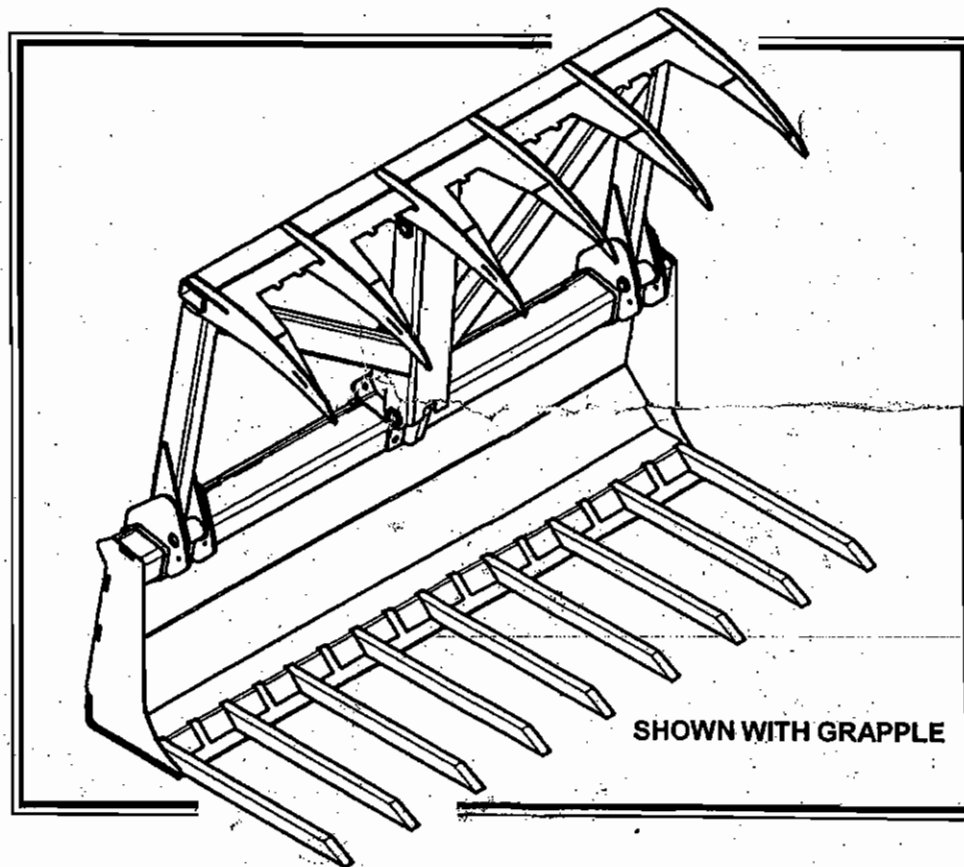


# SERVICE PARTS AND INSTRUCTIONS

FOR

# BRADCO®

## AG/UTILITY GRAPPLE BUCKETS



SHOWN WITH GRAPPLE

76135

BRADCO®  
P.O. Box 266 · Delhi, Iowa 52223 USA  
(319) 922-2981 · (800) 922-2981  
Fax 319-922-2130

A Division of Attachment Technologies Incorporated

8232  
9-27-00

DECALS

# BRADCO

PART #40092  
BRADCO LOGO



PART #4338  
MADE IN THE USA



PART #40440  
CALL BEFORE YOU DIG



PART #40118  
NON-SLIP SURFACE DECAL



PART #40450  
WARNING! FALLING LOADS



PART #40151  
WARNING! HIGH PRESSURE FLUID



# SAFETY PRECAUTIONS

This is the "Safety Alert Symbol" used by this industry.



Remember, when you see this symbol it means: **ATTENTION BECOME ALERT! YOUR SAFETY IS INVOLVED!** This symbol with its appropriate warnings are scattered throughout these instructions. Be sure all operators read them before using the Grapple Bucket.

## TO THE PURCHASER

**Congratulations** on your purchase of an ATI specialty grapple bucket. Please read these instructions carefully to familiarize yourself with the safe installation and operation of this unit. A properly installed bucket should prove to be a productive attachment requiring little maintenance.

Parts lists are located in the back for identifying replacement parts for the bucket you have purchased.

These instructions contain safety precautions and general operating instructions for the grapple bucket and do not attempt to cover any major repairs. This equipment is carefully designed, engineered and manufactured to give good performance if properly maintained and operated.

When servicing this unit, remember to use only manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation.

To facilitate parts ordering, record the model and serial number of your bucket in the space provided on this page. This information can be obtained from the identification plate located on the back of the bucket.

MODEL NUMBER \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

## SAFETY PRECAUTIONS



To insure skid-steer stability and to prevent tipping, always observe the following safety rules.

## SAFETY PRECAUTIONS (CONTINUED)



Before operating the skid-steer, read the operating and safety instructions provided by the manufacturer. Observe all warnings and cautions, particularly those which describe the use of seat belts and other operator restraints and those which describe the proper way of carrying loads as close to the ground as possible.



Never heap load heavy material where the combined weight of the bucket and the material could exceed the rated capacity of the loader.




## WARNING


**AVOID INJURY OR DEATH  
DO NOT EXCEED RATED  
OPERATING CAPACITY OF  
LOADER. TIPPING CAN RESULT**





When using the grapple bucket, be sure that the load does not stick out too far in front of the bucket and be sure that the weight of the load is not too heavy. A light load sticking out too far can have the same tipping effect of the loader as a heavy load carried in close.


## SAFETY PRECAUTIONS (CONTINUED)


 Never operate the grapple forks when people are nearby and could be injured by the hydraulic action of the grapple.

 Do NOT obstruct your vision when traveling or working. Carry the bucket LOW for maximum stability and visibility while traveling.

 Operate at speeds slow enough so that you have complete control at all times. Travel slowly over rough or slippery ground and on hillsides.

 Stay in gear when traveling downhill. Do not shift into neutral. Maintain engine RPM to provide steering and braking functions. Use the same gear range for traveling down a grade as you would for traveling up the grade.

 Avoid steep slopes or unstable surfaces. If you must drive on a slope, keep the load low and proceed with extreme caution. Do not drive ACROSS a steep slope under any circumstances. Drive straight up and down the slope.

 Avoid turning on an incline, if at all possible. If it is necessary, use extreme caution and make the turn wide and SLOW with the bucket carried low.



**IF YOU CAN'T SEE WHERE YOU ARE GOING  
STOP!**

## SKID-STEER LOADER SAFETY

1. READ THE ENTIRE SKID-STEER LOADER OPERATOR'S MANUAL BEFORE EVER ATTEMPTING TO USE THE SKID-STEER LOADER. THIS KNOWLEDGE IS NECESSARY FOR SAFE OPERATION.

2. Follow all safety decals on the skid-steer loader. Keep them clean and replace them if they become worn and hard to read.

## SKID-STEER SAFETY (CONTINUED)

3. Know the limitation of your equipment. Do not use equipment for anything other than what it was originally designed for.

4. Pay attention to the job at hand. Do not let your mind lose concentration on what you are doing.

5. Use your seat belt and R.O.P.S. (Roll-Over Protective Structure) when operating this skid-steer loader. Keep belt and ROPS in good repair. Do not modify the ROPS or seat belt. Do not remove ROPS or seat belt. Over turning the skid-steer loader without proper ROPS and seat belt can result in death.

6. Fasten your seat belt before and during skid-steer loader operation. Remain seated at all times.

7. Do not take passengers on the skid-steer loader or bucket. There is no safe place for a passenger.

8. Use handholds when getting on/off the skid-steer loader. Failure to do so could cause a fall.

9. Inspect the skid-steer loader before you try to operate the unit. Check for needed maintenance or repairs and have them done before using the equipment.

10. Never leave the skid-steer loader running unattended. Always lower lift arms, set parking brake, turn off engine, and remove key.

11. Wear appropriate clothing such as safety glasses, ear plugs, etc. Do not wear loose fitting clothing, it may catch on the equipment. Always wear a hard hat when operating a skid-steer loader to prevent head injury.

12. When driving on public roads use safety lights, reflectors, Slow Moving Vehicle signs, etc., to prevent accidents. Check with local governments for regulations that may affect you.

13. Turn off skid-steer loader before performing maintenance. If lift arms must be left raised for any reason use a positive lift arm lock to secure arms in place. Serious damage or personal injury could result from lift arms accidentally lowering.

14. Reduce speed when driving on rough terrain, slopes, or turning, to avoid overturning the skid-steer loader.

15. Do not smoke when refueling the skid-steer loader. Allow room in the gas tank for expansion. Wipe up any spilled fuel. Secure cap tightly when done.

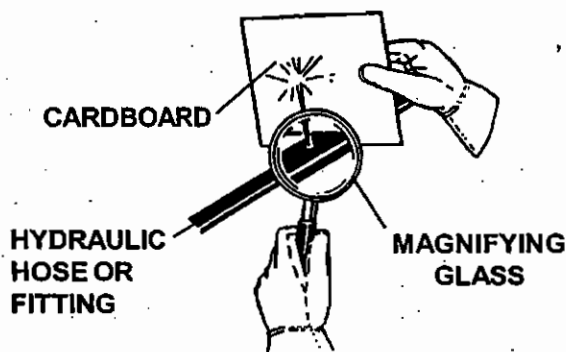
## **WARNING!**



Escaping fluid under pressure can have sufficient force to penetrate the skin causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands to search for suspected leaks.

Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.

If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research immediately to determine proper treatment.



## **INSTALLATION**

Your Bucket is shipped complete with universal skid-steer mounting. If you purchased the grapple assembly along with the bucket then the grapple has been installed along with the hydraulic hoses.

1. Install hydraulic couplers (supplied by your dealer) onto the grapple cylinder hoses if so equipped.
2. Install the bucket by following your skid-steer operator's manual instructions for installing an attachment.

## **WARNING!**



**To Avoid Serious Personal Injury** make sure the bucket is securely latched to the skid-steer toolbar. Failure to do so could result in separation of the bucket from the skid-steer.

3. Connect the grapple cylinder hose hydraulic couplers to the skid-steer auxiliary hydraulics. Route hoses in such a fashion as to prevent chafing and pinching.
4. Start engine and slowly cycle grapple cylinder several times to purge system of air and check for proper hydraulic connection, hose routing and hose length.

## **INSTALLATION (CONTINUED)**

5. Inspect for proper assembly and check for leaks by operating the loader and opening and closing the grapple forks.

## **GRAPPLE INSTALLATION**

The following instructions are for mounting the grapple assembly onto your Ag Utility Bucket. (Refer to the parts diagram and list at the back of these instructions.)

1. Bolt the center attaching bracket and the two outboard attaching brackets to the bucket using the .50" UNC X 1.00" capscrews, and .50" deformed lock nuts provided.
2. Attach the grapple to the outboard attaching brackets using the two pins #88670.
3. Attach the grapple to the center attaching bracket using one pin #88542.
4. Attach the rod end of the cylinder to the grapple using the other pin #88542.
5. Attach the tube end of the cylinder to the center attaching bracket using the pin #88565.
6. Secure all pins in place using the .38" UNC X 1.00 capscrews, lock washers, flat washers and spacer tubes provided.
7. Grease all pivot pins.
8. Follow the "INSTALLATION" instructions for mounting onto your skid-steer loader.

## **DETACHING BUCKET FROM LOADER**

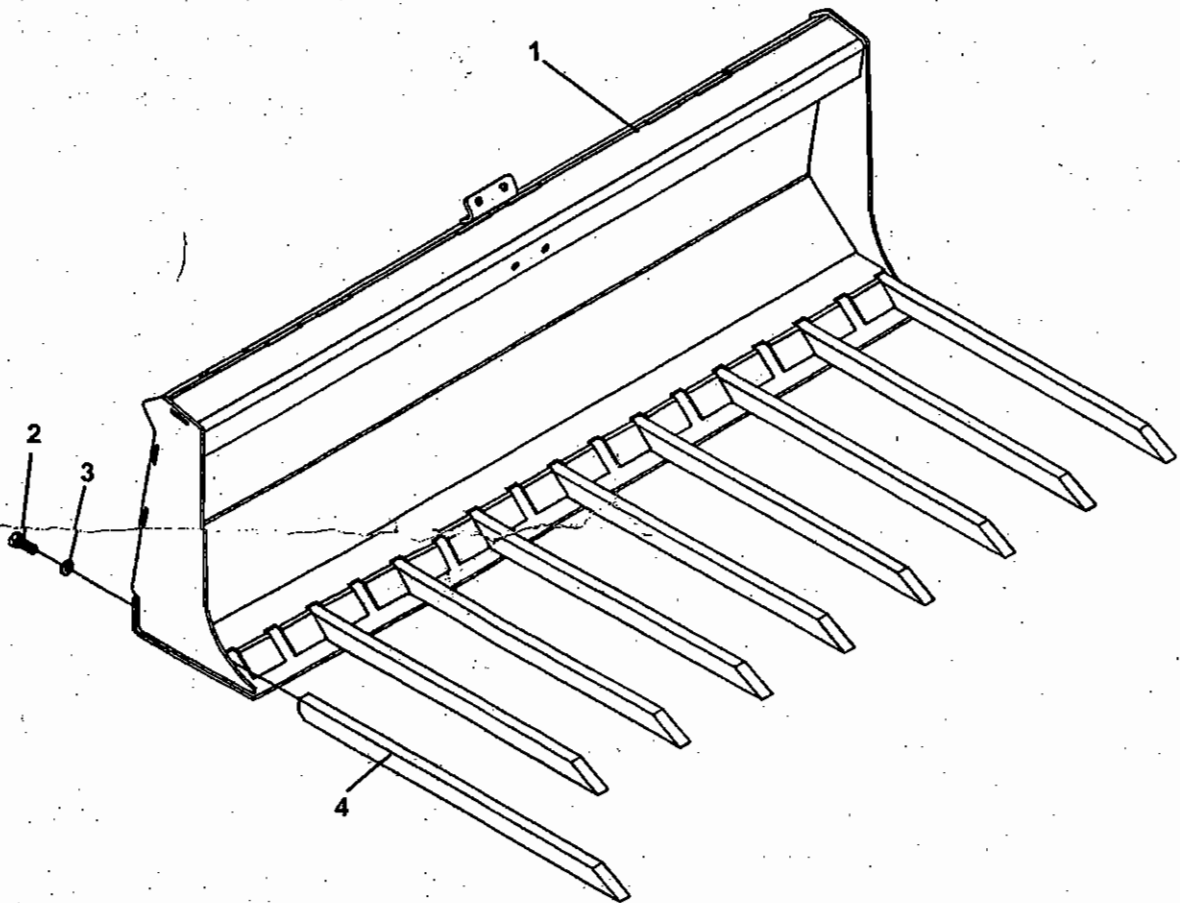
1. On firm level ground, close grapple.
2. Lower boom arms completely down on loader frame until level bucket is about two inches off the ground.
3. Turn off engine. Move control lever back and forth several times to relieve pressure in line, then disconnect quick couplers between bucket and loader auxiliary hydraulic oil lines.

**NOTE: Connect hydraulic couplers together to prevent contaminants from entering the bucket hydraulic system.**

4. Follow your skid-steer operator's manual instructions for detaching (removing) an attachment.

**NOTE: Frequent lubrication of grease fittings on the end of all pivot pins (with a multi-purpose grease) will greatly increase life of product.**

# AG / UTILITY BUCKET ASSEMBLY



# AG / UTILITY BUCKET ASSEMBLY

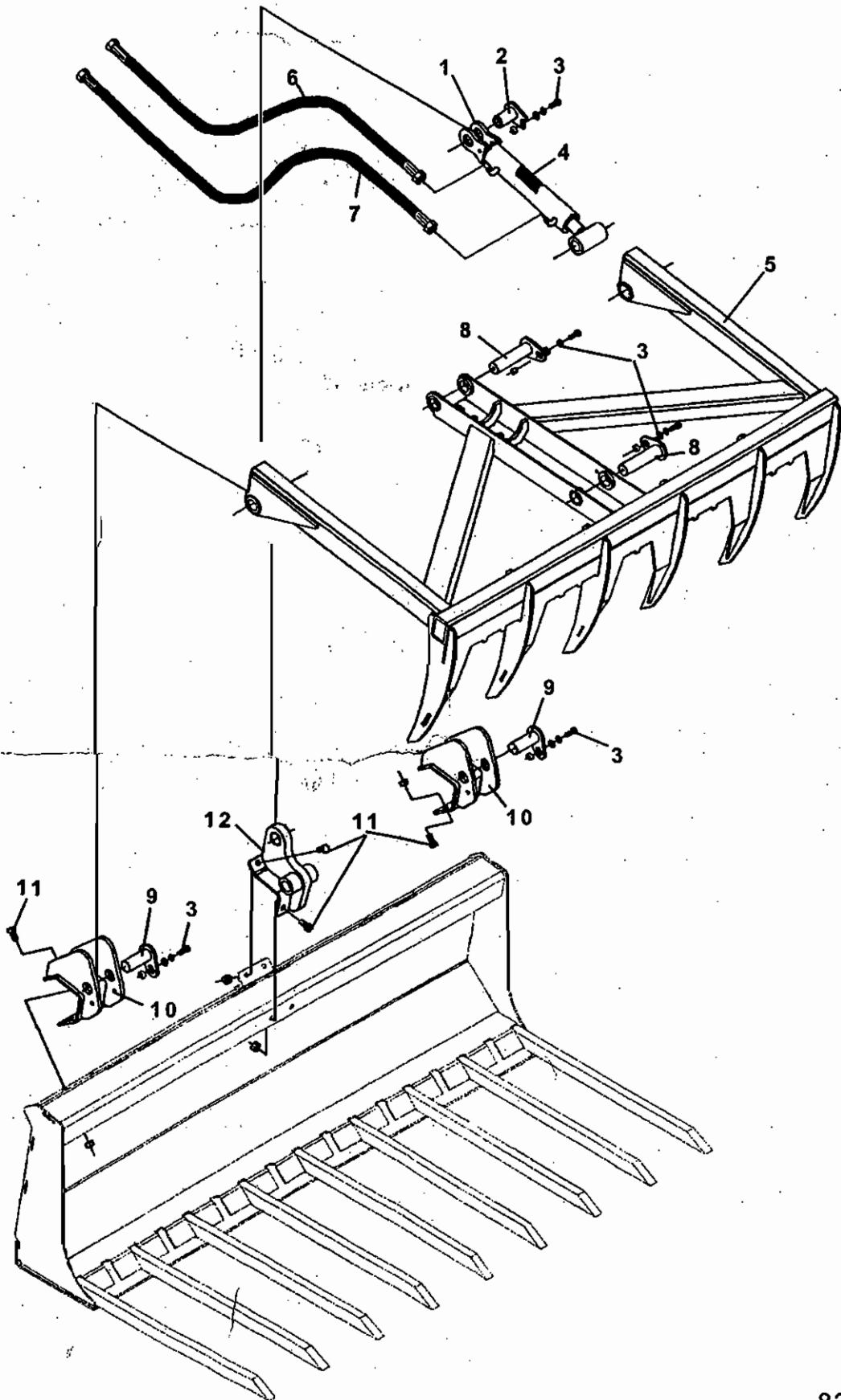
## 66" BUCKET ASSEMBLY

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	88630	66" Bucket
2	9	1114	.62" UNC X 1.50" Hex Capscrew
3	9	1506	.62" Lock Washer
4	9	88639	Tine

## 74" BUCKET ASSEMBLY

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	88783	74" Bucket
2	10	1114	.62" UNC X 1.50" Hex Capscrew
3	10	1506	.62" Lock Washer
4	10	88639	Tine

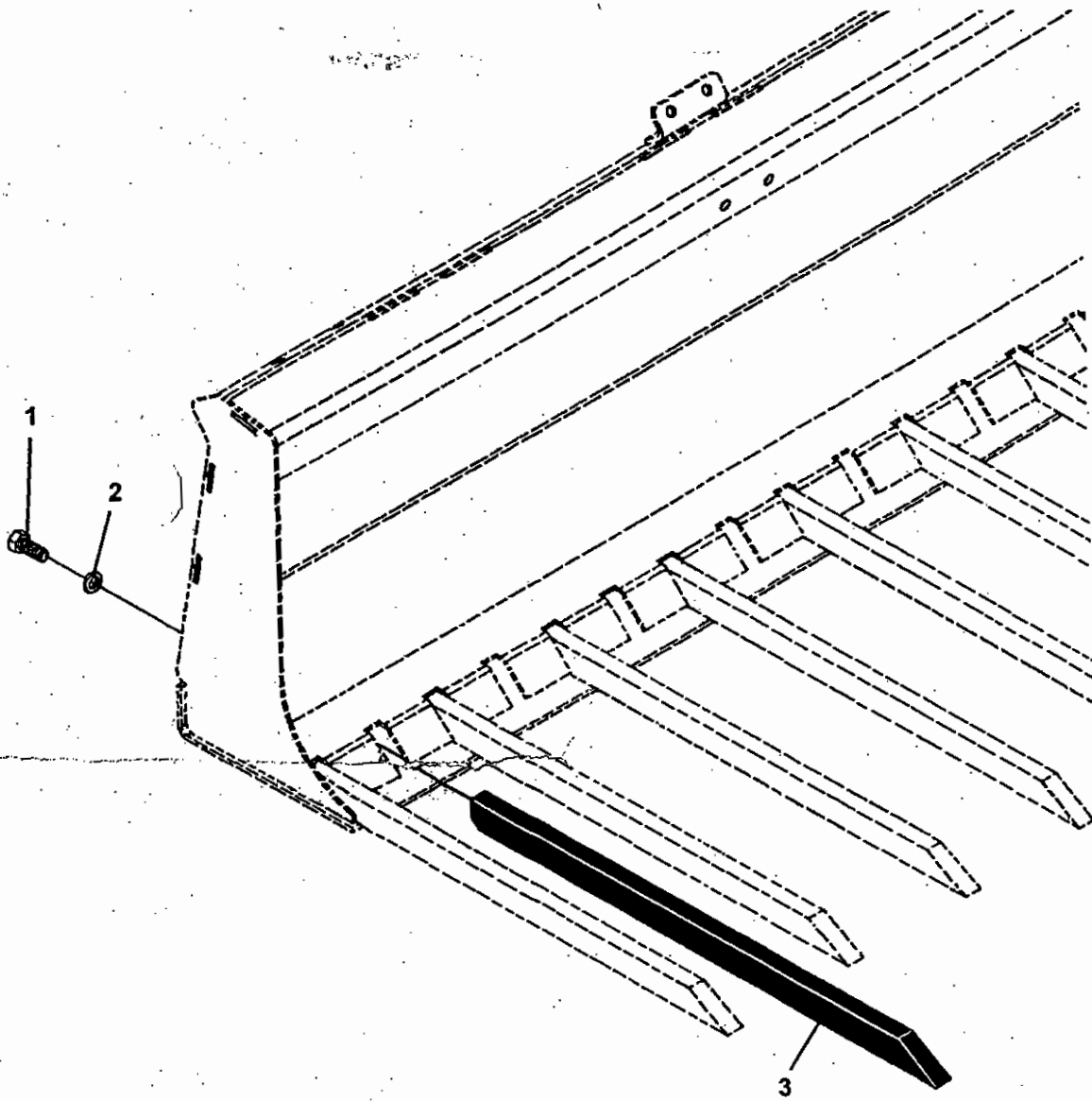
# AG / UTILITY BUCKET GRAPPLE ASSEMBLY



# AG / UTILITY BUCKET GRAPPLE ASSEMBLY

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	88660	Cylinder Assembly
2	1	88565	Pivot Pin
	1	6616	Grease Zerk
3	5	1043	.38" UNC X 1.00" Hex Capscrew
	5	1503	.38" Lock Washer
	5	1514	.38" Flat Washer
	5	81807	Spacer Tube
4	1	40151	Warning Decal - High Pressure Fluid
5	1	88640	Grapple
6	1	37483	Hose Assembly .25" X 79" 6FJX-6FJX-HS
7	1	35866	Hose Assembly .25" X 84" 6FJX-6FJX-HS
8	2	88542	Pivot Pin
	2	6616	Grease Zerk
9	2	88670	Pivot Pin
	2	6616	Grease Zerk
10	2	88655	Outboard Attaching Bracket
11	10	1088	.38" UNC X 1.00" Hex Capscrew
	10	1841	Deformed Lock Nut
12	1	88650	Center Attaching Bracket
	1	65203	Split Bushing (Included in Center Attaching Bracket)

# AG / UTILITY BUCKET TINE ASSEMBLY



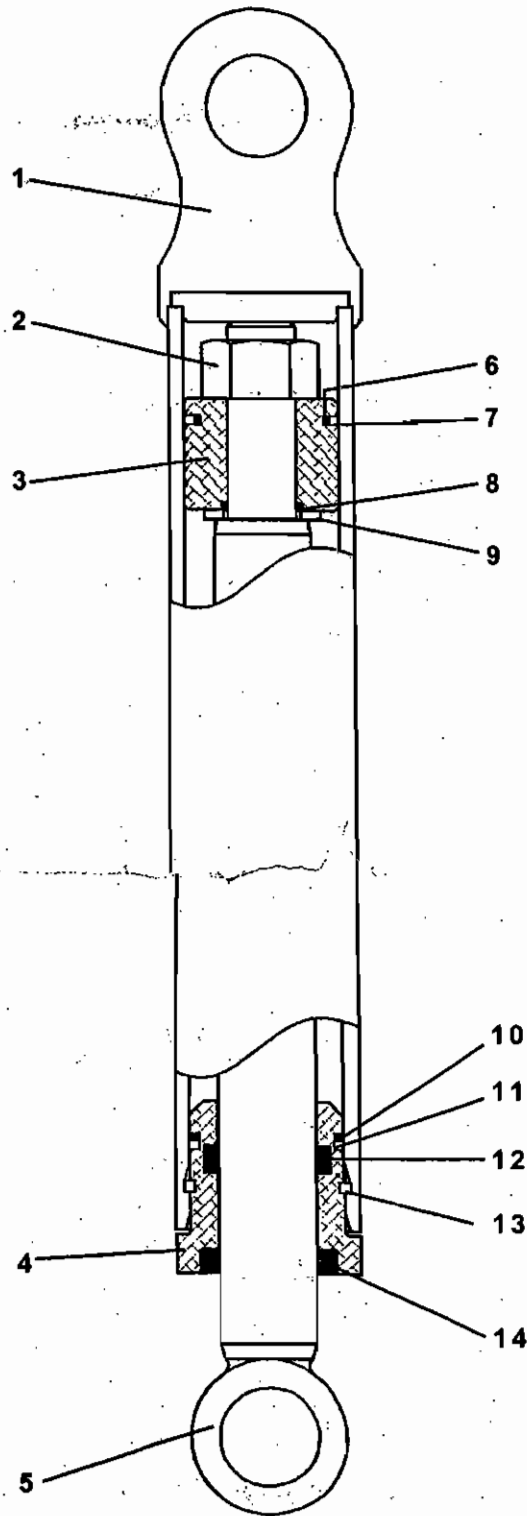
# AG / UTILITY BUCKET TINE ASSEMBLY

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	1114	.62" UNC X 1.50" Hex Capscrew
2	1	1506	.62" Lock Washer
3	1	88639	Tine

**NOTE: Additional tine assemblies are used to decrease the standard tine spacing of 7.00" to 3.50". Order a total quantity of (8) for the 66" buckets and (9) for the 74" buckets.**

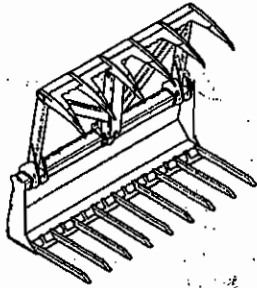
# CYLINDER ASSEMBLY

GRAPPLE CYLINDER ASSEMBLY #88660

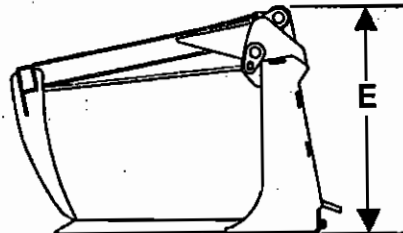
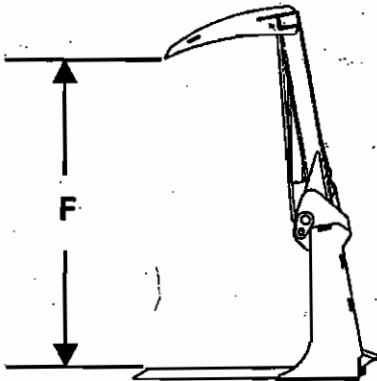
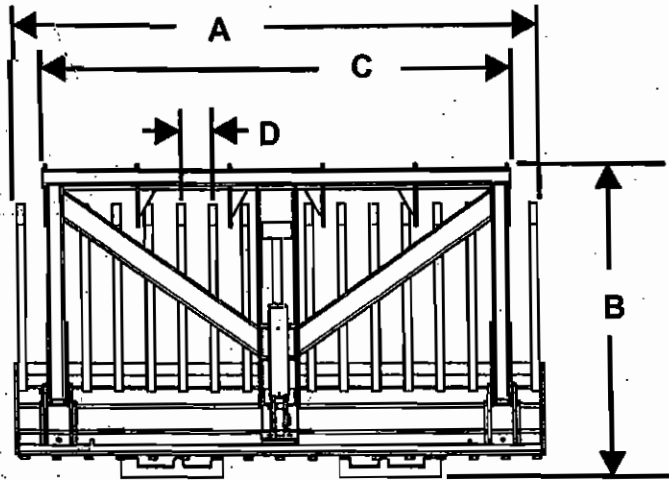


# SPECIFICATIONS

## AG / UTILITY BUCKET WITH GRAPPLE



SPECIFICATIONS AND DESIGN  
ARE SUBJECT TO CHANGE  
WITHOUT NOTICE AND WITH-  
OUT LIABILITY THEREFORE.



### SPECIFICATIONS

A. Overall Bucket Width .....	66.62"	74.69"
B. Overall Depth .....	39.30"	39.30"
C. Overall Grapple Width .....	58.88"	58.88"
D. Distance, Tine Spacing .....	3" or 7"	3" or 7"
E. Grapple Height - Closed .....	27.20"	27.2"
F. Grapple Hook - Opening .....	42.10"	42.10"
Overall Weight (lbs) .....	665#	740#
Clamping Force (lbs) .....	1850#	1850#
Number of Grapple Teeth .....	6	6
Number of Cylinders .....	1	1
<b>Cylinder Specifications (Dampened Piston)</b>		
Bore .....	2.00"	2.00"
Stroke .....	7.28"	7.28"
Rod Diameter .....	1.25"	1.25"

**NOTE:** Hoses from grapple to auxiliary hydraulics are furnished with grapple.

# CYLINDER ASSEMBLY

GRAPPLE CYLINDER ASSEMBLY #88660

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	88658	Cylinder Tube
2	1	1482	.88 UNF Deformed Lock Nut
3	1	88659	Piston
4	1	57330	Cylinder Gland
5	1	88661	Cylinder Rod
6	1	4637*	O'Ring
7	1	4636*	Piston Ring
8	1	4635*	O'Ring
9	1	5421	Washer
10	1	4633*	O'Ring
11	1	4634*	Back-Up Washer
12	1	45219*	Poly-Pak Seal
13	1	7164*	Gland Retainer Rod
14	1	4974*	Rod Wiper

**NOTE: Seal Kit #45136 includes all parts marked with an asterisk (\*).  
Parts are not sold separately.**