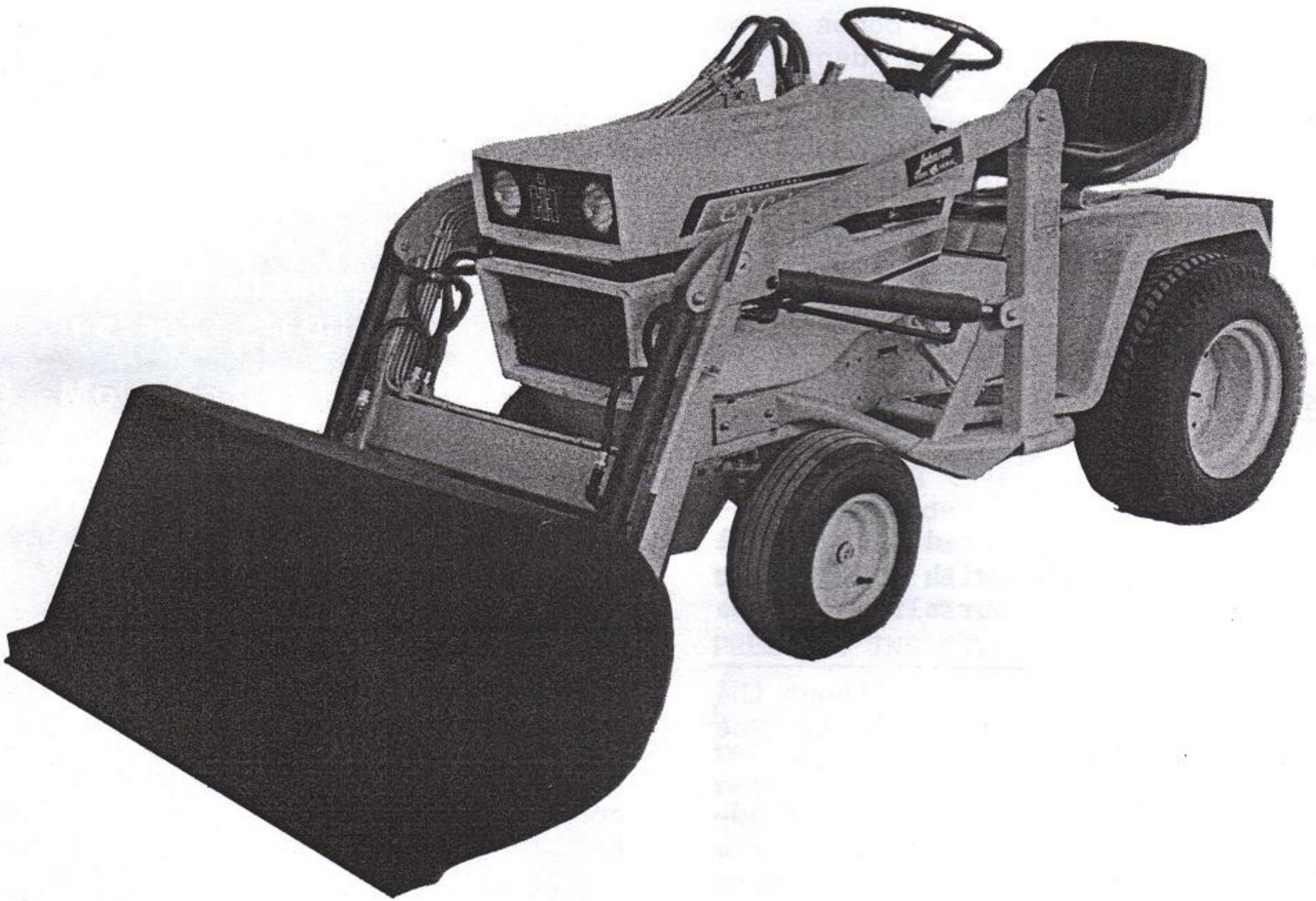


# JOHNSON

*"Work  Horse"*

## PRODUCTS MODEL 14 GENERAL INSTRUCTIONS



### INCLUDES:

#### BASIC MODEL 14 LOADER

- B258 - 48" MATERIAL BUCKET
- B259 - 38" MATERIAL BUCKET
- B260 - 36" TINE BUCKET
- B275 - 36" PLATE ADAPTER (FOR B260)
- 042 - LIFT CYLINDER, 1 1/2" DIA.
- 043 - TILT CYLINDER, 1 1/2" DIA.
- 044 - LIFT CYLINDER, 2" DIA.
- 045 - TILT CYLINDER, 2" DIA.



**ARPS DIVISION OF CHROMALLOY**


NEW HOLSTEIN WISCONSIN 53061 U.S.A.  
[MYTRACTORFORUM.COM](http://MYTRACTORFORUM.COM) 4291



## To the Purchaser:

This manual provides recommended operating techniques to help you obtain efficient and dependable use from your new "Johnson Work Horse" Loader. It also contains information on Safety, Assembly of the Loader, Counter-Balance Weighting, Maintenance, and Attachments.

Read this manual carefully before operating your loader and keep it handy for future reference.

 This Safety Alert Symbol identifies important safety messages in this manual. When you see this symbol, be alert


to the possibility of injury and carefully read the message that follows it.

Right hand (RH) and left hand (LH) references are determined by standing at the rear of the tractor, facing the direction of forward travel.

When in need of parts or service see your authorized loader dealer. He has trained servicemen, proper tools, and replacement parts to assure satisfactory equipment operation. For prompt, efficient service give your dealer both the tractor and loader serial numbers.

Loader \_\_\_\_\_ Serial \_\_\_\_\_ Date \_\_\_\_\_

# SAFETY PRECAUTIONS

 Improper use of the tractor and loader can result in injury. To reduce this possibility, give complete and undivided attention to the job at hand and follow all safety precautions.

KNOW YOUR CONTROLS! Read this manual and the manual supplied with the tractor thoroughly to acquaint yourself with the controls.

NEVER operate the loader without the minimum recommended rear ballast. See Tractor Preparation, Page 2.

NEVER operate the loader without adjusting the tractor rear wheels to the widest recommended setting to increase side-tip stability. See Tractor Preparation, Page 2.

DO NOT allow children to operate the tractor or loader. Do not allow adults to operate the equipment without proper instruction.

ALWAYS wear snug fitting and belted clothing when operating the tractor and loader. Loose jackets, shirts, sleeves, or other loose clothing should not be worn because of the danger of it catching in moving parts or in the controls.

DO NOT allow anyone other than the operator on the tractor when it is in operation.

ALWAYS be sure the area is clear of people, pets, and debris before operating the tractor and loader.

CARRY the bucket low at all times except when loading or unloading.

NEVER use the loader as a battering ram.

DRIVE the tractor at a slow ground speed when operating the loader over rough terrain, especially when operating at, or near, maximum lift height.

ALWAYS remain at the controls when operating the loader. Lower the bucket to the ground when it is unattended.

TAKE extra precautions when working in areas where wheel clearance or lift clearance is limited. Drive slowly through narrow gates and doorways.

CHECK hydraulic system before each use. Escaping hydraulic fluid, under pressure, can have sufficient force to penetrate the skin and cause serious injury.

PREVENT accidental operation of the tractor or loader. Always lower the loader to the ground, stop the tractor engine and remove the ignition key, when dismounting from the tractor, or before making adjustments to the tractor or loader.

ALWAYS maintain the tractor and loader properly. Check all fasteners, guards, hoses, and other parts frequently. Built-in safety features are effective only if maintained.

READ and follow the instructions shown on the decals attached to the loader.




## CAUTION

1. Add recommended wheel ballast or rear weight for stability.
2. Move wheels to widest recommended settings to increase stability.
3. Move and turn tractor at low speeds.
4. In transport carry the working unit low.
5. Lower loader arms when parked.
6. Before servicing or adjusting equipment:
  - a. Lower working unit to the ground.
  - b. Shut off engine.
  - c. If loader must be in a raised position, block loader securely to prevent dropping.
7. Relieve hydraulic pressure before disconnecting oil lines.
8. Observe safety recommendations in loader operator's manual.

9360


## Operation:

### TRACTOR PREPARATION -

 Counter-weight or ballast must be added to the rear of the tractor for safe loader operation. The added counter-weight or ballast will counter-balance the loader providing stable loader operation.

Minimum effective counter-balance weight to be added - 500 pounds.

Ballast can be added by mounting rear wheel weights, filling the rear tires with fluid, adding a ballast box or a rear implement of sufficient weight, or a combination of these methods.

 The tractor rear wheels must be adjusted to the widest recommended setting for safe loader operation. The additional width in the wheel settings will greatly increase the side-tip stability of the tractor.

For best loader operation, inflate tires to the maximum operating pressure as recommended in the tractor manual.

### PRESTART INSPECTION -

Be sure that the loader has been correctly installed, proper ballast added, rear wheels adjusted, and all bolts tightened prior to using the loader. See loader Assembly instructions and Tractor Preparation.

Refer to the tractor Operator's Manual and follow all tractor safety and operation instructions.

Read this loader manual carefully and follow all safety precautions and operating instructions.

KNOW YOUR CONTROLS . . .

### LOADER CONTROLS

The hydraulic control valve is mounted on the loader upright. The control levers are close together so that both levers may be operated simultaneously with one hand. This permits the operator

to control the loader with one hand while operating the tractor with the other hand.



The LH lever controls the lifting. Moving the lever rearward raises the boom, while moving the lever forward lowers the boom. The lever returns to NEUTRAL position when released.

To set the lift control into the FLOAT position, move the LH lever to the extreme forward position. This allows the bucket to FLOAT or follow the contour of the ground. The lever must be manually returned to NEUTRAL from the FLOAT position.

The RH lever controls the bucket. Move the lever forward to dump the bucket and move the lever rearward to retract the bucket. The lever returns to NEUTRAL position when released.

**IMPORTANT** - Do not operate the loader unless the tractor engine is running. If the tractor engine is stopped with the loader raised, start the engine before lowering the loader. If the loader is lowered without the hydraulic pump operating the hydraulic oil lines will fill with air, causing jerky loader operation, and oil will be forced out of the breather on the hydraulic reservoir.

Before operating the loader in cold weather, start the engine and operate the loader control levers several times to warm the hydraulic oil. This will help to assure smooth loader operation.

OPERATING PROCEDURES -

The following illustrations offer sug-

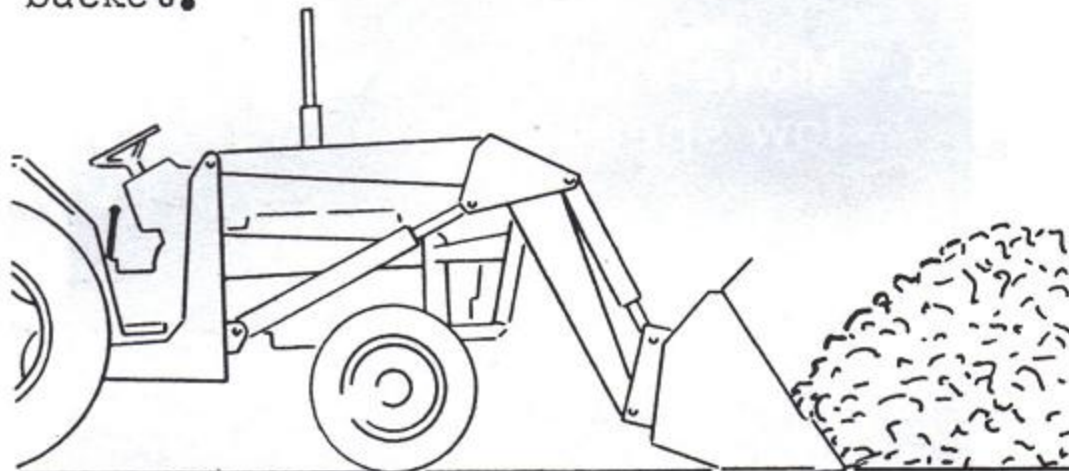
gested operating techniques for your consideration.

**CAUTION** - Operate the loader only when sitting on the tractor seat; never while standing beside the loader. Before operating the loader, be sure no one is standing near it.



FILLING THE BUCKET -

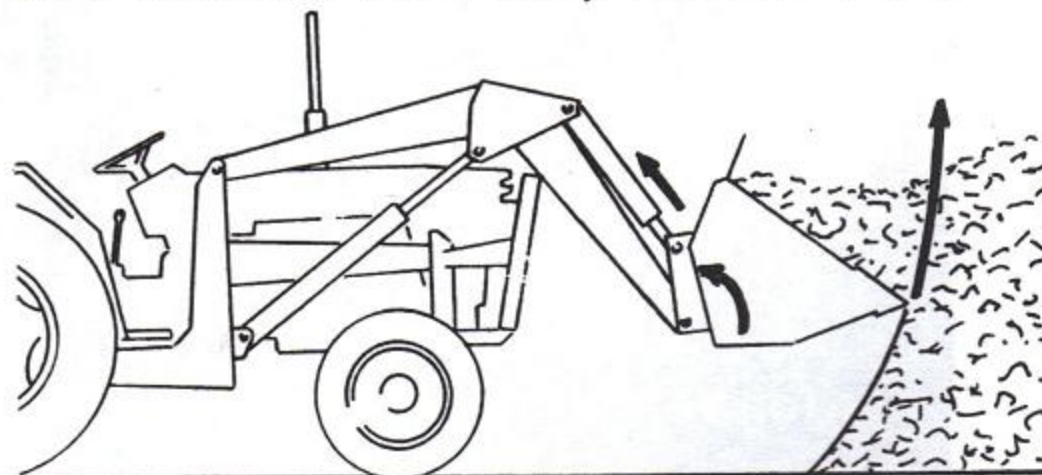
Approach and enter the pile with a level bucket.



Ease both levers back to lift and roll back the bucket.



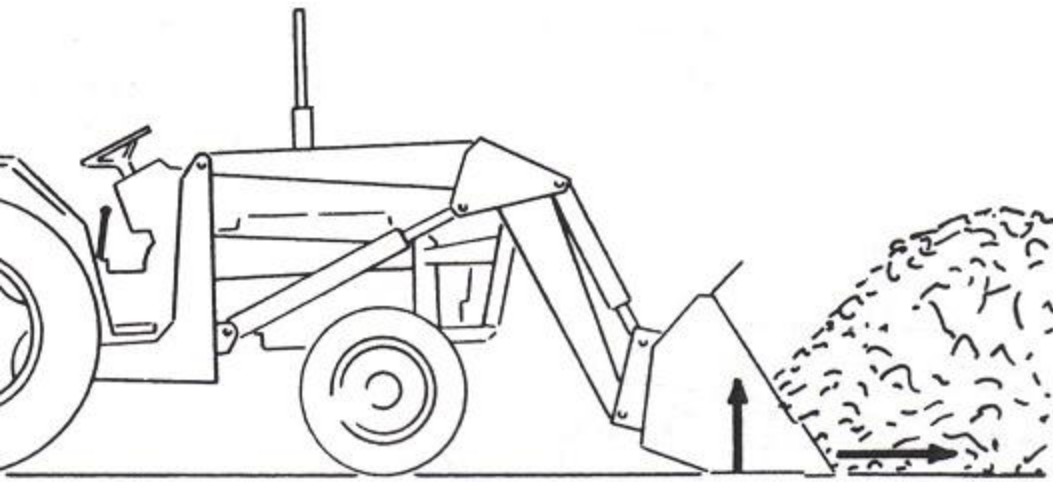
The lift and roll back of the bucket will increase efficiency because . . .



Operation - continued

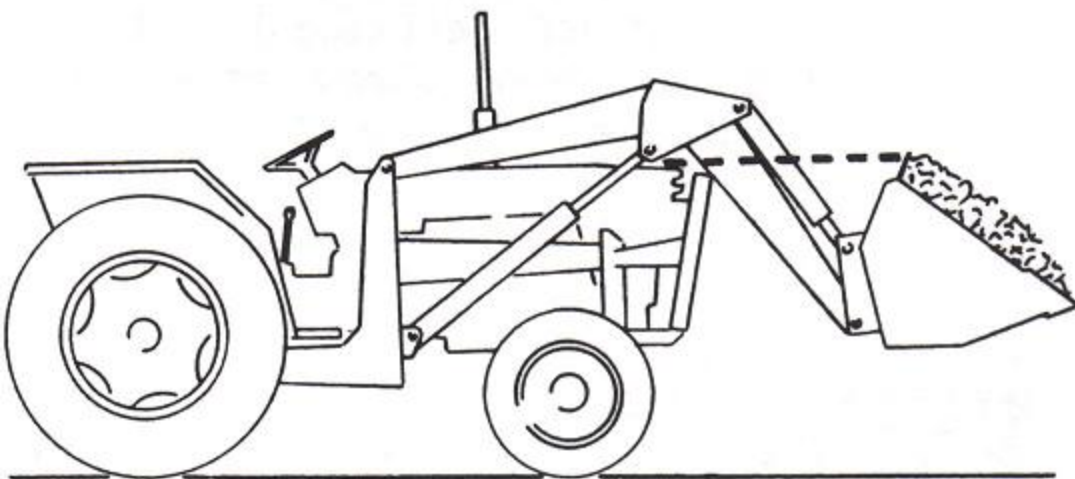
... a level bucket throughout the lift-cycle resists bucket lift and increases breakaway effort.

NOTE - Do not be concerned if the bucket is not completely filled during each pass. Maximum productivity is determined by the amount of material loaded in a given period of time. Time is lost if two or more attempts are made to fill the bucket on each pass.

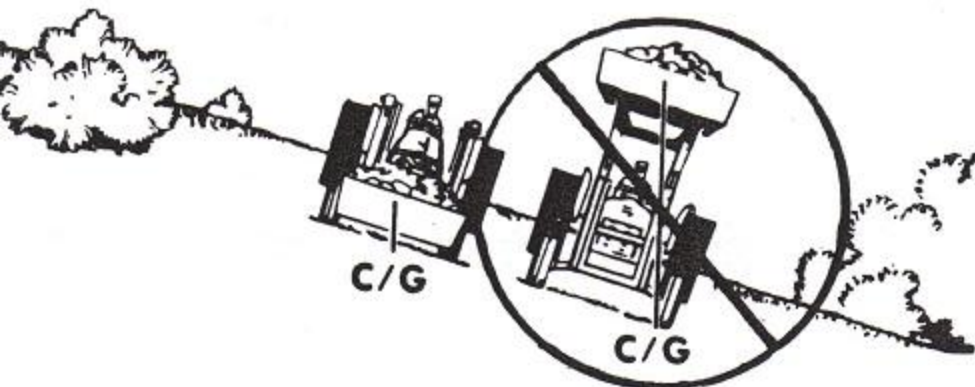


#### CARRYING THE LOAD -

Position the bucket just below the level of the tractor hood, for maximum stability and visibility, whether the bucket is loaded or empty.



⚠ When operating the loader on a hill or slope, keep the bucket as low as possible. This keeps the bucket center of gravity as low as possible. This will give you maximum tractor stability.

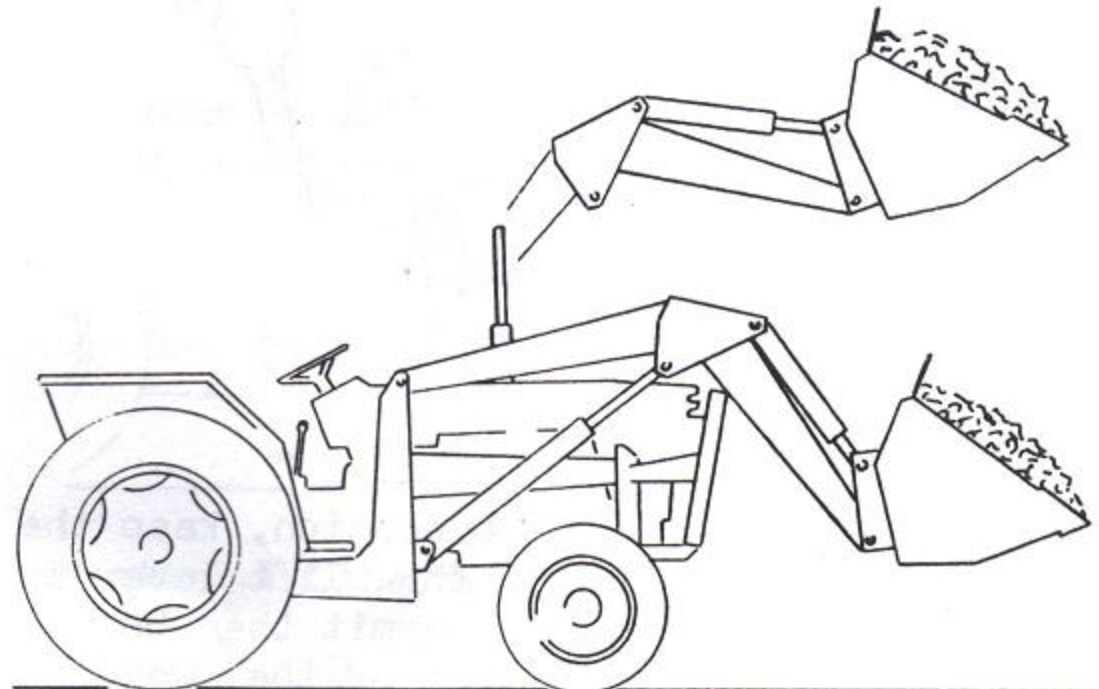


⚠ When transporting the load, keep the bucket as low as possible to increase side-tip stability.



#### LIFTING THE LOAD -

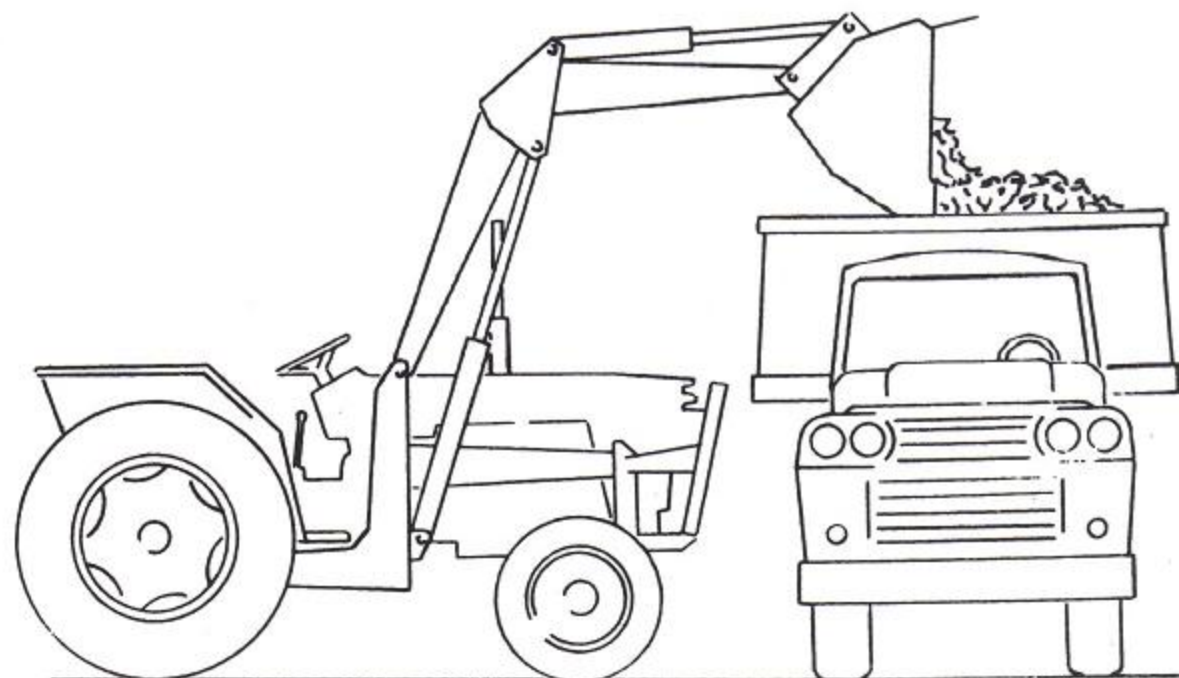
When lifting the load, keep the bucket positioned so as to avoid spillage.



NOTE - Do not attempt to lift bucket loads in excess of the loader capacity. Remember that the loader lift and breakaway capacities diminish rapidly as loading height is increased.

#### DUMPING THE BUCKET -

Lift the bucket high enough to clear the side of the vehicle. Move the tractor in as close to the side of the vehicle as possible, then dump the bucket.



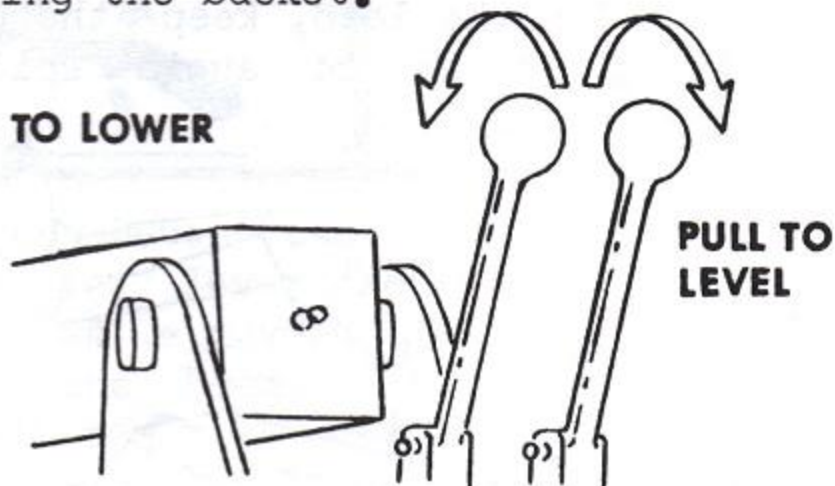
Operation - continued

**!** When it is necessary to lift a load to a high position and then lower it to another position before dumping, be sure to operate the lift lever with a slow, steady motion. Move the LH lever forward to ease the load down slowly, to the desired position in a safe, controlled manner.

LOWERING THE BUCKET -

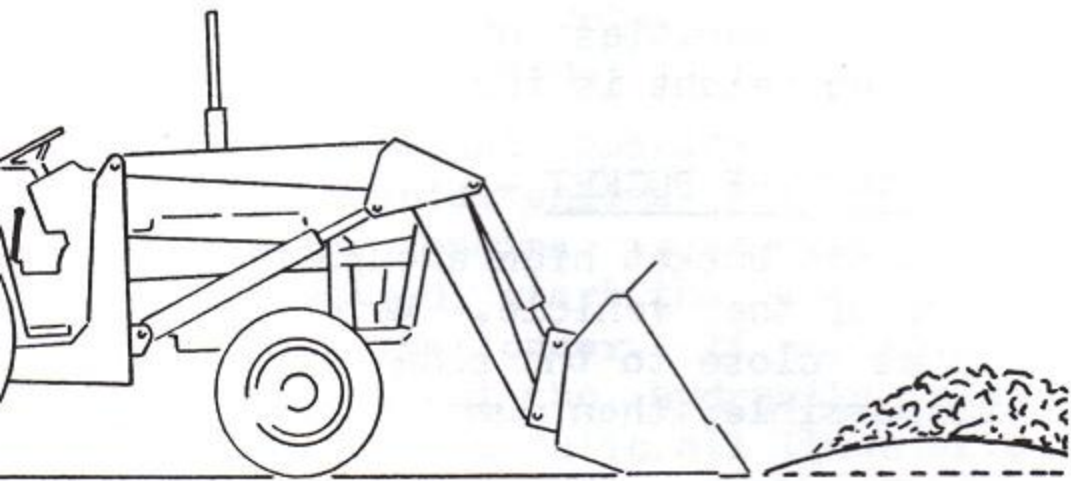
After the bucket is dumped, back away from the vehicle while lowering and leveling the bucket.

**PUSH TO LOWER**



OPERATING WITH FLOAT CONTROL -

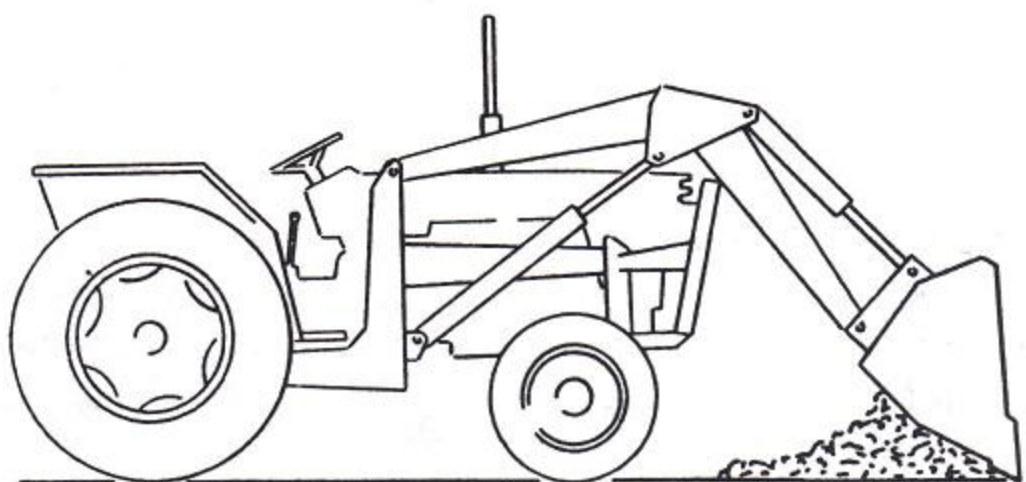
During hard surface operation, keep the bucket level and put the lift lever in the float position to permit the bucket to float on the contour of the working surface. If hydraulic down pressure is exerted on the bucket it will wear faster than normal.



The float position will also prevent the mixing of surface material with stockpile material. The float position will reduce the chance of surface gouging when removing snow or other material.

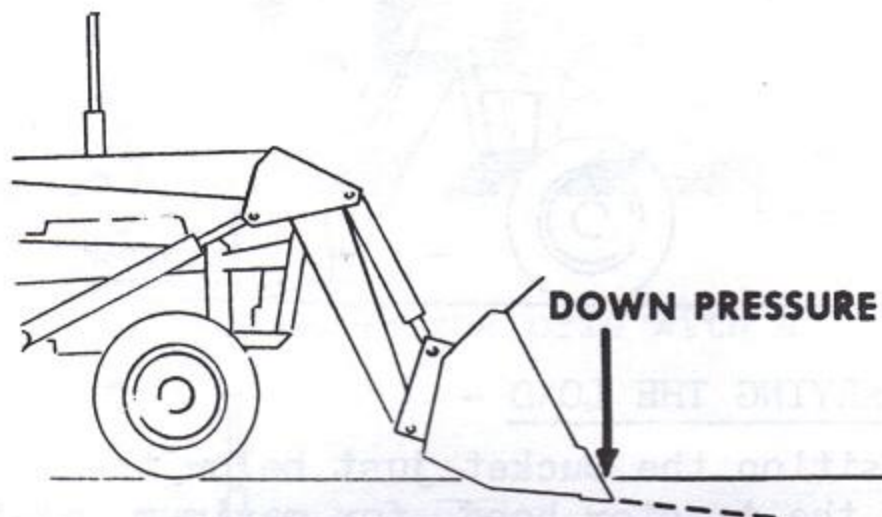
BACK DRAGGING -

Operate the tractor in reverse with the bucket dragging on the ground to finish grading, leveling, and packing.

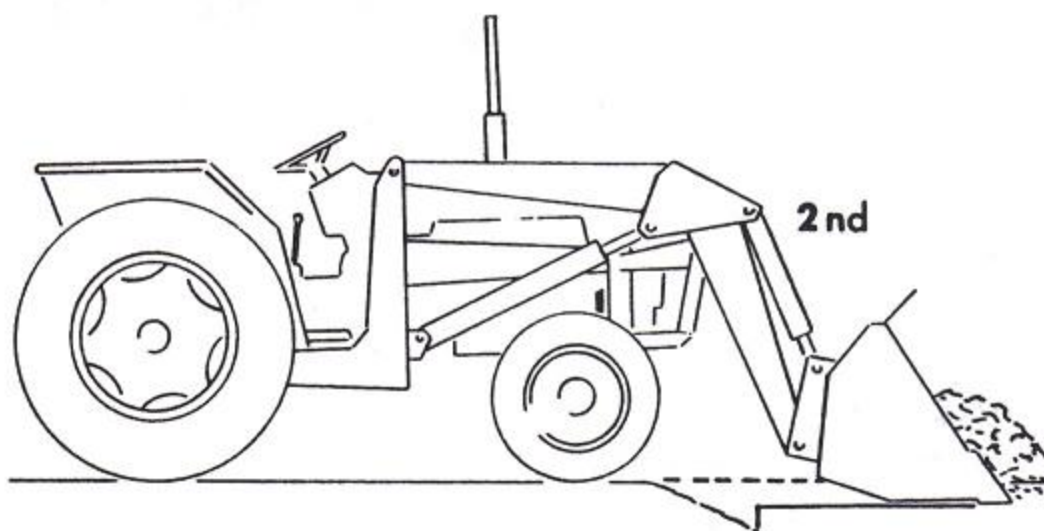


PEELING AND SCRAPING -

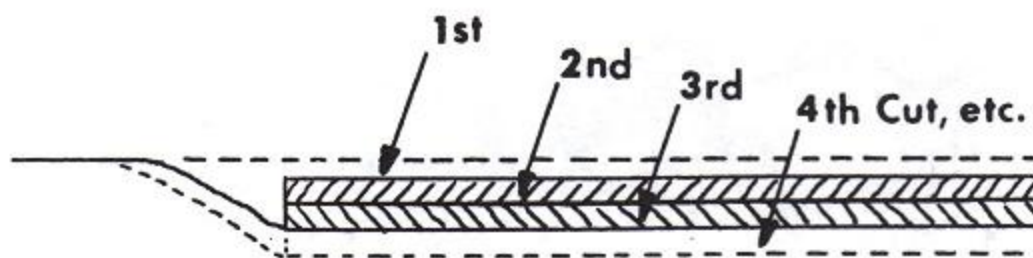
Use down pressure and a slight bucket angle to start long cuts. Make a short angle cut and break out cleanly.



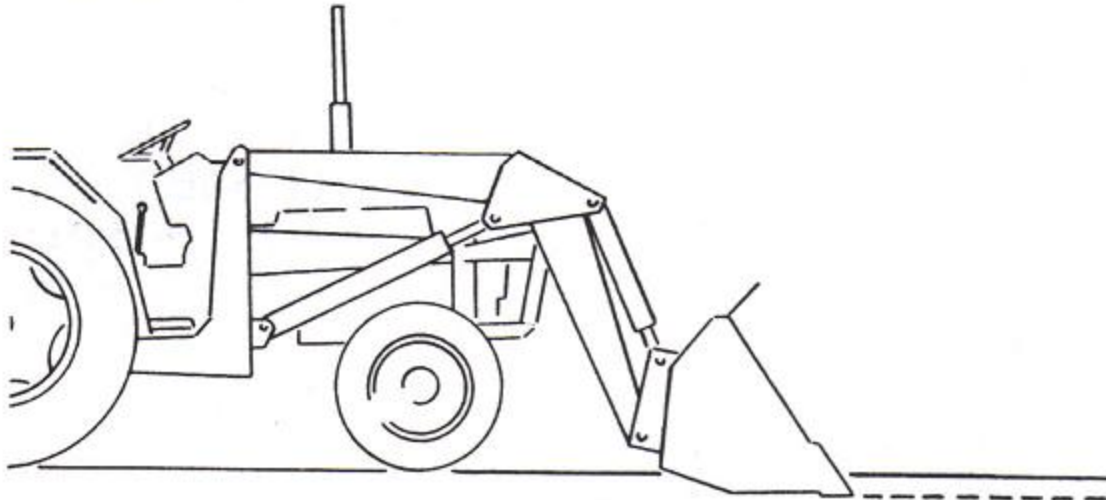
With the bucket level, start a cut at the notch approximately two inches deep. Hold the depth by feathering the bucket lever to adjust the cutting lip up or down. When the front tires enter the notch, adjust the lift and bucket lever to maintain proper depth.



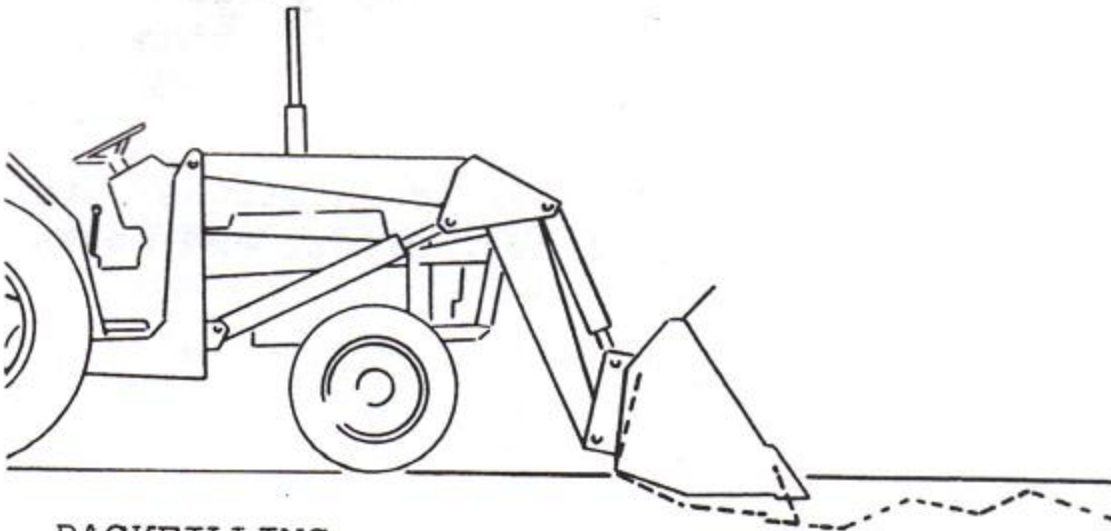
Make additional cuts until the desired depth is reached.



During peeling operations, use lift cylinder down pressure and a slight bucket angle to penetrate to the desired working depth. After reaching the desired working depth, use only the bucket lever, leaving the lift lever in either the float or neutral position. This allows the operator to concentrate on controlling the bucket angle to maintain a precise cut.



If the lift lever is used without controlling the bucket angle, the bucket will gouge and leave a series of ruts in the surface.

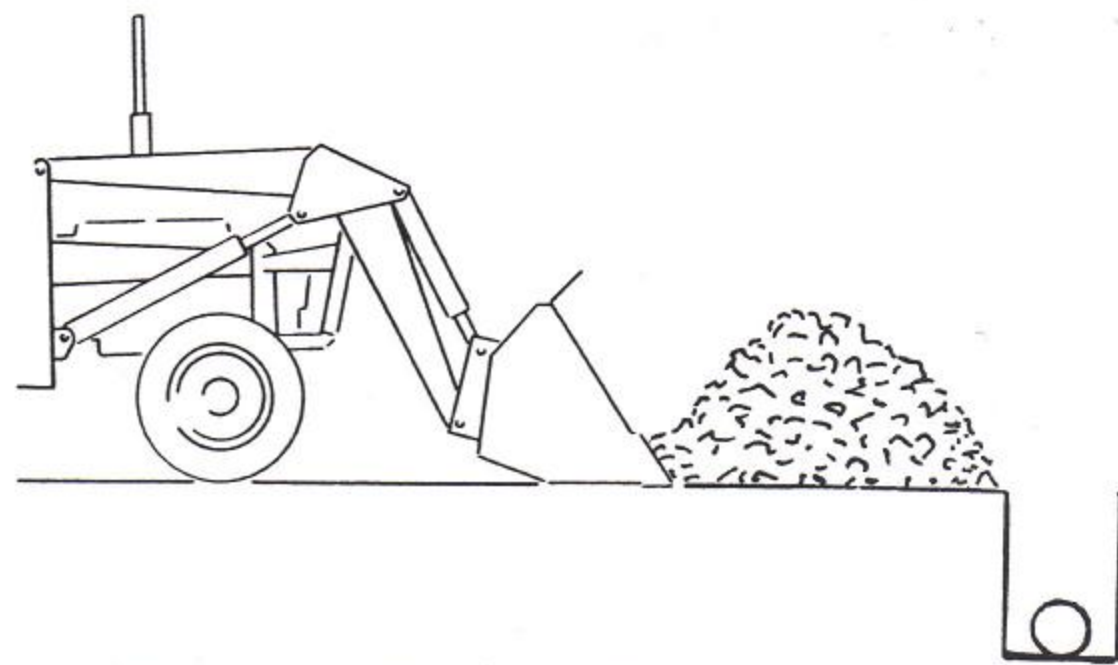


**BACKFILLING -**

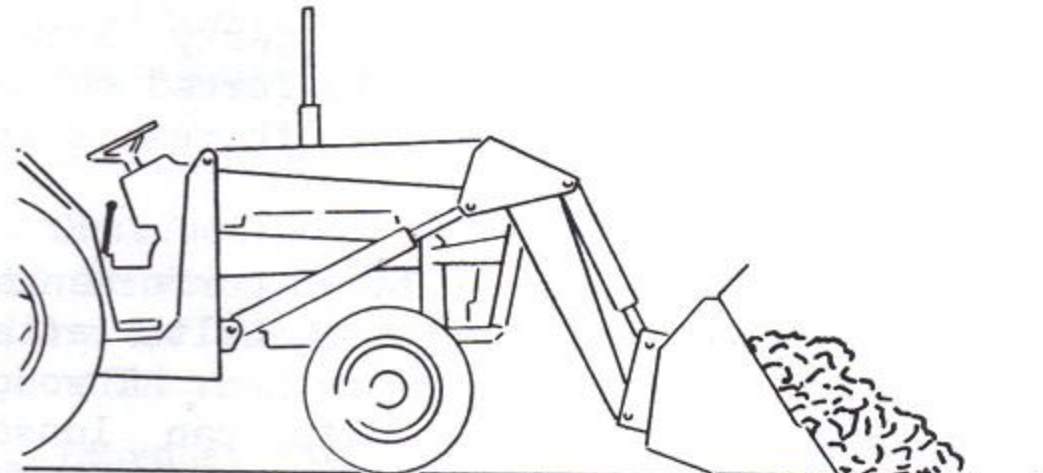
Efficient backfilling operation occurs when the tractor pushes the maximum amount of soil without losing speed or traction. If the tractor slows, reduce the width of the cut. If the tractor is not working at capacity, increase the width of the cut.

When backfilling from a large pile, shovel off the top of the pile, pushing toward the excavation. Drag some soil backward to form a work ramp of convenient grade.

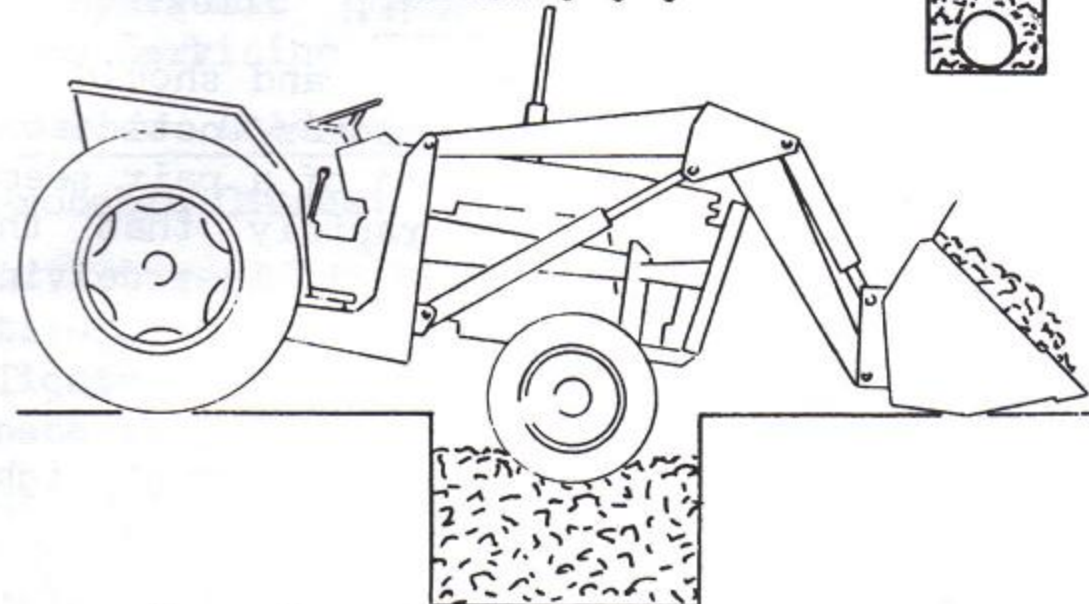
Approach the pile with a level bucket. When adjusting the cut to a load that the tractor can push, actuate the lift and bucket levers simultaneously or separately as required, and maintain a level bucket.



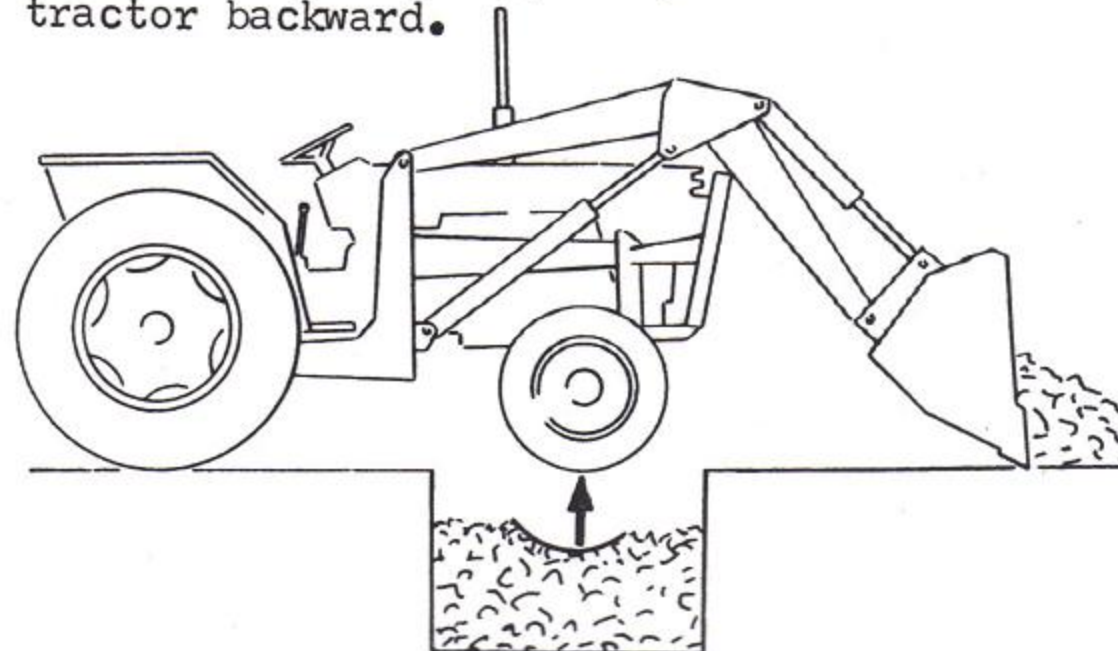
Leave the soil in the bucket because dumping on each pass wastes time. Lift and level bucket for next pass while backing from excavation.



If stuck in the ditch . . .



. . . dump the bucket and apply down pressure to lift the front wheels out of the ditch. Operate the bucket lever, as tractor power is applied, to move the tractor backward.



# Maintenance:

⚠ Before adjusting or servicing the loader, lower the bucket to the ground, shut off tractor engine, set parking brake, and remove ignition key.

⚠ If the loader must be in a raised position, for any reason, be sure to block the loader securely to prevent it from dropping.

**IMPORTANT** - Do not operate the loader unless the tractor engine is running. If the tractor engine is stopped with the loader raised, start the engine before lowering the loader. If the loader is lowered without the hydraulic pump operating the hydraulic oil lines will fill with air, causing jerky loader operation, and oil will be forced out of the breather on the hydraulic reservoir.

## MOUNTING HARDWARE -

For maximum life and optimum performance, check the loader mounting bolts after every eight hours of operation. Through constant operation, bolts can loosen causing excessive strain and wear and premature failure of loader or tractor parts. **KEEP BOLTS TIGHT.**

All pins are replaceable and should be replaced if the fit becomes noticeably loose. However, if one of a pair seems to be wearing more rapidly than the other, check to be sure it is receiving proper lubrication.

## LUBRICATION -

The loader is lubricated through eight grease fittings located as follows:

Four fittings - one at each pivot end of the boom.

Two fittings - one at each rod end pivot of the lift cylinder.

Two fittings - one at each rod end pivot of the bucket cylinder.

Lubricate daily, or after every eight hours of operation. Use SAE multi-purpose type grease. Use a sufficient amount of new grease to force out the old grease and dirt. If grease fails to go through at any point, determine the cause and correct the condition at once. Thorough lubrication is very important to the life of the loader.

Lubricate all other pivot points or linkages with oil.

## HYDRAULIC SYSTEM -

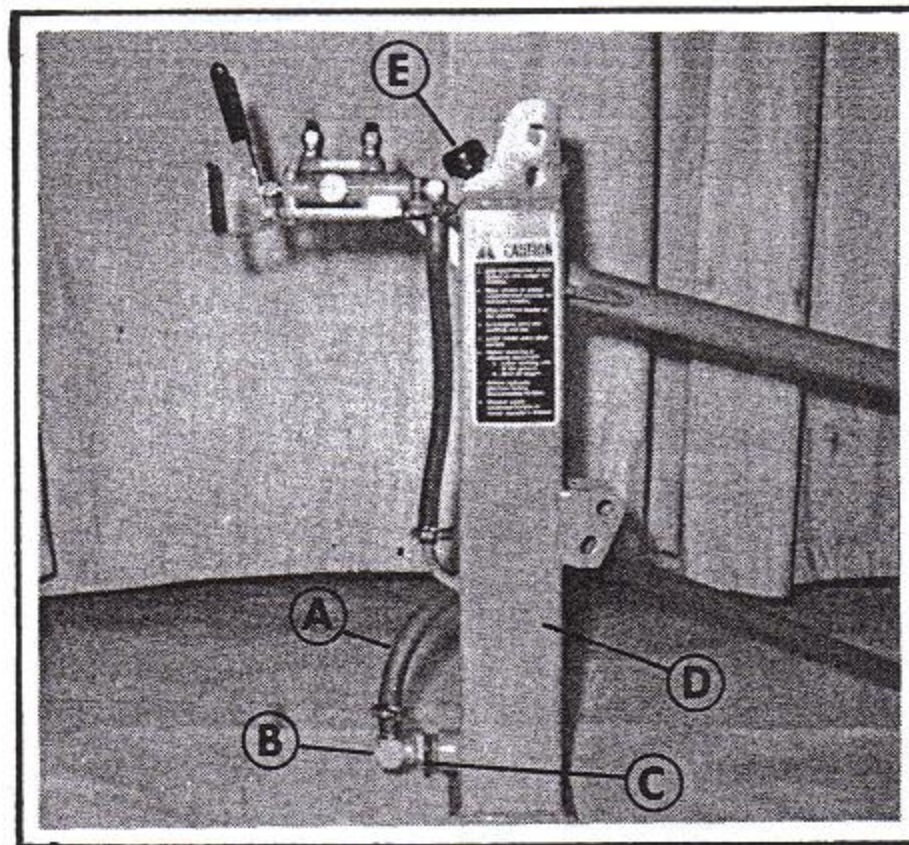
**IMPORTANT** - When servicing the hydraulic system, wipe away all oil and dirt before removing plugs, filler caps, or parts needing service. Dirt in a hydraulic system is one of the main causes of pump and valve failure. Thoroughly clean all parts before reassembly.

Check all hoses, tube lines, and connections daily for leaks.

⚠ **CAUTION** - Escaping fluid, under pressure, can have sufficient force to penetrate the skin and cause serious injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood - not your hands - to search for suspected leaks. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

Before disconnecting lines be sure to relieve all pressure, by actuating the loader control levers with the bucket on the ground. Before applying pressure to the system, be sure all connections are tight and that lines, pipes, and hoses are not damaged.

## CHANGING HYDRAULIC RESERVOIR OIL AND CLEANING THE OIL STRAINER -



A - Low Pressure Hose  
B - Fitting  
C - Screen Strainer

D - Reservoir  
E - Breather



After the first two hours of operation, and every 200 hours thereafter, remove low pressure hose (A), fittings (B), and screen strainer (C) from reservoir (D). Drain oil from reservoir and discard. Flush reservoir and clean screen. Reassemble screen, fittings, and hose. Remove breather (E), and fill reservoir with:

SAE 10W40 engine oil with API SD classification in northern climates.

SAE 40W engine oil with API SD classification in southern climates.

Oil level should be approximately four inches below breather hole in reservoir, with all cylinders retracted (loader and bucket in lowered position). The hydraulic reservoir capacity is approximately five U.S. quarts.

#### CHECKING HYDRAULIC RESERVOIR OIL LEVEL -

Once a month or every 50 hours of operation, check the hydraulic reservoir (D) oil level.

Remove breather (E) on top of reservoir (D) to check oil level. Oil level should be approximately four inches below the breather hole in the reservoir, with all cylinders retracted (loader and bucket in lowered position).

#### LOADER CONTROL VALVE AND PUMP -

Special tools are required to service the control valve and pump. If trouble indicates valve or pump failure, do not attempt repairs. Ask your loader dealer to inspect and service the hydraulic system.

## **Loader Storage:**

To prevent contamination of the loader hydraulic system, install dust caps on all hose ends that have been disassembled and all valve or reservoir ports where hoses have been removed.

Clean the exterior of the unit removing all mud, dirt, grease, and other foreign material. To prevent rust, touch up painted surfaces that have been chipped or scratched.

Coat the exposed cylinder piston rods of all hydraulic cylinders with grease or corrosion preventive.

If possible, store the loader in a dry, protected place. If it is necessary to store the loader outside, cover it with waterproof, protective material.

## **Trouble Shooting:**

### Problem: Loader will not lift load

#### Probable Causes:

1. Hydraulic hoses assembled incorrectly. Check hydraulic assembly.
2. Hydraulic oil level low. Check reservoir and fill to proper level.
3. Pump not running. Check pump drive for missing key, coupling chain, etc.
4. Low tractor RPM. Increase engine speed.
5. Bucket may be over-loaded.
6. Obstructions or leaks in hydraulic oil lines or hoses. Check for obstructions in lines or hoses and tighten all connections.
7. Improper hydraulic fluid, see Hydraulic System Maintenance for proper oil.
8. Hydraulic pump, valve, or cylinders need servicing. See your loader dealer.

### Problem: Load drops or settles.

#### Probable Causes:

1. External leaks - check all connections, hoses, valve, and cylinders. Tighten connections and replace hoses as necessary.
2. Internal leaks - if oil is not visibly leaking, there is probably internal leakage in the valve or cylinders. See your loader dealer for service.
3. Improper hydraulic fluid, see Hydraulic System Maintenance for proper oil.

### Problem: Loader chatters when raising.

#### Probable Causes:

1. Hydraulic oil level low. Check reservoir and fill to correct level.
2. Obstruction in pump suction hose. Check hose for kinks or obstructions.
3. Clogged breather. Check breather on top of reservoir and clean if necessary.

Trouble Shooting - continued

Problem: Excessive wear on pivot pins and bushings.

Probable Causes:

1. Insufficient lubrication. Daily or every eight hours, lubricate all grease fittings and pivot points.
2. Broken welds - reweld.

Problem: Broken welds.

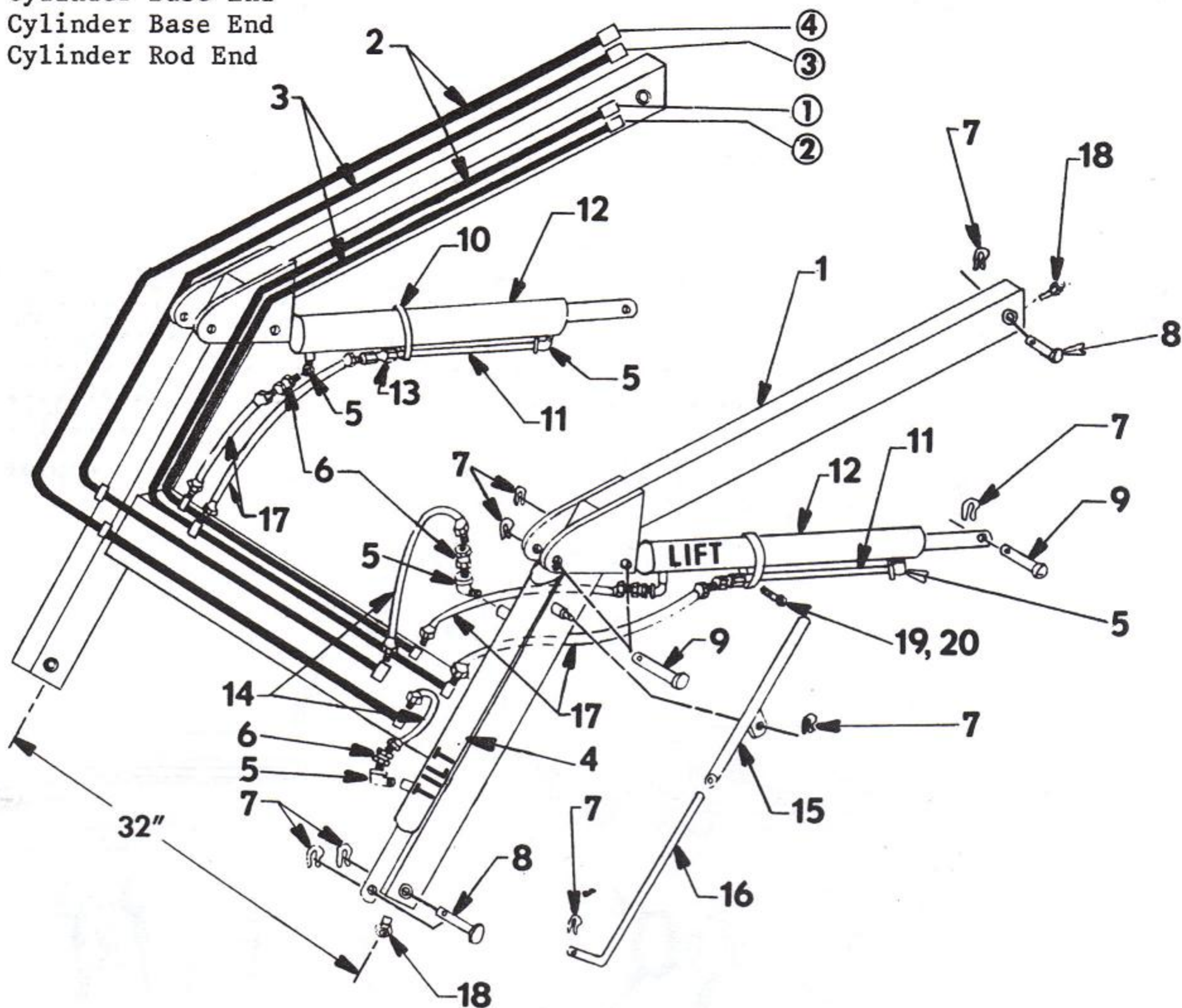
Probable Causes:

1. Loose mounting bolts. Tighten all mounting bolts.
2. Abusing loader - over-loading, use equipment according to specifications

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**service notes:**

- 1 - Lift Cylinder Rod End
- 2 - Lift Cylinder Base End
- 3 - Tilt Cylinder Base End
- 4 - Tilt Cylinder Rod End



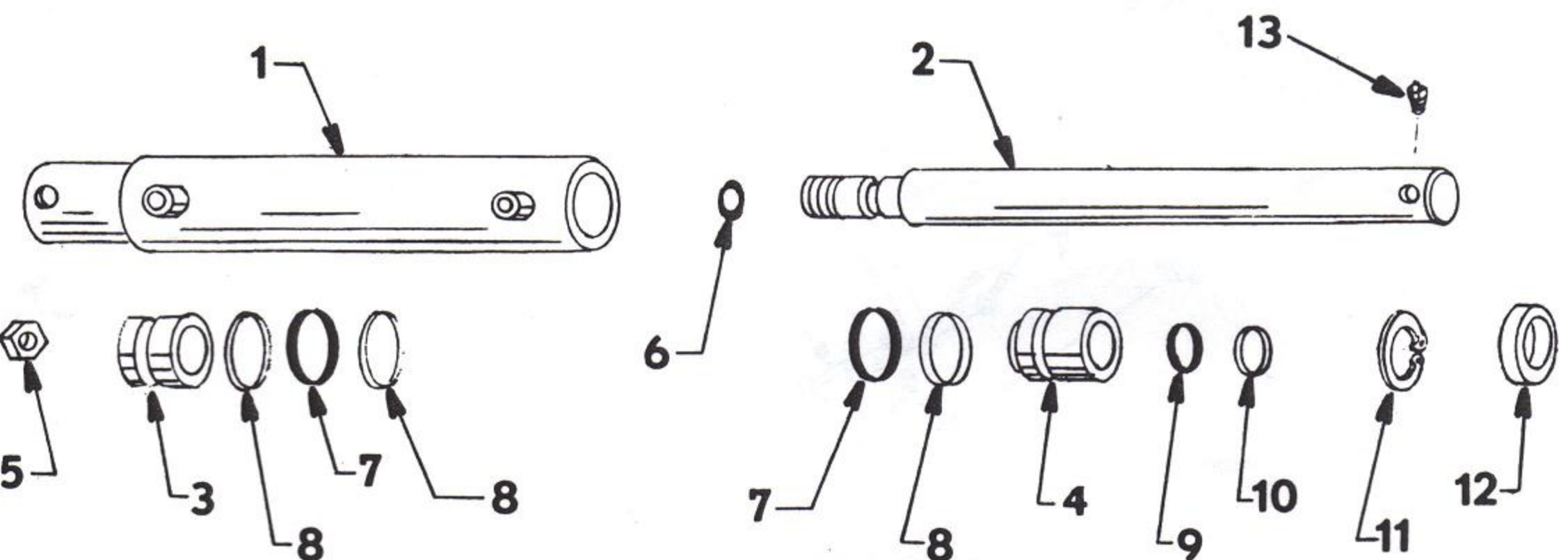
## LIFT FRAME - PARTS LIST

Index	Description	Part No.	Index	Description	Part No.
1	Lift Frame, Model 14.....	605155	11	Pipe Nipple, 1/4 NPT x 17"...	7800
2	RH Oil Line, Long.....	10550	12	Lift Cylinder, 1-1/2 Dia.....	042
2	LH Oil Line, Long (not shown).....	10552	12	Lift Cylinder, 2" Dia.....	044
3	RH Oil Line, Short.....	10551	13	Adapter Union, 1/4 NPT F x F.....	11122
3	LH Oil Line, Short (not shown).....	10553	14	Hydraulic Hose, 1/4 M x 1/4 M x 13-1/2.....	10855
4	Tilt Cylinder, 1-1/2 Dia.....	043	15	Indicator Tube.....	605050
4	Tilt Cylinder, 2" Dia.....	045	16	Level Rod.....	605216
5	Street Elbow, 1/4 NPT x 90°..	7813	17	Hydraulic Hose, 1/4 M x 16".....	10856
6	Adapter Union, 1/4 NPT M x F.....	11103	18	Grease Fitting, Shallow Drive.....	14516
7	Hair Pin Clip, #3.....	8618	19	Mach. Screw, 1/4 NC x 1-1/2 .....	6753
8	Pin, 1/2 x 2-3/4 Long.....	605088	20	Nut, 1/4 NC Hex .....	7401
9	Pin, 1/2 x 2-3/4 Short.....	604283			
10	Universal Pipe Clamp, 12" .....	605092			

## 042 LIFT CYLINDER, 1 1/2" DIA. - PARTS LIST

Index	Description	Part No.
1	Cylinder Tube.....	901100
2	Piston Rod.....	901106
3	Piston.....	901051
4	Head.....	901076
5	Lock Nut, 3/4 NF.....	7679
*6	O-Ring, ARP-113, 9/16 x 3/4 (Rod).....	11721
*7	O-Ring, ARP-218, 1-1/4 x 1-1/2.....	11742
*8	Back-Up Ring, Parbak 8-218.....	11806
*9	O-Ring, ARP-216, 1-1/8 x 1-3/8.....	11740
*10	Leather Washer, 6246-21.....	11805
*11	Retaining Ring, N5000-150.....	13398
*12	Oil Seal, CR 11081.....	11604
13	Grease Fitting, 3/16 Drive.....	14517

\*NOTE - All parts marked with an asterisk (\*) are available as one complete cylinder repair packing kit, part number 901115.



## 043 TILT CYLINDER, 1 1/2" DIA. - PARTS LIST

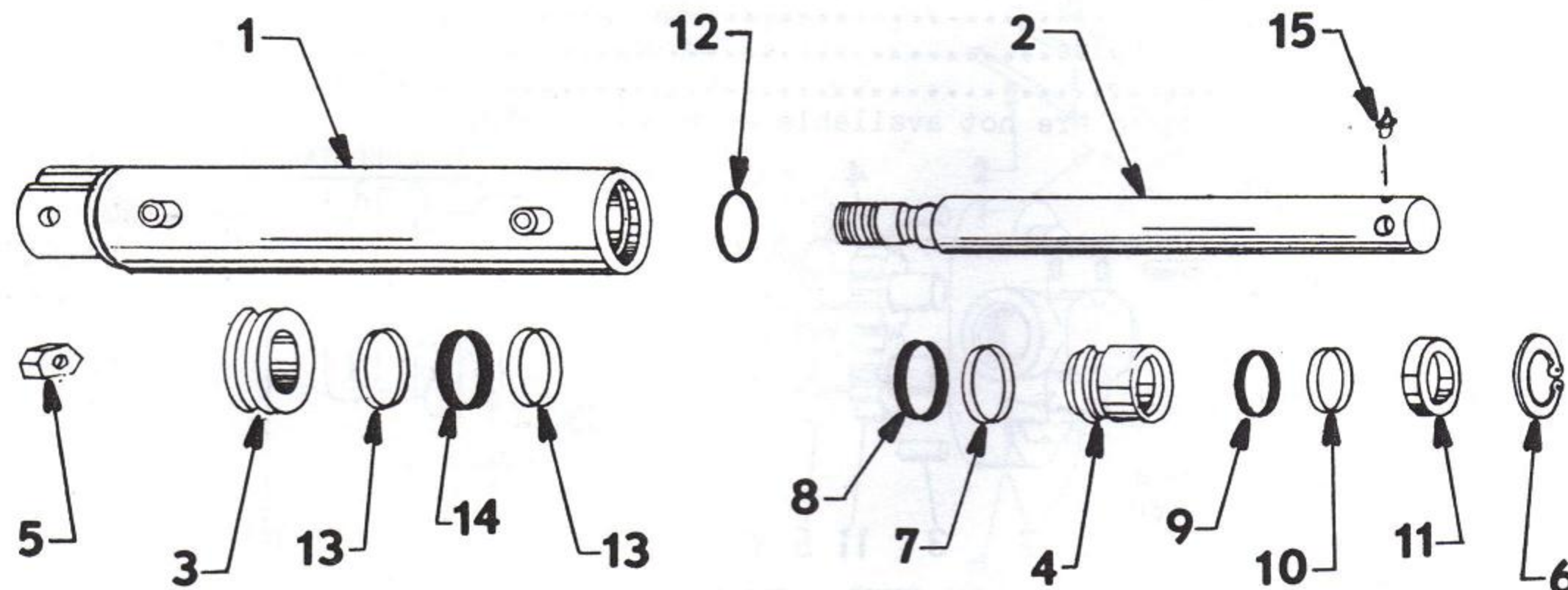
Index	Description	Part No.
1	Cylinder Tube.....	901110
2	Piston Rod.....	901116
3	Piston.....	901051
4	Head.....	901052
5	Lock Nut, 3/4 NF.....	7679
*6	O-Ring, ARP-113, 9/16 x 3/4 (Rod).....	11721
*7	O-Ring, ARP-218, 1-1/4 x 1-1/2.....	11742
*8	Back-Up Ring, Parbak 8-218.....	11806
*9	O-Ring, ARP-214, 1" x 1-1/4.....	11739
*10	Leather Washer, 6246-19.....	11804
*11	Retaining Ring, N5000-150.....	13398
*12	Oil Seal, CR 9900.....	11608
13	Grease Fitting, 3/16 Drive.....	14517

\*NOTE - All parts marked with an asterisk (\*) are available as one complete cylinder repair packing kit, part number 901105.

## 044 LIFT CYLINDER, 2" DIA. - PARTS LIST

Index	Description	Part No.
1	Cylinder Tube.....	904245
2	Piston Rod.....	904251
3	Piston.....	904231
4	Head.....	904232
5	Lock Nut, 1" NF.....	7712
6	Snap Ring, N5000-206.....	13406
*7	Back-Up Ring, 8-224.....	11807
*8	O-Ring, ARP-224, 1-3/4 x 2".....	11748
*9	O-Ring, ARP-216, 1-1/8 x 1-3/8.....	11740
*10	Leather Washer, 6246-21.....	11805
*11	Oil Seal, CR 11130.....	11605
*12	O-Ring, ARP-210, 3/4 x 1" (Rod).....	11733
*13	Back-Up Ring, 8-326.....	11808
*14	O-Ring, ARP-326, 1-5/8 x 2".....	11769
15	Grease Fitting, 3/16 Drive.....	14517

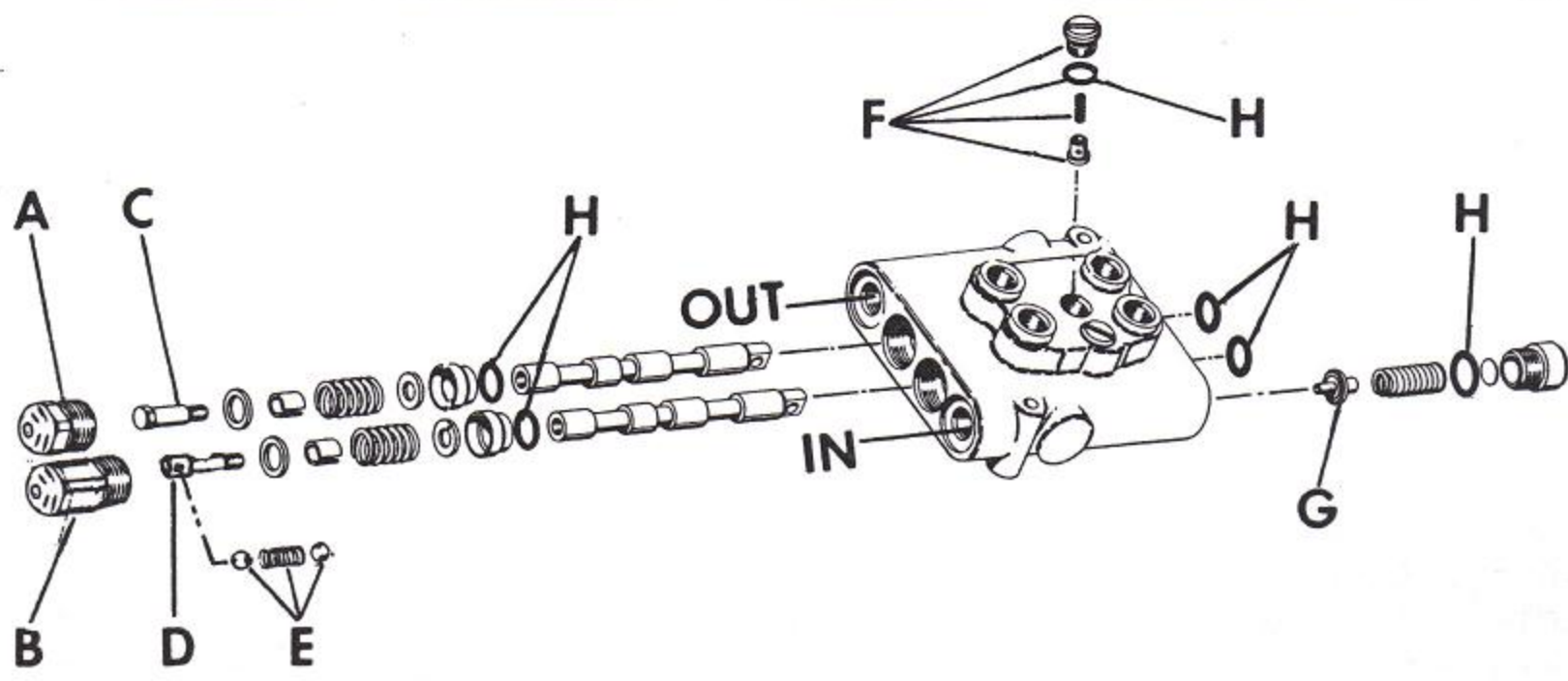
\*NOTE - All parts marked with an asterisk (\*) are available as one complete cylinder repair packing kit, part number 904260.



## 045 TILT CYLINDER, 2" DIA. - PARTS LIST

Index	Description	Part No.
1	Cylinder Tube.....	904255
2	Piston Rod.....	904261
3	Piston.....	904231
4	Head.....	904232
5	Lock Nut, 1" NF.....	7712
6	Snap Ring, N5000-206.....	13406
*7	Back-Up Ring, 8-224.....	11807
*8	O-Ring, ARP-224, 1-3/4 x 2".....	11748
*9	O-Ring, ARP-216, 1-1/8 x 1-3/8.....	11740
*10	Leather Washer, 6246-21.....	11805
*11	Oil Seal, CR 11130.....	11605
*12	O-Ring, ARP-210, 3/4 x 1" (Rod).....	11733
*13	Back-Up Ring, 8-326.....	11808
*14	O-Ring, ARP-326, 1-5/8 x 2".....	11769
15	Grease Fitting, 3/16 Drive.....	14517

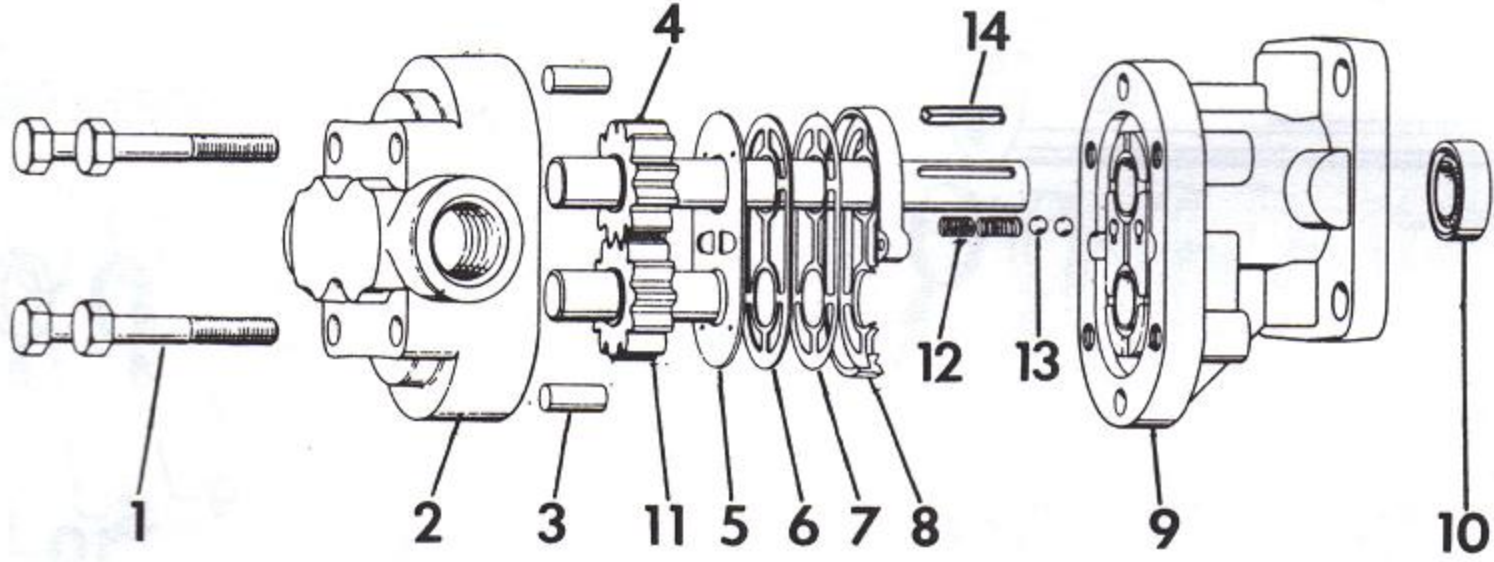
\*NOTE - All parts marked with an asterisk (\*) are available as one complete cylinder repair packing kit, part number 904260.



CESSNA VALVE - PARTS BREAKDOWN

Index	Description	Part No.	Qty. Required
A	Spool Cap, Short.....	10392	1
B	Spool Cap, Long.....	10393	1
C	Spool Screw.....	10220	1
D	Spool Screw, Detent.....	10221	1
E	Detent Kit, Float.....	10222	1
F	Load Check Kit.....	10223	2
G	Poppet, Relief Valve.....	10224	1
H	O-Ring Kit.....	604975	1

NOTE - Parts not indexed are not available as repair parts.



CESSNA PUMP - PARTS BREAKDOWN

Index	Description	Part No.	Qty. Required
	Cessna Pump Complete, clockwise rotation.....	10368	
	Cessna Pump Complete, counter-clockwise rotation..	605374	
1	Bolt, 1/4 NF x 2-1/4, SAE 5.....	10336	4
2	Rear Housing.....	**	1
3	Dowel Pin.....	10335	2
4	Shaft/Gear Assembly, 7/16 Diameter Shaft.....	10333	1
5	Diaphragm.....	*	1
6	Back Up Gasket.....	*	1
7	Protector Gasket.....	*	1
8	Molded V Seal.....	*	1
9	Front Housing.....	**	1
10	Shaft Seal (only), 7/16 Diameter Shaft.....	*10337	1
11	Idler Gear.....	10332	1
12	Spring.....	*	2
13	Steel Ball.....	*	2
14	Key, 1/8 Square x 3/4.....	604961	1

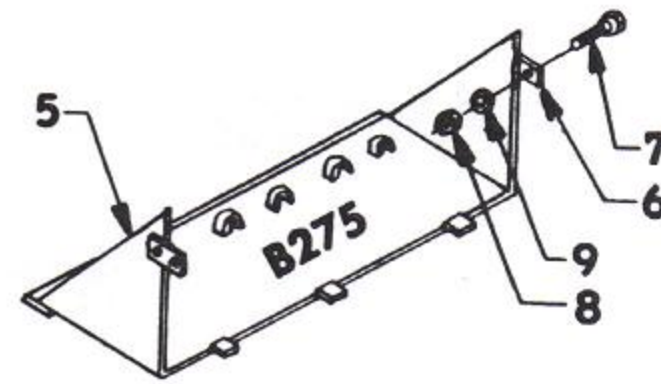
\* Parts marked with asterisk (\*) available as a complete pump repair kit..... 10369

\*\* Not available as separate repair part, order complete pump.

# Optional Buckets:

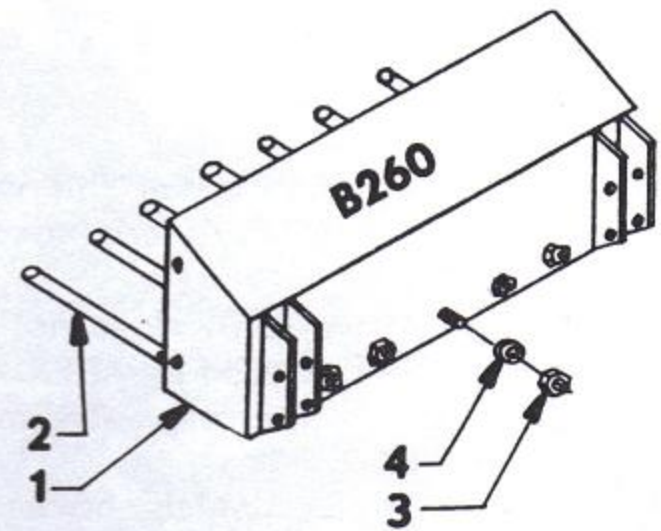
## B260 - 36" TINE BUCKET:

Index	Description	Part No.
1	36" Tine Bucket.....	B260
2	Tine.....	605121
3	Nut, 1/2 NC.....	7501
4	Lockwasher, 1/2.....	8101



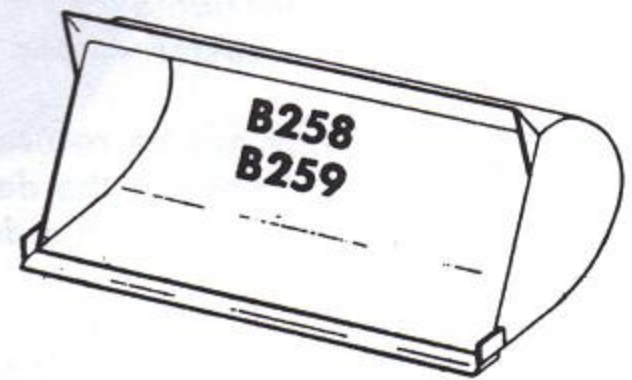
## B275 - 36" PLATE ADAPTER FOR B260:

Index	Description	Part No.
5	36" Dirt Plate.....	B275
6	Tie Strap.....	605389
7	Bolt, 3/8 NC x 1".....	6844
8	Nut, 3/8 NC.....	7451
9	Lockwasher, 3/8.....	8079



## B259 - 38" MATERIAL BUCKET:

## B258 - 48" MATERIAL BUCKET:



## Limited WARRANTY — 90 Day

ARPS DIVISION OF CHROMALLOY WARRANTS EACH NEW PRODUCT TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF 90 DAYS FROM THE DATE OF DELIVERY TO THE ORIGINAL RETAIL PURCHASER OR DATE OF FIRST RENTAL.

### LIMITATIONS:

- 1 . Obligation under this warranty is limited to repair or replacement of parts which ARPS determines to be defective.
- 2 . This warranty does not apply to components or other trade accessories not manufactured by ARPS. Customer shall rely solely on the existing warranty, if any, of the respective manufacturers thereof.
- 3 . Products which have been operated improperly, subjected to abuse, negligence, accident, or upon which unauthorized repairs or alterations have been made, are not covered by warranty. It does not cover depreciation or damage caused by normal wear.
- 4 . ARPS is not liable for warranty or service transportation expenses incurred between the customer and dealer.
- 5 . Parts may not be returned to ARPS without authorization. Warranty shipping charges between the dealer and ARPS, will be paid by ARPS, if authorization has been given to the dealer.
- 6 . Form AWAR-674 must be received by ARPS within 30 days of the date of repair to be considered for warranty.
- 7 . This warranty is in lieu of all other warranties, expressed or implied, and there are no warranties of merchantability or of fitness for a particular purpose; in no event will ARPS be liable for consequential or special damages.
- 8 . In keeping with ARPS' policy of constant improvement, we reserve the right to change our specifications or design at any time.

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**ARPS DIVISION OF CHROMALLOY**

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## SUPPLEMENT MANUAL TO MODEL 14 LOADER GENERAL INSTRUCTION MANUAL

Fits: Bolens 1050, 1053, 1054, 1220, 1225, 1253, 1254, 1256, 1257, 1453, 1556, 1656, H14, G14 (Medium Frame)

## MOUNTING INSTRUCTIONS FOR: B185 MODEL 14 LOADER

## B288 Ballast Box

Refer to the Model 14 General Instruction Manual for Safety Precautions, Operation, and Service Information.

ASSEMBLY:

1. Remove side cowling covering tractor side frame.
2. Remove battery.
3. Remove muffler.
4. Fig 1, using a hacksaw or tubing cutter tool remove approximately two inches from muffler extension pipe. This will allow muffler to be moved closer to the engine and will eliminate interference between the loader lift frame and the muffler.

5. Fig 2, remove muffler front hanger bracket and replace it with hanger bracket (605336), using the same mount location and tractor hardware.

6. Install muffler in a downward position, as shown in Fig 2, using tractor U-bolt assemblies.

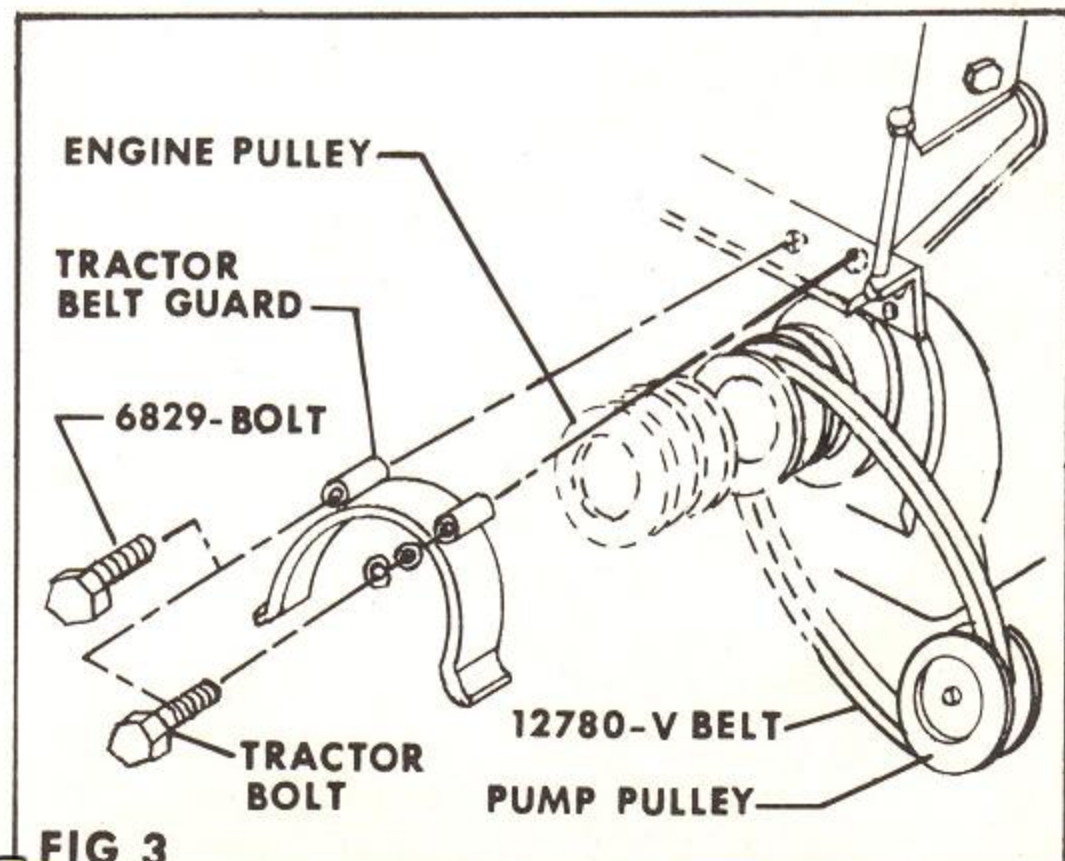
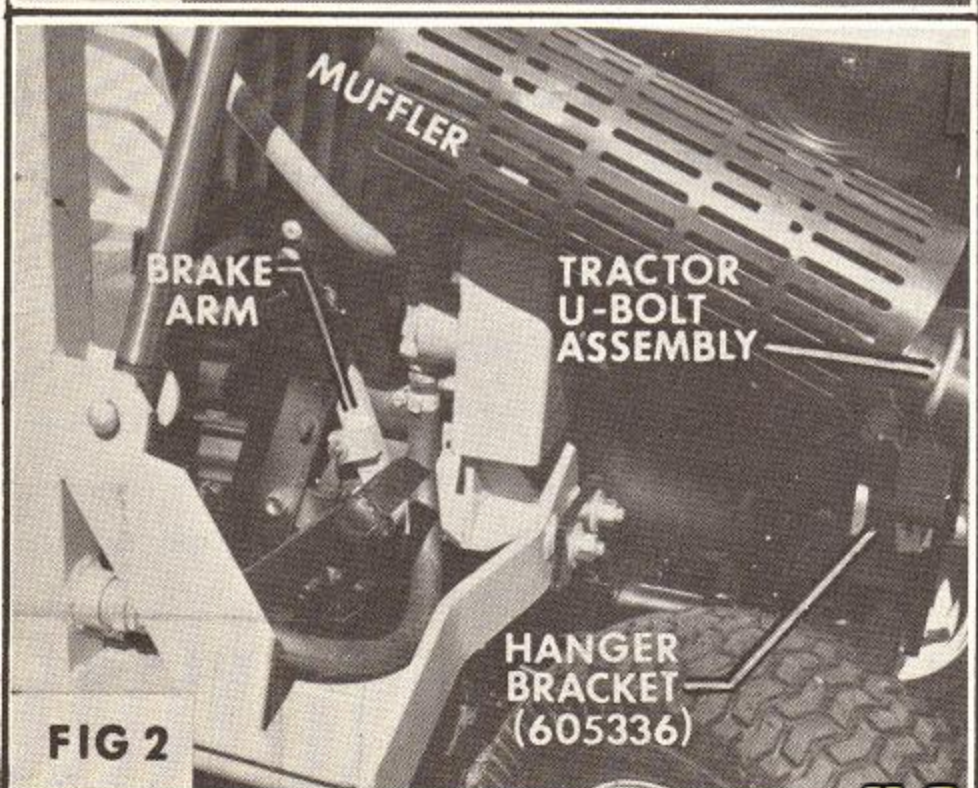
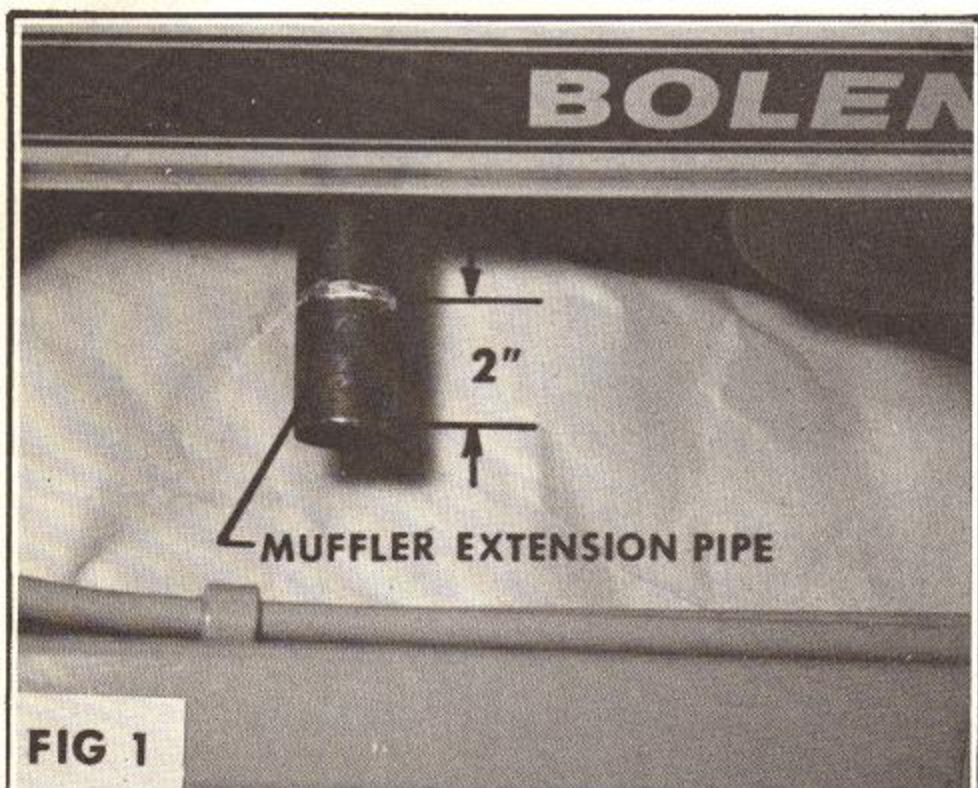
7. Brake Installation, Page 4 and Fig 2: On hydrostatic tractors only - remove tractor foot controlled brake arm assembly and replace tractor brake arm with brake arm (5), supplied with the loader. Assemble in reverse order of disassembly.

8. Belt Installation, Page 3 and Fig 3:

A. Fig 3, remove tractor belt guard and replace tractor bolts with two 3/8 NC x 3/4 bolts (6829) supplied with loader (tractor belt guard is not required when tractor is equipped with loader).

B. Page 3, remove tractor drive belts from engine pulley.

C. Page 3, remove tractor PTO belt guard and replace the second PTO belt (from engine) with a 4L310 V-belt, supplied with loader. Replace tractor drive belts and PTO belt guard.



## Assembly - continued

### 9. Upright Installation, Page 4:

Do not tighten any mount bolts until loader lift frame is installed.

#### A. All Tractors:

1. Attach RH and LH rear mounts (6) to RH and LH uprights (1 and 2) using four 3/8 NC x 1-1/4 bolts, nuts, lockwashers, and washers (12, 17, 20, 22).

2. Attach rear mounts (6) to tractor axle using two 5/8 NC x 1-1/2 bolts, nuts, and lockwashers (9, 13, 15).

#### B. Gear Type Tractors only:

3. Attach RH upright to tractor frame using tractor bolt, nut, lockwasher, and one 3/8 washer (20). Attach LH upright to tractor frame (hole D) replacing tractor bolt with one 3/8 NC x 3" bolt and adding one 3/8 washer (11, 20).

4. Attach both uprights to tractor side pads using two spacers (7, holes A and C), four 5/16 NC x 1-1/4 bolts, nuts, and lockwashers (14, 18, 21).

NOTE - On tractors equipped with old style mower, with bolt on hanger brackets, use spacers (3) in place of spacers (7).

#### C. Hydrostatic Tractors only:

3. Attach RH upright to tractor frame using tractor bolt, nut, lockwasher, and one 3/8 washer (20). Attach LH upright to tractor frame (hole E) replacing tractor bolt with one 3/8 NC x 3" bolt and adding one 3/8 washer (11, 20).

4. Attach both uprights to tractor side pads using two spacers (7, holes B and C), four 5/16 NC x 1-1/4 bolts, nuts, and lockwashers (14, 18, 21).

NOTE - On tractors equipped with old style mower, with bolt on hanger brackets, use spacers (3) in place of spacers (7).

### 10. Tie Bar Installation, Page 4:

Install tie bar (4) between uprights using four 1/2 NC nuts, lockwashers, and two 1/2 washers (16, 19, 23).

### 11. Belt and Belt Guard Installation, Page 4:

A. After the lift frame has been installed and all mount bolts tightened install and align V-belt which was put on the engine pulley earlier (step 8).

IMPORTANT - Do not run tractor engine with pump drive belt installed until the loader has been completely mounted and the reservoir has been filled with hydraulic oil. Running the pump without oil will cause serious damage to the pump.

B. Install belt guard (8) to pump mount using two 3/8 NC nuts, washers, and lockwashers (17, 20, 22).

12. Lift Frame Installation, referring to Model 14 General Instruction Manual, Page 4, install lift frame (1) and both 1-1/2 diameter (042) lift cylinders (12) to loader uprights using two long pins (8), two short pins (9) and four #3 hair pin clips (7). Install four grease fittings (18) into lift frame bearings. Tighten all mount bolts at this time.

### 13. Hydraulic Hook-Up:

NOTE - When installing hoses and fittings, ALWAYS use thread sealant in permanent connections. Do NOT use sealant in union ends of adapters. Do NOT over-tighten fittings or adapter swivels, they can split or expand causing leakage.

Referring to Model 14 General Instruction Manual, Page 4:

A. Install four 1/4 NPT x 13-1/2 hydraulic hoses (14) as follows:

1. From lift frame oil line C to each tilt cylinder base end.

2. From lift frame oil line D to each tilt cylinder rod end.

B. Install four 1/4 NPT x 16" hydraulic hoses (17) as follows:

1. From lift frame oil line A to each lift cylinder rod end.

2. From lift frame oil line B to each lift cylinder base end.

C. Ports are marked on valve. Install four 1/4 x 16" one-wire hoses from valve to frame oil lines as follows:

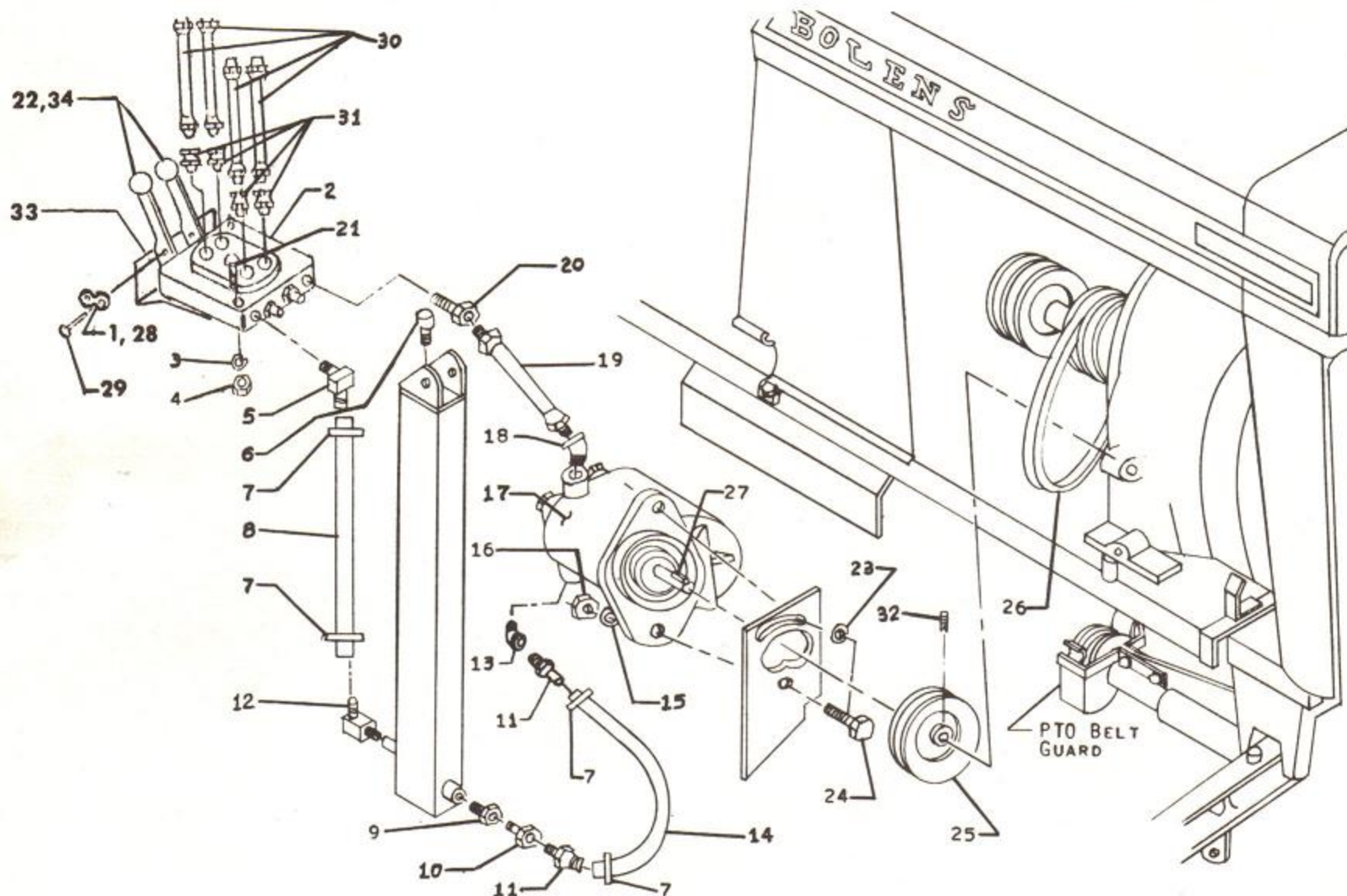
1. From port A to frame oil line A.
2. From port B to frame oil line B.
3. From port C to frame oil line C.
4. From port D to frame oil line D.

D. Fill reservoir with hydraulic fluid (four to five quarts). Refer to Model 14 General Instruction Manual for Safety Precautions, Operation, and hydraulic fluid specifications.

14. Bucket and Level Rod Installation:

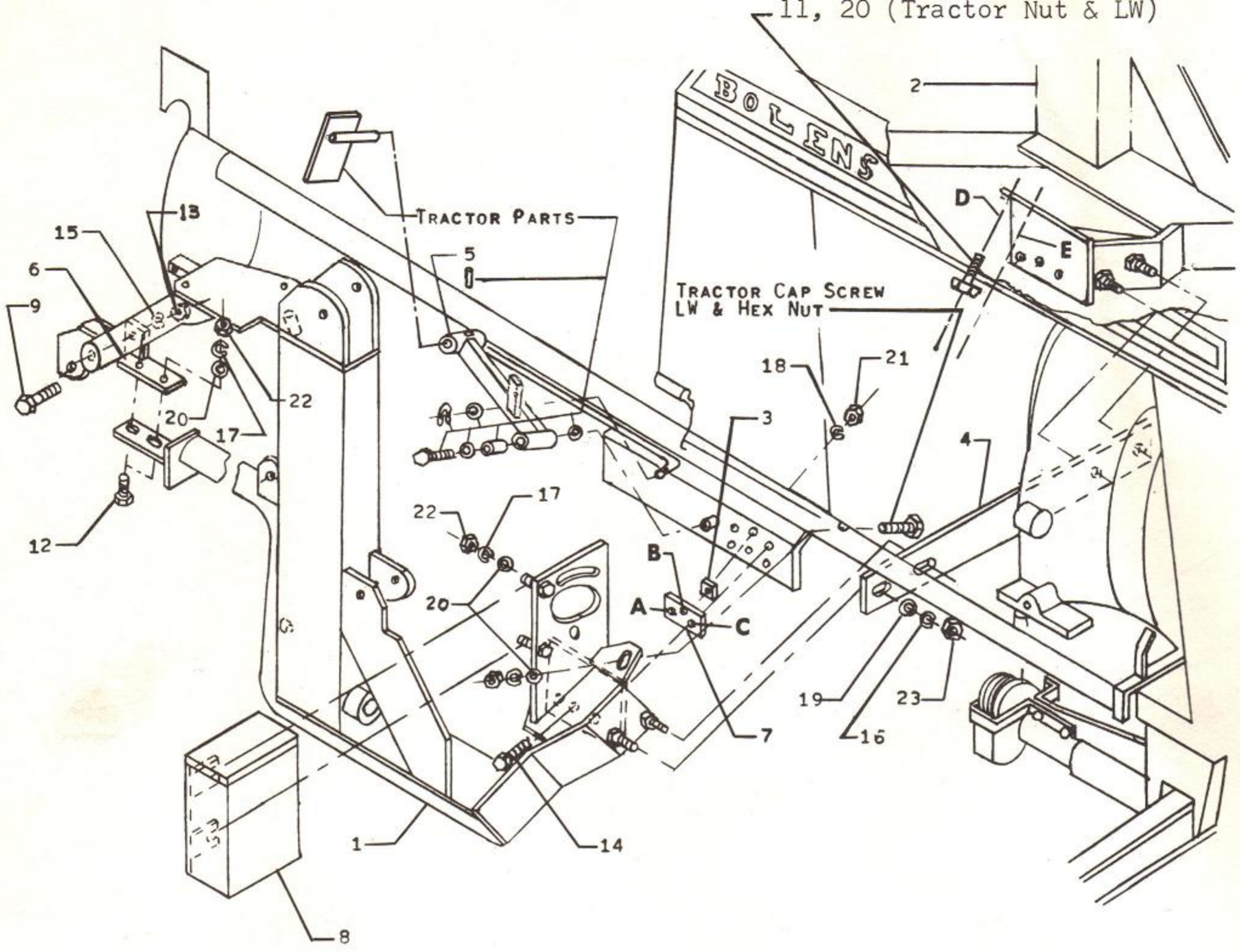
A. Referring to Model 14 General Instruction Manual, Pages 4 and 5, install bucket to lift frame and hook up 1-1/2 diameter (043) tilt cylinders to bucket using four long pins (8) and four #3 hair pin clips (7).

B. Install level rod (16) into indicator tube (15) and attach to bucket as shown. With bucket flat on floor, cut excess off level rod flush with indicator tube.



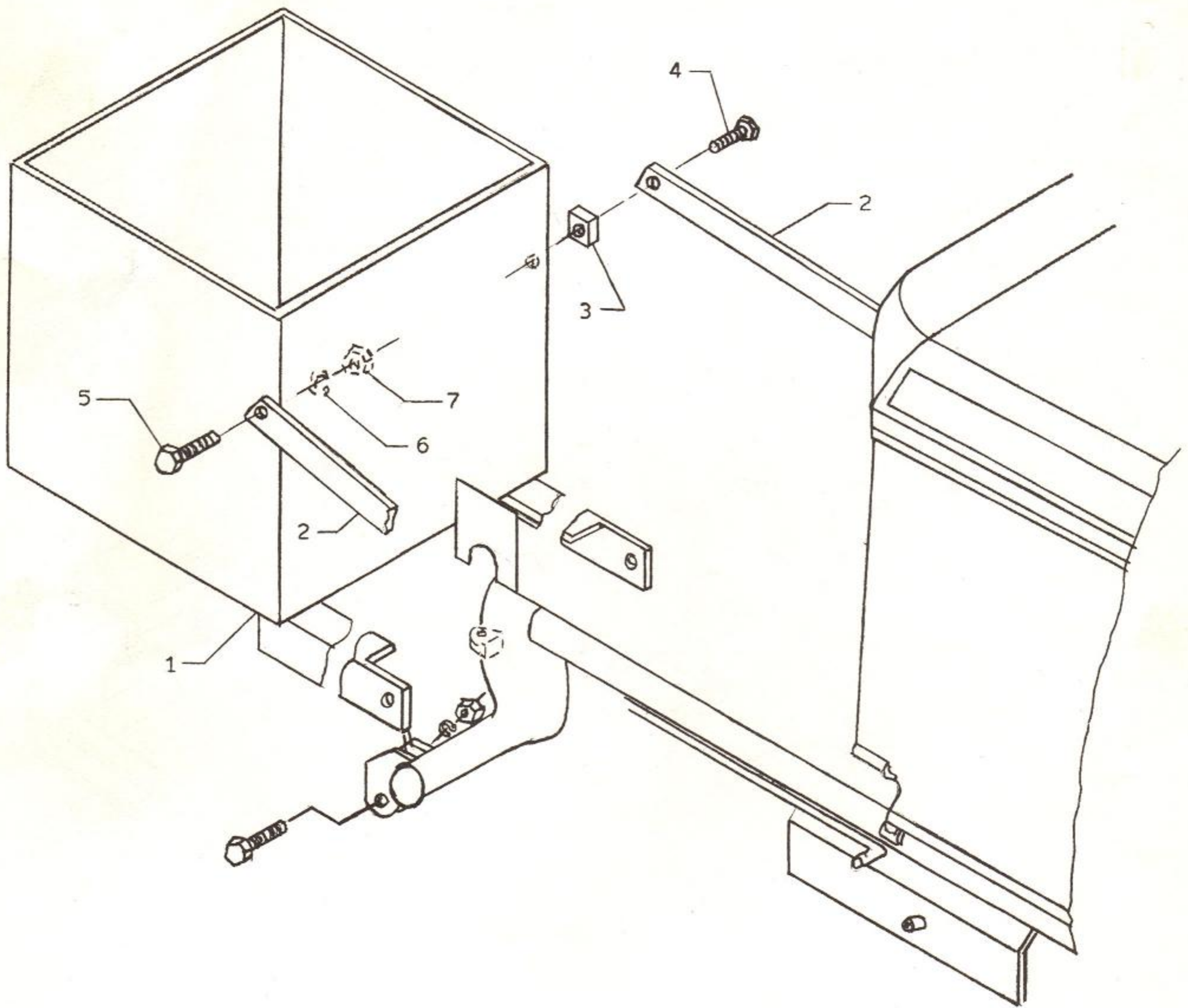
HYDRAULIC COMPONENTS - PARTS LIST

Index	Description	Part No.	Index	Description	Part No.
1	Connector Link, ASA 50.....	11362	17	Pump.....	10368
2	Valve, set at 1000 PSI.....	10445	18	Street Elbow, 3/8 NPT x 90° ..	7861
3	Lockwasher, 1/4.....	8061	19	Hose, 3/8 NPT x 18".....	10890
4	Nut, 1/4 NC Hex.....	7401	20	Union, 9/16-18 x 3/8 NPT....	11091
5	Insert Adapter, 9/16-18 M x 1/2 Hose x 90° .....	11265	21	Bolt, 1/4 NC x 2".....	6759
6	Breather.....	10366	22	Valve Lever.....	608037
7	Hose Clamp.....	14120	23	Washer, 3/8 Std.....	8156
8	Hose, 1/2 ID x 16".....	605089	24	Bolt, 3/8 NC x 1-1/4.....	6857
9	Screen, Strainer.....	10364	25	Pulley, 5" Diameter.....	12701
10	Bushing, 3/4 x 1/2 NPT.....	7987	26	V-Belt, 4L310.....	12780
11	Insert Adapter, 1/2 NPT M x 1/2 Hose.....	11264	27	Key, 1/8 Sq x 3/4.....	604961
12	Insert Adapter, 3/8 NPT x 1/2 Hose x 90° .....	11260	28	Side Link.....	11361
13	Street Elbow, 1/2 NPT x 45° ..	7918	29	Rivet, 3/16 x 1-1/2.....	8427
14	Hose, 1/2 ID x 15".....	10807	30	Hose, 1/4 NPT x 16".....	10856
15	Lockwasher, 3/8.....	8079	31	Union, 7/16-20 x 1/4 NPT....	11090
16	Nut, 3/8 NC Hex.....		32	Setscrew, 1/4 NC x 5/16.....	8319
			33	Decal Mount Plate.....	604938
			34	Handle Grip.....	14070



MOUNTING COMPONENTS - PARTS LIST

Index	Description	Part No.	Index	Description	Part No.
1	RH Upright.....	605285	11	Bolt, 3/8 NC x 3"	
2	LH Upright.....	605305		(Gear only).....	6886
3	Spacer.....	605331	12	Bolt, 3/8 NC x 1-1/4.....	6857
4	Tie Bar.....	605332	13	Nut, 5/8 NC Hex.....	7531
5	Brake Arm.....	605320	14	Bolt, 5/16 NC x 1-1/4.....	6798
6	Rear Mount, RH.....	605310	15	Lockwasher, 5/8.....	8111
6	Rear Mount, LH		16	Lockwasher, 1/2.....	8101
	(not shown).....	605315	17	Lockwasher, 3/8.....	8079
7	Large Spacer.....	605333	18	Lockwasher, 5/16.....	8071
8	Belt Guard.....	605325	19	Washer, 1/2 Std.....	8171
9	Bolt, 5/8 NC x 2-3/4		20	Washer, 3/8 Std.....	8156
	(Hydrostatic only).....	7156	21	Nut, 5/16 NC Hex.....	7431
9	Bolt, 5/8 NC x 1-1/2		22	Nut, 3/8 NC Hex.....	7451
	(Gear only).....	7123	23	Nut, 1/2 NC Hex.....	7501



ATTACHMENT - B288 BALLAST BOX - PARTS LIST

Index	Description	Part No.
1	Ballast Box.....	605730
2	Strap.....	605741
3	Spacer.....	605742
4	Bolt, 3/8 NC x 1-3/4.....	6867
5	Bolt, 3/8 NC x 1".....	6844
6	Lockwasher, 3/8.....	8079
7	Nut, 3/8 NC Hex.....	7451