



**SPARTAN
EQUIPMENT®**

Economy, Professional & Industrial Grapple Attachments



Owner's/Operator's Manual

⚠ WARNING

For safe operation, read these rules and instructions carefully to avoid accidents that could result in Death or Serious Injury.

TO THE OWNER/OPERATOR OF THIS IMPLEMENT

Please read this manual "before" unpacking or using this implement for the first time. This manual provides you with the necessary instructions to safely install and use your purchase. Do not let other people use this attachment without first being instructed how to safely use it.



Spartan Equipment

Joppa, MD 21085

1.888.888.1085

Save this manual for future reference!

Thank You

Our sincere appreciation to you on the purchase of a quality Grapple Attachment offered by Spartan Equipment. Product experience of a combined 30 years is the cornerstone of our company, and our goal is to provide you with a heavy duty product that will give you years of satisfaction and operation.

Our record of successful and satisfied customers is evidence of the concern for quality and designed strength that we place into each and every product we build.

As this manual expresses the need for safe operation of your acquisition from Spartan Equipment it is important that you and all operators of this implement become familiar with the operation, maintenance and safety instructions found in this manual, as well as in the manual that accompanied the skid steer machine that will power this attachment. Add some common sense to the items mentioned in these manuals as the recipe for safe operation.

We invite you to look at more innovative products on our web site at <http://www.spartanequipment.com>.

Sincerely,
Management & Employees
Spartan Equipment

Information

Record product information here for future reference

Model (v')	Grapple Rake (<input type="checkbox"/>)	Rock Grapple (<input type="checkbox"/>)
	Grapple Bucket (<input type="checkbox"/>)	Root Grapple (<input type="checkbox"/>)
	Tine Grapple (<input type="checkbox"/>)	Fork Grapple (<input type="checkbox"/>)

Choose Duty (v') Economy () Professional () Industrial ()

Width in Inches (v') 60" () 63" () 66" () 72" ()

78" () 81" () 84" () 96" ()

S/N or MFG. Date _____ Date of Purchase ___/___/___

Dealer Name _____ Dealer Phone ___-___-____

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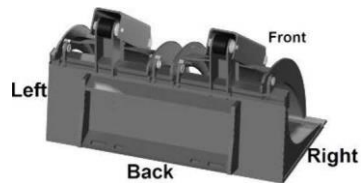
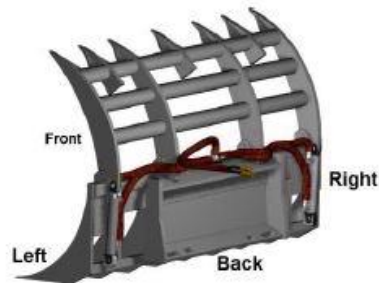
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Orientation



Serial Number Plate is Located on Top of Mounting Plate

Importance of Safety

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 moving parts 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.

 **DANGER** Will result in Death or Serious Injury.


 **WARNING** Could result in Death or Serious Injury.

 **CAUTION** Could result in Minor or Serious Injury.


 **NOTICE** Not related to personal injury.


Operator Safety Training Tips


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!


 Before digging into any surface, always contact the "Diggers Hotline" to identify underground utilities to avoid


an accident that could result in Death or Serious Injury to the operator or fellow workers.


 Before lifting, lowering or tilting the blade, make sure the area is clear of bystanders or objects.


 Machinery parts sometimes have sharp edges. Wear work gloves when moving parts. Always use caution around attachment parts 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.


 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 (utilities, 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 or property.


 Before each operation of this implement, check all hardware (bolts, nuts, 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 attachment when bystanders are within 10 feet (3 m) of the work area.

 Operate only during daylight or well-lit artificial light.

Skid Steer Requirements

Your grapple attachment must be connected to a skid steer with adequate horsepower and weight to provide satisfactory results. Tracked loaders will provide superior traction in ground engaging applications and wheeled loaders may provide the best option for above ground material handling applications.

The attachment plate on your grapple attachment will connect to the couplers on most major brand skid steer loaders. Do not modify the attachment plate on this attachment to fit older styles of attachment couplers on older machines. Contact your skid steer loader dealer to supply an updated coupler on an older skid steer to fit this attachment.

Your skid steer must also be equipped with an auxiliary circuit that is available on the loader arms and is controlled by a switch, pedal or handle inside the skid steer loader 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.*

Unpacking Your Shipment

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

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.*

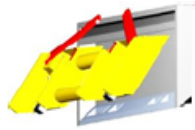
Using Your Implement

Connecting Attachment 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.*

Verify that the hydraulic hoses 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.



Connecting Coupler to Attachment

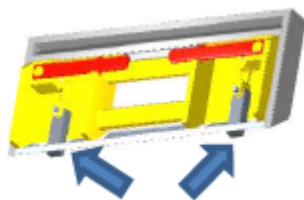
When the top edge of the coupler is seated in the top part of the coupler plate, roll the skid steer tilt function back until the attaching plate is flat against the skid steer coupler. Lock down the coupler levers. **Note:** If your skid steer is equipped with a hydraulically operated coupler, activate the coupler lock at this time.

NOTICE 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.

Connect the attachment hydraulic hoses to the auxiliary supply couplers located on your skid steer loader lift arm.

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.



Check Coupler Lock Engagement

Pre-Operation Walk-around Inspection

Before every use, it is important to perform a short inspection and certain maintenance on your grapple attachment.

	Item
✓	Check that all shields and guards are in place.
✓	Look for loose bolts and tighten them if necessary.
✓	Check that all safety decals are in place and can be read. Replace them if necessary.
✓	Take care of our environment. Repair any hydraulic leaks.

Grapple Attachment Controls

Your grapple attachment is designed to run off the skid steer loader auxiliary hydraulic system, with the additional grapple open & close function activated by a control switch, pedal or handle in the operator's cab. Consult your skid steer operator's manual for precise instructions on how to activate, reverse and neutralize the auxiliary circuit.

Height and tilt functions of the attachment are operated with the control handles or pedals in the cab. Consult your skid steers operator's manual for precise instructions regarding these functions.

Your skid steer may have a "float" function on the lowering circuit. When placed in the float position, the attachment will follow the contour of

the ground being worked. This is especially helpful when back-dragging a new cut. See your skid steer's Operator's Manual for instructions about how to use the float on your skid steer.

4.

If during your initial startup you realize the grapple function operates in the opposite direction that you prefer, you can change positions of the quick disconnect couplers on the attachment hoses to remedy your problem.

Before Using the Grapple the First Time

⚠ WARNING *Moving the attachment with bystanders in the area could result in Death or Serious Injury. Before moving the attachment or machine, always make sure the area is clear of bystanders.*

NOTICE *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 & 2 below.*

After starting skid steer, lift the attachment 10" (254mm) off the ground surface:

1. With the skid steer engine RPMs just above idle, slowly engage the auxiliary hydraulic flow to the grapple arm until the grapple arm(s) are fully open. Reverse the direction of the grapple arms until the grapple arm(s) are fully closed. Repeat this two more times to purge any air from the system.
2. Lower the attachment to the ground and shut off the skid steer's engine and exit the operator's compartment.

5. Check the skid steers hydraulic oil level, and add oil if necessary.
6. Inspect the grapple attachment's hydraulic plumbing for any noticeable leaks. Correct these leaks before continuing.

Getting Familiar with the Attachment

⚠ DANGER *Never operate the grapple arms when bystanders are within 10' (3 m) of your work area.*

⚠ 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 type of machinery.*

Before starting the engine with this grapple attachment connected to the skid steer, make sure you are knowledgeable and comfortable with the operation of the auxiliary hydraulic control as outlined in the previous sections of this manual and that in the skid steer loader Owner's Manual.

When operating the grapple attachment, set the skid steer throttle at a speed that will produce the required flow, to the attachment and the other loader functions. If the skid steer is equipped with a foot throttle, use it to control engine speed and power being delivered to the attachment. Refer to your skid steer manual or call your local skid steer dealer for additional help, if necessary.

To begin with, learn what the attachment looks like in a level position when you are seated in the skid steer. Knowing what a level implement looks like will help you with your attachment operation.

The correct ground speed for using this attachment will depend on the application and conditions and usually can be monitored by sound and feel and depends on the material density. If the skid steer engine is bogging down because of taking too big of a "bite" with the attachment, it will be necessary to raise or decrease the load a little until the machine's power can overcome the material load on the attachment.

Before Starting

⚠ WARNING *Before digging into any surface, always contact the "Diggers Hotline" to identify underground utilities to avoid an accident that could result in Death or Serious Injury to the operator or fellow workers.*

⚠ WARNING *Exposure to crystalline silica dust along with other hazardous dusts may cause serious or fatal respiratory disease. It is recommended to use dust suppression, dust collection and if necessary personal protective equipment during the operation of any attachment that may cause a high level of dust.*

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

Determine a safe and efficient duty cycle pattern before the start of the job.

Grapple Attachment Tips

⚠ CAUTION *Never operate this attachment when bystanders are in proximity of the work area that could result in Minor or Serious Injury*

by contact with the machine, attachment or flying debris.

1. Always inspect the work area before starting the job. Locate and mark any utilities, steel posts, rocks or any other objects that could be damaged or would damage the blade during operation. Never assume the work area is safe and never skip the inspection part before start of operation.
2. Operate at a safe slow-paced speed that will allow you to watch the area ahead and behind the attachment & loader. Since about half of your duty cycle may be in reverse, look behind you and/or utilize your mirrors when backing up. Verify that your backup alarm is working properly to warn others when you are in reverse. but never think that the alarm replaces your responsibility to visually check what's behind you.
3. Attachment control is the most important element to getting a good, steady cut. Overloading the attachment will only result in spinning the tracks or tires and will make unwanted ruts. Overloading the attachment will also necessitate raising the implement to off load some of the resistance occurring by the material. When you raise the attachment, you will create an unlevelled surface that will increase as the front of the prime mover drives over the rise of the ground surface.
4. If you lift too heavy a load with your attachment, you may raise the rear of your skid steer, and further reduce your tractive power available to move the load.
5. Before beginning your forward motion with the attachment, stop the skid steer and make any final

adjustments to the attachment in terms of height & tilt.

6. Center your load on the attachment. Estimate the load center and pick it accordingly. If the load feels unbalanced when you lift it, reposition your grab and retry the lift. An unbalanced load could upset your skid steer.



Center load on attachment

7. *After loading your attachment and clamping the arms over the load, roll the attachment back and retighten the clamp arm pressure. When rolling back the attachment, the load will settle and require some additional clamping pressure to secure the load.*

⚠️ WARNING *When lifting a load of brush or trees, make sure all ends are not tangled with standing trees that could cause the center of gravity to be compromised, resulting in a rollover that could cause Death or Serious Injury.*

8. *The grapple clamp should not be used for pushing or pulling down trees or any type of structure. Its purpose is to clamp the load so it can be moved to a different spot on the job site.*
9. *To save some service work and down time, always pay attention that tree branches or roots do not poke through past the attachment arms and damage any hydraulic parts or even enter the cab area.*
10. *Be careful that a branch or root doesn't "whip" back at the skid*

steer. Wear safety glasses to prevent dirt getting in your eyes.

⚠️ WARNING *Use extreme caution when working around low hanging electrical lines. Do not raise the attachment in an area where there are low electrical lines to prevent an accident that could result in Death or Serious Injury.*

11. Keep your distance from any type of utility, whether underground or in the air.
12. Always clean the quick-disconnect couplers before connecting them to the skid steer. Utilize plastic or metal caps to protect the ends when not being used. Tuck the quick disconnect hoses somewhere in the attachment where they will be out of the dirt and will not be driven over.

Maintaining your Attachment

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.

Investigate the location of any oil leaks and repair.

Lubricate all pivot joints with #2 lithium grease.

Every Week

Check the condition of the cutting edge and/or tooth points. Order parts if the cutting edge or points are becoming worn and replace as soon as possible.

After Every Season

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

Visually inspect the cutting edge.
Replace, if necessary.

Clean, sand & 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.

Replace any warning decals that have been lost or damaged.

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.

Cutting Edge Removal & Replacement

⚠ WARNING To avoid an accident that could result in Death or Serious Injury, never find yourself in a position where any body part is located under an unsupported blade or frame when servicing this attachment.

⚠ WARNING Hazardous dust can be generated if painted surfaces are heated or welded and could result in death or Serious Injury. Remove paint before welding and always make repairs in a well-ventilated area and wear an approved respirator.

⚠ CAUTION Cutting edges can be very heavy and could cause Minor or Serious Injury if mishandled. Always wear protective gloves and footwear.




1. Weld-on cutting edge replacement is not a task for most machinery operators and should be referred to a welding shop that possesses the proper equipment, knowledge and experience.
2. Replacement cutting edges are available from your CID dealer.

Hydraulic System

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

NOTICE Always release the hydraulic system pressure from the hydraulic circuits prior to removing the attachment or any hydraulic system service work.


Hardware Torque


	Grade 2 lb-ft 	Grade 5 lb-ft 	Grade 8 lb-ft 
1/4"	66*	8	12
5/16"	10	17	20
3/8"	20	30	45
1/2"	45	75	110
3/4"	160	260	380
7/8"	190	400	600
1"	-	580	900


* = inch pounds


Higher torques require the use of a torque multiplier. All values are "dry" torques.


Specifications ^{7.}


Spec.	Fork Grapple
	
Width	50" (1270 mm)
Length	48" (1219 mm)
Opening Height	66" (1676 mm)
Weight	700 lbs. (317 kg)
SSL Auxiliary Hyd. Circuits Required	1
Hyd. Relief Setting	3000 PSI (207 bar)



Spec.	Industrial Grapple Bucket				
					
Width	66" (1676mm)	72" (1829mm)	78" (1981mm)	84" (2134mm)	96" (2348mm)
Length	39" (990mm)				
Opening Height	45" (1143mm)				
Weight	1000 lbs. (454 kg)	1050 lbs. (476 kg)	1100 lbs. (499 kg)	1160 lbs. (526 kg)	1260 lbs. (5715 kg)
SSL Auxiliary Hyd. Circuits Required	1				
Hyd. Relief Setting	3000 PSI (207 bar)				


Spec.	Professional Grapple Bucket				
					
Width	63" (1600mm)	66" (1676mm)	72" (1829mm)	78" (1981mm)	81" (2057mm)
Length	34" (863mm)				
Opening Height	38.6" (980mm)				
Weight	750 lbs. (340 kg)	800 lbs. (363 kg)	850 lbs. (386 kg)	875 lbs. (397 kg)	925 lbs. (420 kg)
SSL Auxiliary Hyd. Circuits Required	1				
Hyd. Relief Setting	3000 PSI (207 bar)				

Spec.	Economy Grapple Bucket	
		
Width	63" (1600mm)	72" (1829mm)
Length	34" (863mm)	
Opening Height	38.6"(980mm)	
Weight	500 lbs. (227 kg)	525 lbs. (238 kg)
SSL Auxiliary Hyd. Circuits Required	1	
Hyd. Relief Setting	3000 PSI (207 bar)	


Spec.	Light Duty Grapple Bucket		
			
Width	60" (1524mm)	63" (1600mm)	72" (1829mm)
Length	34" (863mm)		
Opening Height	38.6"(980mm)		
Weight			
SSL Auxiliary Hyd. Circuits Required	1		
Hyd. Relief Setting	3000 PSI (207 bar)		


Spec.	Industrial Grapple Rake			
				
Width	63" (1600mm)	72" (1829mm)	84" (2134mm)	96" (2348mm)
Length	21" (533mm)			
Opening Height	58"(1473mm)			
Weight	820 lbs. (372 kg)	900 lbs. (408 kg)	1050 lbs. (476 kg)	1150 lbs. (522 kg)
SSL Auxiliary Hyd. Circuits Required	1			
Hyd. Relief Setting	3000 PSI (207 bar)			


Spec.	Professional Grapple Rake		
			
Width	63" (1600mm)	66" (1676mm)	72" (1829mm)
Length	21" (533mm)		
Opening Height	58" (1473mm)		
Weight	700 lbs. (318 kg)	725 lbs. (329 kg)	750 lbs. (340 kg)
SSL Auxiliary Hyd. Circuits Required	1		
Hyd. Relief Setting	3000 PSI (207 bar)		
Spec.	Rock Grapple Bucket		
			
Width	63" (1600mm)	72" (1829mm)	81" (2057mm)
Length	34" (863mm)		
Opening Height	38.6" (980mm)		
Weight	700 lbs. (318 kg)	725 lbs. (329 kg)	750 lbs. (340 kg)
SSL Auxiliary Hyd. Circuits Required	1		
Hyd. Relief Setting	3000 PSI (207 bar)		


Spec.	Industrial Root Grapple					
						
Width	63" (1600mm)	66" (1676mm)	72" (1829mm)	78" (1981mm)	81" (2057mm)	84" (2134mm)
Length	42" (1066mm)					
Opening Height	42.75" (1085mm)					
Weight	915 lbs. (415 kg)	950 lbs. (431 kg)	975 lbs. (442 kg)	1000 lbs. (454 kg)	1025 lbs. (465 kg)	1050 lbs. (476 kg)
Auxiliary Hyd. Circuits Required	1					
Hyd. Relief Setting	3000 PSI (207 bar)					


10.


Spec.	Professional Root Grapple				
					
Width	63" (1600mm)	66" (1676mm)	72" (1829mm)	78" (1981mm)	81" (2057mm)
Length	38.25" (972mm)				
Opening Height	35.3"(897mm)				
Weight	700 lbs. (318 kg)	725 lbs. (329 kg)	750 lbs. (340 kg)	770 lbs. (349 kg)	800 lbs. (363 kg)
SSL Auxiliary Hyd. Circuits Required	1				
Hyd. Relief Setting	3000 PSI (207 bar)				


Spec.	Economy Grapple Bucket		
			
Width	63" (1600mm)	66" (1676mm)	72" (1829mm)
Length	38.25" (972mm)		
Opening Height	35.3"(897mm)		
Weight	600 lbs. (272 kg).	625 lbs. (284 kg)	650 lbs. (295 kg)
SSL Auxiliary Hyd. Circuits Required	1		
Hyd. Relief Setting	3000 PSI (207 bar)		

Spec.	Single Cylinder Light Duty Grapple Bucket		
			
Width	60" (1524mm)	66" (1676mm)	72" (1829mm)
Length	35.25" (895mm)		
Opening Height	31.3"(980mm)		
Weight			
SSL Auxiliary Hyd. Circuits Required	1		
Hyd. Relief Setting	3000 PSI (207 bar)		

Spec.	Industrial Tine Grapple					
						
Width	63" (1600mm)	66" (1676mm)	72" (1829mm)	78" (1981mm)	81" (2057mm)	84" (2134mm)
Length	33.5" (851mm)					
Opening Height	38."(978mm)					
Weight	975 lbs. (415 kg)	1000 lbs. (431 kg)	1050 lbs. (442 kg)	1100 lbs. (454 kg)	1125 lbs. (465 kg)	1150 lbs. (476 kg)
SSL Auxiliary Hyd. Circuits Required	1					
Hyd. Relief Setting	3000 PSI (207 bar)					

Spec.	Light Duty Grapple Bucket		
			
Width	60" (1524mm)	63" (1600mm)	72" (1829mm)
Length	34" (863mm)		
Opening Height	38.6"(980mm)		
Weight			
SSL Auxiliary Hyd. Circuits Required	1		
Hyd. Relief Setting	3000 PSI (207 bar)		

Spec.	Stump Grapple
	
Width	45.5" (1156 mm)
Length	34.4" (874 mm)
Opening Height	45.3"(1151 mm)
Weight	575 lbs. (261 kg)
SSL Auxiliary Hyd. Circuits Required	1
Hyd. Relief Setting	3000 PSI (207 bar)

Spec.	Manure Fork Grapple		
			
Width	60" (1524mm)	66" (1676mm)	72" (1829mm)
Length	30.5" (775mm)		
Opening Height	32"(813mm)		
Weight	404 lbs. (183 kg)	470 lbs. (213 kg)	527 lbs. (239 kg)
SSL Auxiliary Hyd. Circuits Required	1		
Hyd. Relief Setting	3000 PSI (207 bar)		

Parts

As this manual includes many different types of Spartan grapple attachment, please take care in selecting the parts from the correct parts pages!

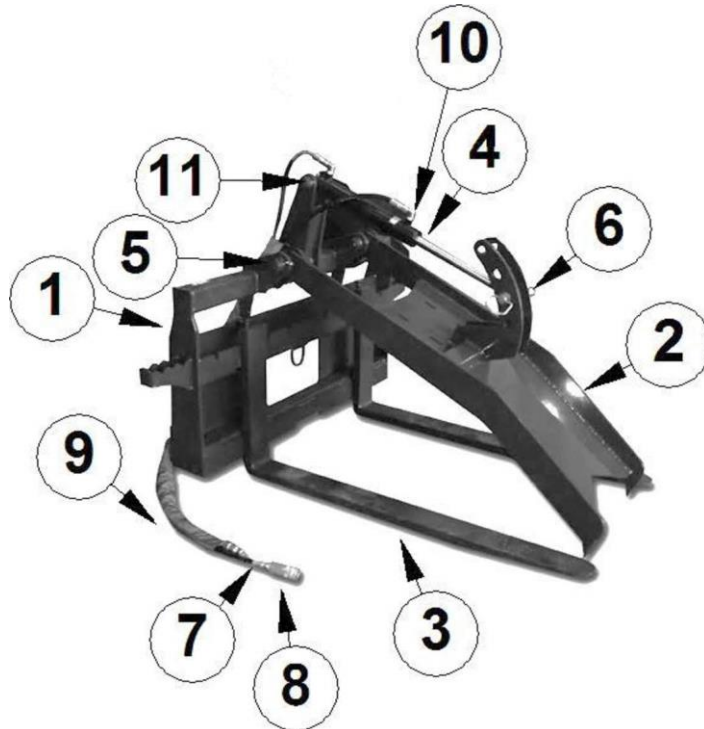
When requiring any parts for your implement, please collect the following information:

Implement Model Number
 Implement Serial Number
 Attachment Width
 Parts Manual Date (lower right corner)
 Parts Manual Page
 Part Description
 Quantity Required
 Ship-to Name & Address
 Payment Method

... then call your local dealer for factory fresh parts specifically designed for your attachment.

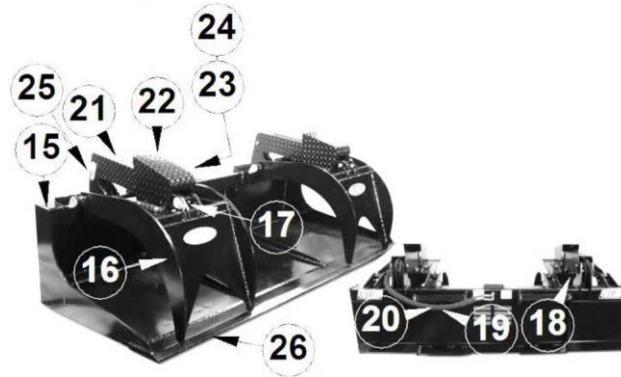


Fork Grapple



Ref.	Description	Qty.
1	Frame Weldment	1
2	Grapple Arm Weldment	1
3	Fork Tine	2
4	Cylinder, Grapple	1
5	Pin, Grapple Arm to frame	2
6	Pin, Cylinder Rod End to Grapple Arm	1
7	Hose Set	1
8	Quick Disconnect Set	1
9	Sleeve, Protective Hose	1
10	Elbow 90°, Hoses to Cylinder	2
11	Pin, Cylinder Base end to Frame	1

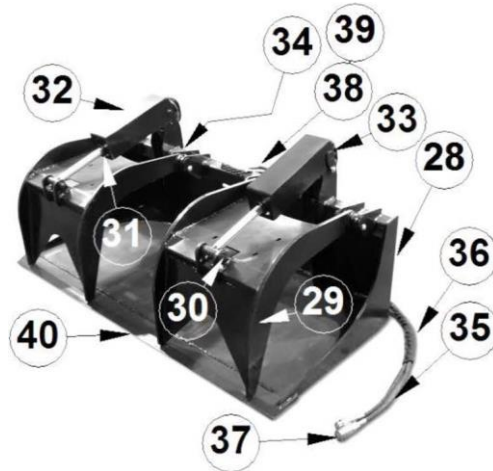
Industrial Grapple Bucket



Ref.	Description	Qty.
15	Frame Weldment	1
16	Grapple Arm	2
17	Pin, Cylinder Rod End to Grapple Arm	2
18	Hose (Tee to LH Angle Cylinder - Rod End)	1
	Hose (Tee to LH Angle Cylinder - Base End)	1
	Hose (Tee to RH Angle Cylinder - Base End)	1
	Hose (Tee to RH Angle Cylinder - Rod End)	1
	Tee	2
19	Hose (Tee to Quick Disconnects)	2
20	Sleeve, Hose Protection	1
21	Guard, Rear Cylinder	2
22	Front Cylinder Guard	2
23	Cylinder, Grapple Arm	2
24	Elbow 90°, Cylinder	2
25	Pin, Cylinder Base End to Frame	2
26	Cutting Edge - Weld-on	1

Specify Bucket Width When Ordering Parts

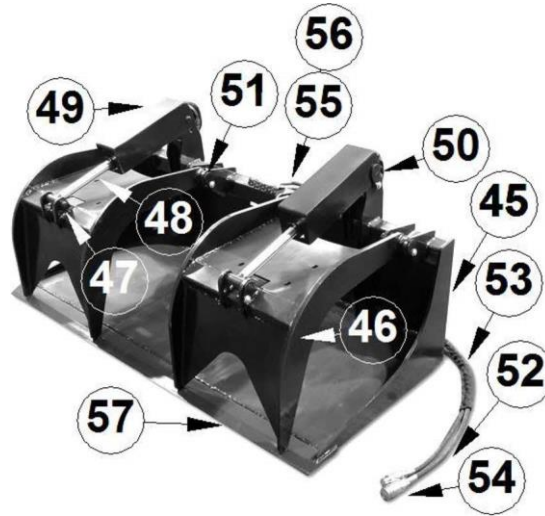
Professional Grapple Bucket



Ref.	Description	Qty.
28	Frame Weldment	1
29	Grapple Arm	2
30	Pin, Cylinder Rod End to Grapple Arm	2
31	Cylinder	2
32	Guard, Cylinder	2
33	Pin, Cylinder Base End to Frame	2
34	Pin, Grapple Arm	4
35	Hose Set, Quick Disconnects to Tee	1
36	Sleeve, Hose Protection	1
37	Quick Disconnect Set	1
38	Hose (Tee to LH Angle Cylinder - Rod End)	1
	Hose (Tee to LH Angle Cylinder - Base End)	1
	Hose (Tee to RH Angle Cylinder - Base End)	1
	Hose (Tee to RH Angle Cylinder - Rod End)	1
39	Tee	2
40	Cutting Edge - Weld-on	1

Specify Bucket Width When Ordering Parts

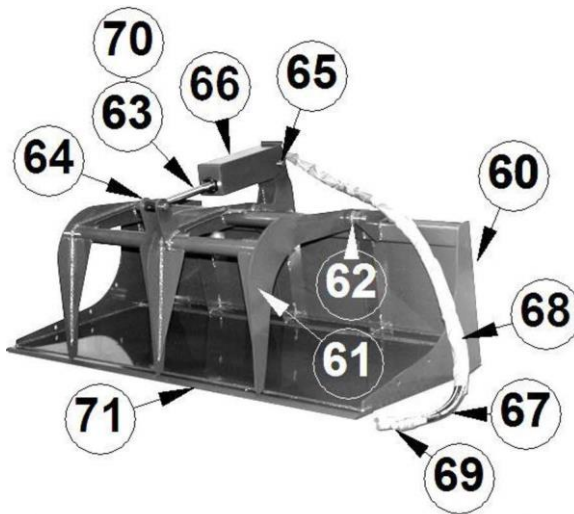
Economy Grapple Bucket



Ref.	Description	Qty.
45	Frame Weldment	1
46	Grapple Arm	2
47	Pin, Grapple Cylinder Rod End to Grapple Arm	2
48	Cylinder, Grapple	2
49	Guard, Cylinder	2
50	Pin, Cylinder Base End to Frame	2
51	Pin, Grapple Arm to Frame	4
52	Hose Set, Quick Disconnects to Tees	1
53	Sleeve, Hose Protection	1
54	Quick Disconnect Set	1
	Hose (Tee to LH Angle Cylinder - Rod End)	1
	Hose (Tee to LH Angle Cylinder - Base End)	1
	Hose (Tee to RH Angle Cylinder - Base End)	1
	Hose (Tee to RH Angle Cylinder - Rod End)	1
56	Tee	2
57	Cutting Edge - Weld-on	1

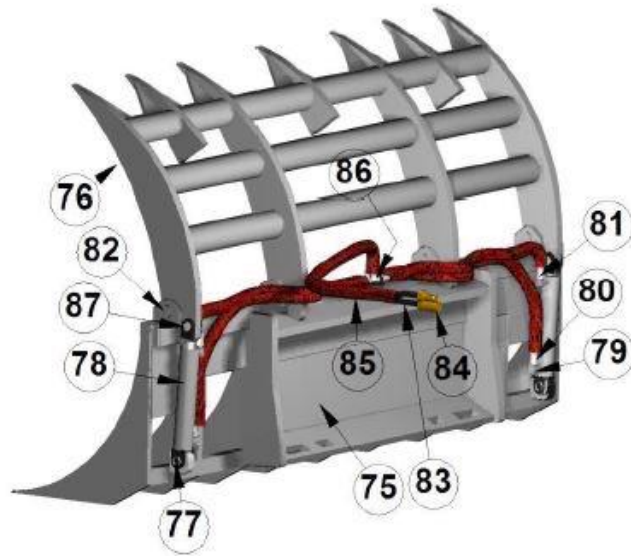
Specify Bucket Width When Ordering Parts

Light Duty Grapple Bucket



Ref.	Description	Qty.
60	Frame Weldment	1
61	Grapple Arm	1
62	Pin, Grapple Arm to Frame	2
63	Cylinder, Grapple	1
64	Pin, Grapple Cylinder Rod End to Grapple Arm	1
65	Pin, Cylinder Base End to Frame	2
66	Guard, Cylinder	4
67	Hose Set, Quick Disconnects to Cylinder	1
68	Sleeve, Hose Protection	1
69	Quick Disconnect Set	1
70	Elbow 90°	2
71	Cutting Edge - Weld-on	1

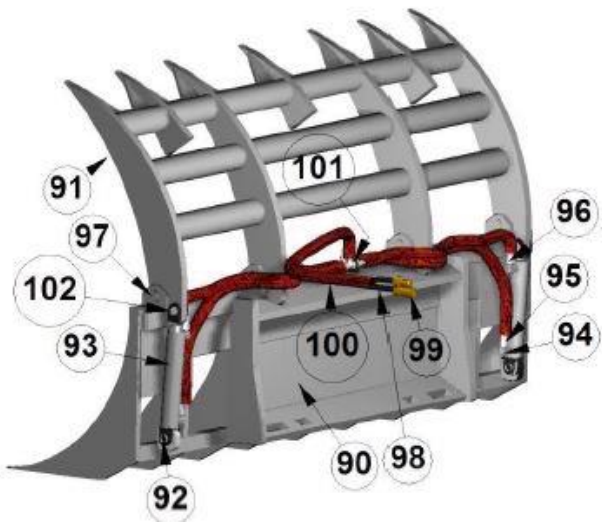
Industrial Grapple Rake



Ref.	Description	Qty.
75	Frame Weldment	1
76	Grapple Arm	1
77	Pin, Cylinder Base to Frame	2
78	Cylinder, Grapple	2
79	Elbow 90° Hose to Cylinders	4
80	Hose, Cylinder Base End to Tee	2
81	Hose, Cylinder Rod End to Tee	2
82	Pin, Grapple Arm to Frame	4
83	Hose Set, Tees to Quick Disconnects	1
84	Quick Disconnect Set	1
85	Sleeve, Hose Protection - Specify location	5
86	Tee	2
87	Pin, Grapple Cylinder Rod End to Grapple Arm	

Specify Attachment Width When Ordering Parts

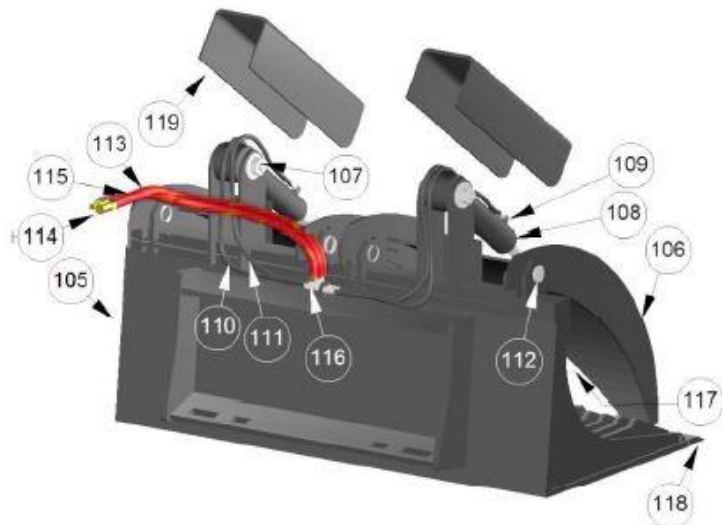
Standard Duty Grapple Rake



Ref.	Description	Qty.
90	Frame Weldment	1
91	Grapple Arm	1
92	Pin, Cylinder Base to Frame	2
93	Cylinder, Grapple	2
94	Elbow 90° Hose to Cylinders	4
95	Hose, Cylinder Base End to Tee	2
96	Hose, Cylinder Rod End to Tee	2
97	Pin, Grapple Arm to Frame	4
98	Hose Set, Tees to Quick Disconnects	1
99	Quick Disconnect Set	1
100	Sleeve, Hose Protection - Specify location	5
101	Tee	2
102	Pin, Grapple Cylinder Rod End to Grapple Arm	2

Specify Attachment Width When Ordering Parts

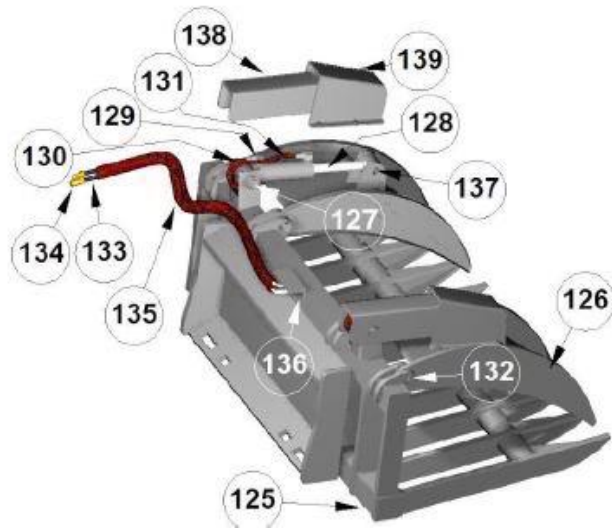
Rock Grapple Bucket



Ref.	Description	Qty.
105	Frame Weldment	1
106	Grapple Arm	2
107	Pin, Cylinder Base to Frame	2
108	Cylinder, Grapple	2
109	Elbow 90° Hose to Cylinders	4
110	Hose, Cylinder Base End to Tee	2
111	Hose, Cylinder Rod End to Tee	2
112	Pin, Grapple Arm to Frame	4
113	Hose Set, Tees to Quick Disconnects	1
114	Quick Disconnect Set	1
115	Sleeve, Hose Protection - Specify location	5
116	Tee	2
117	Pin, Grapple Cylinder Rod End to Grapple Arm	2
118	Cutting Edge - Weld-on	1
119	Guard, Cylinder	2

Specify Bucket Width When Ordering Parts

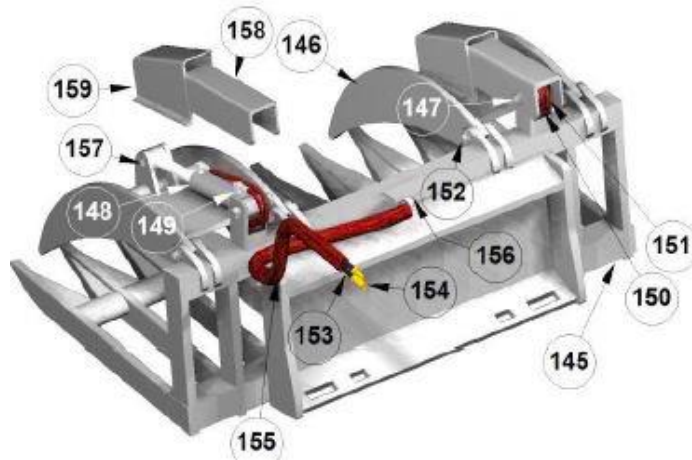
Industrial Root Grapple



Ref.	Description	Qty.
125	Frame Weldment	1
126	Grapple Arm	2
127	Pin, Cylinder Base to Frame	2
128	Cylinder, Grapple	2
129	Elbow 90° Hose to Cylinders	4
130	Hose, Cylinder Base End to Tee	2
131	Hose, Cylinder Rod End to Tee	2
132	Pin, Grapple Arm to Frame	4
133	Hose Set, Tees to Quick Disconnects	1
134	Quick Disconnect Set	1
135	Sleeve, Hose Protection - Specify location	5
136	Internal Plumbing Kit	1
137	Pin, Grapple Cylinder Rod End to Grapple Arm	2
138	Standard Guard	2
139	Guard, Cylinder (Optional)	2

Specify Attachment Width When Ordering Parts

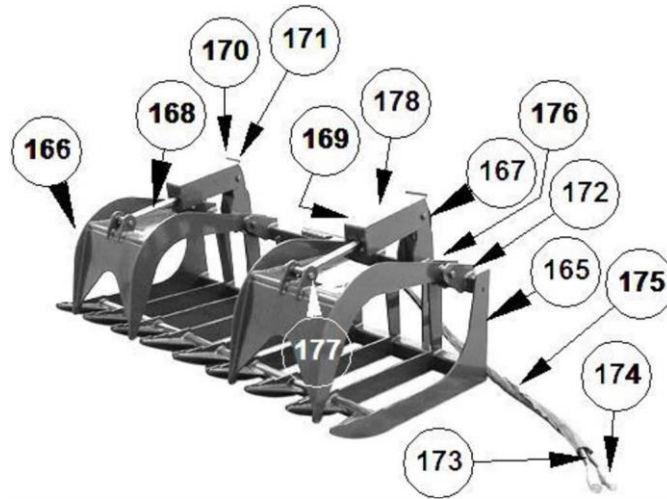
Professional Root Grapple



Ref.	Description	Qty.
145	Frame Weldment	1
146	Grapple Arm	2
147	Pin, Cylinder Base to Frame	2
148	Cylinder, Grapple	2
149	Elbow 90° Hose to Cylinders	4
150	Hose, Cylinder Base End to Tee	2
151	Hose, Cylinder Rod End to Tee	2
152	Pin, Grapple Arm to Frame	4
153	Hose Set, Tees to Quick Disconnects	1
154	Quick Disconnect Set	1
155	Sleeve, Hose Protection - Specify location	5
156	Internal Plumbing Kit	1
157	Pin, Grapple Cylinder Rod End to Grapple Arm	2
158	Standard Guard	2
159	Guard, Cylinder (Optional)	2

Specify Attachment Width When Ordering Parts

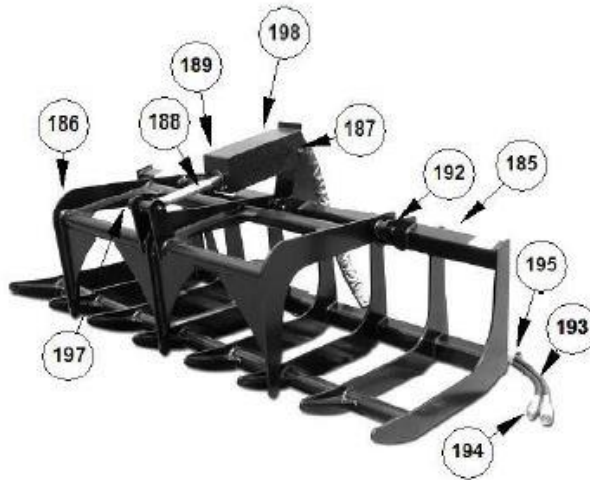
Economy Root Grapple



Ref.	Description	Qty.
165	Frame Weldment	1
166	Grapple Arm	2
167	Pin, Cylinder Base to Frame	2
168	Cylinder, Grapple	2
169	Elbow 90° Hose to Cylinders	4
170	Hose, Cylinder Base End to Tee	2
171	Hose, Cylinder Rod End to Tee	2
172	Pin, Grapple Arm to Frame	4
173	Hose Set, Tees to Quick Disconnects	1
174	Quick Disconnect Set	1
175	Sleeve, Hose Protection - Specify location	5
176	Internal Plumbing Kit	1
177	Pin, Grapple Cylinder Rod End to Grapple Arm	2
178	Standard Guard	2

Specify Attachment Width When Ordering Parts

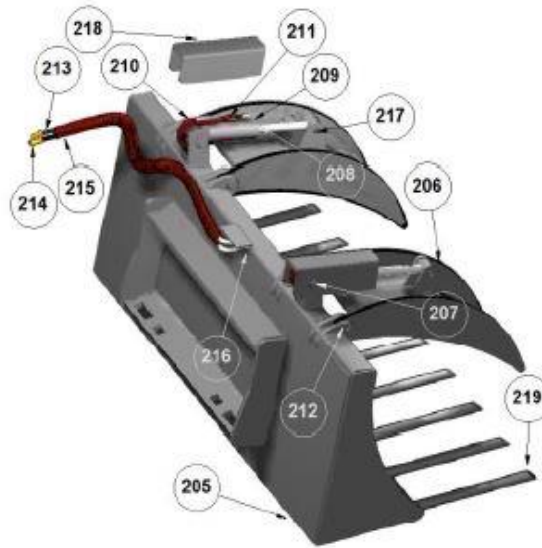
Single Tine Economy Root Grapple



Ref.	Description	Qty.
185	Frame Weldment	1
186	Grapple Arm	2
187	Pin, Cylinder Base to Frame	2
188	Cylinder, Grapple	2
189	Elbow 90° Hose to Cylinders	4
192	Pin, Grapple Arm to Frame	4
193	Hose Set, Tees to Quick Disconnects	1
194	Quick Disconnect Set	1
195	Sleeve, Hose Protection	1
197	Pin, Grapple Cylinder Rod End to Grapple Arm	2
198	Standard Guard	2

Specify Attachment Width When Ordering Parts

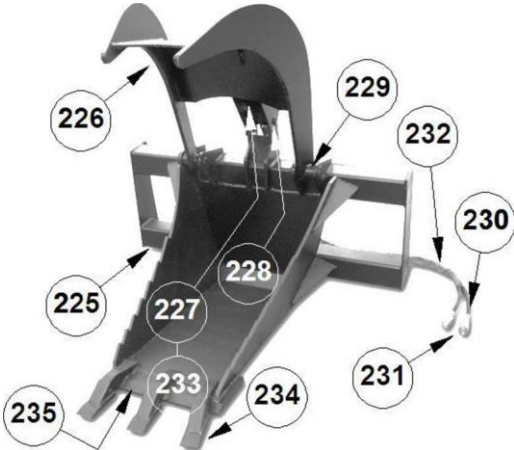
Industrial Tine Grapple



Ref.	Description	Qty.
205	Frame Weldment	1
206	Grapple Arm	2
207	Pin, Cylinder Base to Frame	2
208	Cylinder, Grapple	2
209	Elbow 90° Hose to Cylinders	4
210	Hose, Cylinder Base End to Tee	2
211	Hose, Cylinder Rod End to Tee	2
212	Pin, Grapple Arm to Frame	4
213	Hose Set, Tees to Quick Disconnects	1
214	Quick Disconnect Set	1
215	Sleeve, Hose Protection - Specify location	5
216	Internal Plumbing Kit	1
217	Pin, Grapple Cylinder Rod End to Grapple Arm	2
218	Standard Guard	2
219	Tine	AIR

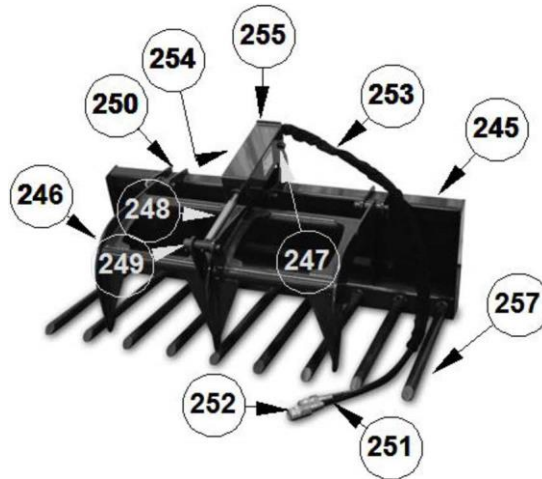
Specify Attachment Width When Ordering Parts

Stump Grapple



Ref.	Description	Qty.
225	Frame Weldment	1
226	Grapple Arm	1
227	Cylinder, Grapple	1
228	Pin, Cylinder Base to Frame	1
229	Pin, Grapple Arm to Frame	2
230	Hose Set, Cylinder to Quick Disconnects	1
231	Quick Disconnect Set	1
232	Sleeve, Hose Protection - Specify location	1
233	Elbow 90° Cylinder Base & Rod Ends	2
234	Tooth, Replacement	3
235	Cutting Edge, Weld-on	1
NS	Guard, Cylinder	1

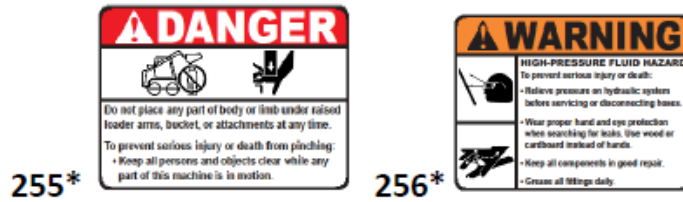
Manure Grapple



245	Frame Weldment	1
246	Grapple Arm	1
247	Pin, Cylinder Base to Frame	1
248	Cylinder, Grapple	1
249	Pin, Cylinder Rod End to Grapple	1
250	Pin, Grapple Arm to Frame	2
251	Hose Set, Cylinder to Quick Disconnects	1
252	Quick Disconnect Set	1
253	Sleeve, Hose Protection - Specify location	1
254	Elbow 90° Cylinder Base & Rod Ends	2
255	Guard, Cylinder	1
257	Tine, Weld-In	AIR

Specify Attachment Width When Ordering Parts

Decals



Ref.	Description	Qty.
255*	Decal, (Danger Pinch Points)	2
256*	Decal, (Warning, High Pressure Fluid Hazard)	1

* **WARNING** Replace any worn, torn or missing safety decals before operating!

Troubleshooting

Problem	Cause	Resolution
Hydraulic oil level goes down during operation	Leak at hoses on attachment	Investigate & repair
	Leak in skid steer hydraulic system	Investigate & repair
Grapple does not open or close	Quick disconnects not connected	Check and recouple quick disconnects
	Hose damaged	Check for smashed or kinked hose and replace if found.
	Skid steer auxiliary circuit inoperative	Investigate and have repaired.
Grapple moves very slow	Restricted hose	Check for damaged hose between skid steer & grapple cylinders. If damaged, replace the hose.
	Circuit relief on skid steer bad	Investigate & have repaired.
	Auxiliary valve spool on skid steer not shifting properly	Investigate and have repaired.
	Grapple cylinder seals by-passing	Have cylinder(s) repacked or replaced.

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***Think Safety,
Everyday!***



**SPARTAN
EQUIPMENT®**
Joppa, MD 21085

Owner's Manual **Grapple** **Attachments**

Website

www.spartanequipment.com

For More Information, Contact

contact@spartanequipment.com

Phone: 1.888.888.1085

Limited Warranty

Spartan Equipment products are warranted to be free from defects in workmanship or materials for period of (12) months from initial sale, lease or rental date.

Warranty Exclusions

This warranty does not cover normal wear items, including but not limited to, bearings, hoses, ground engaging parts such as, teeth, blades, cutting edges, pilot bits, auger teeth and broom bristles. This warranty does not cover maintenance, service or adjustments. This warranty does not cover damage due to misuse, negligence, accidents, or improper maintenance. This warranty does not cover damage due to improper application, installation, adjustment or setup. This warranty does not cover improper modifications of product. This warranty is void if any components have been disassembled, i.e. pumps, gear boxes, motors.

Specially modified attachments built by Spartan Equipment Industrial Attachments to meet your customer's needs shall not be warranted by Spartan Equipment, Inc.

This warranty does not cover replacement parts not supplied by Spartan Equipment.

Warranty Statement

Our obligation under this Limited Warranty shall be solely limited to repairing or replacing any part (see non-covered items) free of charge that, according to our judgment, show evidence of a defect in quality of workmanship or materials for the stated (12) month warranty period. All defective parts must be routed directly to Spartan Equipment with freight or delivery charges to be prepaid. This Limited Warranty shall not be interpreted to render Spartan Equipment liable for any injury or damage to persons, business or property of any kind nor expenses or losses incurred for labor, supplies, substitute machinery rental, or for any other reason. Repair or replacement parts are subject to the supply conditions at the time of repair or replacements, which may directly affect our ability to obtain material and/or replacements parts. Spartan Equipment reserves the right to make improvements in design or changes in specifications at any time without incurring any obligations to owners of previously purchased units. No one but Spartan Equipment is allowed to alter, modify or enlarge this warranty nor the exclusions, limitation and reservation at any time.