition.
- _____ Check that all hydraulic hoses and fittings are in good condition and not leaking before starting tractor. Check that hoses are not twisted, bent sharply, kinked, frayed or pulled tight. Replace any damaged hoses immediately.

WARNING

- **A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and equipment. Do not estimate.**

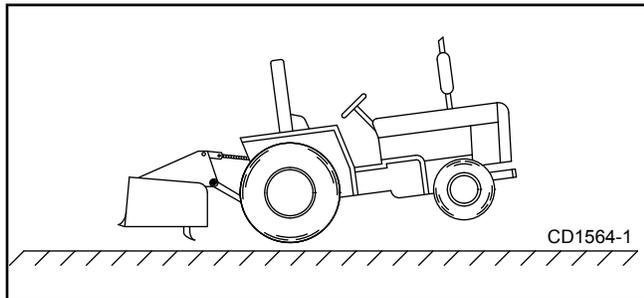


Figure 1. Tractor Stability

CONNECTING BOX SCRAPER TO TRACTOR

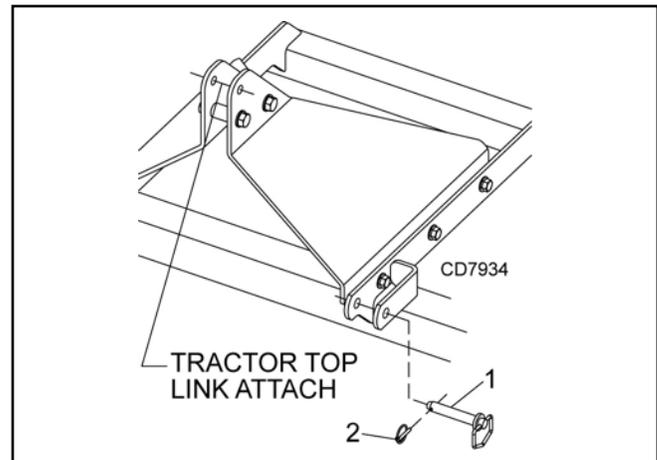


Figure 2. Category 1, 3-Point Hitch Connection

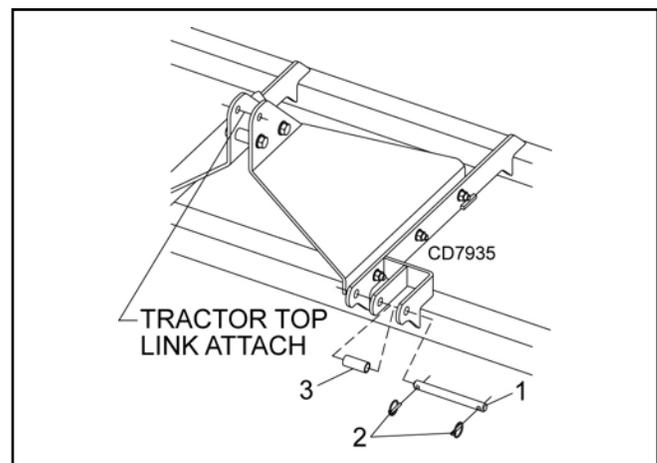


Figure 3. Category 2, 3-Point Hitch Connection

The box scraper is compatible with Category 1, 3-point tractors equipped with side swing-type lower lift arms.

1. To avoid interference with the box scraper, adjust tractor drawbar to the shortest and highest position.
2. **For tractors with Category 1 hitch:** Attach the tractor's lower lift arms to the scraper and secure in place with Category 1 mounting pin (1) and lynch pin (2).
3. **For tractors with Category 2 hitch:** Attach the tractor's lower lift arms to the scraper in the outer hitch position with adapter sleeves (3) assembled over mounting pins (1) and secured with lynch pins (2).
4. Attach the tractor's top link to the top of the box scraper's mast and secure with the heavy-duty top link pin and retaining pin supplied with the tractor top link.

Quick Hitch Connection

NOTICE

- The 3/4" bolt and sleeve in the lower hole provide the attachment point for a Category 1 quick coupler. Do not remove this bolt and sleeve when operating the scraper.

For Category 1 quick hitch application, place hitch sleeves over mounting pin.

Align quick hitch with 3-point mount pins and top spacer sleeve between the right and left mast plates.

The top quick hitch hook will seat into spacer sleeve. This sleeve does not interfere when unit is used with a standard 3-point hitch.

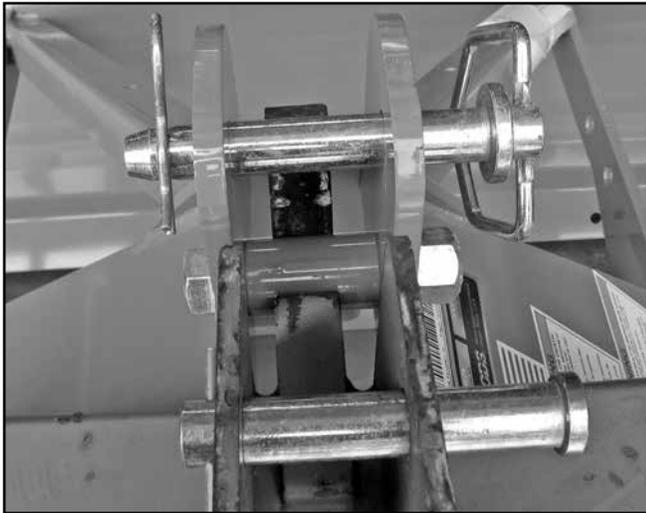


Figure 4. Top Quick Hitch Hook Connection

ADJUSTING TOP LINK

The box scraper is leveled by adjusting the length of the tractor's top link.

- Shortening the top link will deepen the scarifier tooth penetration.
- Lengthening the top link will provide better scraping and leveling action.

Experience will allow the operator to determine the best setting for the application being done.

NOTICE

This unit is intended to move materials such as dirt, sand, gravel, etc. Unintended use may damage the box scraper.

SCARIFYING

1. Place the scarifier shanks in position with the points facing toward the tractor.
2. Lock into position with the lock pins provided. The lower shank position provides the greatest ground penetration.
3. Lower the box scraper and drive the tractor ahead to begin the scarifying operation.
4. Adjust the depth of the scarifier by tilting the unit with the tractor top link. Shortening the top link will provide deeper and more aggressive operation.

SCRAPING

1. Raise or remove the scarifier shanks. Lower the box scraper and drive forward to move material.
2. Adjust the depth of the scraper by tilting the unit with the tractor top link.

Shortening the top link when scraping will transfer more weight on the front of the scraper and will raise the cutting scraper to provide a more shallow cut.

NOTE: When the top link is adjusted properly, the bowl of the scraper should fill easily and material can be pulled to a desired location.

3. To change the level of the scraper, shorten or lengthen the tractor lift arm tilt link to provide the correct slope.
4. Spread material by gradually raising the box scraper as the tractor moves forward.

NOTE: Top link adjustment for loose or previously scarified material will differ from adjustment for hard or compacted material.

BACKFILLING

1. Raise or remove scarifier shanks.
2. Lower the scraper to the ground and back up into the fill material.
3. Shorten the top link to raise the cutting scraper and control how much the scraper digs in.

LEVELING

1. Raise or remove scarifier shanks.
2. Shorten the top link so the cutting edge clears the ground.
3. Drive forward with the box scraper in this position and loose material will be leveled.

OWNER SERVICE

The information in this section is written for operators who possess basic mechanical skills. If you need help, your dealer has trained service technicians available. For your protection, read and follow the safety information in this manual.

⚠ 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.
 - Service work does not require going underneath implement.
 - Read Operator's Manual for service instructions or have service performed by a qualified dealer.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Before performing any service or maintenance, lower equipment to ground or block securely, turn off engine, remove key, and disconnect driveline from tractor PTO.

⚠ CAUTION

- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

BLOCKING UP BOX SCRAPER

NOTE: To service the box scraper when attached to the tractor, it must be blocked up off the ground.

1. Place two 6" x 6" (15 x 15 cm) blocks under each side frame of the box scraper as shown in Figure 5.
2. Lower the box scraper to rest securely on the blocks.

NOTE: Do not block the machine any higher than needed for removing the shanks or cutting edge.

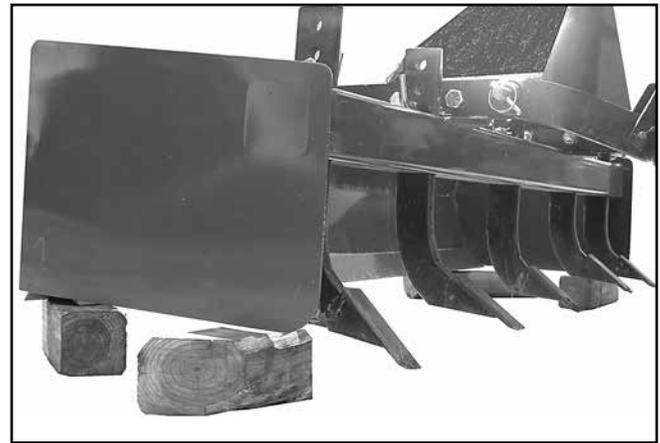


Figure 5. Box Scraper Blocked Up

REMOVING SCARIFIER SHANKS

Scarifier shanks have three operating positions in the scraper. They may be removed if scarifying action is not needed.

1. Block up machine by placing two 6" x 6" (15 x 15 cm) blocks under each side-frame of the box scraper (see Figure 5).
2. Lower the box scraper to rest securely on the blocks.

NOTE: Do not block the machine any higher than necessary to remove the shanks or cutting edge.
3. Remove safety pin and lock pin. Adjust scarifier to desired position, Figure 6.
4. Replace safety and lock pins.

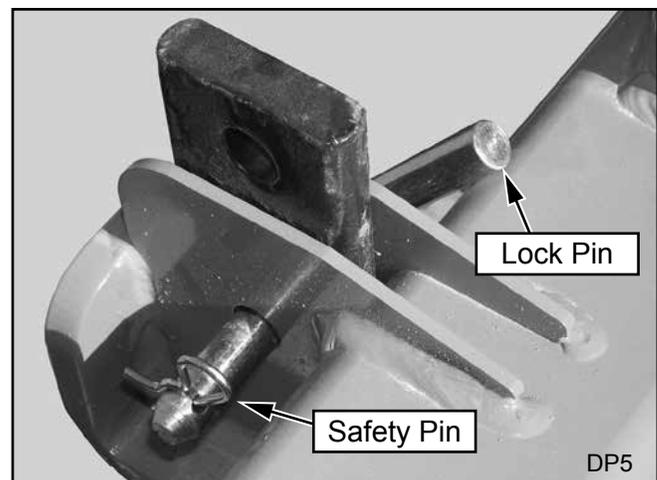


Figure 6. Scarifier Shank Adjustment

REPLACING SCARIFIER SHANK TOOTH

1. Remove scarifier shank from the scarifier bar.
2. Refer to Figure 7. Remove the worn tooth by driving a chisel between the shank (1) and tooth (2).
3. Install replacement tooth and use a punch (3) to bend the locking tab (4) into the retaining hole on both sides of the shank.
4. Reinstall the shank in the scarifier holder.

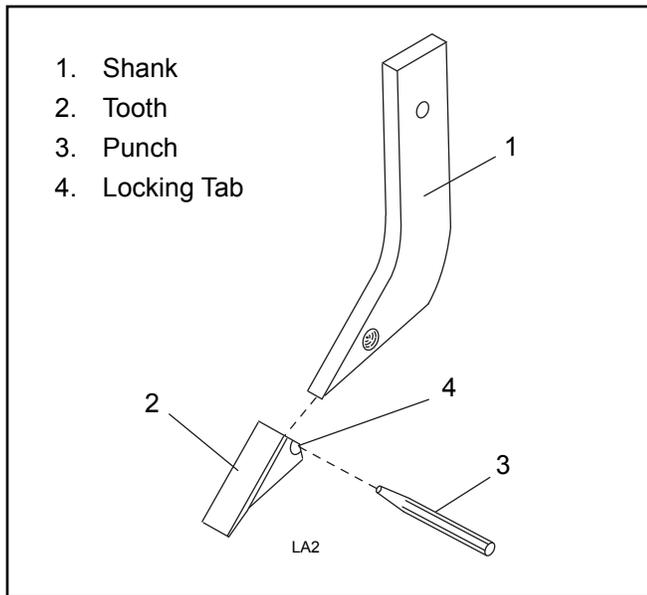


Figure 7. Scarifier Point Replacement

REPLACING CUTTING EDGE

All box scraper models use two 1/2" x 6" (12.7 x 152 mm) cutting edges. They are interchangeable and reversible.

To service the box scraper when attached to the tractor, it must be blocked up off the ground.

1. Place two 6" x 6" (15 x 15 cm) blocks under each side-frame of the box scraper (see Figure 5).
2. Lower the box scraper to rest securely on the blocks.

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

3. Refer to parts drawing, page 16. Remove the lock nuts (16) and plow bolts (18) from box scraper. Turn cutting edge over and use new edge, or replace it if both edges have been used.
4. Attach cutting edge to box scraper and secure with plow bolts and hex nuts previously removed.

Torque plow bolts to specifications given in Bolt Torque Chart, page 18.

CLEANING

After Each Use

- Remove large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Inspect machine and replace worn or damaged parts.
- Replace any safety decals that are missing or not readable.

Periodically or Before Extended Storage

- Clean large debris such as clumps of dirt, grass, crop residue, etc. from machine.
 - Remove the remainder using a low-pressure water spray.
1. Be careful when spraying near scratched or torn safety decals or near edges of decals as water spray can peel decal off surface.
 2. Be careful when spraying near chipped or scratched paint as water spray can lift paint.
 3. If a pressure washer is used, follow the advice of the pressure washer manufacturer.
- Inspect machine and replace worn or damaged parts.
 - Sand down scratches and the edges of areas of missing paint and coat with Woods spray paint of matching color (purchase from your Woods dealer).
 - Replace any safety decals that are missing or not readable (supplied free by your Woods dealer). See Safety Decals section for location drawing.

STORAGE

- Block equipment securely for storage.
- Keep children, bystanders, and animals away from the equipment and the storage area.
- To help prevent injury caused by a falling implement, always detach on a hard level surface.
- Do not climb or lean on stored equipment.

ASSEMBLY

DEALER SET-UP INSTRUCTIONS

Assembly of this Box Scraper is the responsibility of the WOODS dealer. It should be delivered to the owner completely assembled and adjusted for normal conditions.

Complete the Checklists on page 15 before delivering the attachment to the customer.

The Box Scraper is shipped partially assembled. Assembly will be easier if components are aligned and loosely assembled before tightening hardware. Recommended torque values for hardware are located on page 18.

WARNING

- Before performing any service or maintenance, lower attachment to ground, turn off engine, set parking brake, and remove key.
- 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.
 - Service work does not require going underneath implement.
 - Read Operator's Manual for service instructions or have service performed by a qualified dealer.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.

CAUTION

- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

ASSEMBLE BOX SCRAPER

1. Remove the banding, straps and lag bolts that holds the box scrapers and mast plates to the pallet.

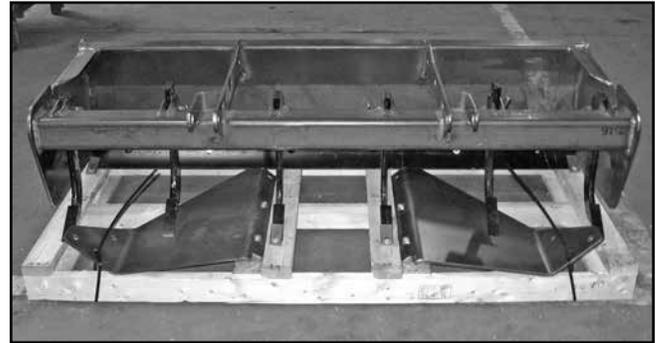


Figure 8. Shipping Configuration - Box Scraper

2. Place right mast plate (2) to the inside of right cross support bar and secure into position using three hex flange screws (19) and flange lock nuts (17). See page 16 for part diagram.
3. Repeat step to install left mast plate (3).
4. Place spacer sleeve (23) between mast plates lower front hole and secure into position using cap screws (22) two (one on either side) flat washers (21) and lock nuts (20). Install second sleeve (23) in lower rear hole.
5. Tighten 5/8 hardware to 170 lbs-ft and 3/4 hardware to 297 lbs-ft.

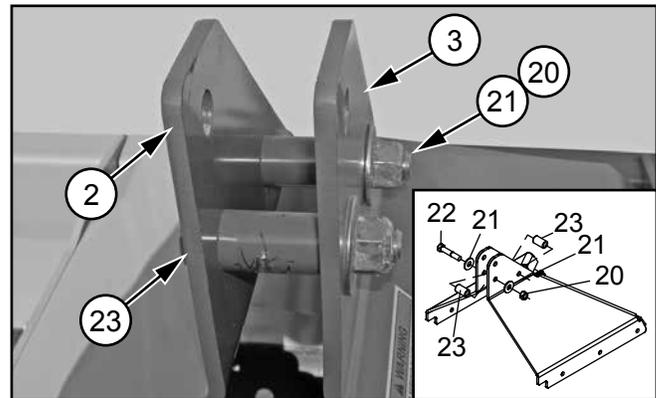


Figure 9. Spacer Sleeve Installation

INSTALL TAILGATE ON BSM MODELS (OPTIONAL)

1. Remove rear cutting edge from box scraper.
2. Place tailgate (5) against rear of box scraper and align mounting holes.
3. Insert tailgate pins (4) through holes on box scraper and tailgate. Secure tailgate pin into position using flat washers (24) and spring pins (15).
4. Attach cutting edge against tailgate and align holes and secure into position using hardware previously removed.

DEALER CHECKLISTS

DEALER PRE-DELIVERY CHECKLIST (DEALER'S RESPONSIBILITY)

Inspect the equipment thoroughly after assembly to be certain it is set up properly before delivering it to the customer. The following checklist is a reminder of points to inspect. Check off each item if it is found satisfactory or after proper adjustment is made.

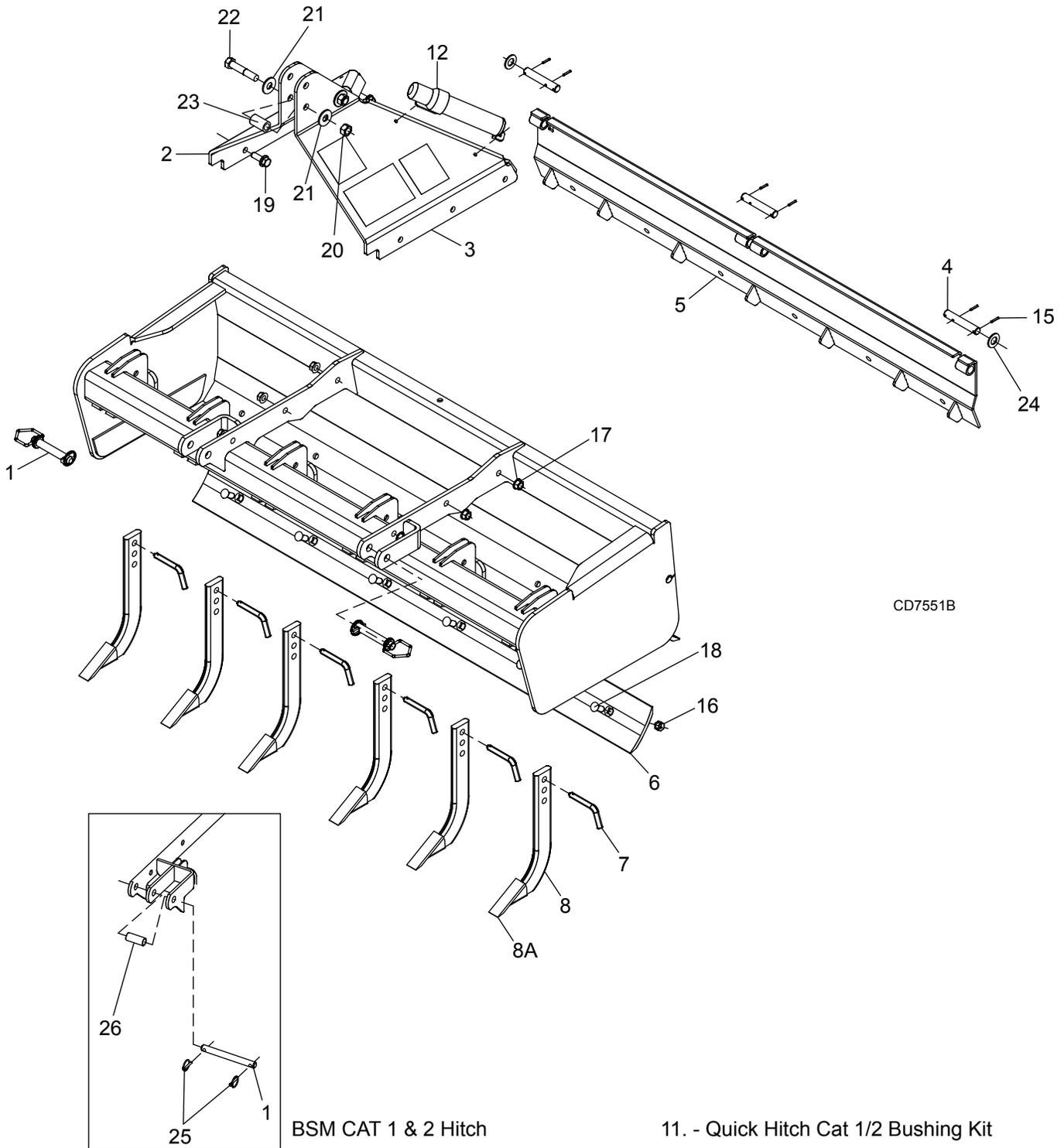
- _____ Check that all safety decals are installed and in good condition. Replace if damaged.
- _____ Check all bolts to be sure they are properly torqued.
- _____ Check that all cotter pins and safety pins are properly installed. Replace if damaged.

DEALER DELIVERY CHECKLIST (DEALER'S RESPONSIBILITY)

- _____ Show customer the safe, proper procedures to be used when mounting, dismounting, and storing equipment.
- _____ For mounted units, add wheel weights, ballast in front tires, and/or front tractor weight to enhance front end stability. A minimum 20% of tractor and equipment gross weight must be on front tractor wheels. When adding weight to attain 20% of tractor and equipment weight on front tractor wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. Do not estimate!
- _____ Show customer how to make adjustments.
- _____ Present Operator's Manual and request that customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings and emphasize the increased safety hazards that exist when safety rules are not followed.
- _____ Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.
- _____ Explain to customer the potential crushing hazards of going underneath raised equipment. Instruct customer that service work does not require going underneath unit and never to do so.

NOTES

BSS/BSM BOX SCRAPER



16 Parts MAN0761 (06/07/2023)

BSS/BSM BOX SCRAPER PARTS LIST

REF	BSS	BSM	QTY	DESCRIPTION	REF	BSS	BSM	QTY	DESCRIPTION
1	SU105	----	2	Drawbar pin w/ lynch pin	8	1035770	----	4	Scarifier & tip (BSS54)
1	----	HBL233	2	Cat 2 Drawbar pin	8	1035770	----	5	Scarifier & tip (BSS60 / BSS65)
2	1029092	----	1	Mast plate - right (BSS)	8	1035770	----	6	Scarifier & tip (BSS72)
2	----	1029102RP	1	Mast plate - right (BSM)	8	----	1035770	7	Scarifier & tip, HD (BSM72 / BSM84)
3	1029053	----	1	Mast plate -left (BSS)	8A	1004636	----	A/R	Scarifier tip (BSS)
3	----	1029101	1	Mast plate -left (BSM)	8A	----	1035769	A/R	Scarifier tip, HD (BSM)
4	----	1029106	3	Tailgate pin optional	11	1003832	1003832	2	Quick Hitch Bushing Kit
5	----	102908672RP	1	Tailgate (BSM72) optional	12	1026530	1026530	1	Manual tube (optional)
5	----	102908684RP	1	Tailgate (BSM84) optional	15	----	4115	2	Spring pin, 3/16 x 1-1/8
6	1029062	----	2	Cutting edge (BSS54)	16	6239	6239	*	5/8 NC Lock nut
6	32280	----	2	Cutting edge (BSS60)	17	19025	19025	*	5/8 NC flange lock nut
6	55316	----	2	Cutting edge (BSS65)	18	25265	25265	*	5/8 NC x 1-1/2 Plow bolt
6	25258	25258	2	Cutting edge (BSS72 / BSM72)	19	19024	19024	*	5/8 NC x 1-3/4 HFS GR5
6	----	46440	2	Cutting edge (BSM84)	20	2371	2371	*	3/4 NC Lock nut
7	1005338	----	4	Pin w/Clip (BSS54)	21	2864	2864	*	3/4 Flat washer
7	1005338	----	5	Pin w/Clip (BSS65)	22	31207	31207	*	3/4 NC x 4 HHCS GR5
7	1005338	1005338	6	Pin w/Clip (BSS72 / BSM72)	23	1002018	1002018	2	Sleeve, .81 x 1.25 x 2.12
7	----	1005338	7	Pin w/Clip (BSM84)	24	----	W28539	2*	7/8 Flat washer
NS	1029063	----	1	Decal, Model BSS54	25	----	27542	4	7/16 Lynch pin
NS	1029064	----	1	Decal, Model BSS60	26	----	56598	2	Sleeve, Cat 2 adapter
NS	1029065	----	1	Decal, Model BSS65					HFS Hex Flange Screw
NS	1029066	----	1	Decal, Model BSS72					HHCS Hex Head Cap Screw
NS	----	1029067	1	Decal, Model BSM72					A/R As Required
NS	----	1029068	1	Decal, Model BSM84					NS Not Shown
								*	Standard Hardware, obtain locally

NOTE: For safety decals, see pages 7 and 8.
Order decals separately.

BOLT TORQUE CHART

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

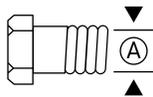
Fasteners must always be replaced with the same grade as specified in the manual parts list.

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 MAR 99 & J1701M JUL 96.

SAE SERIES TORQUE CHART

SAE Bolt Head Identification



SAE Grade 2
(No Dashes)



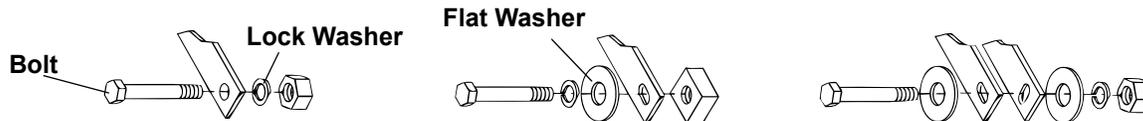
SAE Grade 5
(3 Radial Dashes)



SAE Grade 8
(6 Radial Dashes)

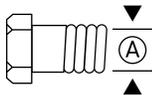
Ⓐ	Wrench Size	Marking on Head					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	110	149	170	230	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

TYPICAL WASHER INSTALLATIONS



METRIC SERIES TORQUE CHART

Metric Bolt Head Identification



Metric
Grade 8.8



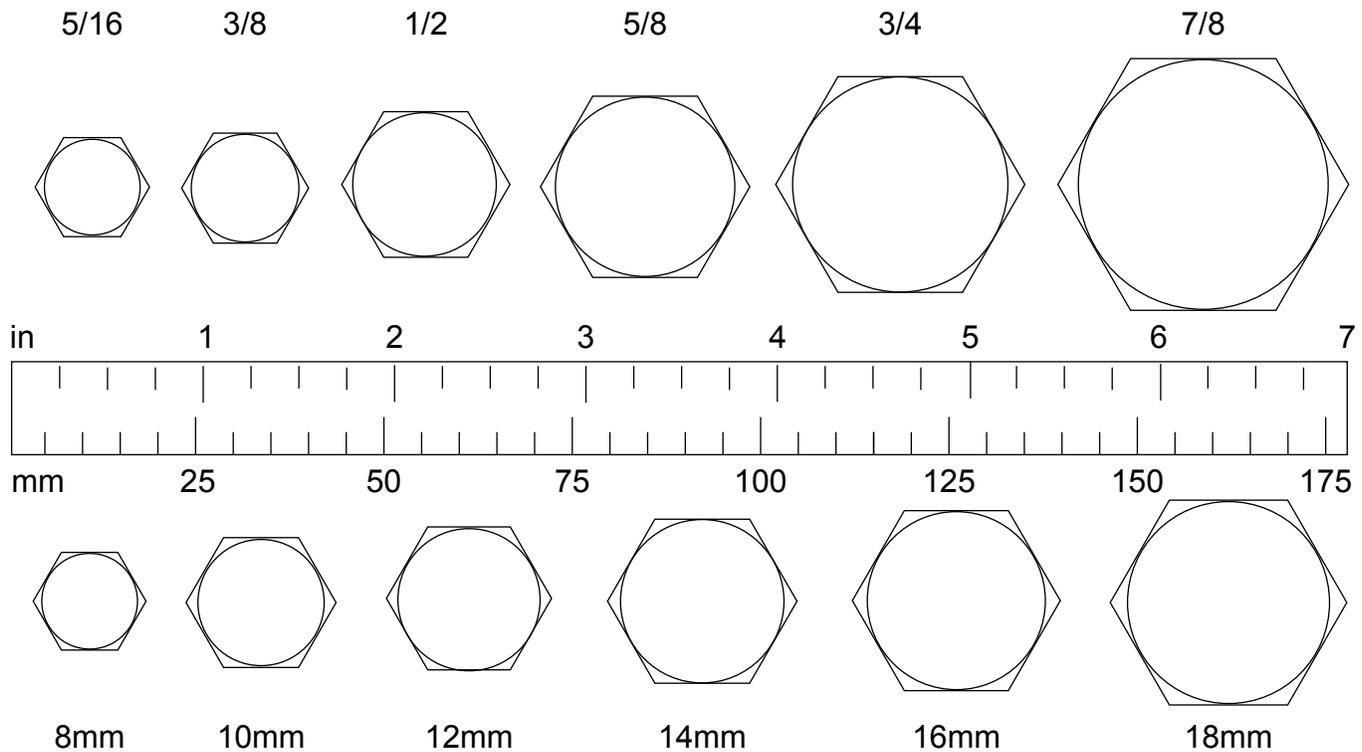
Metric
Grade 10.9

Ⓐ	Wrench Size	Marking on Head								Ⓐ
		Coarse Thread				Fine Thread				
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
Diameter & Thread Pitch (Millimeters)		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	Diameter & Thread Pitch (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

BOLT SIZE CHART

NOTICE: Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.

SAE BOLT THREAD SIZES



METRIC BOLT THREAD SIZES

ABBREVIATIONS

AG Agriculture	HT Heat-Treated	ORBM O-Ring Boss - Male
ASABE American Society of Agricultural & Biological Engineers (formerly ASAE)	JIC Joint Industry Council 37° Degree Flare	P Pitch
ASAE American Society of Agricultural Engineers	LH Left Hand	PBY Power-Beyond
ATF Automatic Transmission Fluid	LT Left	psi Pounds per Square Inch
BSPP British Standard Pipe Parallel	m Meter	PTO Power Take Off
BSPTM British Standard Pipe Tapered Male	mm Millimeter	QD Quick Disconnect
CV Constant Velocity	M Male	RH Right Hand
CCW Counter-Clockwise	MPa Mega Pascal	ROPS Roll-Over Protective Structure
CW Clockwise	N Newton	RPM Revolutions Per Minute
F Female	NC National Coarse	RT Right
FT Full Thread	NF National Fine	SAE Society of Automotive Engineers
GA Gauge	NPSM National Pipe Straight Mechanical	UNC Unified Coarse
GR (5, etc.) Grade (5, etc.)	NPT National Pipe Tapered	UNF Unified Fine
HHCS Hex Head Cap Screw	NPT SWF National Pipe Tapered Swivel Female	UNS Unified Special

PART NO.
MAN0761

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