

Operation & Maintenance Manual



Mini Clean SweepTM **Mini Pick-Up Broom** For **Mini Skid Steer Loaders** And **Mini Track Loaders**



Read this Manual Before Use

TABLE OF CONTENTS

SAFETY	3-4
SERIAL NUMBER/DECAL LOCATION	5-6
USER'S MOUNTING INSTRUCTIONS	7-8
OPERATING INSTRUCTIONS	9-10
ROUTINE MAINTENANCE	11-14
BOLT TORQUE INFORMATION	15
PARTS INFORMATION	16-19
GENERAL SPECIFICATIONS	20
NOTES	21-22
WARRANTY	23

REFERENCE INFORMATION

Write the serial number for your attachment in the spaces below. Always refer to this serial number when calling for service or parts.

Serial Number....._____

YOUR ATTACHMENT DEALER

ADDRESS:

PHONE:

CONTACT:

NOTE: *Quick Attach Attachments LLC reserves the right to make improvements in design or changes in specifications at any time without notice and without incurring any obligations to install them on units previously sold.*

SAFETY

DO NOT use or perform maintenance on this machine until this manual has been read and understood. In addition, read the Operation and Maintenance Manual(s) pertaining to the attachment and the attachment carrier (“Loader”).

The user is responsible for inspecting the machine daily, and for having parts repaired or replaced when continued use of the machine would cause damage, excessive wear to other parts or make the machine unsafe for continued operation.

If an operating procedure, tool device, maintenance or work method not specifically recommended is used, you must satisfy yourself that it is safe for you and others. You must also ensure that the attachment will not be damaged or made unsafe by the procedures you choose.

Quick Attach Attachments LLC cannot anticipate every possible circumstance that might involve potential hazard. The safety messages found in this manual and on the machine are therefore not all inclusive.

Throughout this manual, reference may be made to the left hand (LH) and right hand (RH) side. These terms are used as viewed from the operator’s seat facing front.

The signal words **CAUTION**, **WARNING**, or **DANGER** are used to indicate hazards.

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

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

⚠ DANGER Indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.

The word **IMPORTANT** is used in the text when immediate damage will occur due to improper technique or operation.

The word **NOTE** is used to convey information that is out of context with the manual text; special information such as specifications, techniques, reference information, and other information of a supplementary nature.

Improper operation can cause serious injury or death.

Pre-operation

- This machine is designed for sweeping dirt and small debris on hard packed surfaces only. This machine is designed to be used on loaders with a Rated Operating Capacity (ROC) of 1000 pounds or less only. **NEVER** use this machine for any other purpose.
- Read the operator's manual for the "Skid Steer Loader." **NEVER** allow untrained people to operate.
- Operating instructions must be given to everyone before operating this attachment and at least once a year thereafter in accordance with OSHA regulations.
- **NEVER** exceed the maximum recommended input power or speed specifications for the attachment. Over-powering or over-speeding the attachment may cause personal injury and/or machine damage.
- Keep all shields, guards, and covers in place.
- Do not modify equipment or add attachments that are not approved by Quick Attach Attachments LLC.
- Use adequate safety warning lights and devices as required by local regulations. Obey all local laws and regulations regarding machine operation on public property.

Operation

- Always wear eye protection that meets ANSI z87.1 or use with an enclosure that provides similar protection.
- Depending on how this attachment is used, dust can be created. Prolonged exposure to dust can cause chronic and acute health problems. A NIOSH-approved respirator may be required.
- Hydraulic connections may be hot after use. Use gloves if connecting or disconnecting after use.
- Check and be sure all operating controls are in neutral before starting the engine.

Operation (continued)

- Always stay in the operator position when using the attachment.
- Keep people away from loader, attachment, and discharge when in use. This attachment sends objects flying and has rotating parts. **NEVER** direct discharge toward people – rocks and debris can be thrown.
- **NEVER** operate near embankments or terrain that is so steep that rollover could occur.
- Before leaving the operator position, disengage the hydraulic drive, lower the attachment to rest flat on the ground, stop engine, set park brake, and wait for all motion to stop.
- **NEVER** place hands in discharge area or clear debris while engine is running.

Avoid High Pressure Fluids Hazard



- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving the pressure before disconnecting hydraulic lines.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks. Wear protective gloves and safety glasses or goggles when servicing or performing maintenance on hydraulic systems.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

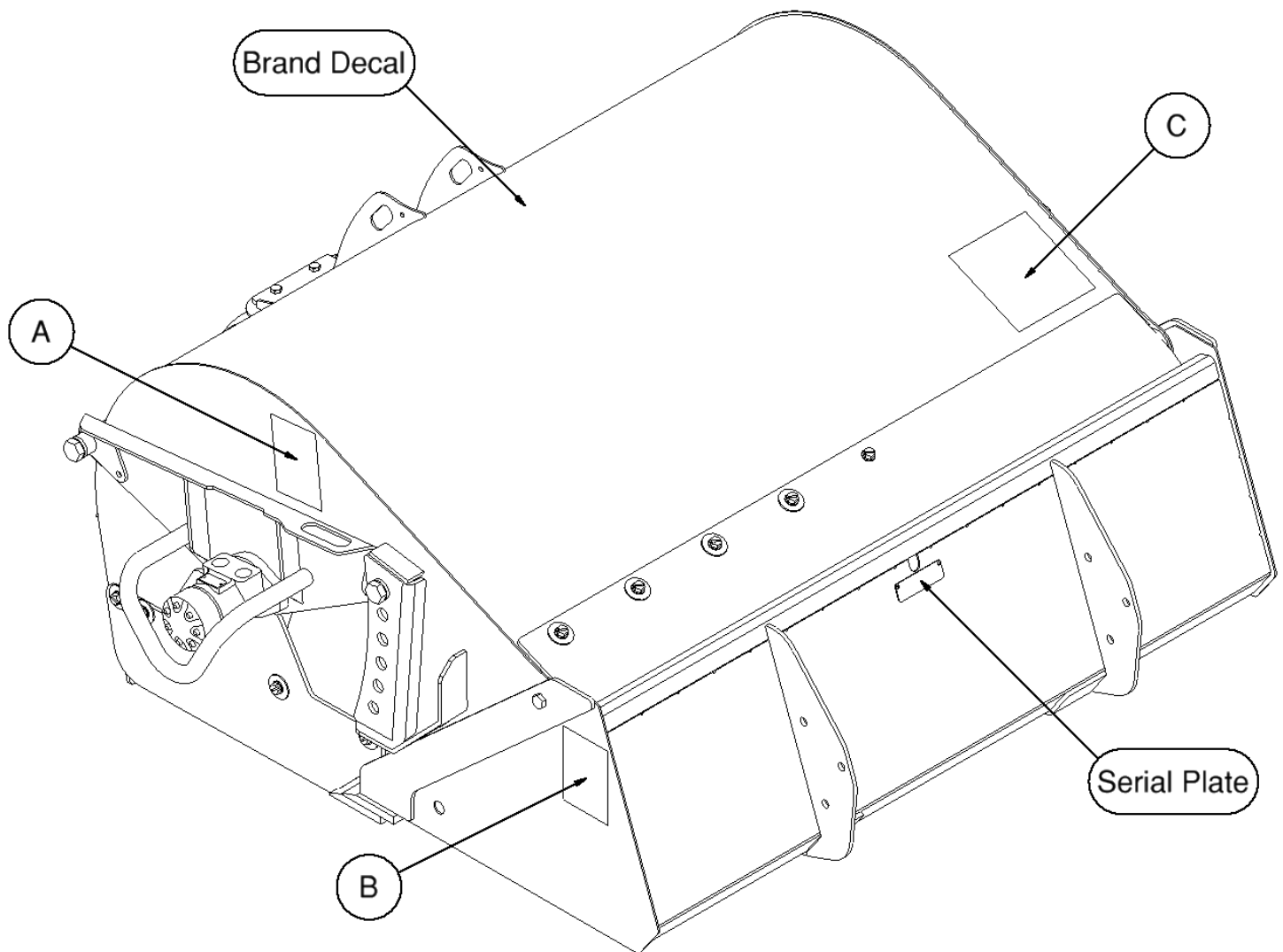
Maintenance

- **NEVER** make adjustments, lubricate, clean, or perform any service on the machine while it is in operation.
- Make sure the attachment is serviced on a daily basis. Improper maintenance can cause serious injury or death in addition to damage to the attachment and/or your equipment.

SERIAL NUMBER AND SAFETY DECAL LOCATIONS

Serial Number Location:

It is important to refer to the serial number of the attachment when making repairs or ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use different procedures in doing a specific operation.



SERIAL NUMBER AND SAFETY DECAL LOCATIONS



Part number: 200001

Location: On LH side of hood

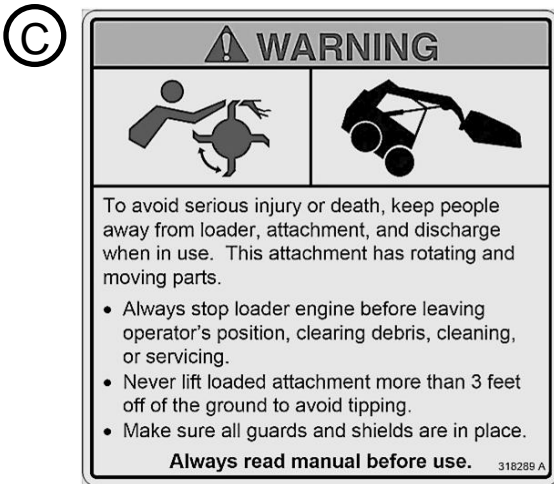
Quantity: 1



Part number: 203234

Location: On both sides of bucket

Quantity: 2



Part number: 318289

Location: On top of hood, RH side

Quantity: 1

Small Brand Decal

Location: Centered on top of hood

Quantity: 1

Safety Decals Locations:

The locations of the safety decals are shown. If these decals are missing, damaged, or painted over they must be replaced. Call Quick Attach Attachments LLC (320-759-1551) for replacement decals.

USER'S MOUNTING INSTRUCTIONS

After the initial set-up assembly is completed, use the following procedure to mount the attachment to the loader.

⚠ WARNING Coupler wedges or pins must extend through holes in attachment. Levers must be fully down and locked. Failure to secure wedges or pins can allow the attachment to come off and cause injury or death.

IMPORTANT: This attachment is not designed to be used on loaders with a Rated Operating Capacity (ROC) of more than 1000 pounds.

Instructions for mounting to a ride-on mini skid steer:

1. Use the step, safety treads, and grab handles to get on and off the loader and attachment.
2. Sitting in the operator's seat, lower the seat bar, fasten the seat belt, make sure all controls are in neutral, and start the engine.
3. Drive the loader to the rear of the attachment. Put the loader quick attach coupler into the attachment mounting bracket.
4. Tilt the loader coupler back a small amount until it is fully engaged with the attachment mounting bracket.
5. Stop the engine and engage the park brake.
6. Exit the loader and secure the coupler locking mechanism that locks the attachment to the loader.

Instructions for mounting to a walk-behind mini skid steer:

1. Standing at the operator's station, make sure all controls are in neutral, and start the engine.
2. Drive the loader to the rear of the attachment. Put the loader quick attach coupler into the attachment mounting bracket.
3. Tilt the loader coupler back a small amount until it is fully engaged with the attachment mounting bracket.
4. Stop the engine and engage the park brake.
5. Walk to the front of the loader and secure the coupler locking mechanism that locks the attachment to the loader.

USER'S MOUNTING INSTRUCTIONS

Connecting Hydraulics:

1. Connect the hydraulic quick couplers from the attachment to the loader.

IMPORTANT: Wipe the ends of the hydraulic quick couplers (both lead and loader) with a rag to remove any possible contamination. Contamination can cause hydraulic components to fail and is not covered under warranty.

IMPORTANT: Make sure the quick couplers are fully engaged. If the quick couplers do not fully engage, check to see that the couplers are the same size and brand. Do not force the quick couplers together.

NOTE: See the loader's operator's manual for auxiliary hydraulic specifications and connection instructions.

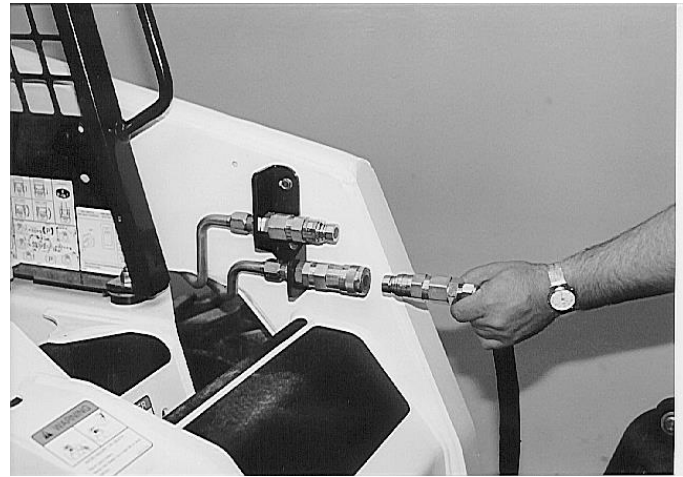
NOTE: Attachment is shipped with 8FJX (3/4" Female JIC Swivel) fittings on the ends of the lead hoses.

2. Make sure the hoses are properly routed to fit your specific loader. If the hoses are not routed correctly, hoses may get pinched or rub on tires. Be sure to check the hose routing through the full range of intended motion of the attachment before operating it.

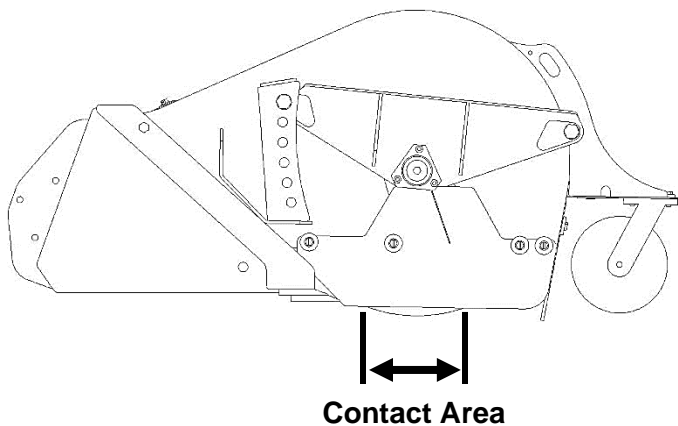
More than one routing may be acceptable depending on the loader. Pick the routing that best suits your specific loader.

IMPORTANT: Proper hose routing is the responsibility of the owner and/or operator. Pinched or stretched hoses are not covered under warranty.

Mounting is now complete and the attachment is ready for operation. Use the above instructions in the reverse order to dismount the attachment from the loader.



OPERATING INSTRUCTIONS



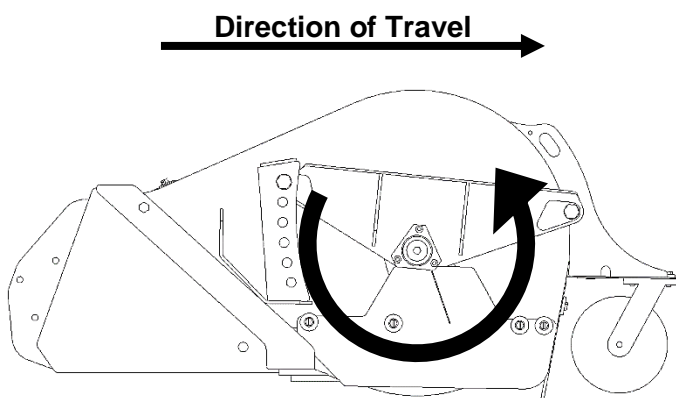
1. With the operator in the seat of the loader, the seatbelt fastened, and the seat bar lowered (if so equipped), start the engine.
2. Position the attachment so that the bucket is slightly off of the ground, and the broom assembly wheel is resting on the ground.

IMPORTANT: Excessive down pressure will cause premature bristle wear or breakage.

NOTE: The down pressure on the broom determines the broom contact area on the surface, or the length of bristle contact with the surface. It is recommended to maintain a 2" to 4" bristle contact area while sweeping.

3. Activate the loader's auxiliary hydraulics in continuous flow mode to start the broom bristles turning.

IMPORTANT: When making sharp turns, raise the front wheel of the attachment off of the ground slightly to avoid damage to the caster assembly.



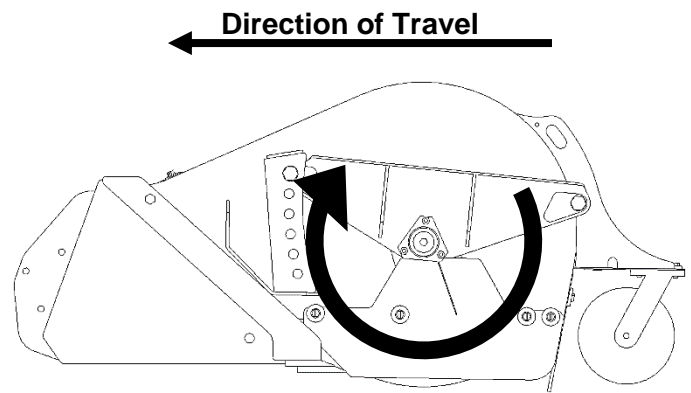
Forward Travel

For normal sweeping, position the bucket cutting edge slightly above the ground (this helps avoid scratching of the surface being swept), activate the auxiliary hydraulics so that the bristles sweep away from the operator (as shown), and slowly drive the loader forward.

OPERATING INSTRUCTIONS

Backwards Travel

If the debris is packed onto the surface being swept, or to pick up larger/heavier material, position the bucket with the cutting edge flat on the ground, activate the hydraulics so that the bristles sweep toward the operator (as shown), and slowly drive the loader backwards. The bucket cutting edge will scrape the debris to loosen it up, and the bristles will sweep the debris off of the surface and into the bucket.



Dumping the Bucket

1. When debris starts falling out of the bucket and back onto the surface, this is an indication that the bucket is full and needs to be dumped.
2. Disengage the hydraulic drive, raise the attachment slightly off of the ground, and drive the loader to the desired dumping area.

⚠ WARNING To avoid serious injury or death due to tipover, carry attachment as low as possible while transporting.

3. Raise the loader lift arms and tip the attachment forward in order to empty the bucket of debris.

⚠ WARNING To avoid serious injury or death due to tipover, NEVER lift loaded attachment more than 3 feet off of the ground.

NOTE: In some cases, it may be necessary to run the mini pick-up broom while dumping to remove the debris from inside and around the bristles.

4. Lower the attachment and resume sweeping operation.





ROUTINE MAINTENANCE

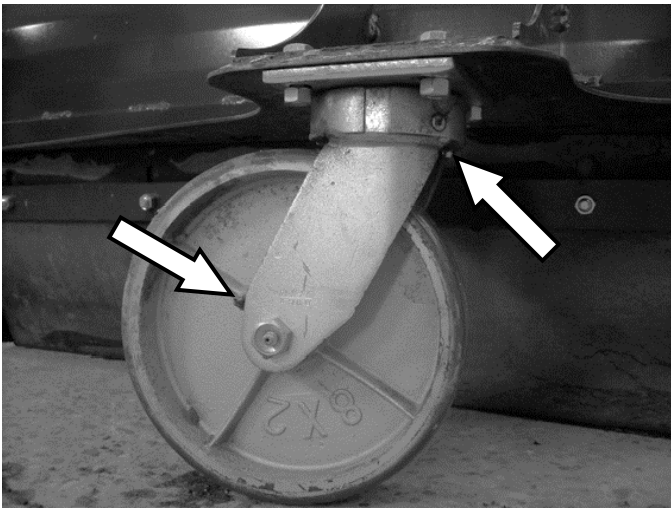
⚠ WARNING Lower the attachment to rest flat on the ground, disengage the hydraulic drive, shut down the engine, set the park brake, and wait for all motion to stop before leaving the operator's seat to perform service of any kind.

It is the operator's responsibility to make daily inspections of the loader and attachment for damage, loose bolts, fluid leaks, or anything else that could cause a potential service or safety problem. Preventive maintenance is the easiest and least expensive type of maintenance.



IMPORTANT: Bolts and set screws can loosen after initial usage. After the first hour of operation check all bolts and set screws.

LUBRICATION

Lubrication Legend	 Multipurpose spray lube	 No. 2 Lithium base gun grease	 Clean engine oil	 Intervals at which lubrication is required
---------------------------	---	---	--	--



Use No. 2 lithium base gun grease when lubricating all attachment grease fittings.

	
--	---

Grease both zerks on the caster wheel every **8 hours** of operation.

ROUTINE MAINTENANCE

Replacing Brush Sections

1. Remove the side rubber shields from both sides of the attachment.



2. Remove the two endplate mounting bolts and nuts on each side. Retain for later reassembly.

NOTE: The motor hex drive block will be removed with the endplate.

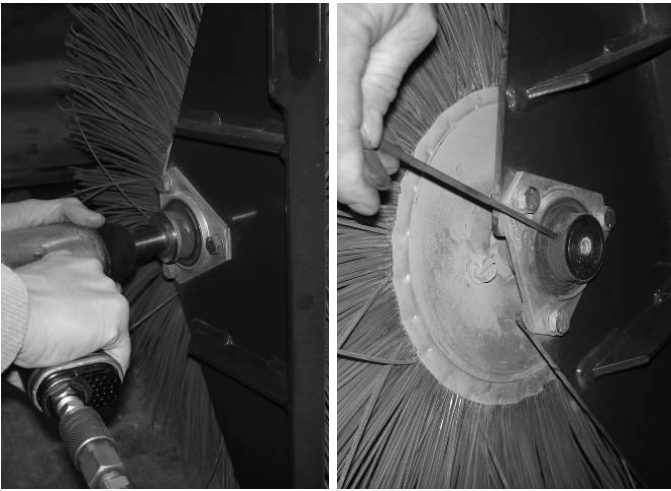


3. Using a hoist or other suitable lifting method, raise the hood and block it up in place with jack stands.

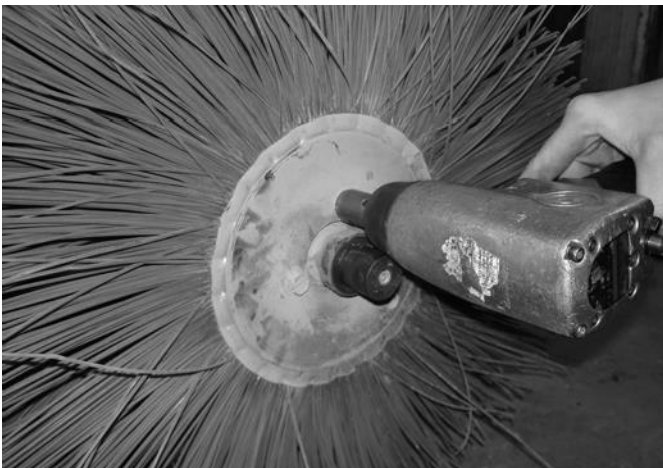


4. Carefully remove the brush head assembly.

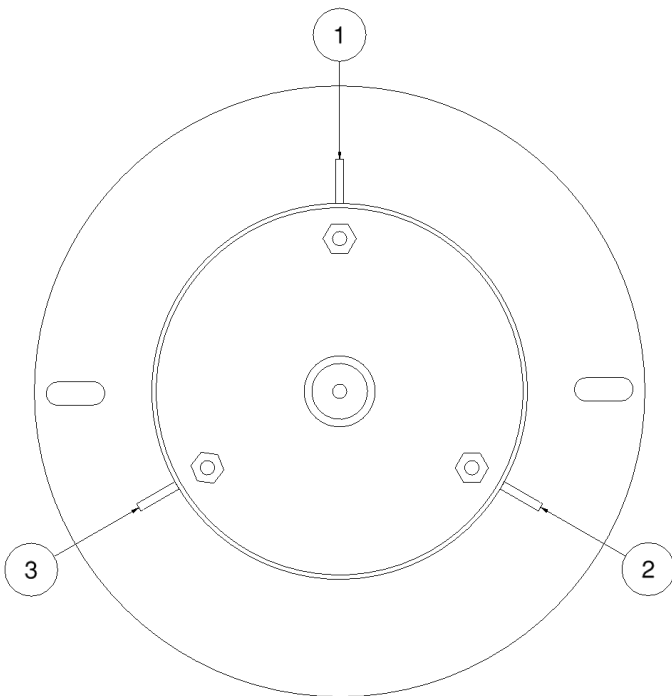
ROUTINE MAINTENANCE



5. Remove the bearing retaining bolt and washer.
6. Loosen the set screws on the bearing assembly and slide the bearing and endplate off of the arbor.
7. Remove the three bolts holding the brush retainer to the arbor, and remove the brush retainer.



8. Remove the old brush sections.
9. Number the ribs on the arbor as 1, 2, and 3.
10. Slide the first flat brush section onto the arbor so that the pins are around one of the arbor ribs.



11. Slide the first “wavy” brush section on so that the pins are around rib 1.
12. Slide the second “wavy” brush section on so that the pins are around rib 2.

NOTE: Every other brush section will need to be flipped so that the high spots of the bristle “waves” on the neighboring sections hit each other.

13. Slide the third “wavy” brush section on so that the pins are around rib 3.

ROUTINE MAINTENANCE

- Continue this pattern until all “wavy” brush sections are installed.

NOTE: Install 28 “wavy” brush sections on a 60” arbor, 36 “wavy” brush sections on a 72” arbor, or 42 “wavy” brush sections on an 84” arbor.

- Slide the second flat brush section onto the arbor so that the pins are around one of the arbor ribs.
- Reinstall the brush retainer and three bolts.



- Slide the bearing/endplate assembly onto the end of the arbor. Tighten the bearing setscrews, and reinstall the bearing retaining bolt and washer.

- Move the arbor and brush assembly into the bucket housing. Lower the hood and make sure the endplates and rubber side shields are in place for reinstallation.



- Align the bolt holes and secure the endplates to the hood. Slide the motor and endplate assembly into the arbor, aligning the hex drive block inside the arbor.

- Be sure to adjust the arbor height to ensure a 2” to 4” bristle contact area. This is done by positioning the rear endplate bolts in the appropriate holes on the adjustment bars.

- Tighten all hardware to the proper torque(s). Refer to the bolt torque chart on page 13 of this manual.



BOLT TORQUE INFORMATION

Torque-Tension Relationships for SAE J429 Grade Bolts

Nominal Thread Size	SAE J429 Grade 2			SAE J429 Grade 5			SAE J429 Grade 8		
	Clamp Load (lbs)	Tightening Torque		Clamp Load (lbs)	Tightening Torque		Clamp Load (lbs)	Tightening Torque	
		K = .15	K = .20		K = .15	K = .20		K = .15	K = .20
Unified Coarse Thread Series									
1/4-20	1,300	49 in-lbs	65 in-lbs	2,000	75 in-lbs	100 in-lbs	2,850	107 in-lbs	143 in-lbs
5/16-18	2,150	101	134	3,350	157	210	4,700	220	305
3/8-16	3,200	15 ft-lbs	20 ft-lbs	4,950	23 ft-lbs	31 ft-lbs	6,950	32.5 ft-lbs	44 ft-lbs
7/16-14	4,400	24	30	6,800	37	50	9,600	53	70
1/2-13	5,850	36.5	49	9,050	57	75	12,800	80	107
9/16-12	7,500	53	70	11,600	82	109	16,400	115	154
5/8-11	9,300	73	97	14,500	113	151	20,300	159	211
3/4-10	13,800	129	173	21,300	200	266	30,100	282	376
7/8-9	11,425	125	166	29,435	321	430	41,550	454	606
1-8	15,000	187.5	250	38,600	482.5	640	54,540	680	900
Unified Fine Thread Series									
1/4-28	1,500	55 in-lbs	75 in-lbs	2,300	85 in-lbs	115 in-lbs	3,250	120 in-lbs	163 in-lbs
5/16-24	2,400	112	150	3,700	173	230	5,200	245	325
3/8-24	3,600	17 ft-lbs	22.5 ft-lbs	5,600	26 ft-lbs	35 ft-lbs	7,900	37 ft-lbs	50 ft-lbs
7/16-20	4,900	27	36	7,550	42	55	10,700	59	78
1/2-20	6,600	41	55	10,200	64	85	14,400	90	120
9/16-18	8,400	59	79	13,000	92	122	18,300	129	172
5/8-18	10,600	83	110	16,300	128	170	23,000	180	240
3/4-16	15,400	144	193	23,800	223	298	33,600	315	420
7/8-14	12,610	138	184	32,480	355	473	45,855	500	668
1-12	16,410	205	273	42,270	528	704	59,670	745	995

Clamp load estimated as 75% of proof load for specified bolts.

Torque values for 1/4 and 5/16 inch series are in inch-pounds. All other torque values are in foot-pounds.

Torque values calculated from formula $T = KDF$

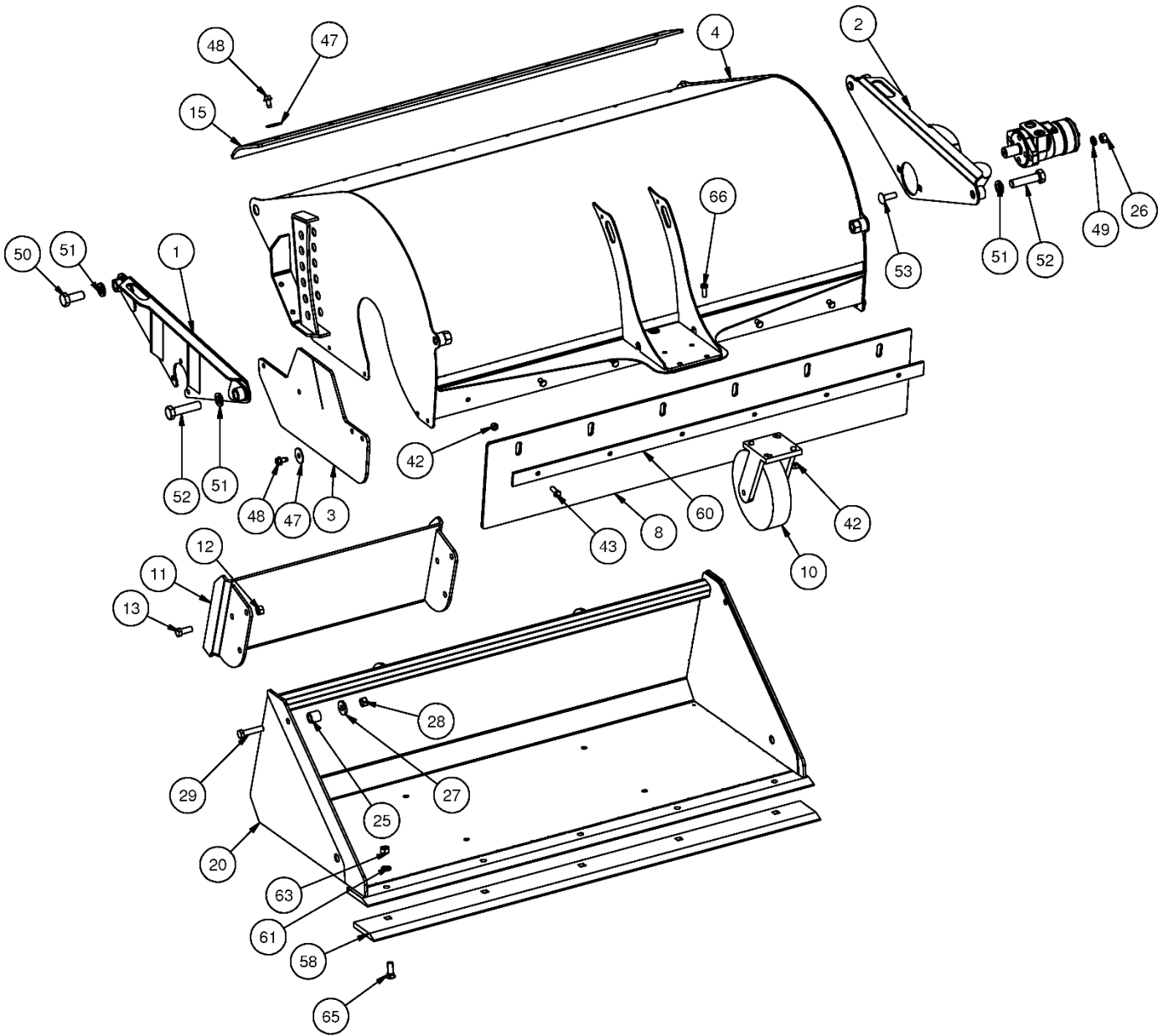
where: $K=0.15$ for "lubricated" conditions

$K=0.20$ for "dry" conditions

PARTS INFORMATION

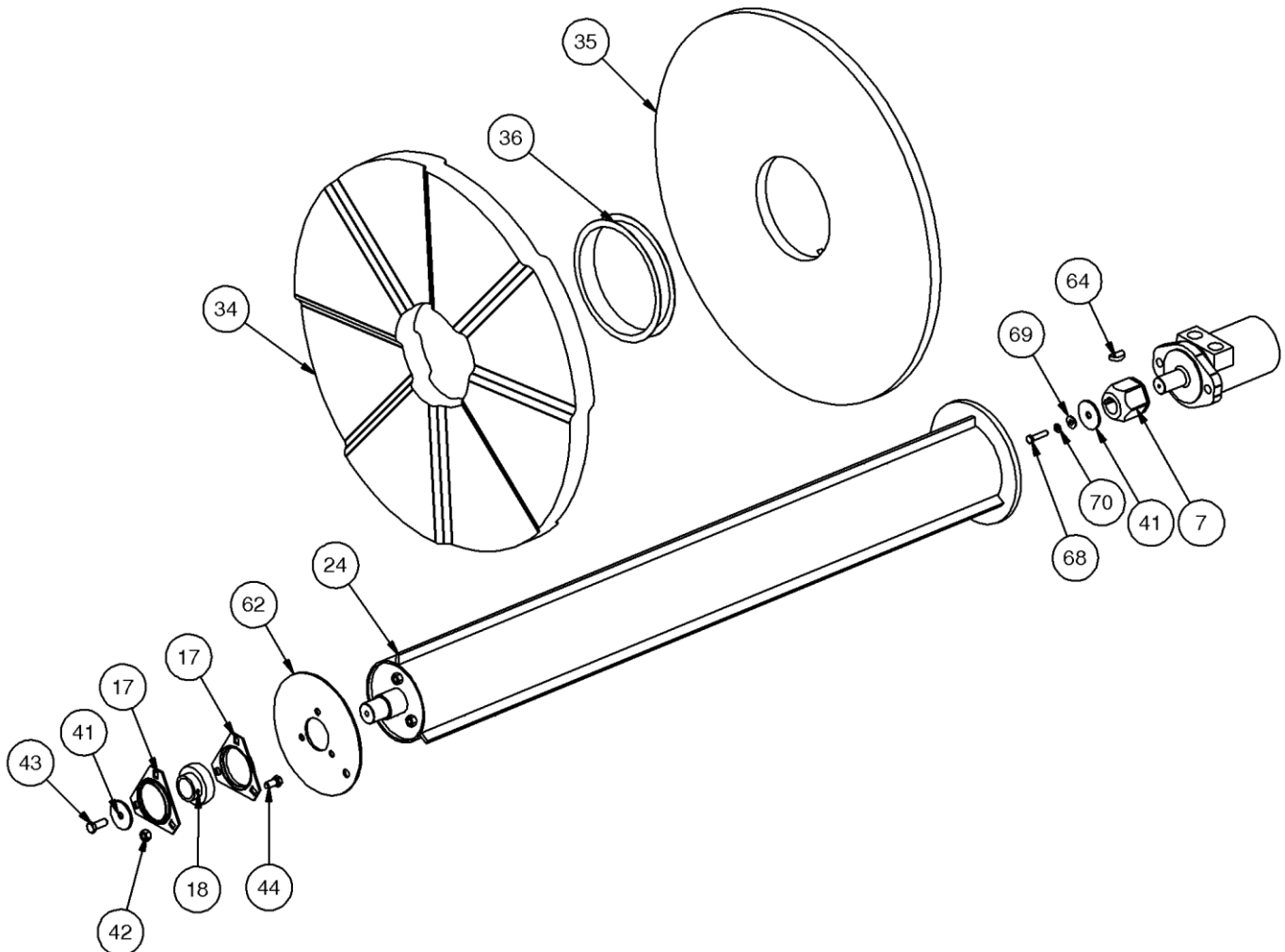
ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	318403	BRACKET PIVOT RH	
2	1	318404	BRACKET PIVOT LH	
3	2	318427	SHEILD RUBBER SIDE	
4	1	400331	BODY PICK UP BROOM 48 W/A	
8	1	400343	SHIELD RUBBER FRONT 48	
10	1	318559	WHEEL CASTER ASSM 10.13 TALL X 8X2	REPLACED 318499
	1	318499	CASTER ASSEMBLY 8 X 2	REPLACED BY 318559
11	1	400000	MOUNT FRAME TORO MINI W/A	OPTIONAL MOUNT PACKAGE
	1	400001	MOUNT FRAME ASV MINI W/A	OPTIONAL MOUNT PACKAGE
	1	400002	MOUNT FRAME BC MINI W/A	OPTIONAL MOUNT PACKAGE
	1	300283	MOUNT FRAME UNIV MINI W/A	OPTIONAL MOUNT PACKAGE
	1	330622	MOUNT FRAME AVANT MINI W/A	AVANT ADPT MNT PKG 330753
12	6	0167011	NUT FLG TOP LOCK 1/2 NC GR 8 YZ	OPTIONAL MOUNT PACKAGE
13	6	15209	BOLT HEX - 1/2 X 1-1/2 - UNC - GR 8	OPTIONAL MOUNT PACKAGE
15	1	400349	SHIELD RUBBER TOP 48	
20	1	400050	MINI LO-PRO BUCKET W/A	
25	2	400325	BUSHING 1.00 X .56 X 1.00 Z	
26	2	36110	NUT HEX FULL	1/2 - UNC - GR 5
27	2	313321	WASHER .53ID X 1.375OD X .199	
28	8	37214	NUT HEX	1/2 - UNC - GR 5 - REV LOCK
29	2	13212	BOLT HEX	1/2 X 2.25 - UNC - GR 5
42	10	37212	NUT HEX	3/8 - UNC - GR 5 - REV LOCK
43	6	13105	BOLT HEX	3/8 X 1 - UNC - GR 5
47	16	33220	WASHER FLAT FENDER	3/8 X 1-1/2
48	16	32467	BOLT FLG THRD RLNG	3/8 X 3/4 - UNC - GR 5
49	2	33636	WASHER LOCK	1/2"
50	2	13360	BOLT HEX	3/4 X 1.75 - UNC - GR 5
51	4	33632	WASHER LOCK	0.75 - GR 5
52	2	13365	BOLT HEX	3/4 X 3 - UNC - GR 5
53	2	318277	BOLT CARRIAGE SHORT NECK	1/2 X 1.50 - UNC - GR 5
55	6	13205	BOLT HEX	1/2 X 1 - UNC - GR 5
58	1	400111	CUTTING EDGE 1/2 X 4 X 49.5	OPT BOLT ON CUTTING EDGE
60	1	400337	FLAT FRONT 48 PAINTED	
61	5	33626	WASHER LOCK 1/2	OPT BOLT ON CUTTING EDGE
63	5	36110	NUT HEX REG 1/2 NC GR 5	OPT BOLT ON CUTTING EDGE
65	5	22644	BOLT PLOW 1/2 X 1-3/4 - UNC - GR 5	OPT BOLT ON CUTTING EDGE
66	4	13107	BOLT HEX	3/8 X 1-1/4 NC GR 5

PARTS INFORMATION



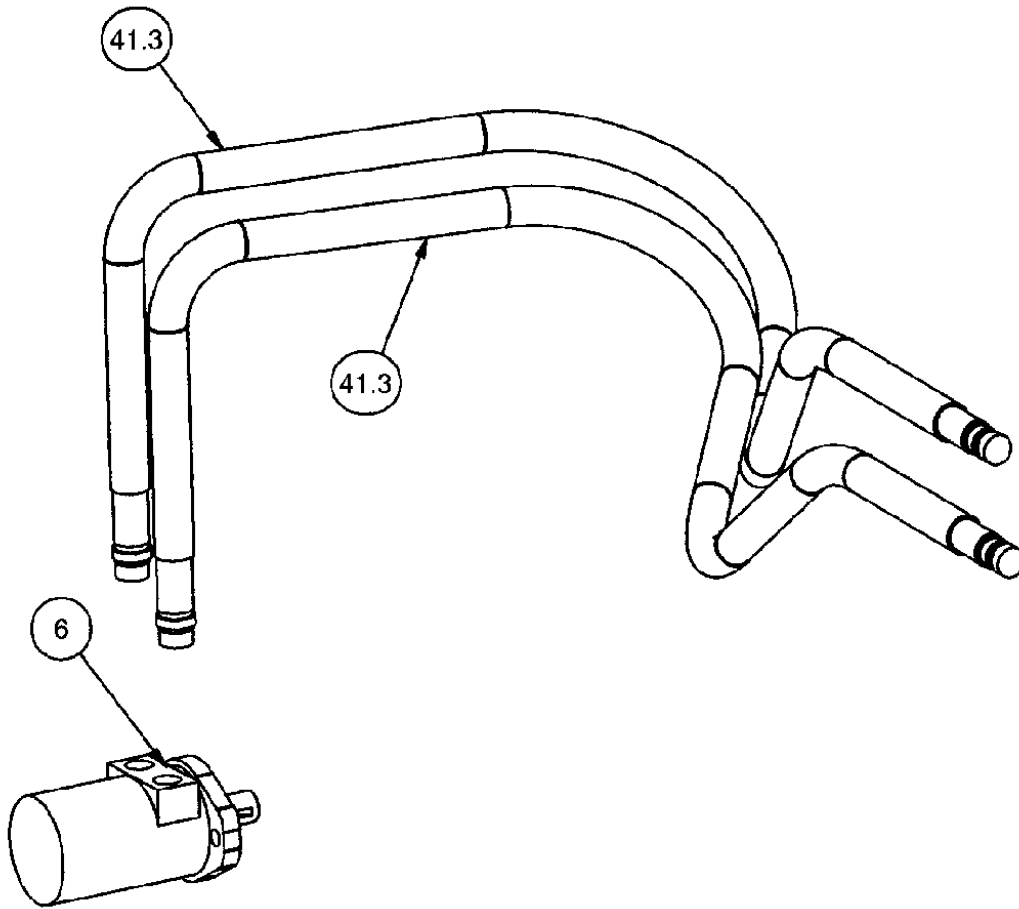
PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
7	1	318459	DRIVE BLOCK HEX 1" BORE-SNAP RING INCLUDED	
17	2	203741	FLANGET 3-BOLT 1-1/8"	
18	1	202159	BRG INSERT 1-1/4" SM	
24	1	400307	ARBOR 45 W/A	
34	21	318411	WAFER CONVOLUTED POLY 24" OD	OPT. POLY WAFER PKG
	10	318411	WAFER CONVOLUTED POLY 24" OD	OPT. POLY/STEEL WAFER PKG
	11	318487	WAFER CONVOLUTED STEEL 24" OD	OPT. POLY/STEEL WAFER PKG
35	2	318410	WAFER STRAIGHT POLY 24" OD	OPT. POLY WAFER PKG
	2	318410	WAFER STRAIGHT POLY 24" OD	OPT. POLY/STEEL WAFER PKG
36	2	318488	WAFER SPACER PUB	INCLUDED WITH FLAT WAFER
41	2	202830	WASHER LARGE HEAVY 3/8	
42	3	37212	NUT HEX	3/8 - UNC - GR 5 - REV LOCK
43	1	103116	BOLT HEX	3/8 X 1 - UNC - GR 5
44	6	13103	BOLT HEX	3/8 X 0.75 - UNC - GR 5
62	1	318419	ENDPLATE ARBOR PAINTED	
64	1	100540	WOODRUFF KEY 1/4 X 1	
68	1	13007	BOLT HEX	1/4 X 1.25 - UNC - GR5
69	1	33004	WASHER FLAT	1/4 - GR 5
70	1	33618	WASHER LOCK	1/4 - GR 5



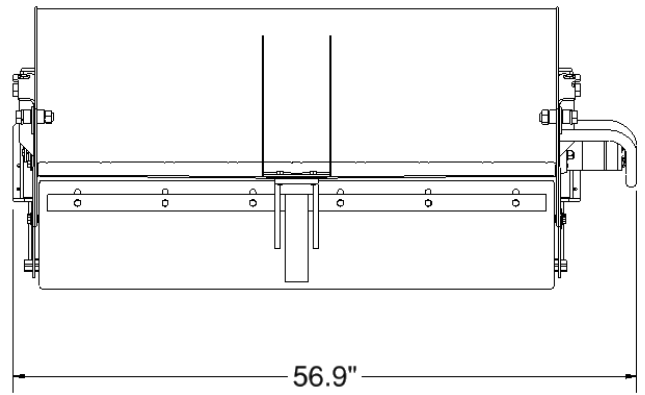
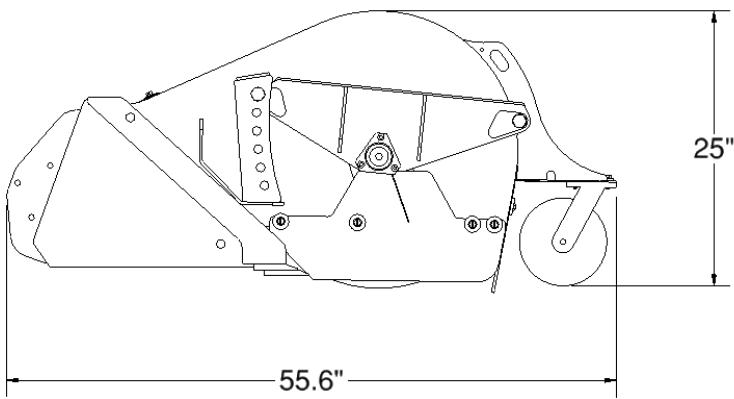
PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
6	1	400311	MOTOR	
41.3	2	400381	HOSE 1/2 X 100 10MB-8FJX	



GENERAL SPECIFICATIONS

Model	Mini Pick-Up Broom
Working Width	45"
Overall Width	56.9"
Overall Height	25"
Overall Length (w/out mount)	55.6"
Bristle Wafer Diameter	24"
Bristle Wafer Quantity	2 Straight, 21 Convoluted
Cutting Edge	1/2" x 4" bolt-on
Drive System	Direct drive hydraulic motor
Hydraulic Motor Flow Range	7-15 GPM
Operating Weight (w/out mount)	380 lbs.



All dimensions are in INCHES.



LIMITED WARRANTY

Quick Attach Attachments LLC warrants each new machine manufactured by us to be free from defects in material and workmanship for a period of twenty-four (24) months from date of delivery to the original purchaser.

Our obligation under this warranty is to replace free of charge, at our factory or Direct Outlet locations, any part proven defective within the stated warranty time limit.

All parts must be returned freight prepaid and adequately packaged to prevent damage in transit.

This warranty does not cover:

1. New products which have been operated in excess of rated capacities or negligence
2. Misuse, abuse, accidents or damage due to improperly routed hoses
3. Machines which have been altered, modified or repaired in any manner not authorized by our company
4. Previously owned equipment
5. Any ground engaging tools in which natural wear is involved, i.e. tooth tips, cutting teeth, etc
6. Normal maintenance
7. Fork tines
8. Hydraulic motors that have been disassembled in any manner

In no event will the Sales Representative, Direct Outlet, Quick Attach Attachments LLC, or any other company affiliated with it or them be liable for incidental or consequential damages or injuries, including but not limited to the loss of profit, rental or substitute equipment or other commercial loss. Purchaser's sole and exclusive remedy being as provided here in above.

Quick Attach Attachments LLC must receive immediate notification of defect and no allowance will be made for repairs without our consent or approval.

This warranty is in lieu of all other warranties, express or implied by law or otherwise, and there is no warranty of merchantability or fitness purpose.

No agent, employee, or representative of Quick Attach Attachments LLC has any authority to bind Quick Attach Attachments LLC to any warranty except as specifically set forth herein. Any of these limitations excluded by local law shall be deemed deleted from this warranty; all other terms apply.

This warranty may not be enlarged or modified in any manner except in writing signed by an executive officer of Quick Attach Attachments LLC to improve its products whenever it is possible and practical to do so. Quick Attach Attachments LLC reserves the right to make changes and or add improvements at any time without incurring any obligation to make such changes or add such improvements to products previously sold.

Quick Attach Attachments LLC
P.O. Box 128 Alexandria, MN 56308
Phone (320) 759-1551 Fax (320) 759-1590



P/N 300437
Quick Attach Attachments LLC

Date Printed: 9/22/2022

Printed in U.S.A.