

ANGLE BROOM MODELS 68" / 84" / 96"

Operator's Manual
Maintenance & Parts Information



Read this Manual Before Use

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NOTE: Write your serial number for your attachment in the spaces below. Always refer to this serial number when calling for services parts.

Serial Number

Attachment Dealer

Address

Phone Number

Contact

NOTE: Quick Attach 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 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

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.

SAFETY

Improper operation can cause serious injury or death.

PRE-OPERATION

- **NEVER** use this attachment for purposes other than intended.
- 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 machine 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 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 z87.1 or use with a loader enclosure that provides similar protection.
- 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.
- Keep people away from loader and attachment when in use. This attachment send objects flying and has rotating parts. **NEVER** direct discharge toward people - rocks and debris can be thrown.

OPERATION (continued)

- 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.
- **NEVER** operate near embankments or terrain that is so steep that rollover could occur.
- Always stay in the operator position when using the attachment.
- Before leaving the operators position, disengage 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 the 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.

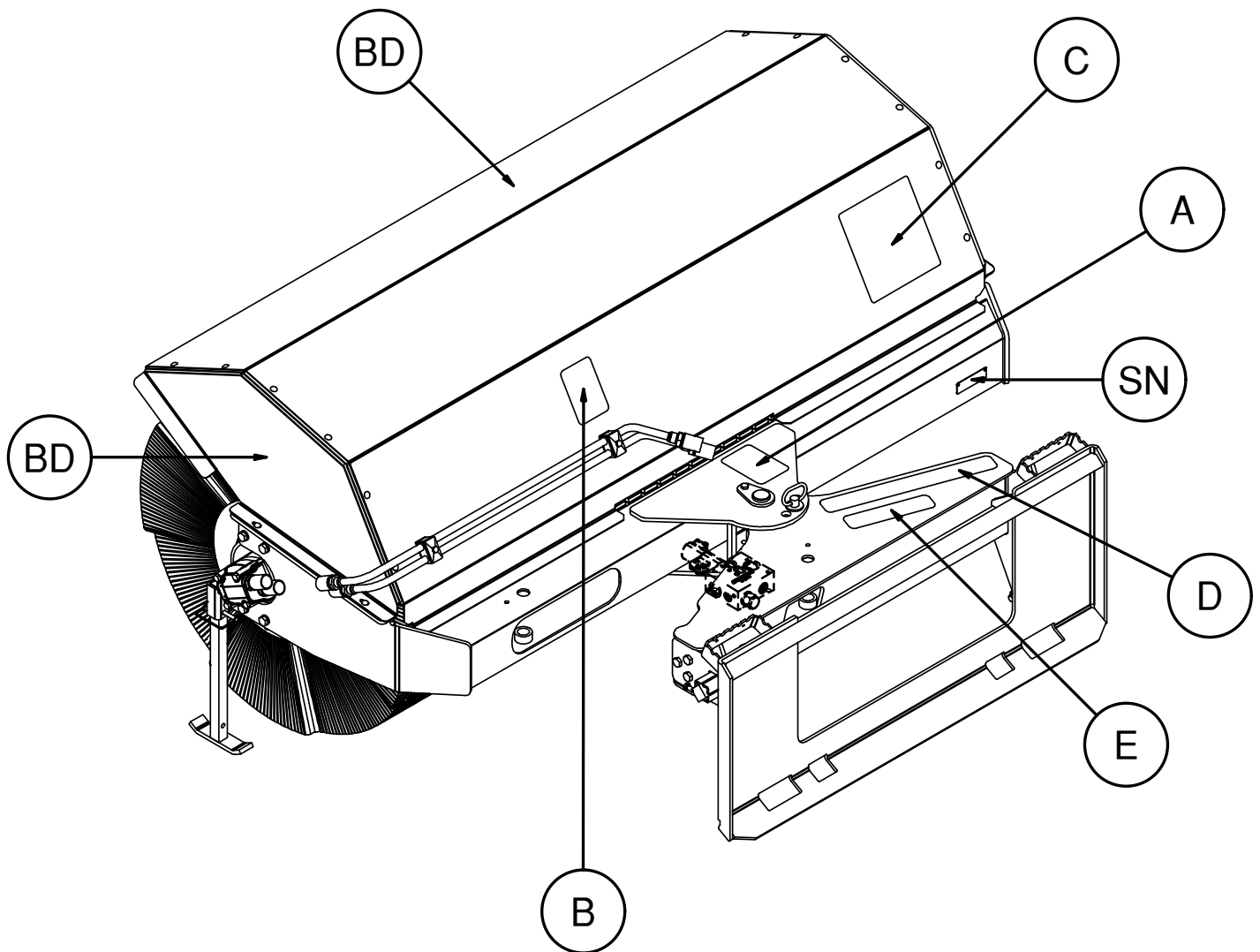
MAINTENANCE

- **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.

DECAL INFORMATION

Serial Number Location:

It is important to refer to the serial number of your 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. Please see below for Serial Plate location.



DECAL INFORMATION

A



Part number: 203234
 Location: Frame near center pivot
 Quantity: 1

B



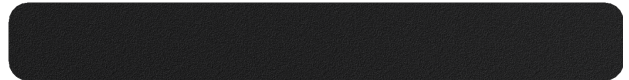
Part number: 200001
 Location: Back of hood, above inner tube clamp
 Quantity: 1

C



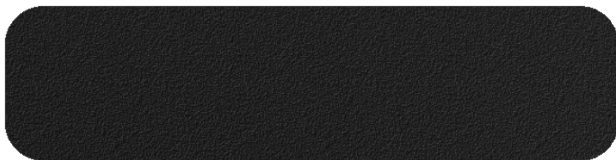
Part number: 316078
 Location: Back of hood, RH side
 Quantity: 1

D



Part number: 202153 (ANTI-SKID TAPE 2 X 16)
 Location: Top of subframe
 Quantity: 1

E



Part number: 202152 (ANTI-SKID TAPE 2 X 8)
 Location: Top of subframe
 Quantity: 1

BD



Brand Decal: Large & small
 Location: Each end of hood and Front of hood
 Quantity: 2(small) 1(large)

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 LLC (218-435-4045) for replacement decals.

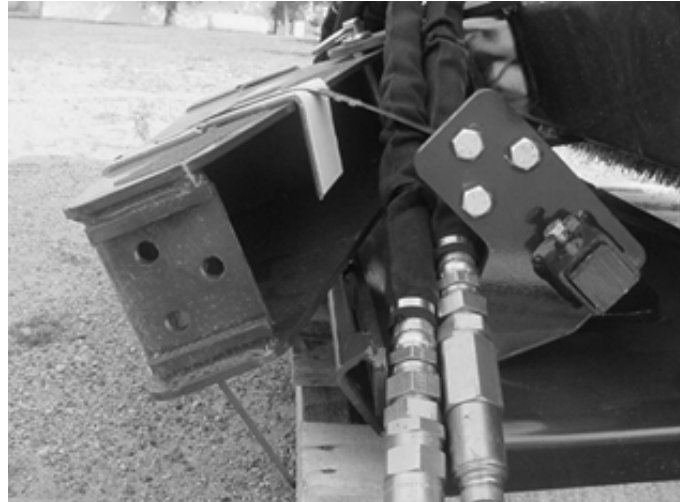
SETUP ASSEMBLY

Set-Up from Shipping

1. Remove the straps holding the attachment to the pallet.
2. Remove the six bolts and nuts attached to the torsion frame.
3. Position the torsion frame so that the holes are aligned with the holes in the sides of the pivot frame.

NOTE: Blocks may be needed to raise up the pivot frame. Use a hoist when lifting the pivot frame.

4. Install the six bolts connecting the torsion frame to the pivot frame.
5. Tighten the six bolts and nuts to the proper torque. Refer to “Bolt Torque Information” on page 15 of this manual.



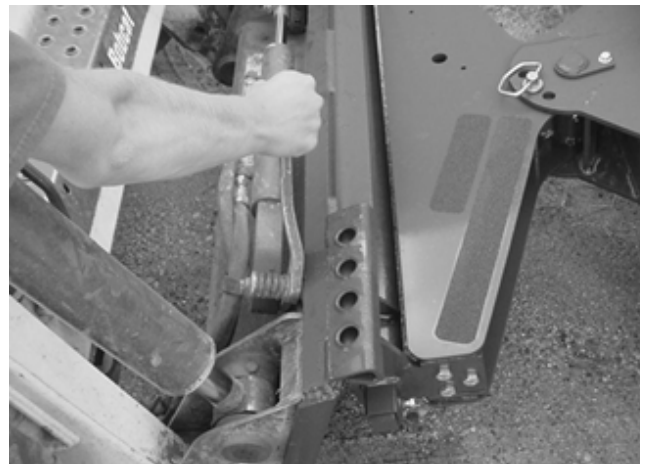
MOUNTING INSTRUCTIONS

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

⚠ 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.

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 seat bar (if so equipped) and fasten the seat belt.
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 backward a small amount until it is fully engaged in the attachment mounting bracket.
5. Stop the engine and engage the park brake.
6. Secure the coupler locking mechanism that attaches the attachment to the loader.
7. 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.

MOUNTING INSTRUCTIONS

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 12FJX (1-1/16" Female JIC Swivel) fittings on the ends of the lead hoses.



8. Connect the attachment wire harness (if equipped) to the loader's wire harness receptacle.
9. Make sure hoses and harness are routed properly to fit your specific loader. If the hoses are not routed properly, 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.

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

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

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

OPERATING INSTRUCTIONS

IMPORTANT: Before operation, make sure the parking stands have been secured in the operating position.

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. With the loader arms fully lowered, position the attachment flat on the ground. Engage the auxiliary hydraulics in continuous flow mode to start the bristle rotation, and drive the loader forward to sweep.

NOTE: Broom rotation should always be such that the material is swept away from the operator.

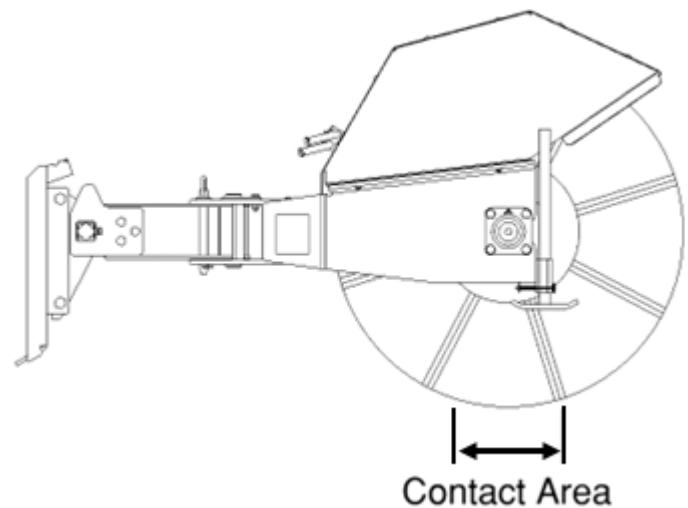
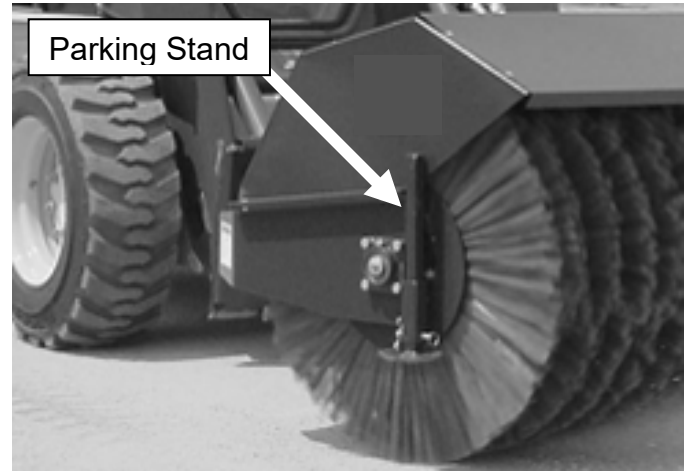
3. The torsion suspension will keep the down pressure on the broom consistent, which allows the broom to float. If more or less down pressure is required, pressure can be adjusted by tilting the attachment forward or back.

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. Use the correct down pressure for the situation.

For dirt and debris removal, a 2.0 to 4.0 inch contact area is recommended. This allows the bristle tips to dig, break up, and throw material.

For snow removal, a 4.0 to 6.0 inch contact area is recommended.



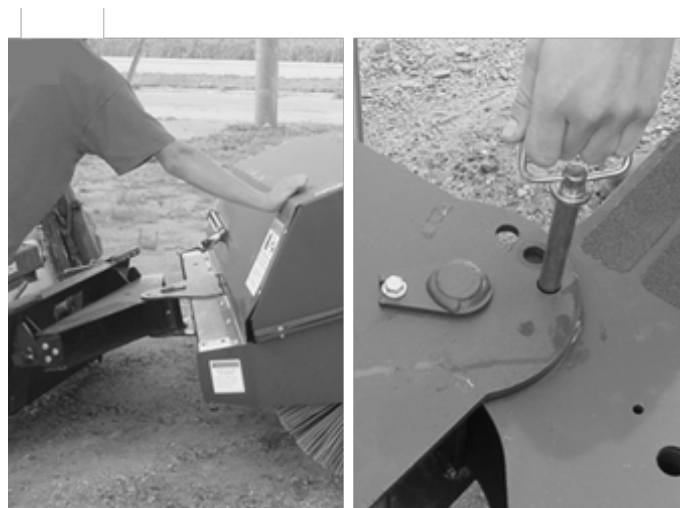
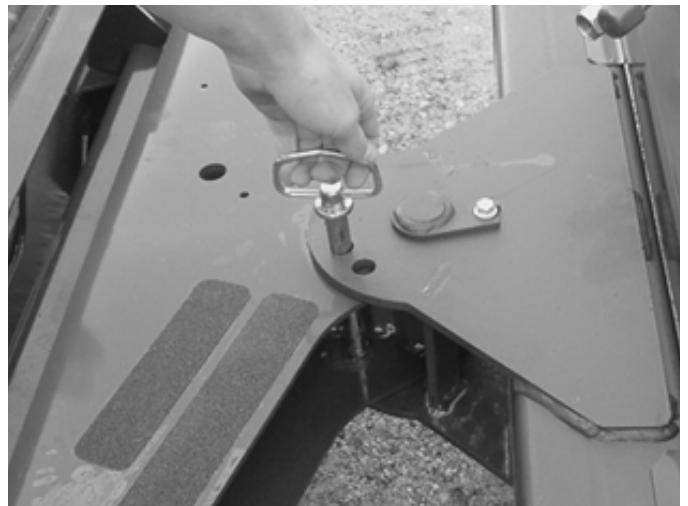
OPERATING INSTRUCTIONS

Manual Angling of the Attachment

⚠ WARNING

Avoid manually adjusting the broom angle while parked on sloped surfaces. Removing the angle pin while parked on sloped surfaces can cause the broom to move on its own due to gravity. If it is necessary to adjust the angle on a sloped surface, approach the angle pin from the uphill side.

1. Park the loader and attachment on a flat, level surface.
2. With the loader arms fully lowered, tilt the attachment back until the broom bristles are slightly off the ground.
3. Disengage the hydraulic drive, stop the engine, engage the park brake, and wait for all motion to stop.
4. Remove the clip pin and angle pin from the pivot frame.
5. Manually push or pull on one end of the broom to change the angle as desired.
6. Reinstall the angle pin and clip pin in the pivot frame.



Hydraulic Angling of the Attachment

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. Engage the auxiliary hydraulics in continuous flow mode to start the bristle rotation.
3. Use the loader's attachment control system to activate the valve on the attachment and angle the broom to the left or right as desired.

NOTE: See loader's operator's manual for instructions on operating the attachment control system.

ROUTINE MAINTENANCE





⚠ WARNING

Lower the attachment to rest flat on the ground, shut down the engine, relieve the hydraulic pressure to the attachment, 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 can loosen after initial usage. After the first hour of operation check all bolts.

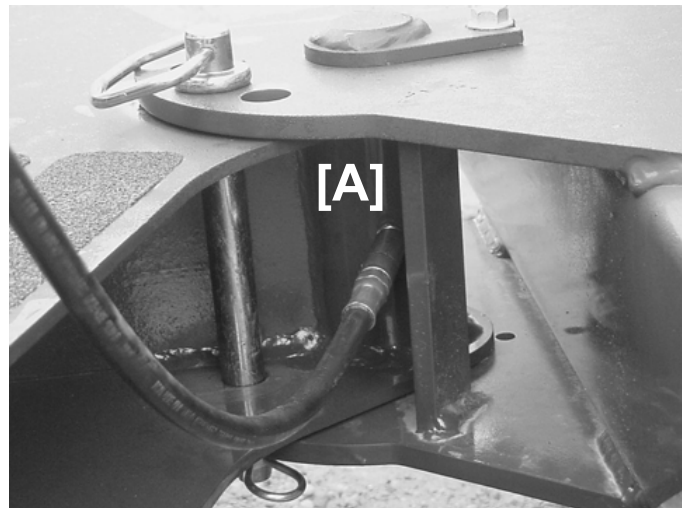
LUBRICATION

Lubrication Legend	 Multipurpose spray lube	 Multipurpose grease lube	 Multipurpose oil lube	 50 Intervals at which lubrication is required
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Use No. 2 lithium base gun grease when lubricating all attachment grease fittings.

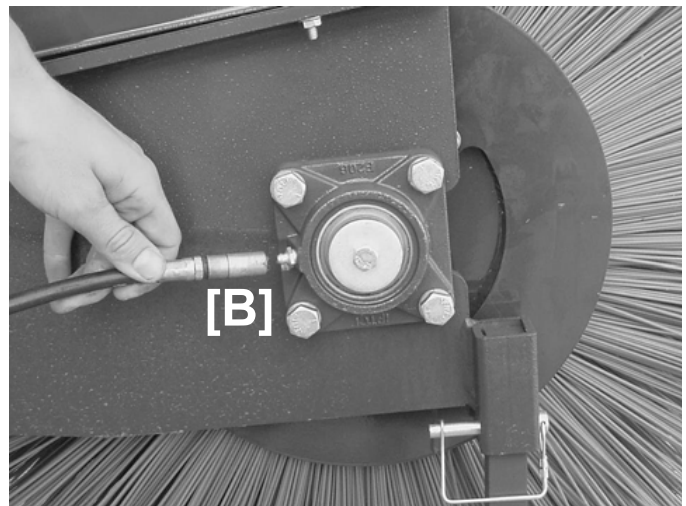
	 8
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Grease the pivot bushing [A] every 8 hours of operation.



	 80
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Grease the bearing [B] every 80 hours of operation.

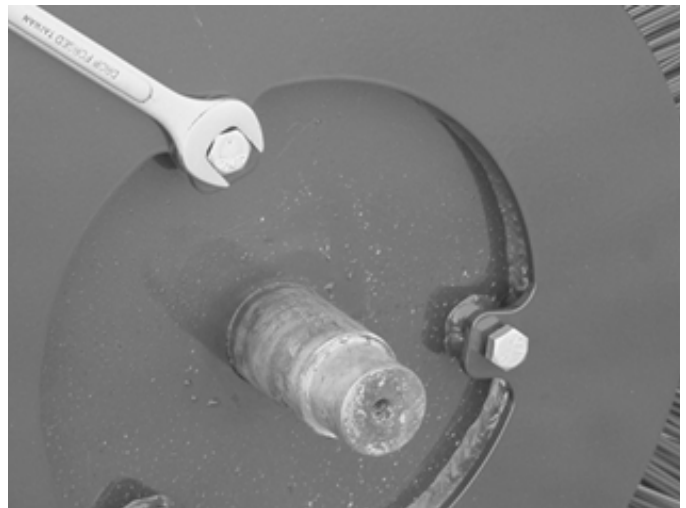
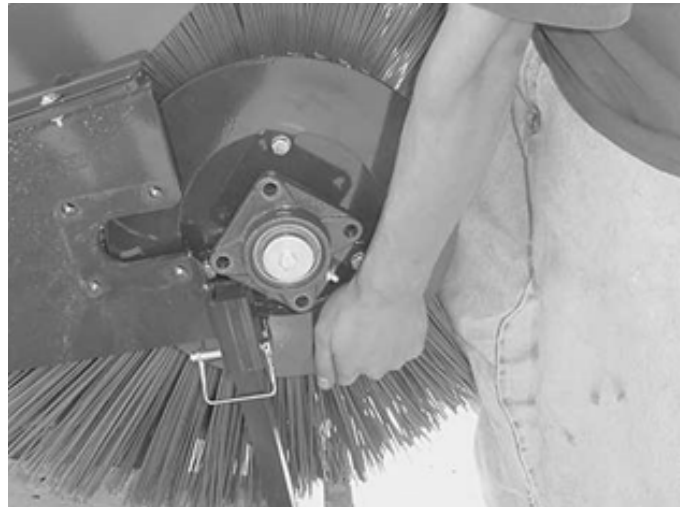
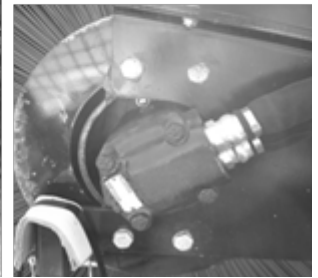


IMPORTANT: Do not over-grease the bearing. Over-greasing the bearing may lead to premature bearing failure. Only add **two pumps** of grease every greasing interval.

ROUTINE MAINTENANCE

Replacing Brush Sections

1. Use the snapper pins to lock both parking stands in the parking position.
2. Lower the attachment to rest on the parking stands.
3. Remove the four bearing mount bolts and nuts.
4. Remove the four motor mount bolts and nuts.
5. Carefully remove the brush head assembly by sliding the brush head forward and out of the frame, then sliding the motor assembly out of the end of the brush arbor.
6. Remove the three bolts holding the brush retainer to the brush arbor.
7. Remove the old brush sections by sliding them off of the arbor.



ROUTINE MAINTENANCE

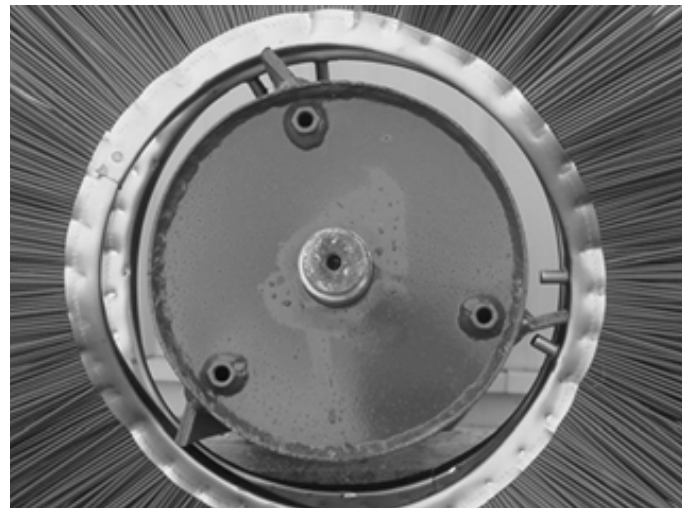
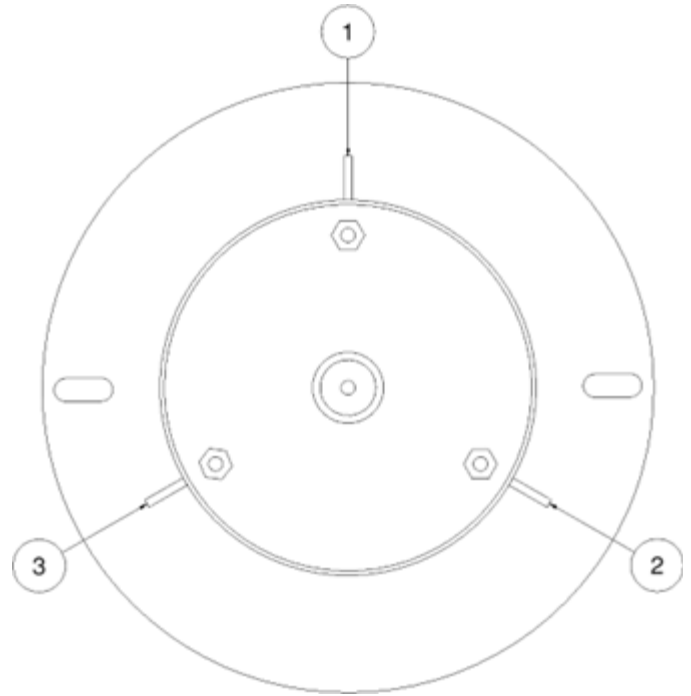
8. Number the ribs on the arbor as 1, 2, and 3.
9. Slide the first “wavy” brush section on so that the pins are around rib 1.
10. Slide the second “wavy” brush section on so that the pins are around rib 2.

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.

11. Slide the third “wavy” brush section on so that the pins are around rib 3.
12. Continue this pattern until all brush sections are installed.

NOTE: The brush stack does not need to be flush with the end of the arbor. It may be higher or lower depending on how each brush section is formed. If the stack is high, compress it when reinstalling the brush retainer. If the stack is low, it will spread out when the arbor is laid down. If the stack is excessively high, remove one or more sections to get it close to the proper height.

13. Reinstall the brush retainer and three bolts.
14. Slide the motor assembly into the end of the arbor, aligning the hex drive with the hole in the end of the arbor.
15. Slide the brush head assembly back into the frame.
16. Reinstall the four motor mount bolts and nuts.
17. Reinstall the four bearing mount bolts and nuts.
18. Tighten all hardware to the proper torque(s). Refer to “Bolt Torque Information” on page 15 of this manual.



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	4700	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

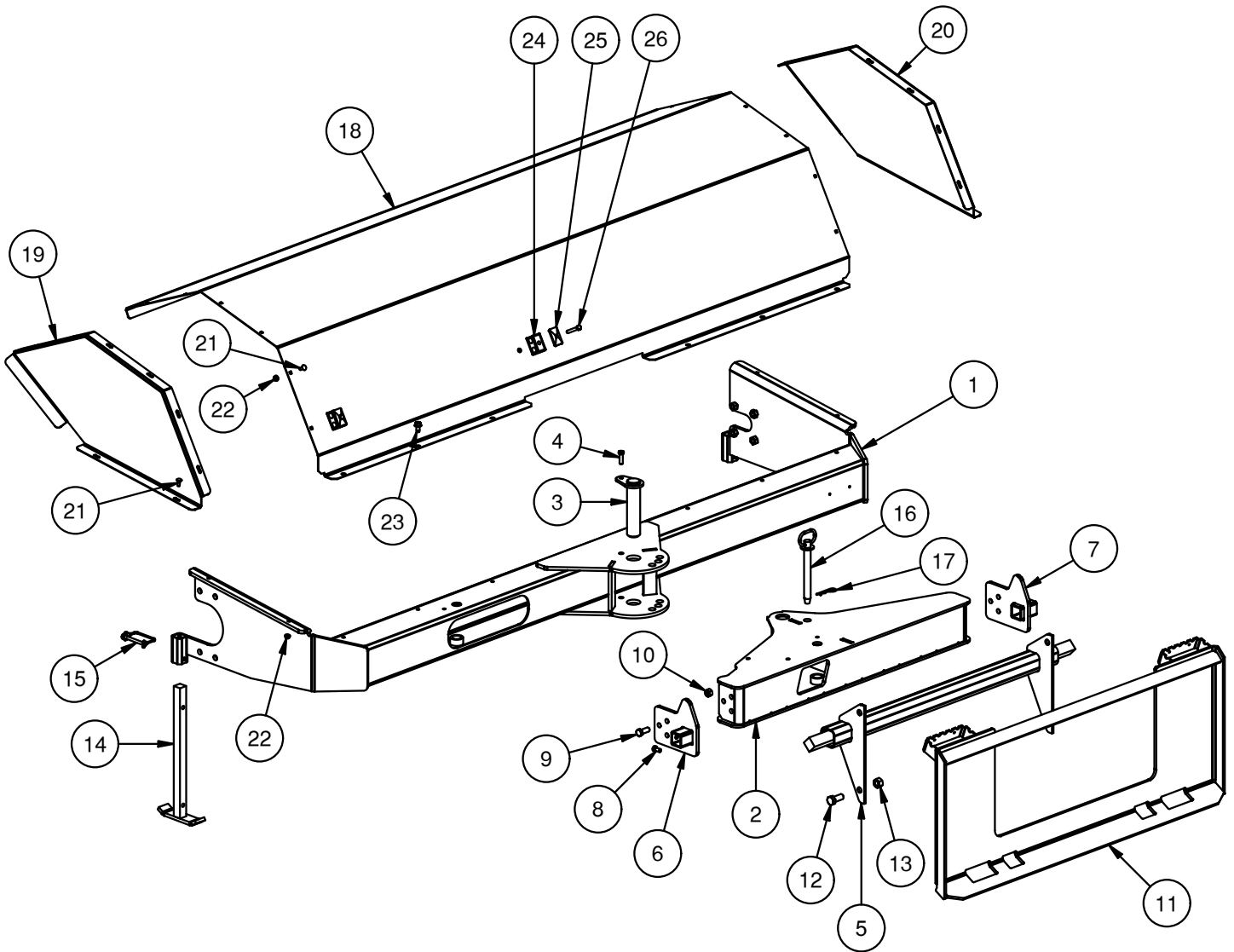
K=0.20 for "dry" conditions

PARTS INFORMATION

MANUAL ANGLE

ITEM	QTY	PART NUMBER	DESCRIPTION	STOCK NO.
1	1	316065	FRAME MAIN 68 AB W/A	68"
1	1	316003	FRAME MAIN 84 AB W/A	84"
	1	316127	FRAME MAIN 96 AB W/A	96"
2	1	316002	FRAME PIVOT AB W/A	
3	1	316045	PIN 1.5 X 6.25 W/A	
4	1	13107	BOLT HEX	3/8 X 1-1/4 NC GR5
5	1	316016	SPRING TORSION ASSY	
6	1	316006	BRACKET MOUNTING LH W/A	
7	1	316063	BRACKET MOUNTING RH W/A	
8	2	13103	BOLT HEX	3/8 X 3/4 NC GR5
9	6	13207	BOLT HEX	1/2 X 1-1/4 NC GR5
10	6	37214	NUT REV LOCK 1/2 NC	
11	1	316001	MOUNT PLATE AB W/A	
12	4	13309	BOLT HEX	5/8 X 1-1/2 NC GR5
13	4	37216	NUT REV LOCK 5/8 NC	
14	2	316061	STAND ANGLE BROOM W/A	
15	2	300581	PIN SNAPPER 5/16" X 3"	
16	1	320235	PIN HITCH 3/4 X 6	
17	1	200064	PIN CLIP #11 1/8 X 2 5/8	
18	1	316068	SHIELD BROOM 68 PAINTED	68"
18	1	316049	SHIELD BROOM 84 PAINTED	84"
	1	316122	SHIELD BROOM 96 PAINTED	96"
19	1	316046	SHIELD SIDE LH PAINTED	
20	1	316047	SHIELD RH PAINTED	
21	16	21801	BOLT CARRIAGE	1/4 X 3/4 NC GR5
22	16	37337	NUT FLG SERRATED 1/4 NC	
23	6	32467	BOLT FLG THRD RLNG	3/8 X 3/4 NC GR5
24	2	316055	CLAMP TUBELINE 5/8	
25	2	316094	CLAMP TUBELINE TOP PLATE 5/8	
26	2	13061	BOLT HEX	5/16 X 2 NC GR5

PARTS INFORMATION

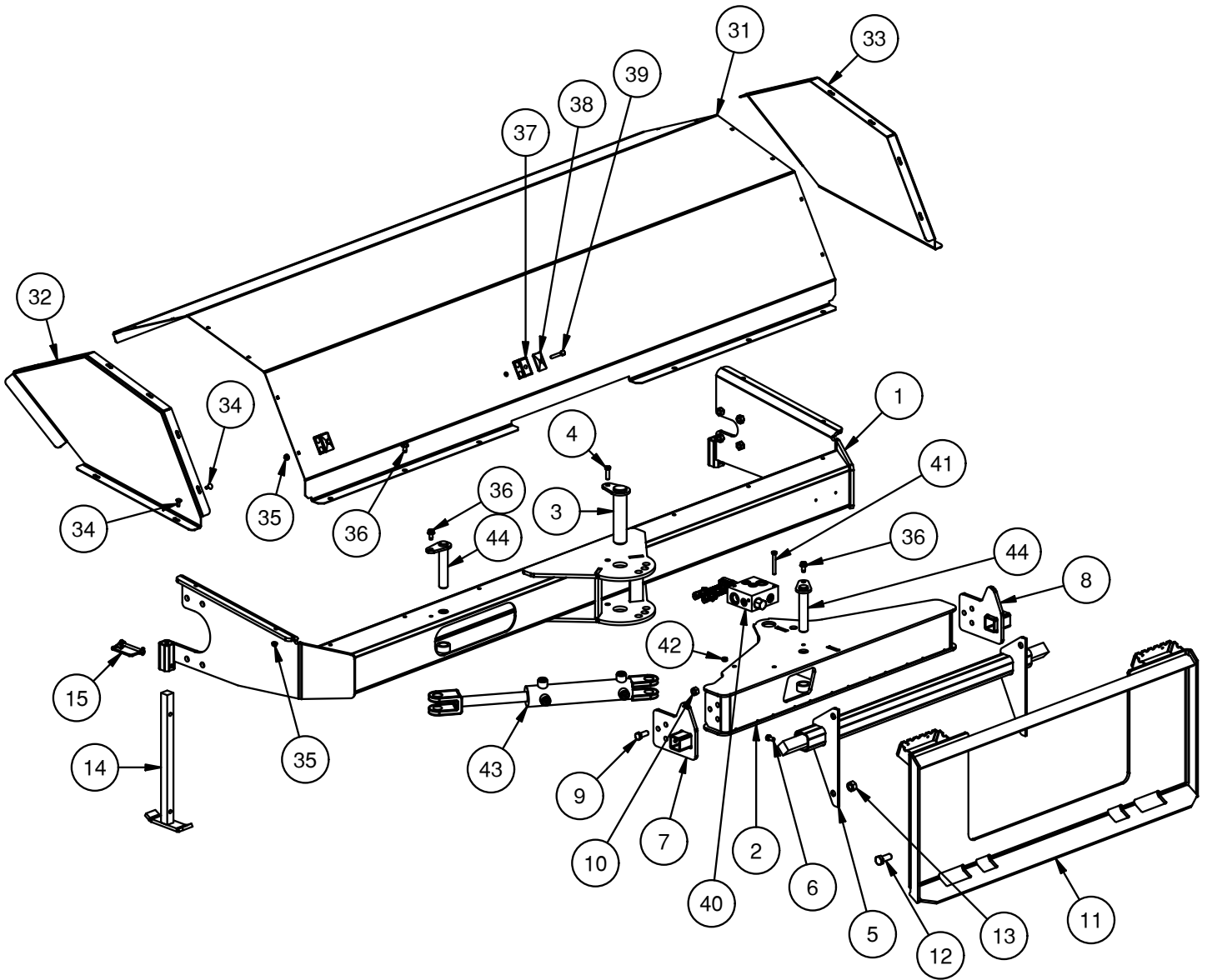


PARTS INFORMATION

HYDRAULIC ANGLE

ITEM	QTY	PART NUMBER	DESCRIPTION	STOCK NO.
1	1	316065	FRAME MAIN 68 AB W/A	68"
	1	316003	FRAME MAIN 84 AB W/A	84"
	1	316127	FRAME MAIN 96 AB W/A	96"
2	1	316002	FRAME PIVOT AB W/A	
3	1	316045	PIN 1.5 X 6.25 W/A	
4	1	13107	BOLT HEX	3/8 X 1-1/4 NC GR5
5	1	316016	SPRING TORSION ASSY	
6	2	13103	BOLT HEX	3/8 X 3/4 NC GR5
7	1	316006	BRACKET MOUNTING LH W/A	
8	1	316063	BRACKET MOUNTING RH W/A	
9	6	13207	BOLT HEX	1/2 X 1-1/4 NC GR5
10	6	37214	NUT REV LOCK	1/2 NC
11	1	316001	MOUNT PLATE AB W/A	
12	4	13309	BOLT HEX	5/8 X 1-1/2 NC GR5
13	4	37216	NUT REV LOCK	5/8 NC
14	2	316061	STAND ANGLE BROOM W/A	
15	2	300581	PIN SNAPPER 5/16" X 3"	
31	1	316068	SHIELD BROOM 68 PAINTED	68"
31	1	316049	SHIELD BROOM 84 PAINTED	84"
	1	316122	SHIELD BROOM 96 PAINTED	96"
32	1	316046	SHIELD SIDE LH PAINTED	
33	1	316047	SHIELD SIDE RH PAINTED	
34	16	21801	BOLT CARRIAGE	1/4 X 3/4 NC GR5
35	16	37337	NUT FLG SERRATED 1/4 NC	
36	8	32467	BOLT FLG THRD RLNG	3/8 X 3/4 NC GR5
37	2	316055	CLAMP TUBELINE 5/8	
38	2	316094	CLAMP TUBELINE TOP PLATE 5/8	
39	2	13061	BOLT HEX	5/16 X 2 NC GR5
40	1	REF	VALVE ASSM ANGLE BROOM	
41	2	13063	BOLT HEX	5/16 X 2-1/2 NC GR5
42	2	37211	NUT REV LOCK	5/16 NC
43	1	330921	CYLINDER 2 X 8 C-C	
44	2	316026	PIN 1 X 5 W/A	

PARTS INFORMATION



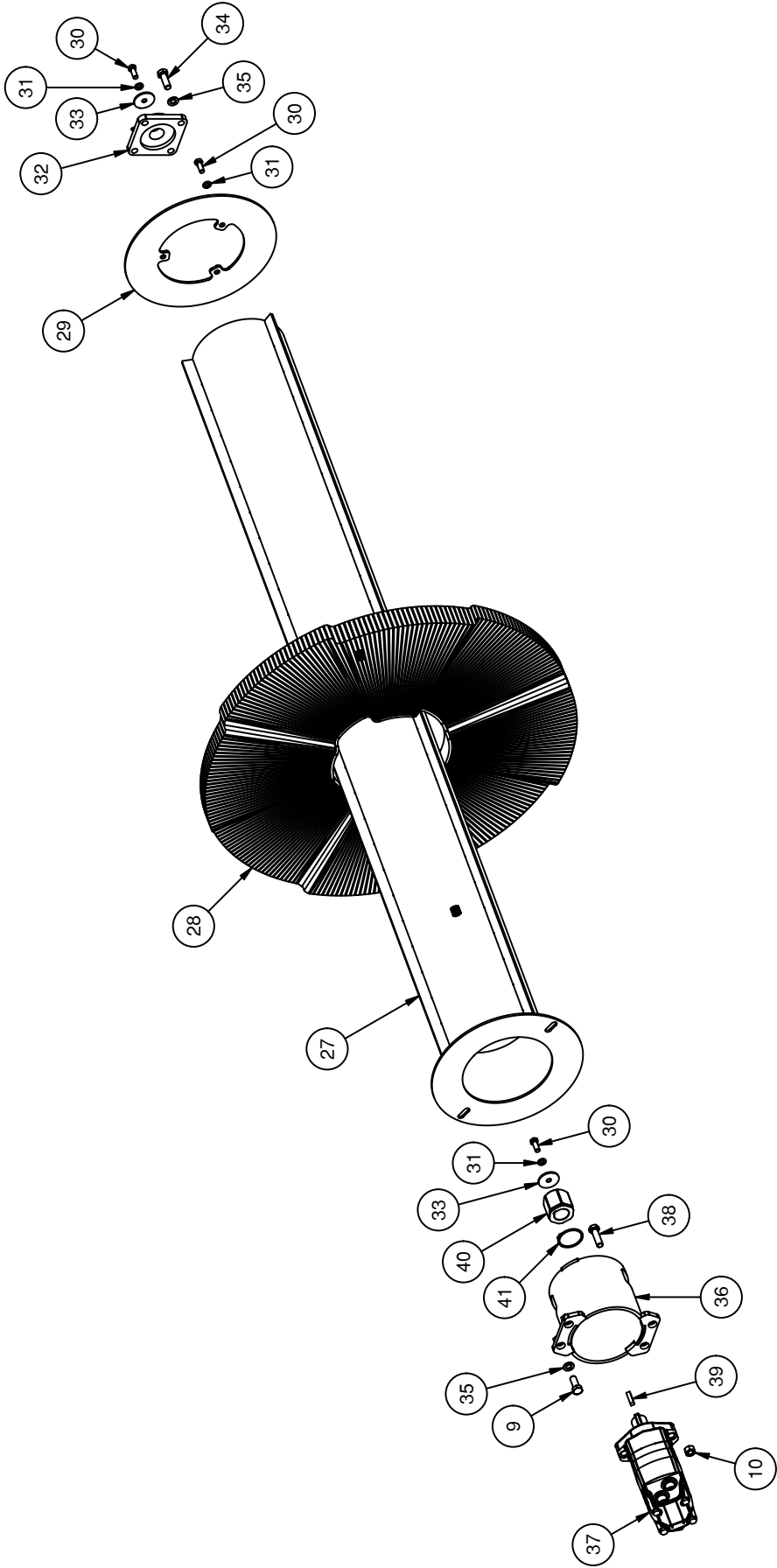
PARTS INFORMATION

MANUAL & HYDRAULIC ANGLE

ITEM	QTY	PART NUMBER	DESCRIPTION	STOCK NO.
9	4	13207	BOLT HEX	1/2 X 1-1/4 NC GR5
10	2	37214	NUT REV LOCK 1/2 NC	
27	1	316066	ARBOR AB 68 W/A	68"
	1	316004	ARBOR AB 84 W/A	84"
	1	316128	ARBOR AB 96 W/A	96"
28	SEE PKG	316042	WAFER AB CONV POLY 32	
	SEE PKG	316092	WAFER AB CONV STEEL 32	
29	1	316050	PLATE WAFER KEEPER PAINTED	
30	5	13105	BOLT HEX	3/8 X 1 NC GR5
31	5	103880	WASHER SPLIT LOCK 3/8	
32	1	316011	BRG 1-1/4 SM 4-B FLG	
33	2	202830	WASHER PLATE .37 X 1.75 X .13	
34	4	13209	BOLT HEX	1/2 X 1-1/2 NC GR5
35	8	33626	WASHER SPLIT LOCK 1/2	
36	1	316005	MOUNT MOTOR AB W/A PAINTED	
37	1	103396	MOTOR HYD 24 CID 2K STD	
38	2	13210	BOLT HEX	1/2 X 1-3/4 NC GR5
39	1	300419	KEY SQ 5/16 X 1-1/4	
40	1	316032	DRIVE BLOCK HEX 1.25" BORE	SNAP RING INCLUDED
41	1	313333	RING SNAP EXT 2 X .063	

WAFER PKGS (SERVICE PARTS)		
ER P/N	DESCRIPTION	WAFER QTY
316083	PKG WAFER AB 68 POLY	316042 X 35
316084	PKG WAFER AB 68 POLY/STEEL	316042 X 18, 316092 X 17
316086	PKG WAFER AB 84 POLY	316042 X 44
316087	PKG WAFER AB 84 POLY/STEEL	316042 X 22, 316092 X 21
316129	PKG WAFER AB 96 POLY	316042 X 50
316130	PKG WAFER AB 96 POLY/STEEL	316042 X 25, 316092 X 24

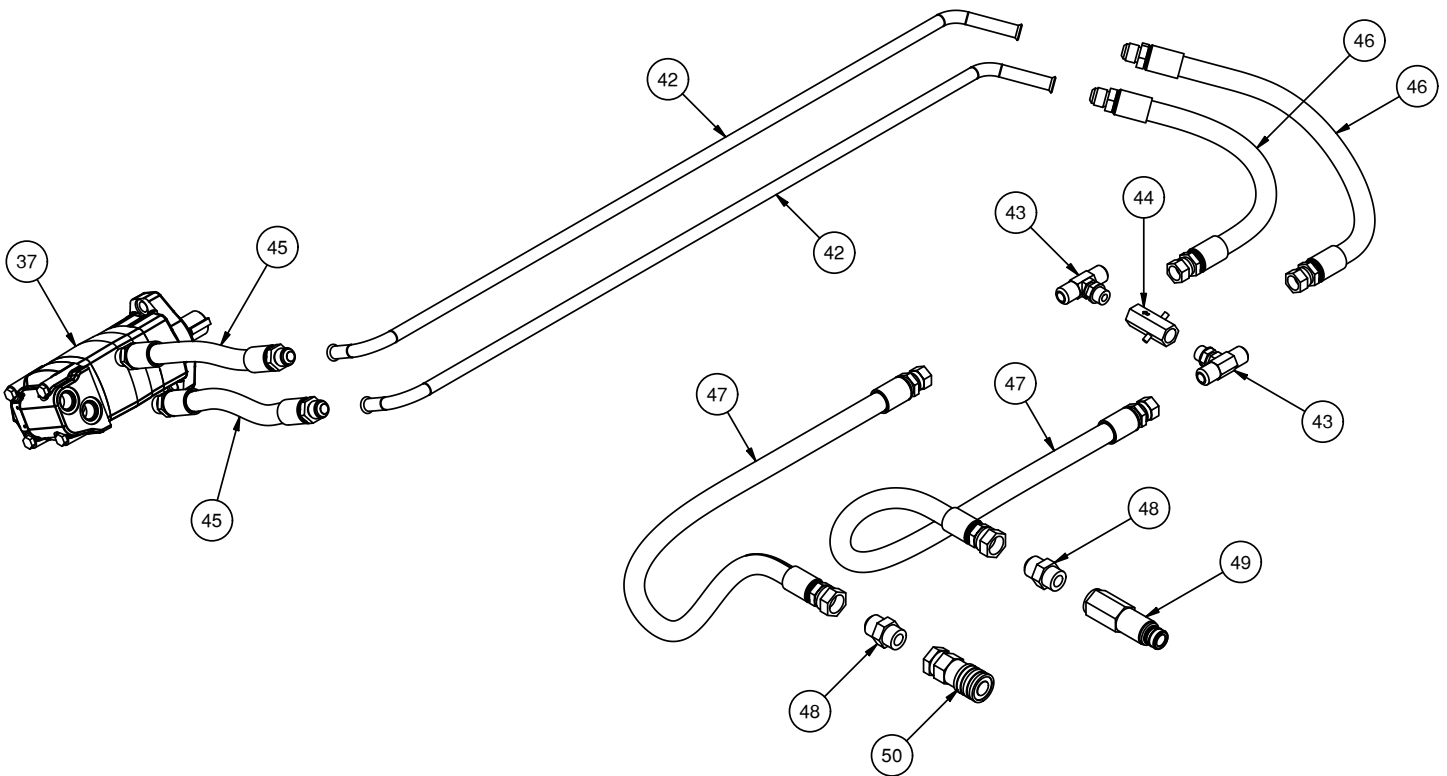
PARTS INFORMATION



PARTS INFORMATION

MANUAL ANGLE

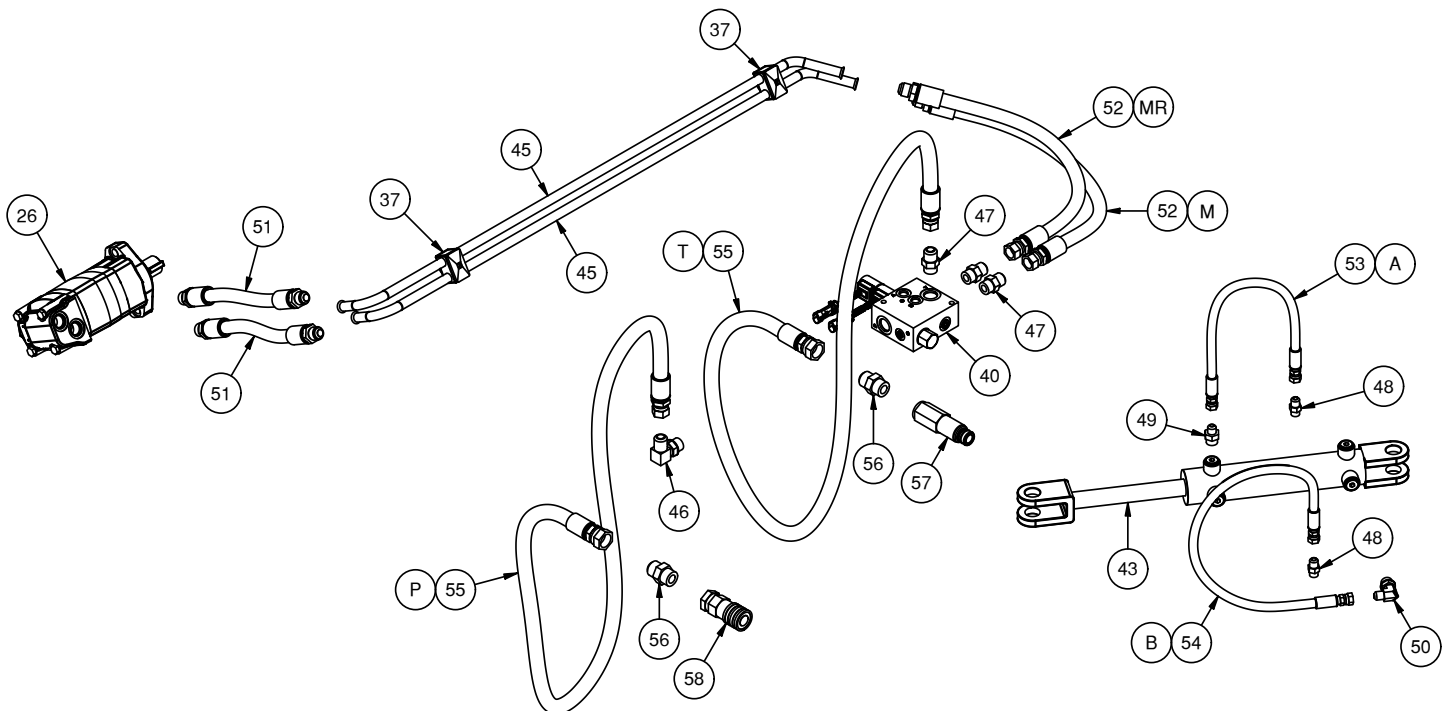
ITEM	QTY	PART NUMBER	DESCRIPTION	STOCK NO.
42	2	316062	TUBELINE ANGLE BROOM 68	68"
42	2	316053	TUBELINE ANGLE BROOM 84	84"
	2	316125	TUBELINE ANGLE BROOM 96	96"
43	2	200061	ADPT TEE 10MJ-10MJ-8MB	
44	1	200062	VALVE CHECK SAE 8 FM/FM	
45	2	316081	HOSE 5/8 X 13.5" 10MB-10MJ	
46	2	316080	HOSE 5/8 X 26" 10MJ-10FJX	
47	2	316101	HOSE 5/8 X 64" 10FJX-12FJX	
48	REF	REF	ADPT STR 12MB-12MJ	
49	REF	REF	COUPLER HYD 1/2-12OR M FF CUP	
50	REF	REF	COUPLER HYD 1/2-12OR FM FF	



PARTS INFORMATION

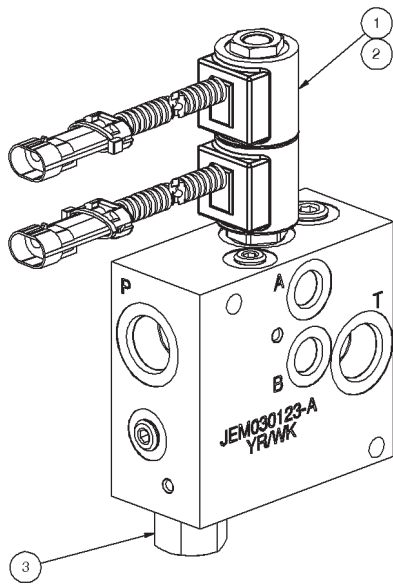
HYDRAULIC ANGLE

ITEM	QTY	PART NUMBER	DESCRIPTION	STOCK NO.
26	1	103396	MOTOR HYD 24 CID 2K STD	
37	2	316055	CLAMP TUBELINE 5/8	316055 & 316094
40	1	316054	VALVE ASSM ANGLE BROOM	
	1	316132	VALVE ASSM ANGLE BROOM REV	REVERSIBLE PKG ONLY
43	1	330921	CYLINDER 2 X 8 C-C	
45	2	316062	TUBELINE ANGLE BROOM 68	68"
45	2	316053	TUBELINE ANGLE BROOM 84	84"
	2	316125	TUBELINE ANGLE BROOM 96	96"
46	1	320144	ADPT ELB 10MB-10MJ-90	
47	3	201852	ADPT STR 10MB-10MJ	
48	2	311673	ADPT STR 6MB-6MJ	
49	1	201925	ADPT STR 8MB-6MJ	
50	1	320089	ADPT ELB 8MB-6MJ-90	
51	2	316081	HOSE 5/8 X 13.5" 10MB-10MJ	TUBELINE TO MOTOR
52	2	316080	HOSE 5/8 X 26" 10MJ-10FJX-90	TUBELINE TO VALVE
53	1	316099	HOSE 1/4 X 24" 6FJX-6FJX	VALVE TO CYL ROD
54	1	316100	HOSE 1/4 X 36" 6FJX-6FJX	VALE TO CYL BASE
55	2	316101	HOSE 5/8 X 64" 10FJX-12FJX	LEAD
56	REF	REF	ADPT STR 12MB-12MJ	
57	REF	REF	COUPLER HYD 1/2-12OR M FF CUP	
58	REF	REF	COUPLER HYD 1/2-12OR FM FF	



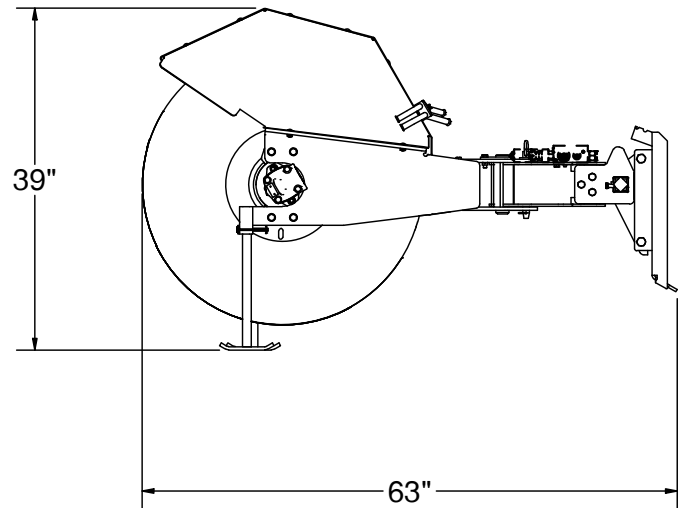
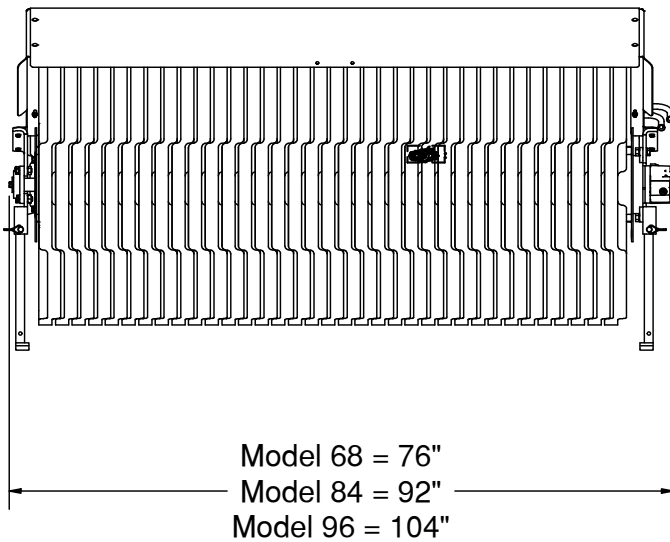
PARTS INFORMATION

ITEM	QTY	PART NUMBER	DESCRIPTION	STOCK NO.
1	1	200042	VALVE DIRECTIONAL	
2	2	300796	COIL VALVE 12V ECOIL #8	REPLACED D-COILS
	2	320096	COIL VALVE DIR 12V DC - METPAC	REPLACED BY E-COIL
3	1	316118	LOGIC ELEMENT	



GENERAL SPECS

Model	68	84	96
Working Width – Straight	68"	84"	96"
Working Width – Fully Angled	63" @ 25°	77" @ 25°	89" @ 25°
Broom Angling	25° manual / opt. hyd.		
Drive System	Hyd. motor direct drive		
Flow Range	10 – 26 GPM		
Bristle Section Diameter	32"		
Bristle Sections (Number)	35	44	50
Bristle Material (Standard)	Polypropylene		
Operating Weight	715 lbs.	775 lbs.	835 lbs.





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.

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