



BROOM ATTACHMENTS



USE AND MAINTENANCE GUIDE

	MODELS	
PUBROOM72	HAB72	MAB60
PUBROOM84	HAB84	MAB72
HAB48	HAB96	MAB84
HAB60	MAB48	MAB96

USO E MANUTENZIONE
GEBRAUCH UND WARTUNG
EMPLOI ET ENTRETIEN
EMPLEO Y MANTENIMIENTO



Read and understand the manual. This manual provides information and procedures to safely operate and maintain the BROOM ATTACHMENT.

Sept 2023

FIELD PROVEN ATTACHMENTS

EST



2014

IRONCRAFT

Forging Ahead

CRAFTED & MANUFACTURED

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Register this Product

WWW.IRONCRAFTUSA.COM/WARRANTY-REGISTRATION

PURCHASE DATE

DEALER NAME

ADDRESS

PHONE NUMBER

MODEL

SERIAL



“WHY WOULD I WANT TO REGISTER MY MACHINE?”

HERE’S THE LOWDOWN. YOU NEED TO REGISTER YOUR NEW PRODUCT WITHIN 30 DAYS OF DELIVERY. WITHOUT REGISTRATION, YOUR WARRANTY CLAIMS WILL NOT BE HONORED.

Registering your machine means you get the full benefits of the warranty terms we offer.

Scan this QR code to our warranty page and select the “REGISTER” tab for an easy-peasy process.

You’ll be glad you did.



LETTER TO OWNER

Dear Owner:

Congratulations on the purchase of your new Broom Attachment. This product will provide years of satisfaction and safe operation.

This manual will provide instructions on how to safely operate and maintain the skid steer Broom Attachment. All users must read and understand this manual before operating this machine.

Upon reading this manual, all users should sign the "Safety Acknowledgement Form" at the end of this manual. Store this manual in the document canister attached to this machine.

Please record your model and dealer information on the inside front cover.

You will be asked to provide this information when ordering parts or requesting service. If you need more information on this product, contact your local dealer.

MODEL COMPARISON

HYDRAULIC ANGLE

- Available in 48", 60", 72" or 84" widths
- Reversible high torque motor
- Hydraulically-driven broom angle
- Optional 10" dia core / 26" dia wafers
- Available with universal, 8 or 14 pin wiring harness

MANUAL ANGLE

- Available in 48", 60", 72" or 84" widths
- Reversible high torque motor
- Manually adjust left and right angles
- Optional 10" dia core / 26" dia wafers

PICK UP BROOM

- Available in 72" or 84" widths
- Poly, wire or mixed wafers
- 8" dia core / 26" dia wafers
- Adjustable height

SAFETY INFORMATION

1.1 INTRODUCTION

The following terms are used interchangeably throughout this manual.

BROOM ATTACHMENT	SKID STEER	OPERATOR
implement, attachment, product, machine, sweeper	skid steer loader, skid steer tractor, loader, prime mover	user, personnel

The Pickup and Angle Brooms are designed and manufactured with safety in mind. However, improper use and operator error can result in death or serious injury. It is important that you read and fully understand the safety instructions and operating procedures in this manual before operating this attachment. Accident prevention is a combination of good judgement, common sense, awareness and proper training!



BEFORE you operate this attachment:


- 1. KNOW HOW TO SAFELY OPERATE YOUR SKID STEER LOADER.**
- 2. READ AND UNDERSTAND THE SAFETY INSTRUCTIONS AND OPERATING PROCEDURES CONTAINED IN THIS MANUAL.**
- 3. ACKNOWLEDGE YOUR UNDERSTANDING OF ALL SAFETY INSTRUCTIONS PRESENTED IN THIS MANUAL BY SIGNING THE “SAFETY ACKNOWLEDGEMENT FORM” AT THE END OF THIS MANUAL.**

Although every effort has been made to ensure a safe product, every possible circumstance that could pose a potential hazard cannot be anticipated. The safety warnings in this manual and on this product, are therefore not all-inclusive.


In addition to the safety messages presented in this section, you must also read and understand the safety messages presented in the other sections of this manual.


1.2 SAFETY SYMBOLS


This manual and decals on this machine use safety symbols, pictograms and color coded signal words to alert you to potential hazards that may cause death or severe injury if a safety instruction is ignored. Become familiar with the following symbols.


 **SAFETY ALERT SYMBOL - THIS SYMBOL IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO AVOID POSSIBLE INJURY OR DEATH.**

HAZARD CLASSIFICATIONS HAZARDS ARE IDENTIFIED BY THE “SAFETY ALERT SYMBOL” AND FOLLOWED BY THE SIGNAL WORD “DANGER”, “WARNING”, OR “CAUTION”.

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

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

 **CAUTION**
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

 **NOTICE**
Indicates a situation which may cause damage to equipment or property. Messages are not related to personal injury.

 **SAFETY INSTRUCTIONS**
Indicates specific safety-related instructions or procedures.

Safety Pictograms

Pictograms are graphic symbols meant to alert you of a potential hazard. Read and understand the hazard description for each of these symbols.



THROWN OBJECT HAZARD:

Keep back 100 feet.



ROTATING BRUSH HAZARD:

Rotating brushes can fling objects at a high rate of speed over great distances.



MAINTENANCE:

Check that all hoses and fittings are tight before applying pressure.



PRESSURE:

Relieve pressure before servicing or removing hydraulic hoses.



HIGH PRESSURE FLUID INJECTION HAZARD:

Operators and maintenance personnel must not place fingers or hands directly over a hydraulic leak to prevent death or serious injury from being injected with high pressure hydraulic fluid.



EYE PROTECTION & CARDBOARD:

Operators and Maintenance personnel must wear proper eye protection and use cardboard or wood to investigate hydraulic leaks to prevent death or serious injury from being injected with high pressure hydraulic fluid.



PINCH POINT HAZARD:

Keep hands clear.



FALLEN OBJECT HAZARD:

This attachment must be properly attached and secured to the skid steer loader per OEM instruction.



OWNER'S MANUAL:

Operators must read and understand the owner's manual before operating or servicing this machine.

1.3 SAFETY DECALS


The safety decals affixed to this machine are in place to keep you safe. DO NOT ignore these decals. Read and understand each decal's safety message. The following safety decals are affixed to this machine:

1.

 WARNING	
THROWN OBJECTS HAZARD • Stay back 100 feet from this machine while in use. • Do not raise attachment from the ground with the brushes spinning.	 Rotating brushes can fling objects at great speeds over great distances, causing serious injury or death to bystanders.
HIGH PRESSURE FLUID HAZARD Escaping hydraulic fluid under pressure will penetrate body tissue causing serious injury or death. Seek immediate medical care with this type of injury.	 Check that all hoses and fittings are tight before applying pressure. Release pressure before servicing or removing hoses. DO NOT use your bare hand when checking for leaks. Always use cardboard. Never attempt any protection when checking for leaks or when servicing the hydraulic system.
FALLEN OBJECT HAZARD Ensure attachment is securely connected to the skid steer before raising the loader arms.	 To prevent serious injury or death, the attachment must be properly connected and secured to the skid steer loader per OEM instructions.
READ OWNER'S MANUAL Read and understand the owner's manual before operating or servicing this machine.	 Failure to follow operating instructions could result in serious injury or death.

2.

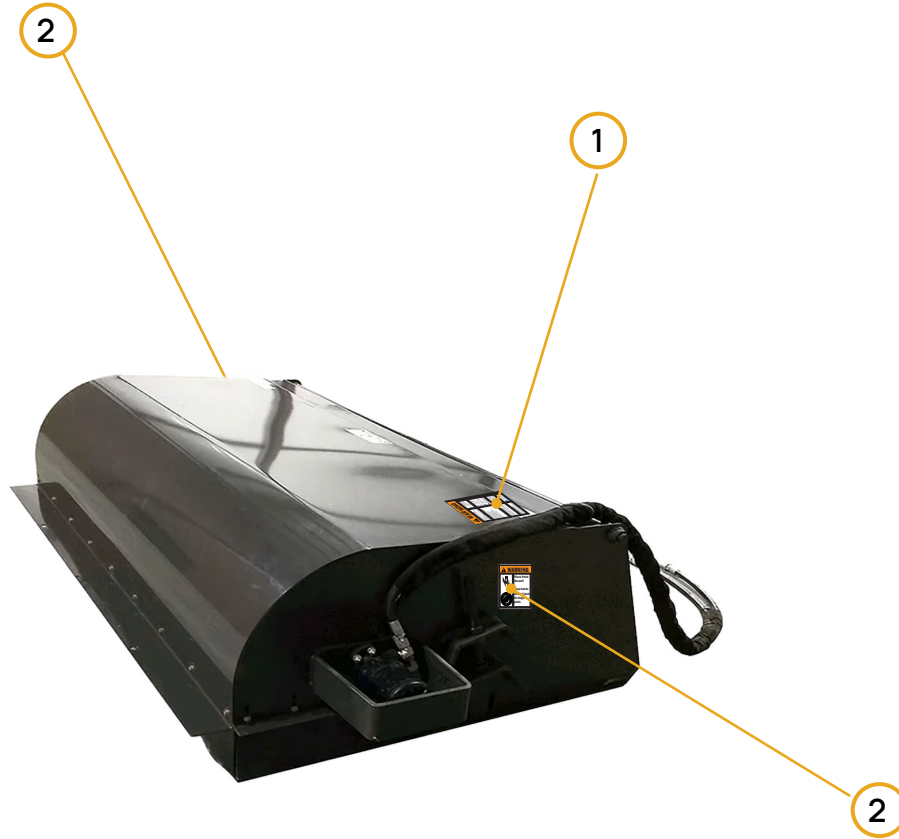




SAFETY INSTRUCTIONS

- Decals must be kept clean and legible at all times.
- Operators must inspect the machine for safety decals.
- Replace missing, worn or damaged decals immediately.
- Use care when cleaning the machine. When using a hot pressure washer make sure water jet is not too close to the decal as this may cause the decal to peel.
- When replacing parts, be sure safety decals are in place prior to using the machine.
- Make sure metal surface is dry and free of dirt and grease before applying a new decal to this machine.
- Contact your local dealer to order replacement decals.

SAFETY DECAL LOCATIONS



REF	DESCRIPTION	QTY.
1	Warning Combo Decal, 8"x 8"	1
2	Pinch Point Hazard Decal, 3" x 3" left and right side	2

1.4 SKID STEER LOADER REQUIREMENTS

CAUTION



Ensure your skid steer loader is in good operating condition. Follow the operating instructions found in your skid steer operator's manual. Failure to do so could result in minor or serious injury.

WARNING



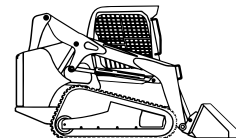
The Angle and Pickup Brooms should only be used on Skid Steer Loader's that meet the following requirements:

REQUIREMENTS	
Minimum Lift Capacity	2,200 lb
Minimum Weight w/ Bucket Removed	6,500 lb
Engine Horsepower Rating	75 HP

NOTICE



A skid steer equipped with tracks (COMPACT TRACK LOADER) will provide superior stability in this application.



1.5 GENERAL SAFETY INSTRUCTIONS

Below are general safety instructions that relate to the overall operation and maintenance of this machine. It is important that you read and understand each message to prevent serious injury or death.



ALWAYS

watch for overhead power lines.



DO NOT

place hands or feet near broom head while brushes are spinning.



NEVER

operate this sweeper when bystanders are within 100 feet of your work area.



NEVER

position your body or limbs under an unsupported attachment.



DO NOT

allow this machine to contact buildings, utilities, large rocks or tree stumps or you may lose control of the skid steer loader.



DO NOT

allow riders on the skid steer loader or on this attachment.



NEVER

use drugs or alcoholic beverages while operating or servicing this machine.



ALWAYS

operate this attachment during daylight or well-lit areas.



INSPECT

implement for missing hardware prior to using this machine.



DO NOT

allow children to play on or around this equipment at any time. Store this implement in an area not frequented by children.



ALWAYS

wear the proper personal protection equipment while operating or servicing this machine. NEVER operate or service this machine with bare feet, sandals, or other light footwear.



ALWAYS

use eye protection while operating or servicing this machine.



DO NOT

speed! Keep your driving speed between 2 and 5 mph.

OPERATING PROCEDURES

2.1 UNPACKING YOUR BROOM

Your attachment arrives from the factory strapped to a wood pallet, and requires no final assembly. Use a pair of tin snips to remove the steel strapping.



CAUTION

Shipping straps are under great tension, and could lash out uncontrollably when cut causing injuries to your body. Keep bystanders away and wear safety glasses and gloves while removing the straps.

2.2 PRE-OPERATING CHECKLIST

Pre-Operating Checklist	
✓	Task
<input type="checkbox"/>	You have read and understand the safety messages in the owner's manual.
<input type="checkbox"/>	Broom attachment is securely attached to skid steer.
<input type="checkbox"/>	Hydraulic hoses are connected and locked to the skid steer hydraulic couplers with no signs of hydraulic leaks present.
<input type="checkbox"/>	Ensure that all fasteners (pins, keepers, nuts, bolts) are in place. Tighten loose nuts and replace missing parts as necessary.
<input type="checkbox"/>	Ensure safety labels are present and legible.
<input type="checkbox"/>	Lubricate all pivot joints with #2 lithium grease.
<input type="checkbox"/>	The area of operation is clear of debris that can be thrown by the rotating brushes causing serious injury to operator or bystanders.

2.3 MOUNTING BROOM

Consult your skid steer operator's manual for specific instructions on how to connect your attachment to your skid steer loader.

GENERAL ATTACHMENT METHOD

1. Enter operator's cab and start skid loader.
2. Tilt the skid steer loader quick attach coupler slightly down and drive forward to the rear of the attachment until the top edge of the quick coupler connects into the attachment mounting bracket.
3. Tilt the skid steer quick attach coupler up until the coupler and mounting bracket fully engage.
4. Activate the coupler pin mechanism to lock the pins into the attachment bracket. If your skid steer does not have this mechanism, shut skid steer engine off and exit the cab.
5. Push the skid steer quick attach locking levers down until you can see the coupler pins extend into the slots on the attachment bracket.
6. Connect the hydraulic hoses to the auxiliary supply couplers on your skid steer loader.



NOTICE

To keep contaminants from entering the hydraulic system; wipe off any dirt or dust from the male or female hydraulic flat face couplers with a clean rag before attaching hoses.



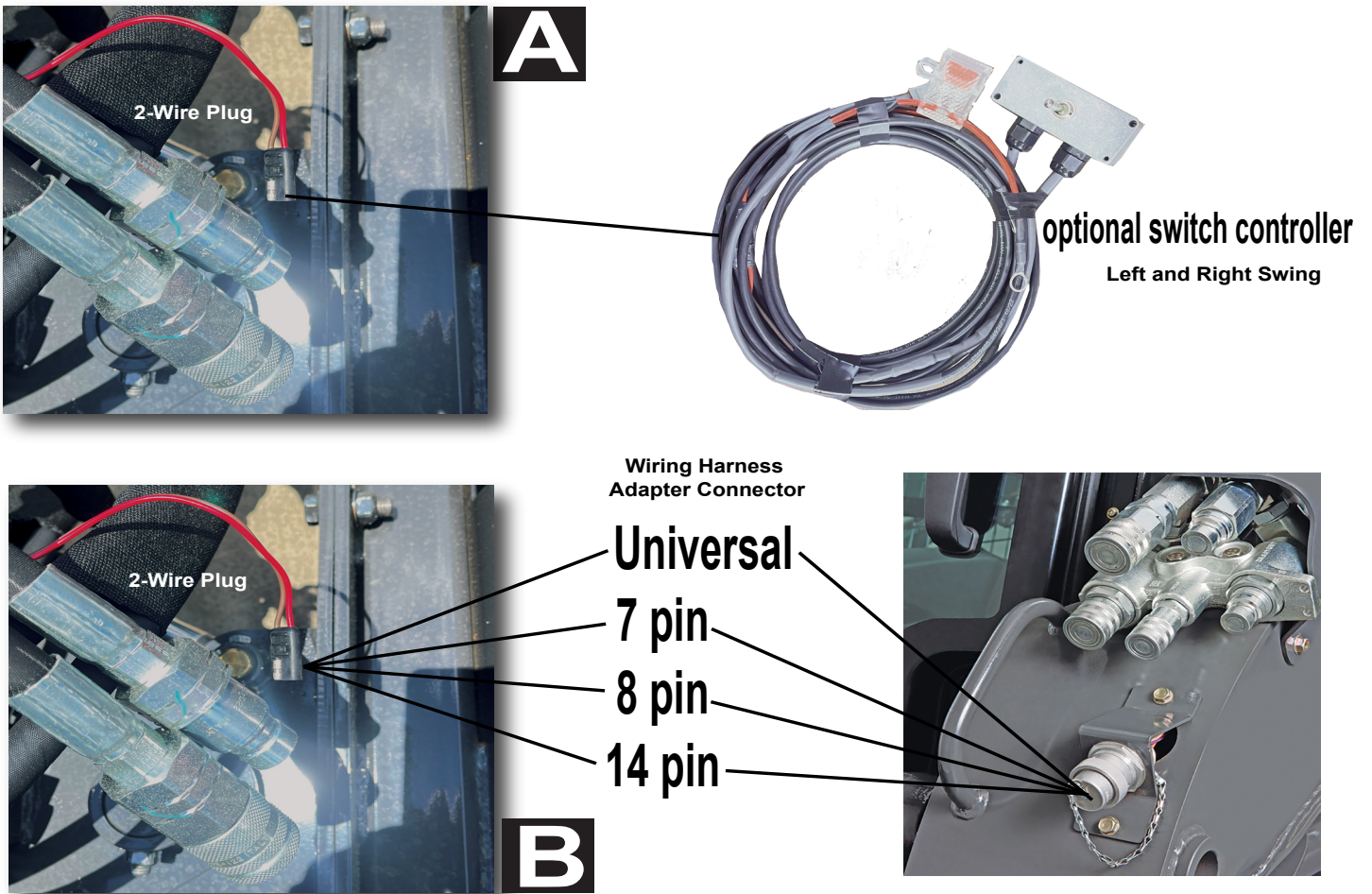
NOTICE

Check that hydraulic hoses are locked into the skid steer couplers before starting the sweeper.

2.4 CONNECTING ELECTRICAL HARNESS

HYDRAULIC ANGLE BROOM MODELS ONLY

Connect the control harness from the broom attachment to the electrical bulkhead connector mounted on the skid steer loader by using option A or B shown below. A universal, 7, 8 or 14 pin harness adapter kit is available to make this connection.



UNIVERSAL CONTROLLER INSTALLATION

NOTICE



To prevent possible equipment damage, it is recommended the universal controller be installed by a qualified technician who is familiar with your skid steer's electrical system.

1. Place the control box inside the skid steer cab and connect the red wire with the fuse to the skid steer's operator presence system and the black wire to the skid steer's grounding system.

WARNING



The paddle controller must connect to the skid steer's operator presence system to avoid serious injury or death. This system will disconnect power to the attachment when the operator restraint bar is raised or when the operator rises from seat.

Do not connect the controller directly to the skid steer's battery or other source that is energized at all times. Death or serious injury could happen if a control switch is accidentally bumped while exiting the operator's cab.

2. Route the control cable that extends from the right side of the controller box through the side of the cab and up to the back of the loader pivot arm, then down the arm to a point near the bulkhead coupler. Secure cable with plastic cable ties or velcro straps.
3. Check that the cable is free of tension when raising and lowering the skid steer loader arms.

2.5 BROOM CONTROLS

CONTROLS

Your broom is designed to run off your skid steer's auxiliary hydraulic system and is activated and deactivated by a control in the operator's cab. Operate the height and tilt functions using the skid steer control handles or pedals. Refer to your skid steer operator's manual for instructions regarding these functions.

CHANGING THE BROOM ANGLE (Angle Broom models only.)

Manual Angle Broom

1. Raise the sweeper 8" off the ground, then shut off the skid steer engine and exit the cab.
2. Remove the angle-lock pin located in the center of the broom mounting bracket.
3. When the lock pin has been pulled, pivot the broom head to the desired angle.
4. Re-insert pin to lock the broom head in place.

Hydraulic Angle Broom

1. Raise the sweeper 8" off the ground.
2. With the skid steer engine RPM just above idle, activate the auxiliary hydraulic circuit to spin the brushes.
3. Operate the toggle switch to swing the broom head to the desired angle.



REST BRACKETS

All Angle Brooms come with rest brackets that are designed to support the weight of the broom when not in use.



To raise the bracket:

- Lift the broom to take the weight off the rests then remove the keeper and lock pin.
- Raise the tube fully, align holes and insert lock pin with keeper.

2.6 FIRST TIME USE PROCEDURE

START HERE

01 SKID STEER CHECK
Before operating the sweeper, check the skid steer's hydraulic oil level and add oil if necessary.

SKID STEER
Start skid steer engine and increase the engine RPM to above idle.

02

03 SKID STEER
Activate the auxiliary hydraulic circuit to spin the brushes.

SKID STEER & SWEEPER
Move the auxiliary hydraulic control lever in opposite directions to reverse brush rotation. Repeat 3 times. If you are operating a hydraulic angle broom, toggle the swing direction. Repeat 3 times.

04

05 SKID STEER & SWEEPER
Deactivate the auxiliary hydraulic circuit, lower the sweeper to the ground, set the parking brake, turn off skid steer motor and exit the operator's cab.

SKID STEER & SWEEPER
Check the skid steer's hydraulic oil level and add oil if necessary. Inspect the broom attachment's hydraulic plumbing for oil leaks. Repair as necessary.

06

WARNING



A small stream of oil from a pinhole leak could penetrate your skin if contacted. To avoid an accident that could result in Death or Serious Injury, never use your hand or other body parts in an attempt to locate a hydraulic leak.

2.7 BROOMING OPERATIONS

BEFORE SWEEPING

01

ALWAYS

inspect work area before use. NEVER assume the work area is safe.

ENSURE

work area is clear of bystanders and pets.

02

WARNING



Keep bystanders and pets at least 100 feet clear of the work area to prevent serious injury or death from flying debris.

PICKUP BROOM INSTRUCTIONS

START HERE

01

POSITION

Start skid steer engine and slightly raise the sweeper off the ground.

02

TURN BROOM ON

Set the engine RPM to just above idle and activate the auxiliary hydraulic circuit to spin the broom bristles. Ensure the broom wheel is rotating clockwise with forward travel and counterclockwise with reverse travel.

03

SWEEP

Increase engine RPM, and lower the broom wheel until the bristles contact the ground and travel forward. Do not exceed 6 mph while operating this attachment.

04

FILL BUCKET

When the bucket is full, deactivate the auxiliary hydraulic circuit, raise the sweeper above the ground and drive to the dumping area.

05

DUMP BUCKET

Raise the loader lift arms and tilt the attachment forward to empty the bucket.

06

RESUME SWEEPING

Repeat steps 3 thru 5 until brooming is complete.

ANGLE BROOM INSTRUCTIONS

START HERE

01

Ensure rest brackets are raised and locked. Start skid steer engine and slightly raise the sweeper off the ground.

Set the desired broom angle per the instructions on page 18.

02

03

SWEEP

Increase engine RPM, and lower the broom wheel until the bristles contact the ground and travel forward. Do not exceed 6 mph while operating this attachment.



NOTICE

Excessive downward pressure on the brushes will accelerate bristle wear and will not result in better sweeping efficiency.

MAINTENANCE PROCEDURES

3.1 MAINTENANCE OVERVIEW

The maintenance procedures described in this manual should only be carried out by qualified mechanics who have been trained to repair this machine.

Some procedures require special tools and skills to complete. DO NOT attempt to repair or perform service work on this machine unless you have the skills and tools to do so. Contact your local dealer for maintenance and repair services.



NOTICE

Improper maintenance or modifications to the design or performance of this machine will void the warranty. ONLY use genuine IroncraftUSA replacement parts on this machine.

SAFETY INSTRUCTIONS

Obey the following safety instructions when servicing or repairing this machine.



WEAR

proper Personal Protective Equipment (PPE) while working on this machine, which may include safety glasses, hard hats, steel toe boots, gloves, etc.



WEAR

a welding helmet when welding to protect your eyes, face and neck from flash burn, ultra-violet radiation and heat.



ENSURE

all jack stands, lifts and hoists are in good working condition and have the rated load capacity to support the load.



SERVICE

If servicing is performed while the broom is attached to the skid steer, turn engine off, set parking brake and chock wheels to prevent skid steer from moving.



ONLY

perform service work in a well-lit area.



ALLOW

the machine to cool down before servicing this machine. Hot oils can burn your skin.



NEVER

work under an unsupported attachment.

3.2 MAINTENANCE SCHEDULE

This attachment will provide years of dependable service if routine maintenance procedures are performed. The maintenance tasks listed below are based on normal operating conditions. More frequent maintenance may be necessary with intense use or when operating in adverse environmental conditions.

MAINTENANCE TASK	BEFORE EACH USE	WEEKLY	YEARLY
Check skid steer loader hydraulic fluid level. Add fluid as necessary.	✓		
Check that all fasteners (nuts, bolts,, washers, pins, keepers) are in place. Tighten as necessary. (See Bolt Torque Table on page 29.)	✓		
Inspect and replace any worn, torn, or missing safety decals.	✓		
Inspect hydraulic plumbing (hoses and connectors) for damage or leakage. Repair or replace hydraulic items as necessary.	✓		
Check condition of the sweeper wafers.		✓	✓
Lubricate all pivot joints using #2 lithium grease.	✓	✓	✓
Wash Attachment		✓	
Check attachment for major scratches and dings. Sand and repaint these areas to prevent rust damage. *Use a paint formulated for farm equipment which can be found at your local hardware store.			✓

MAINTENANCE LOG

Document all maintenance and service activities performed on this sweeper using the maintenance log included at the end of this manual.

3.3 STORAGE

STORAGE TIPS

To get years of quality use out of your attachment, follow these tips when storing your sweeper:



THOROUGHLY WASH

then dry your attachment. Ensure attachment is free of debris, dirt, grime and grease.



STORE

your broom attachment in a dry area such as in a shed or garage. Keep out of direct sunlight.



COVER

your broom attachment with a waterproof tarp if storing outside.

DO NOT

Store the sweeper with weight on the brush or damage to the bristles may occur.

3.4 ADJUSTING PICKUP BROOM BRUSH HEIGHT

To get the best performance out of your pickup broom, adjust the brush so that it contacts the ground and makes a 2-4 inch wide pattern that runs the length of the brush.

INSPECT BRUSH PATTERN

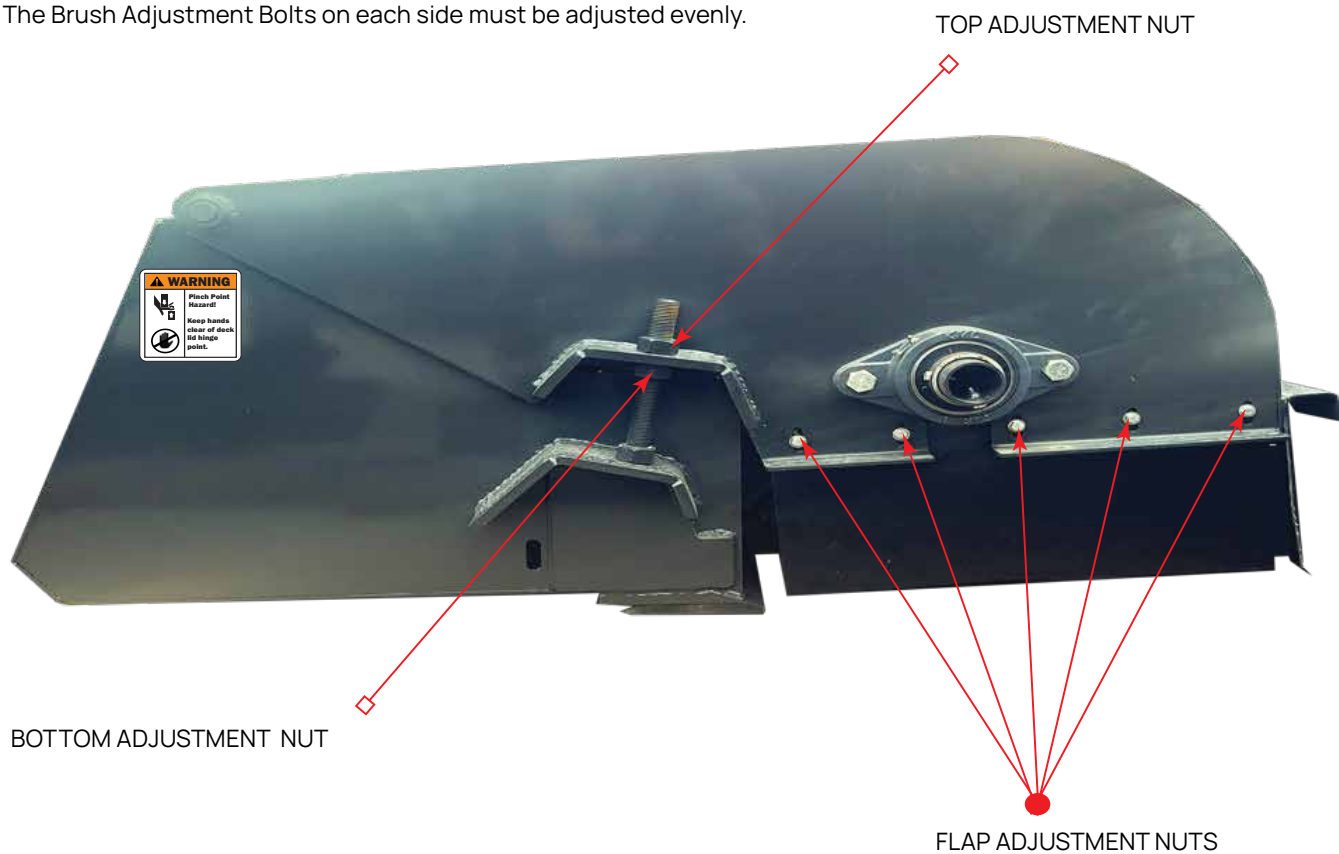
1. Move the skid loader and broom attachment to a flat and dusty surface.
2. Start the sweeper then lower to the operating position. (Bottom of bolt-on-edge should be 1" off the ground.)
3. After 10-15 seconds, raise the sweeper, deactivate the auxiliary hydraulic circuit, set parking brake, shut down skid steer engine, and exit the cab.
4. Inspect the brush pattern left on the dusty surface. A properly adjusted brush will leave a brush pattern that is 2-4 inches wide and runs the length of the brush.



ADJUSTING BRUSH PATTERN

1. Loosen the bottom nuts of the brush adjustment bolts.
2. If the pattern was wider than 4 inches, loosen the top nuts to decrease the pattern. If the pattern was less than 2" wide, tighten the top nuts to increase the pattern.
3. After pattern is set, tighten the bottom nuts of the brush adjustment bolts.
4. Adjust the side flaps so they slightly touch the ground.

The Brush Adjustment Bolts on each side must be adjusted evenly.



3.5 REPLACING BROOM WAFERS

REMOVING BROOM BRISTLES

1. Position the broom on a flat hard surface and disconnect the hydraulic hoses.
2. Remove the rubber flaps on each side of sweeper.
3. Remove the motor mount hardware.
4. Remove bearing plate to broom housing hardware.
5. Ensure sweeper body is disconnected from broom core, then using an overhead hoist, raise the broom deck lid off the broom core and roll the broom core away from sweeper bucket
6. Remove end retainer from one broom core end and remove wafers.



CAUTION

Do not place any part of your body under an unsupported attachment deck to prevent serious injury or death.



CAUTION

The sweeper deck lid is very heavy. To prevent a serious injury, use an overhead hoist with the proper lifting rig to raise and support the deck lid.


INSTALLING BROOM BRISTLES

1. Stand the broom core on end with a retaining plate in place.
2. Install wafers making sure retention pins are trapped on broom drum bar.
3. Continue installing wafers alternating bristle types. Retention pins should alternate 180 degrees.
4. Install the retaining plate after the last wafer and lower the broom housing core to the ground.
5. Install the bearing plate.
6. Install the motor mount brackets.
7. Install the side rubber flaps. (Adjust as necessary.)

After replacing the broom bristles, adjust the pickup broom brush height by following the steps outlined in section 3.4.

3.6 TORQUE SPECIFICATION TABLE

TORQUE VALUES SAE GRADE 8

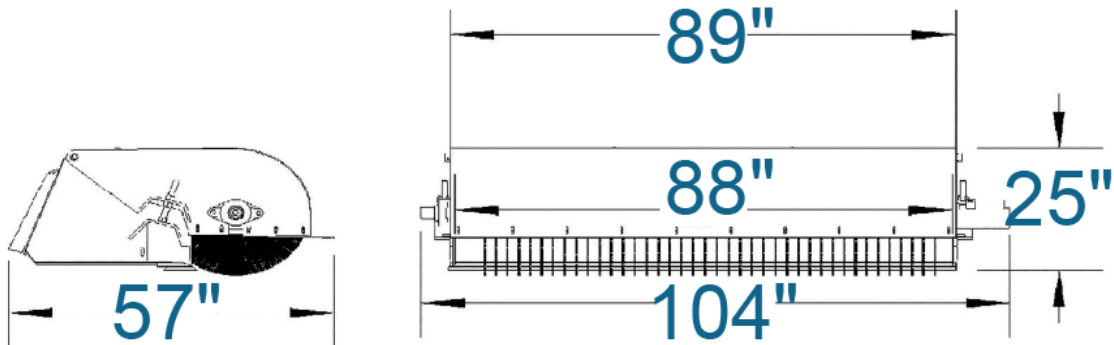
	DRY LB-FT	LUBRICATED LT-FT
1/4"	12	9
5/16"	24	18
3/8"	45	35
1/2"	110	80
3/4"	380	280
7/8"	600	450
1"	910	680

4.1 TROUBLESHOOTING CHART

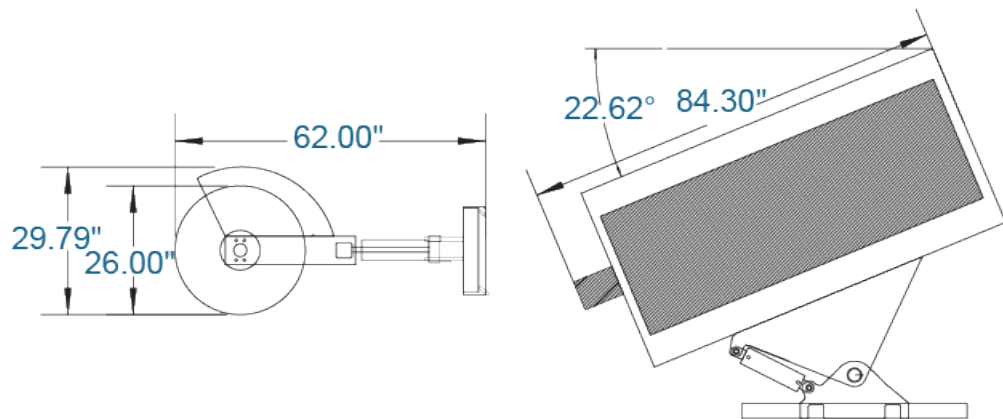
PROBLEM	CAUSE	SOLUTION
Skid steer hydraulic oil level goes down during operation	Leak between skid steer and attachment motor or cylinder	Investigate & repair
	Leaks in skid steer hydraulic system	Investigate & repair
Hydraulic angle does not move (Hyd. Angle Models Only)	Valve not shifting due to solenoid failure	Shut off skid steer and release pressure in the auxiliary circuit. Remove the shift cartridge and check if a contaminant is blocking the valve action. Check if solenoid coil is working.
	Solenoid valve not receiving signal from switch in cab	Verify that the 12V positive lead is connected to a live circuit and that the ground circuit is good.
		Disconnected or shorted wire in wire harness, solenoid valve or harness coupler.
Broom does not turn	Incomplete circuit to and from motor	Either one of the hydraulic couplers is not fully engaged. Disconnect and reconnect hoses to machine.
	Motor contaminated	Drive motor failure. Replace motor after flushing/cleaning hose interiors.

5.1 PARTS INFORMATION

5.2 SPECIFICATIONS



Pickup Broom



Angle Broom

6.1 WARRANTY INFORMATION



IRONCRAFT (THE “MANUFACTURER”) WARRANTS, ONLY TO THE ORIGINAL PURCHASER, THIS EQUIPMENT WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP, UNDER NORMAL USE AND SERVICE, FOR ONE (1) YEAR FROM THE DATE OF PURCHASE PROVIDING THIS EQUIPMENT IS PURCHASED FOR INDIVIDUAL USE ONLY. COMMERCIAL USE OF THIS EQUIPMENT IS NOT COVERED UNDER ANY WARRANTY. THIS WARRANTY DOES NOT APPLY TO ANY EQUIPMENT WHICH HAS BEEN DAMAGED OR WHICH HAS BEEN SUBJECTED TO CHANGE, MISUSE, NEGLIGENCE, ABNORMAL WEAR AND TEAR, ALTERATIONS, TAMPERING, OR FAILURE TO FOLLOW OPERATING INSTRUCTIONS. THIS WARRANTY DOES NOT COVER ANY PRODUCT OR PARTS NOT MANUFACTURED BY IRONCRAFT

UNDER THIS WARRANTY, THE MANUFACTURER WILL REPAIR OR REPLACE ANY PART WHICH THE MANUFACTURER DETERMINES HAS FAILED DURING THE PERIOD OF THE WARRANTY DUE TO DEFECTS IN MATERIAL OR WORKMANSHIP. AFTER WRITTEN APPROVAL BY THE MANUFACTURER, THE EQUIPMENT OR DEFECTIVE PART MUST BE RETURNED TO IRONCRAFT.

WARRANTY COVERAGE AND PERFORMANCE IS EXPRESSLY CONDITIONED UPON THE RETURN OF THE COMPLETED REGISTRATION FORM TO IRONCRAFT, PO BOX 649, DECATUR, TENNESSEE 37322.

IRONCRAFT RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND CHANGES IN SPECIFICATIONS WITHOUT NOTICE OR OBLIGATION TO MODIFY PREVIOUSLY SOLD UNITS. THE OWNER’S MANUAL DESCRIBES THE PROPER ASSEMBLY PROCEDURES FOR YOUR IMPLEMENT AND FURNISHES OPERATING AND MAINTENANCE RECOMMENDATIONS TO HELP YOU OBTAIN LONG AND SATISFACTORY SERVICE.

PURCHASER’S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, OTHER DEFECT, OR CONDUCT GIVING RISE TO LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT SOLD, AND THE MANUFACTURER UNDER NO CIRCUMSTANCES SHALL BE LIABLE FOR ECONOMIC LOSS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

PURCHASER AND IRONCRAFT HEREBY (A) SUBMIT TO THE NON-EXCLUSIVE JURISDICTION OF THE COURTS OF COMPETENT JURISDICTION IN MEIGS COUNTY, TENNESSEE, AND THE UNITED STATE DISTRICT COURT FOR THE EASTERN DISTRICT OF TENNESSEE FOR RESOLUTION OF ANY DISPUTE CONCERNING THIS LIMITED WARRANTY OR THE RIGHTS OR OBLIGATIONS OF PURCHASER AND/OR IRONCRAFT; (B) AGREE THAT ANY LITIGATION COMMENCED IN TENNESSEE IN CONNECTION WITH THIS LIMITED WARRANTY SHALL BE VENUED IN EITHER THE MEIGS COUNTY, TENNESSEE DISTRICT COURT, OR THE UNITED STATES DISTRICT COURT, EASTERN DISTRICT OF TENNESSEE, SOUTHERN DIVISION, AND (C) WAIVE ANY OBJECTION IT MAY HAVE AS TO ANY SUCH ACTION OR PROCEEDING BROUGHT IN SUCH COURT THAT SUCH COURT IS AN INCONVENIENT FORUM. NOTHING HEREIN SHALL LIMIT THE RIGHT OF PURCHASER OR IRONCRAFT (OR THE RIGHT OF ANY PERMITTED SUCCESSOR OR ASSIGN OF EITHER) TO BRING PROCEEDINGS AGAINST THE OTHER IN THE COURTS OF ANY OTHER JURISDICTION WHEREIN ANY ASSETS OF SUCH OTHER PARTY MAY BE LOCATED.

SAFETY ACKNOWLEDGEMENT FORM

ATTN ALL OPERATORS: Print your name, sign and date in the boxes below to acknowledge that you have read and fully understand the safety instructions presented in this manual, and have been trained on how to safely operate this attachment.

OPERATOR NAME	SIGNATURE	DATE

OPERATOR NAME	SIGNATURE	DATE

MAINTENANCE LOG

Use this log sheet to document all routine maintenance and repair services performed on this machine.

DESCRIPTION OF MAINTENANCE	SERVICED BY	DATE

