

Swing Arm Brush Cutter

Operation and Maintenance Manual



Register your
WARRANTY
within 30 days
of purchase



888-376-7027 | BlueDiamondAttachments.com



BD-092

Introduction: Owner Information

Thank you for your decision to purchase a Blue Diamond® Swing Arm Brush Cutter. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator's manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and /or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator's Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

Blue Diamond is continually working to improve its products. Blue Diamond reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, Blue Diamond makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Blue Diamond assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Blue Diamond Attachments Dealer for assistance, information, or additional copies of the manual. Contact www.bluediamondattachments.com or call 888-376-7027 for a complete list of dealers in your area.

Serial Number Location:

Please record attachment information in the space provided for future reference.



Model Number: _____

Serial Number: _____

Dealer Name: _____

Dealer Number: _____

Date of Purchase: _____

The serial number plate is located on the right side just forward of the attachment mounting plate.

Always use your serial number when requesting information or when ordering parts.

NOTE: The directions left, right, front and rear, as mentioned throughout this manual, are as viewed from the operator's position.

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1. Safety

1.1 General Safety Information



This SAFETY ALERT SYMBOL identifies important safety messages on the equipment and in the owner's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



The signal word **IMPORTANT** identifies procedures which must be followed to avoid damage to the machine.

Accidents can be very costly to human life and property. As the operator is the #1 safety device on all types of vehicles or equipment, it is important that the operator read, learn, and know all safety recommendations for this product. The user is responsible to his family, friends, and co-workers to operate in a safe manner. Ensure that everyone who operates or assists in the operation or maintenance of this product read and understand all the elements required to safely operate this piece of equipment.

This attachment has spinning blades that include additional dangers.

Throughout this manual you will find safety notes which are very important to read and understand before operating this piece of equipment. These classifications alert you to situations that could be harmful to you or bystanders. When you see these alerts in the manual, carefully read and follow all instructions and also protect other workers from the same danger.



AVOID SERIOUS INJURY OR DEATH
Operators must receive instructions before operating the machine. Untrained operators can cause serious injury or death.

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

For an operator to be qualified, he or she must have read and understood the instructions of this manual, he or she must make adequate preparation for the proper use of the machine, and he or she must hold a driving license.

In case of doubt regarding the use of the machine and/or the interpretation of this manual, the operator must contact either their dealer or Blue Diamond.

1. Safety

1.2 Operator Safety Training Tips

 **DANGER** 

 **WARNING** 

It is the responsibility of the operator using this attachment to be acquainted with the safe operation. In addition to reading this manual, it is important that the operator read the skid steer's operation manual and follow its manufacturer's recommendations! **Failure to follow all safety instructions may result in serious injury or death.**

- Before raising, lowering, or swinging the cutter, make sure area is clear of bystanders or objects.
- Machinery parts sometimes have sharp edges. Wear work gloves when moving parts. Always use caution around cutter blades as they often are very sharp
- Never use drugs or alcoholic drinks when operating or servicing this piece of equipment.
- Always wear the proper personal protection equipment when servicing or operating this piece of equipment. Never service or operate this attachment with bare feet, sandals, or other light footwear.
- Always use eye protection during operation. Mount this attachment on a skid steer equipped with thermoplastic polycarbonate door panel and side panels.
- Speed Kills! Operate this implement at a safe working speed. When transporting the implement, keep a safe speed to avoid losing control of the attachment or prime mover.

- Keep proper clearance between the implement and objects (tree stumps, large rocks, buildings, etc.). Contacting these objects with the implement or prime mover could cause a loss of control or damage to the implement.
- Before each operation of this implement, check all hardware (bolts, nuts, pins, cotter pins, etc.) for their proper location and tightness.
- Stop the engine on the skid steer and set the brake to avoid the implement rolling forward or backwards while you are exiting the prime mover.
- Store this implement in an area not frequented by children.
- Allow NO riders on this attachment. Keep all bystanders clear of attachment during operation.
- Always replace worn, torn, or missing safety decals before operating.
- Never operate the cutter when bystanders are within 300 feet of the work area.
- Use caution when performing service work on or near the machine's battery. DO NOT smoke near the battery as battery vapors could ignite.

1. Safety

1.3 Skid Steer Requirements

The swing boom cutter should only be used on 70+ HP skid steers with a lift capacity of at least 1800 lbs. and with a weight of at least 6500 lbs with the bucket removed. A skid steer equipped with tracks will provide superior stability in this application.

Optional Equipment: You can install an electrical an electrical joystick that can be ordered as an option. If you skid steer is equipped with an auxiliary electrical option with an electrical connector mounted on the machine's loader lift arm from the skid steer manufacturer, you can use it to control the cutter functions. In order to complete the connection, the mating connector on the loader arm needs to match the connector from the attachment. Refer to the electrical drawing on page 26 of this manual.



WARNING



A 12 V power source coming directly from the battery or from some other circuit that is energized all the time could result in Death or Serious Injury if the attachment control switch is accidentally bumped when the operator is entering or exiting the skid steer with the engine running.



WARNING



California Proposition 64 Warning! Battery posts, terminals, and related accessories contain lead and lead components, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.



CAUTION



Always refer to the polarity symbols printed on the top of the battery. Refer to the markings on the battery to determine the location of the negative (-) cable. If the battery cables are to be removed from the battery, always remove the negative cable first and reinstall the negative cable last.



WARNING



DO NOT smoke around a battery, or use anything that produces an open flame or spark to avoid an explosion that could result in Death or Serious Injury.

The 12V power source for the optional attachment joystick should be connected into the skid steer's Operator Presence System that cuts the electrical power to the attachment shift valves if the operator safety restraint bar is raised or the seat switch is disengaged when the operator raises from the seat. Consult with your local skid steer dealer for assistance.

When using the optional joystick, route the electrical harness up to the pivot point of the loader arm and tie it with plastic cable ties to the inside of the loader arm to prevent snagging the harness with branches. After installing harness, check that the harness is free from any tension when raising and lowering the loader arm through its complete cycle.



Route harness to back of loader pivot and on the inside of loader arm

1. Safety

To protect the operator from any flying debris, it is important that the skid steer is equipped with a thermoplastic polycarbonate windshield or similar material, and similar protection on the right side of the operator's cab.



CAUTION



Make sure your skid steer is in good working condition. Follow the operating instructions found in the manual that accompanied your skid steer. Failure to do so could result in Minor or Serious Injury.

2. Operation

2.1 Unpacking Your Shipment

Your attachment arrives from the factory banded to a wooden pallet, and requires no final assembly.



CAUTION



Careless removal of the shipping bands that secure the implement to the pallet could result in Minor or Serious Injury. Clear the area of all bystanders and stand to the side when cutting the bands with a pair of sheet metal shears.

When the top edge of the coupler is seated in the top part of the coupler plate, roll the skid steer tilt function back until the attaching plate is flat against the skid steer coupler. Lock down the coupler levers.



IMPORTANT



Wipe off any dirt or dust from the male or female hydraulic flat-face couplers with a clean rag before attaching hoses, to keep contaminants from entering the hydraulic system.

2.2 Using Your Implement

Connecting Cutter to Skid Steer



DANGER

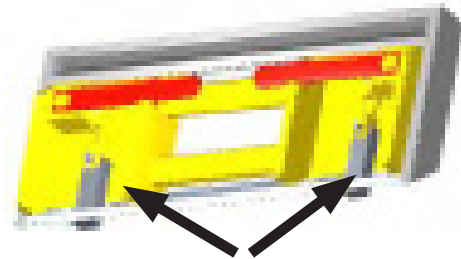


Never enter the area underneath the coupler or any part of the attachment when it is in the raised position to avoid an accident that will result in Death or Serious Injury.

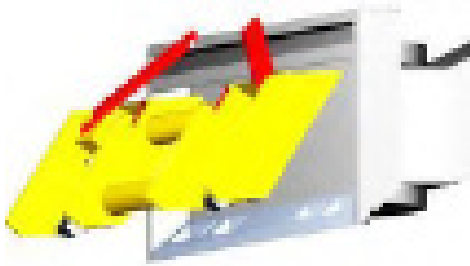
Connect the cutter hydraulic hoses to the auxiliary circuit connectors on the skid steer. Connect the electrical harness to the appropriate connector on the skid steer. Check the surrounding area for bystanders and clear them before starting the skid steer or attachment.

Before operating the attachment, ALWAYS visually inspect and verify that the coupler lock pins are fully engaged through the latch slots on the attachment plate.

Verify that the hydraulic hoses and the wire harness are clear from the front of the attaching plate on the attachment and that the mounting plate is free from dirt and debris. When clear, move the skid steer to proximity of attachment plate. Tilt skid steer coupler forward to align coupling point with the upper part on the attachment plate and raise the coupler slightly.



Check coupler lock engagement



Connecting coupler to attachment

2. Operation

Cutter Boom Controls

The optional joystick control can be easily attached to the leg of the operator using the Velcro straps provided.



WARNING



Always turn the engine “off” and remove the joystick controller from your leg before exiting the skid steer cab to avoid unwanted machine or attachment movement that could cause Death or Serious Injury.

In order to swing or tilt the cutter head, the auxiliary hydraulics to the cutter drive must be turned on.



IMPORTANT



During operation you may notice that the cutter speed slows down a little while you are activating the swing or cutter deck tilt. When you have completed swinging the boom or tilting the cutter deck, the cutter will resume to its normal rotation speed.

Engaging Cutter Drive the First Time



IMPORTANT



If this is your initial startup with this attachment on this machine, check the skid steer’s hydraulic oil level and add oil, if necessary, before and after doing steps 1-6 below.

After starting the skid steer, lift the attachment 36” (915 mm) off the ground surface:

1. With the skid steer engine RPMs just above idle, engage the auxiliary hydraulic flow to the cutter head. Use your machine’s “Boom Swing” electric switch to rotate cutter boom to the right. Stop when the cutter has rotated 90°.
2. Rotate the cutter head back to the straight-ahead position.

3. Rotate the “Cutter Tilt” using the electric control switch until the cutter hits the stop.
4. Tilt cutter head in the opposite direction until it hits its stop.
5. Return cutter head to the level position and the cutter boom to the straightforward position. Allow the cutter to run for 30 seconds to purge the air from the system. Turn off the cutter drive, allowing it to come to a complete stop.
6. Lower the cutter attachment to the ground and shut off the skid steer’s engine and exit the operator’s compartment.
7. Check the skid steer’s hydraulic oil level, and add oil if necessary.
8. Inspect the cutter hydraulic plumbing for any noticeable leaks. Correct these leaks before continuing.
9. Restart the skid steer. With the attachment raised off the ground and the engine throttle set just above idle, engage the cutter drive circuit to start cutter. Allow cutter to come up to the speed before increasing engine speed.

Starting the Cutter



WARNING



Moving or engaging the cutter with bystanders in the area could result in Death or Serious Injury. Before engaging cutter hydraulics, always make sure the area is clear of bystanders.

Engage the cutter drive hydraulics with the prime mover’s engine at a low RPM. Slowly raise the skid steer engine’s RPM to the correct and desired cutter speed. Use the skid steer’s throttle to set the speed; never use a foot throttle when using the cutter.



IMPORTANT



If the cutter creates a vibration when ramping up speed, turn the cutter attachment to the off position and investigate cause. Refer to the Troubleshooting section in this manual.

2. Operation

2.2 Using Your Implement (Cont'd)

Stopping the Cutter

When stopping the cutter, raise the cutter slightly and lower the skid steer's engine RPMs to an idle, and allow the cutter to slow down. After the cutter has slowed down you may turn off the auxiliary hydraulics to the "off" position.

Getting Familiar with the Attachment



DANGER



Never operate the cutter when bystanders are within 300' of your work area. Flying debris could result in Death or Serious Injury.



CAUTION



Be cautious when operating on un-level ground surfaces. A machine roll over could result in Minor or Serious Injury. Always wear your seat belt when operating this attachment.

Before starting the skid steer engine with this cutter attached, make sure you are knowledgeable and comfortable with the operation of the brush cutter controls as outlined in the previous and following sections of this manual.



IMPORTANT



Do not over-speed the cutter by allowing too much flow.

PART NUMBER	FLOW (GPM)
103870	14-20
103875	17-30

When operating the cutter, set the skid steer throttle at a speed that will produce the required flow. Refer to your skid steer manual or call your local skid steer dealer for additional help, if necessary. Your skid steer dealer can measure the flow available on your machine and recommend a throttle setting that is compatible with this attachment.

To begin with, learn what the cutter head looks like in a level cutting position when you are seated in the skid steer. Knowing what a level cutter head looks like will help you avoid damage to the cutting blades by cutting too close to the ground surface.

Rotate the boom 90° to the right and learn what the level position looks like when cutting off to the side of the skid steer. Roll out the skid steer's tilt cylinder and notice how it affects the cutter head.

The correct ground speed for cutting with this attachment can be monitored by sound and feel and depends on the material density. If the skid steer engine is bogging down or if the cutter speed is turning too slow because of too much load, the ground speed should be decreased.

Listen and feel for any strange vibration when working the cutter. A bad vibration felt when cutting could indicate a damaged cutting blade, or material trying to be cut at too fast a pace. Slow down the skid steer's ground speed to see if vibration stops. If it does not, stop the cutter, turn off the skid steer engine and investigate the cause of vibration. Refer to the Troubleshooting section in this manual for further instructions.

Always be aware of your surroundings. When the cutter is swung 90°, the operator has a much larger path to keep aware of. While watching the cutter, also pay attention to what obstacles or terrain are in front of the cutter boom and prime mover. Maintain a safe speed while cutting.

2. Operation



CAUTION



Cutting brush and tree branches with the cutter in an elevated position could result in Death or Serious Injury if the skid steer becomes unstable. Never raise the cutter more than a few feet off the ground when working on slopes or uneven terrain.

Adjusting Cutter Height & Level

Use the skid steer loader lift to adjust the elevation of the cutter. The fore and aft leveling can be accomplished by using a combination of the tilt cylinder mounted on the boom and the skid steer's attachment tilt cylinders.

When the cutter is at the 0° position (straight in front of the skid steer), the tilt cylinder on the boom can be moved to level the deck.

When the cutter is at the 90° position, it can be leveled by using the tilt cylinder connected to the attachment, as well as slight variations in the skid steer tilt cylinders.



Bank cutting

Swinging Cutter



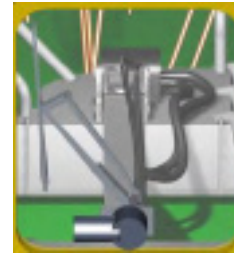
DANGER



To prevent Serious Injury or Death from pinching, keep all persons and objects away from this attachment while it is operating.

Your swing boom cutter has the capability of rotating 90° to the right of the skid steer's mounting point, or stopping anywhere between 0° and 90°.

Before swinging the boom to the right or back to center make sure there are no objects in the way that could hinder the movement of the boom swing.



View through cab door with cutter in straight-ahead position

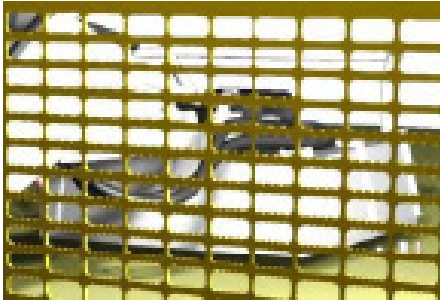
To rotate the cutter boom, push the joystick right or left for the boom swing function. To tilt the cutter, move the joystick forward or back to adjust the deck.



Example of skid steer manufacturer supplied auxiliary electric controller

2. Operation

2.2 Using Your Implement (Cont'd)



Operator's view with cutter swung 90°



CAUTION



With the boom swung at 90°, make sure you are aware of any obstacles directly in front of the skid steer or in front of the boom, when moving the skid steer.



CAUTION



Use care when operating on uneven terrain or any type of sloped surface. Keep your cutter low to the ground when working in these conditions to avoid a roll over that could result in Minor or Serious Injury.

Determine a safe cutting pattern before swinging the boom and cutter. Stop the forward progress of the skid steer loader until the boom is swung to the desired position until you are fully familiar with the movement of the attachment.

Before Cutting

Inspect the area to be cut and make sure it is free of any utilities, rocks, fence posts, or any other objects that you do not want to cut or that would damage the cutter.

Do not enter into an area to be cut before the cutter rotation comes up to the operating speed.

Cutting Tips



CAUTION

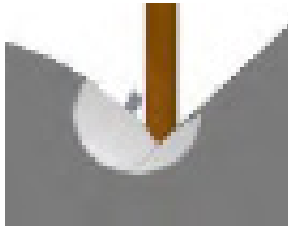


Never operate this attachment when bystanders are in proximity of the work area that could result in Minor or Serious Injury from flying debris.

1. Always inspect work area before starting the cutter. Locate and mark any utilities, steel posts, rocks, or any other objects that could be damaged or would damage the cutter during operation. Never assume the work area is safe and never skip the inspection part before the start of operation.
2. Operate at a safe slow-paced speed that will allow you to watch the area ahead of the skid steer and also ahead of the boom and cutter when the cutter is swung away from the straight-ahead position.
3. Make sure you are operating the skid steer's engine at an RPM that will produce the volume of oil flow required for this attachment.
4. If the cutter speed slows down, reduce your travel speed, and allow cutter to reach the proper rotating speed. Mowing too fast in thick material could result in balling of material underneath the cutter deck resulting in a loss of cutting efficiency.
5. Never use your cutter to push, pull, lift, or move any type of object or vehicle. Do not use this attachment to "push" down trees.
6. Always allow cutter to come up to operating speed before moving attachment into the material you want to cut.
7. If material is constantly balling underneath the cutter deck, try tilting the leading edge of the cutter to be about 1" lower than the rear of the cutter. This should allow a more efficient material flow under the cutter deck.
8. Use the v-notch in the top of the cutter deck to capture small trees for cutting.

PART NUMBER	CUT CAPACITY
103870	3 in.
103875	4 in.

2. Operation



Using V-Cut in deck for small trees

Vertical Cutting

Your Swing Boom Cutter has the capability to cut vertically to widen pathways, roadways, or along the edge of a crop field to allow access for tractors and combines.



Vertical cutting along access road



WARNING



Vertical cutting can disperse debris over a large area. To avoid an accident that could result in Death or Serious Injury, do not operate the cutter when bystanders are within 300' (91m).



CAUTION



To avoid Minor or Serious Injury, never swing the cutter boom past the side tipping capacity of your skid steer when the cutter is in the raised and vertical position. Know the capabilities of your machine and notice the terrain you are working on.

Raise the skid steer loader arm and tilt the cutter head to the vertical position. Swing the boom to the right to access the area to be cut. Raise and lower the skid steer's lift to trim back overhanging branches.



3. Maintenance

3.1 Blade Removal & Replacement



CAUTION



Cutter blades can be very sharp and could cause Minor or Serious Injury if mishandled. **Always wear protective gloves and footwear.**

Plan your removal of the cutter blades around the vicinity of an overhead hoist. Position the cutter attachment with cutter deck in the vertical position so you can access the blade and holder bracket.



Blades & Holder

Sling the holder from the hoist and remove the 6 X 3/4" bolts from the center of the blade holder. Lower the holder to the floor or to a suitable work surface.

Use a cutting torch to remove the head of the blade mounting bolt, and drive the bolt shaft out of the blade holder end.

Install the new or sharpened blade into position and secure the blade with a new bolt, bushing spacer & nut, and apply red thread lock to the bolt threads. Torque hardware to 3100 lb-ft (4200 Nm) using a torque multiplier. Weld the center of the bolt to the inside diameter of the nut mounted in the hex slot on the back of the holder.

Repeat this procedure on the other blade end before installing the holder back on the attachment. Install new hardware to secure the holder to cutter drive. Torque the six (6) blade holder bolts to a minimum of 600 lb-ft (813 Nm.)



IMPORTANT



Always service (sharpen or replace) the blades as a set. Never run cutter with unmatched blades.



CAUTION



Not maintaining your implement correctly could result in Minor or Serious Injury. Keep your implement in top operating condition.

Before Every Use

Check that all fasteners (nuts, bolts, pins, keepers) are in their right place and are tight.

Inspect and replace any worn, torn, or missing safety decals.

Pump No. 2 lithium or molybdenum disulfide grease into all required areas until you see old grease is being flushed out.

Investigate the location of any oil leaks and repair.

After every use, clean off any dirt residue with a garden hose and repeat grease application.

Every Week

Check the condition of the blades by raising the cutter attachment off the ground and tilting the attachment back to the 90° position. Lower the attachment to the ground.

Inspect the cutter blades and remove and sharpen them if necessary. Sharp cutter blades will cut more efficiently than dull blades.

3. Maintenance

After Every Season

Inspect the implement for any loose or worn parts that may need to be replaced prior to the next cutting season.

Visually inspect the cutting blades. Sharpen or replace them, if necessary.

Clean, sand, and repaint any area that looks worn or scratched to prevent further rusting. Use an equipment paint found at your local hardware store or building center.

Lubricate all pivot joints. If located in an area near an ocean or other corrosive conditions, apply a thin layer of grease to any exposed cylinder rod surfaces. Wipe grease from cylinder rods with a clean rag when taking the attachment out of storage.

Store your implement in a shed or cover with a water proof tarp to protect it from the weather. Store in an area not frequented by children.

3. Maintenance

3.2 Service Schedule

DESCRIPTION	SERVICE PROCEDURES					
	Check	Clean	Lube	Change	Adjust	Drain
Daily Maintenance (or every 8 hours)						
Hydraulic Fittings	•					
Hydraulic Hoses	•					
Hydraulic Motor	•	•				
Blades (wear, damage, and loosening)	•					
Blade Carrier	•					
All Hardware	•					
Deck (cracks, bends, or damage)	•	•				
Grease Fitting			•			
250 Hour Maintenance						
Drive Assembly (5-10 pumps)			•			

3. Maintenance

3.3 Greasing Locations

See below for the greasing locations. These locations should be greased according to the service schedule found on page 16.

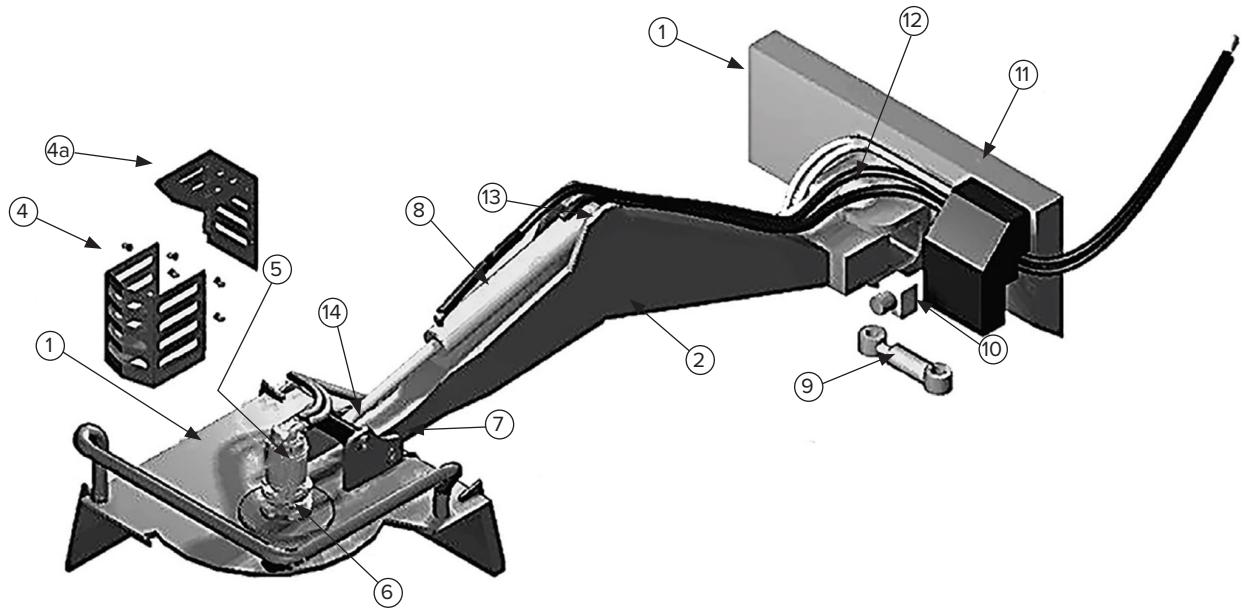


4. Troubleshooting

PROBLEM	CAUSE	SOLUTION
Cutter bogs down	Deck is not properly leveled & material is balling under deck	Refer to leveling instructions found in this manual.
	Dull blades	Remove and sharpen blades following instructions found in this manual.
	Ground speed too fast	Slow down ground speed.
	Cutter speed too slow	Raise engine RPMs or investigate other low oil flow problem.
Vibration felt when running cutter	Missing, loose, damaged or unbalanced cutter blades	Replace blades with new or re-sharpened and equally balanced blades.
	Blade carrier damaged	Replace blade mount.
	Gearbox loose on deck	Tighten & torque gearbox mounting bolts. Replace bolts if they are damaged.
	Cutting height too low for cutting in sandy or rocky soils	Raise cutter height.
Blades get dull too quickly	Blades have contacted solid objects (rock, steel pipes, etc.)	Clear cutting area of solid objects before hitting them or raise the cutter height to clear exposed rock surfaces.
Blades breaking	Excessive shock loads	Avoid hitting solid objects (rock, steel pipes, large tree stumps, etc.)
Hydraulic oil level goes down during operation	Leak at valve, cutter motor or other plumbing	Investigate and repair.
	Leaks in skid steer hydraulic system	Investigate and repair.
Blades do not spin when flow is activated	No oil flow	Check skid steer circuitry.
	Check valve failure	Inspect or replace.
	Motor or gearbox failed	Disconnect the drive chain between motor & gearbox. If blade holder can be turned by hand, motor failure is suspect. Call the Factory for further instructions.
Blades turn, but cannot tilt or swing cutter	No electrical power to controller or solenoid valves	Check in-line circuit fuse. If blown, investigate cause & replace.
		Check connections at solenoid valves.
		Check that circuit has a good ground.
		Have local skid steer dealer check the Operator Presence System.

5. Parts

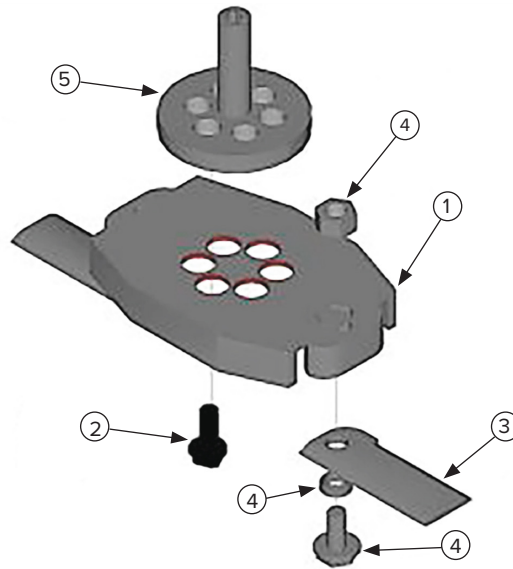
5.1 Parts Breakdown



ITEM	PART NUMBER	DESCRIPTION	QTY
1	203950	Deck Weldment	1
2	203951	Boom Weldment	1
3	203952	Mount Frame Weldment	1
4	203953	Motor Guard	1
4a	203877	Motor Cover	1
5	203886	Geroller Motor 14-20 GPM	1
	203887	Piston Motor 17-30 GPM	1
6	203954	Drive Support	1
7	203957	Deck Tilt Pivot Pin	3
8	203884	Tilt Cylinder	1
9	203874	Swing Cylinder	1
10	203955	Swing Bumper	1
11	203956	Valve Block Cover	1
12	203871	Swing Pivot Pin	1
13	203964	Tilt Cylinder Pin - Barrel End	1
14	203965	Tilt Cylinder Pin - Rod End	1
NS	203962	Swing Cylinder Pin - Barrel End	1
NS	203963	Swing Cylinder Pin - Rod End	1

5. Parts

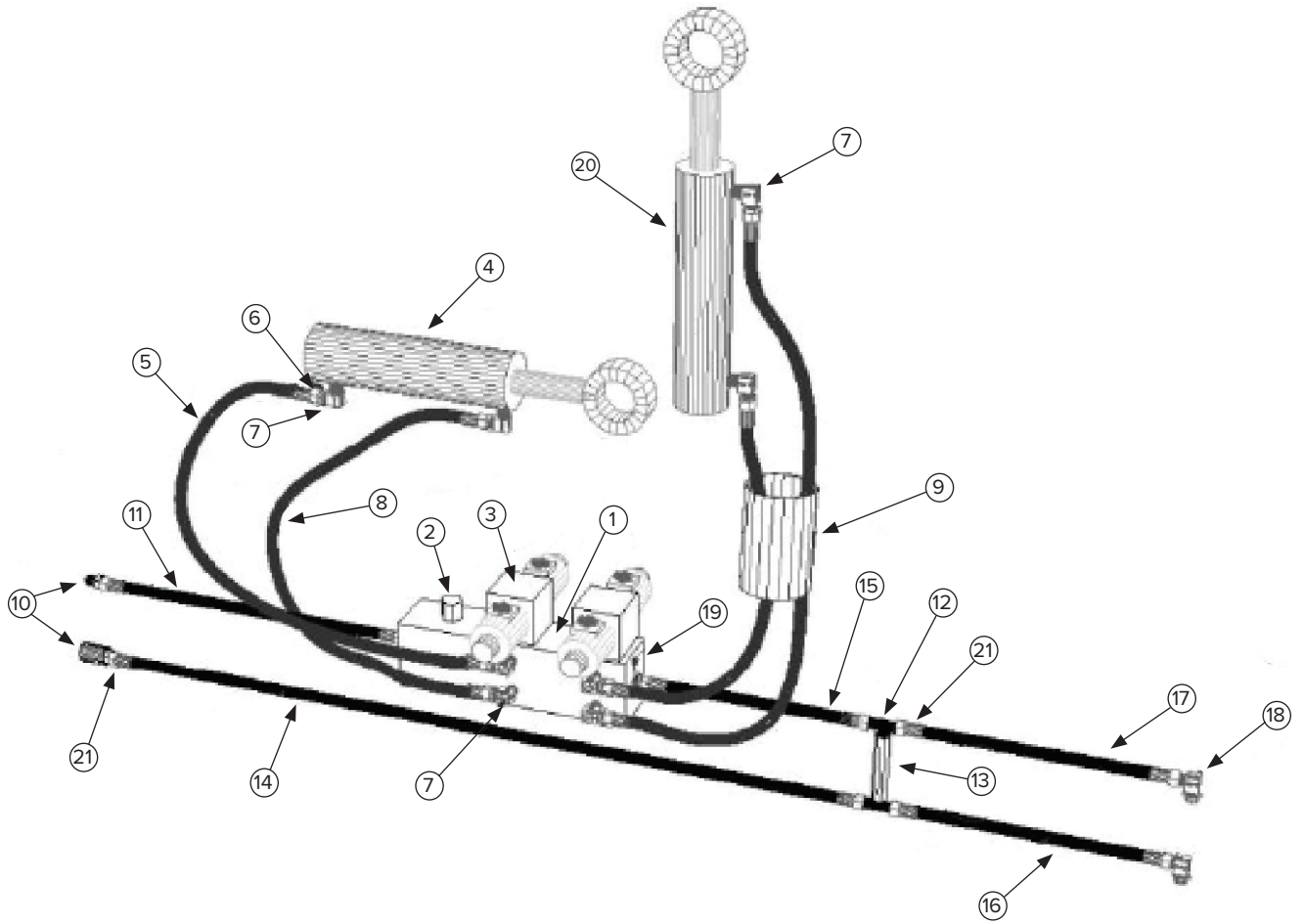
5.2 Blade Carrier Parts Breakdown



ITEM	PART NUMBER	DESCRIPTION	QTY
1	203958	Blade Carrier	1
2	299482	Blade Carrier Bolt	6
3	203872	Blade	2
4	203873	Blade Bolt, Spacer, and Nut	2
5	203966	Spindle	1
1-4	203876	Blade Carrier Assembly	—

5. Parts

5.3 Hydraulic Components



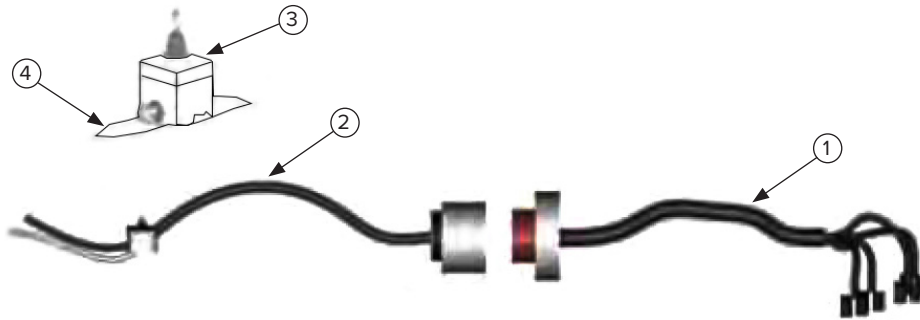
5. Parts

5.3 Hydraulic Components Cont'd

ITEM	PART NUMBER	DESCRIPTION	QTY
1	203879	Hydraulic Manifold	1
2	203881	Flow Control	1
3	203875	Control Valve	1
4	203874	Swing Cylinder	1
5	In Hose Set	Swing Cylinder Hose 3/8 x 21" - Barrel End	1
6	In Hose Set	3/8" Hose End	8
7	In Hose Set	3/8" Elbow	8
8	In Hose Set	Swing Cylinder Hose 3/8 x 17" - Rod End	1
9	In Hose Set	Hose Sleeve Set	1
10	224009	Female Coupler	1
	224010	Male Coupler	1
11	(203968) In Hose Set	Machine Side Pressure Hose 1/2 x 72"	1
12	295050-M12JIC-M12JIC-M12JIC	H-Valve Tee	2
13	203566	H-Valve	1
14	(203969) In Hose Set	Machine Side Return Hose 1/2 x 189"	1
15	In Hose Set	H-Valve to Valve Block Hose 1/2 x 110"	1
16	In Hose Set	H-Valve to Motor Pressure Hose 1/2 x 8"	1
17	In Hose Set	H-Valve to Motor Return Hose 1/2 x 12"	1
18	In Hose Set	1/2" Motor Elbow	1
19	In Hose Set	1/2" Straight Fitting	2
20	203884	Tilt Cylinder	2
21	In Hose Set	1/2" Hose End	10
NS	203888	Case Drain Line (for piston motor only)	1
NS	295010-M04JIC-M04BSPPEs	Case Drain Fitting	1
NS	224065	Male Case Drain Coupler	1
	224067	Female Case Drain Coupler	1
NS	203883	Hose Set	1

5. Parts

5.4 Wiring Harness Parts Breakdown



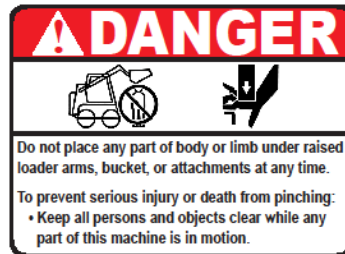
ITEM	PART NUMBER	DESCRIPTION	QTY
1	103884	Wire Harness Attachment Side	1
2	103885	Wire Harness Machine Side Universal	1
	103887	Wire Harness Machine Side 14-Pin	1
	103888	Wire Harness Machine Side Bobcat 7-Pin	1
	103889	Wire Harness Machine Side 8-Pin	1
	3	203960	Optional Joystick
4	203961	Optional Joystick Leg Strap	1

5. Parts

5.5 Safety Decals



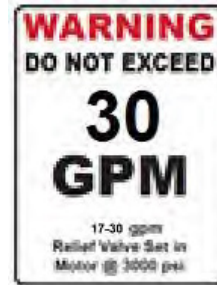
① **//// DANGER STAY BACK ///**



②



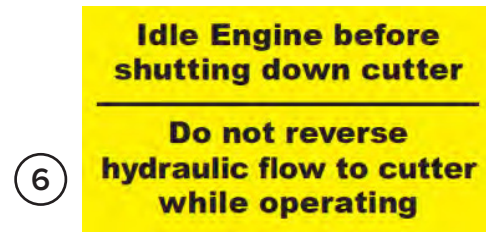
③



④

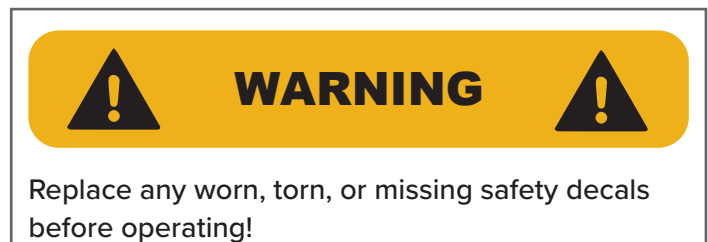
**MUST READ
OPERATOR MANUAL
MUST READ
OPERATOR MANUAL
MUST READ
OPERATOR MANUAL
MUST READ
OPERATOR MANUAL
MUST READ
OPERATOR MANUAL**

⑤



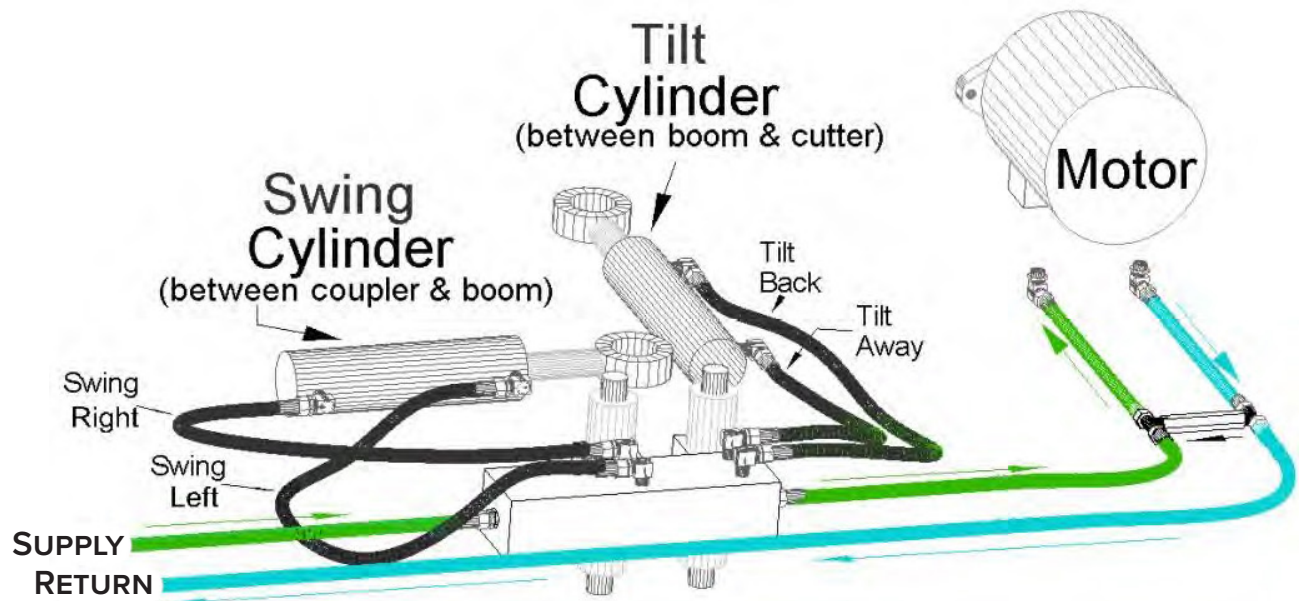
⑥

ITEM	DESCRIPTION	QTY
1	Danger, Stay Back	2
2	Danger, Pinch Points	2
3	Warning, High Pressure Fluid Hazard	1
4	Warning, do Not Exceed 30 GPM	1
5	Must Read Operator Manual	1
6	Idle Engine Before Disengaging Cutter	1



5. Parts

5.6 Hydraulic Flow



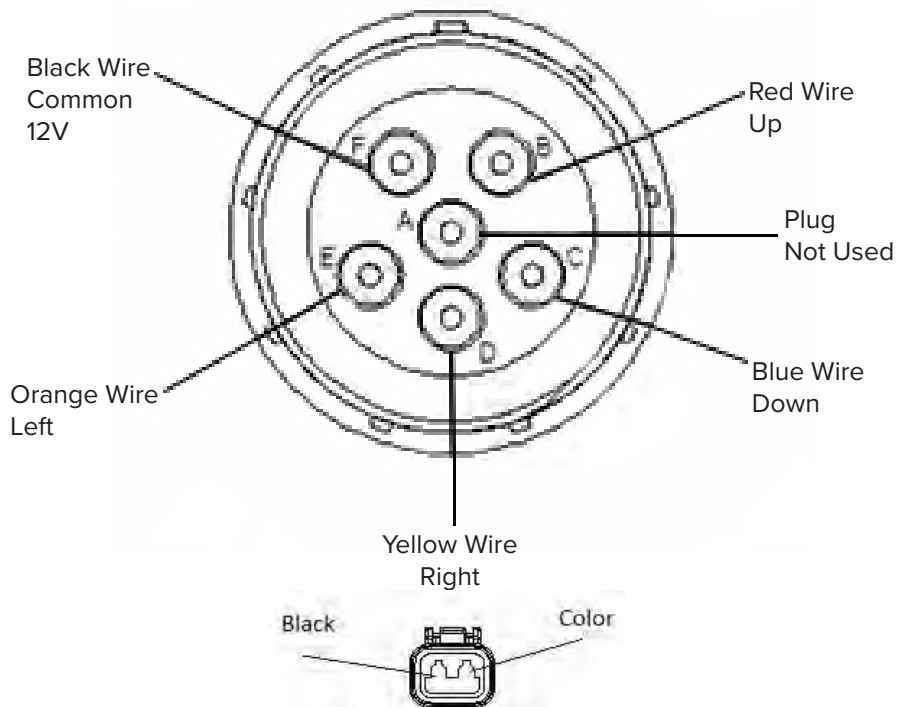
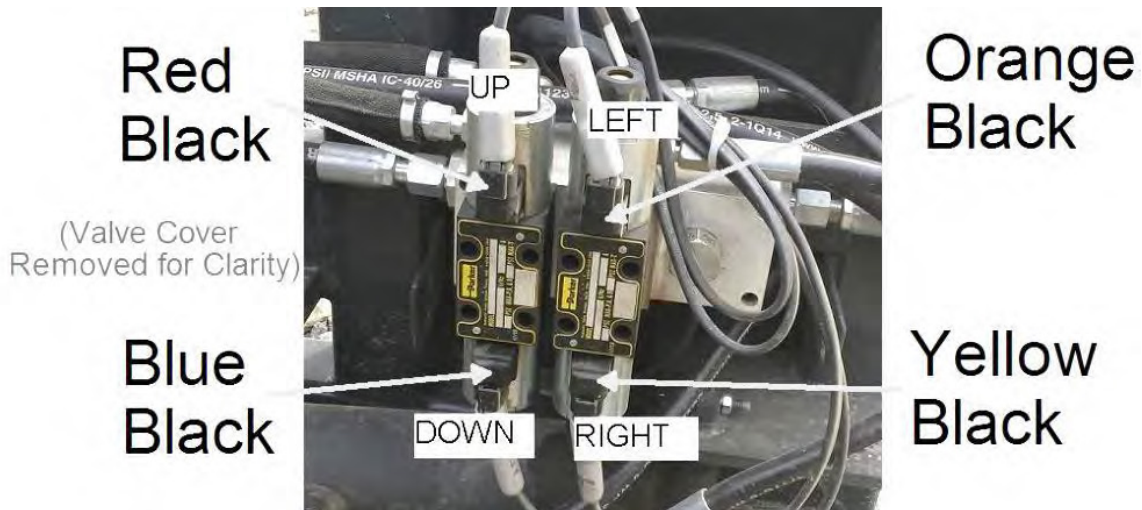
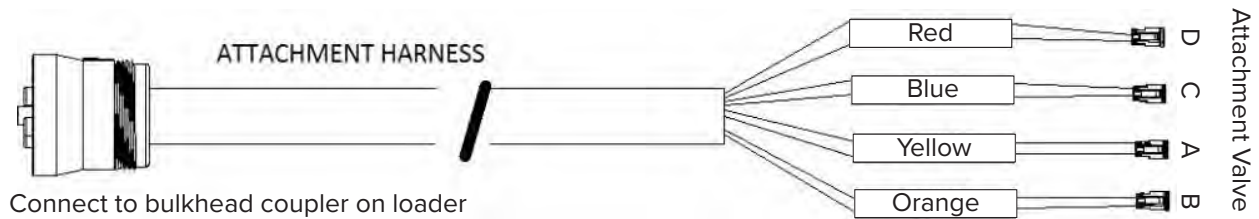
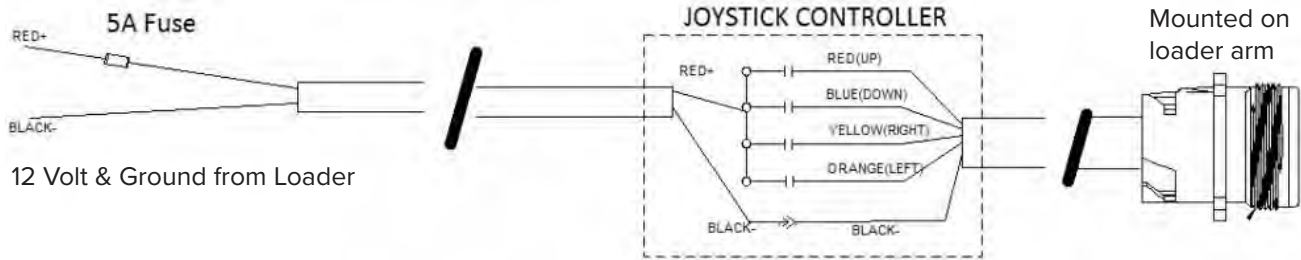
Pin Connections by brand (see next page for function details)

Brand	Connector	Black	Yellow	Orange	Red	Blue
Takeuchi	14 Pin	B	E	F	C	D
Bobcat S Models	14 Pin	B	F	E	H	G
CAT Ds Model	14 Pin	B	C	D	E	F
ASV	8 Pin	B	F	E	D	C
JCB	14 Pin	B	E	F	C	D
Kubota 2-function*	14 Pin	B	D	C	—	—
Kubota 4-function	14 Pin	B	G	H	C	D
CASE	14 Pin	B	D	G	F	E
John Deere	14 Pin	A	E	G	C	D
GEHL	14 Pin	B	D	C	E	F

*Some Kubota models only have two functions unless additional ones are added at the dealer

5. Parts

5.7 Electrical Diagram



6. Specifications

6.1 Attachment Specifications

DESCRIPTION	103875	103870
Minimum Skid Steer Weight*	6500 lbs (2950 kg)	6500 lbs (2950 kg)
Minimum Skid Steer Power	65 HP (49 kW)	
Cut Width	44 in (1067 mm)	
Boom Swing Range	90°	
Cutter Tilt from Level	+90° / -35°	
Horizontal Reach	8 ft (96 in)	
Vertical Reach	16 ft (192 in)	
Minimum Hydraulic Flow	17 GPM (64 L/min)	14 GPM (53 L/min)
Maximum Hydraulic Flow	30 GPM (113 L/min)	20 GPM (76 L/min)
Hydraulic Relief Setting	4000 PSI (267 bar)	
Required Hydraulic Flow	17-30 GPM (64-113 L/min)	14-20 GPM (53-76 L/min)
Attachment Weight	1400 lbs (635 kg)	

*NOTE: A skid steer equipped with tracks will provide superior stability compared to a non-track unit.

6. Specifications

6.2 Torque Specifications

Standard Hardware and Lock Nuts

BOLT TYPE	SAE GRADE 5		SAE GRADE 8		LOCK NUTS			
	Nominal Size	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	W/ Grade 5 Bolt
1/4	55 in / lb (6.2 N•m)	72 in / lb (8.1 N•m)	86 in / lb (9.7 N•m)	112 in / lb (12.6 N•m)	121 in / lb (13.6 N•m)	157 in / lb (17.7 N•m)	61 in / lb (6.9 N•m)	86 in / lb (9.8 N•m)
5/16	115 in / lb (13 N•m)	149 in / lb (17 N•m)	178 in / lb (20 N•m)	229 in / lb (26 N•m)	250 in / lb (28 N•m)	325 in / lb (37 N•m)	125 in / lb (14 N•m)	176 in / lb (20 N•m)
3/8	17 ft / lb (23 N•m)	22 ft / lb (30 N•m)	26 ft / lb (35 N•m)	34 ft / lb (46 N•m)	37 ft / lb (50 N•m)	48 ft / lb (65 N•m)	19 ft / lb (26 N•m)	26 ft / lb (35 N•m)
7/16	27 ft / lb (37 N•m)	35 ft / lb (47 N•m)	42 ft / lb (57 N•m)	54 ft / lb (73 N•m)	59 ft / lb (80 N•m)	77 ft / lb (104 N•m)	30 ft / lb (41 N•m)	42 ft / lb (57 N•m)
1/2	42 ft / lb (57 N•m)	54 ft / lb (73 N•m)	64 ft / lb (87 N•m)	83 ft / lb (113 N•m)	91 ft / lb (123 N•m)	117 ft / lb (159 N•m)	45 ft / lb (61 N•m)	64 ft / lb (88 N•m)
9/16	60 ft / lb (81 N•m)	77 ft / lb (104 N•m)	92 ft / lb (125 N•m)	120 ft / lb (163 N•m)	130 ft / lb (176 N•m)	169 ft / lb (229 N•m)	65 ft / lb (88 N•m)	92 ft / lb (125 N•m)
5/8	83 ft / lb (112 N•m)	107 ft / lb (145 N•m)	128 ft / lb (174 N•m)	165 ft / lb (224 N•m)	180 ft / lb (244 N•m)	233 ft / lb (316 N•m)	90 ft / lb (122 N•m)	127 ft / lb (172 N•m)
3/4	146 ft / lb (198 N•m)	189 ft / lb (256 N•m)	226 ft / lb (306 N•m)	293 ft / lb (397 N•m)	319 ft / lb (432 N•m)	413 ft / lb (560 N•m)	160 ft / lb (217 N•m)	226 ft / lb (306 N•m)
7/8	142 ft / lb (193 N•m)	183 ft / lb (248 N•m)	365 ft / lb (495 N•m)	473 ft / lb (641 N•m)	515 ft / lb (698 N•m)	667 ft / lb (904 N•m)	258 ft / lb (350 N•m)	364 ft / lb (494 N•m)
1	213 ft / lb (289 N•m)	275 ft / lb (373 N•m)	547 ft / lb (742 N•m)	708 ft / lb (960 N•m)	773 ft / lb (1048 N•m)	1000 ft / lb (1356 N•m)	386 ft / lb (523 N•m)	545 ft / lb (739 N•m)

NOTE: Torque blade holder bolts to a minimum of 600 lb-ft. (813 Nm).



Warranty

MANUFACTURER'S LIMITED WARRANTY

BLUE DIAMOND® ATTACHMENTS, a manufacturer of quality attachments, warrants new BLUE DIAMOND® ATTACHMENTS products and/or attachments at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth by BLUE DIAMOND® ATTACHMENTS, LLC.

BLUE DIAMOND® ATTACHMENTS liability for any defect with respect to accepted goods shall be limited to repairing the goods at a BLUE DIAMOND® ATTACHMENTS designated location or at an authorized dealer location, or replacing them, as BLUE DIAMOND® ATTACHMENTS shall elect. The above shall be in accordance with BLUE DIAMOND® ATTACHMENTS warranty adjustment policies. BLUE DIAMOND® ATTACHMENTS obligation shall terminate twelve (12) months for the Swing Arm Brush Cutter after the delivery of the goods to original purchaser.

This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the BLUE DIAMOND® ATTACHMENTS factory or authorized BLUE DIAMOND® ATTACHMENTS dealership or in any way so as in BLUE DIAMOND® ATTACHMENTS judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident beyond the company recommended machine rated capacity.

WARRANTY CLAIM

To submit a warranty claim, a claim must be filed with BLUE DIAMOND® ATTACHMENTS before work is performed. The BLUE DIAMOND® PRODUCT SUPPORT TEAM will advise repairs and applicable parts exchanges. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

EXCLUSIONS OF WARRANTY

Except as otherwise expressly stated herein, BLUE DIAMOND® ATTACHMENTS makes no representation or warranty of any kind, expressed or implied, AND MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE. BLUE DIAMOND® ATTACHMENTS shall not be liable for incidental or consequential damages for any breach or warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of the goods by the buyer.

No agent, employee, or representative of BLUE DIAMOND® ATTACHMENTS has any authority to bind BLUE DIAMOND® ATTACHMENTS to any affirmation, representation, or warranty concerning its machinery and/or attachments except as specifically set forth herein.

This warranty policy supersedes any previous documents.

NOTE: Blue Diamond® Attachments is a trademark of BLUE DIAMOND® ATTACHMENTS



QUALITY | DEPENDABILITY | INTEGRITY

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