

# **OWNER'S MANUAL**

ASSEMBLY • OPERATION • MAINTENANCE • REPAIR PARTS

## **HYDRAULIC LOADER ATTACHMENT**

WITH

**48" BUCKET**

AND

**WEIGHT BOX**

**MODEL NO. 1694396 1694486**

FOR

**SIMPLICITY LEGACY XL**

**AGCO 2027**

**MASSEY FERGUSON 2927**

## FRONT LOADER SAFETY RULES

OPERATING THE TRACTOR AND FRONT LOADER REQUIRES SPECIAL EFFORTS ON YOUR PART TO ENSURE YOUR SAFETY AND THE SAFETY OF OTHERS. READ AND UNDERSTAND THE GARDEN TRACTOR OWNERS MANUAL. KNOW THESE REQUIREMENTS BEFORE YOU OPERATE THE TRACTOR AND FRONT LOADER.

- To avoid severe personal injury or equipment damage, observe the following precautions.
  - All parts, especially guards and shields, must be in good condition, and securely in place.
  - Be sure all nuts, bolts, and etc. are tight.
  - Do not remove any guards, warning labels, shields or safety devices. They are installed for your safety.
- Know how to stop the engine quickly. Thoroughly understand operation of all the controls.
- Never allow anyone to operate the tractor and front loader without proper instructions.
- Do not allow passengers to ride on the tractor, front loader or weight box.
- Keep children and pets at a safe distance during operation.
- Never allow anyone to get under the loader bucket or reach through the lift arms when the bucket is raised or tractor engine is running.
- Always wear sturdy shoes or boots and avoid wearing bulky or loose fitting clothing while operating the tractor and front loader.
- Be alert. Do not operate the front loader when tired, ill or under the influence of alcohol or drugs.
- Work with equipment only in daylight or good artificial light.
- Watch out for and avoid rocks, roots, holes and other hidden objects.
- If you hit an object, stop and inspect for damage, repair any damage before continuing to operate the tractor and loader.
- Replace damaged, worn or broken parts immediately.
- The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and may lead to death, if the tractor and loader is operated in an enclosed area.
- Before leaving the tractor unattended, always lower the loader bucket to the ground, shift the transmission to neutral, set the parking brake, stop the engine and remove the ignition key to prevent children or unauthorized persons from starting the engine.
- Prolonged exposure to loud noise can cause permanent loss of hearing. Wear suitable protective device such as ear plugs to protect against loud or objectionable noise.
- Use extreme caution when crossing a drive, walkway, or road. Stay alert for hazards of traffic.
- The use of heavy equipment and/or lifting excessive loads may adversely affect tractor stability and control.
  - Use only recommended tractor hitch attachment points.
  - Limit loads to those within the tractor and front loader limitations as stated in this manual.
  - Use caution while turning or backing up, and when operating on uneven terrain.
  - Do not operate without rear wt. box mounted to tractor rear hitch and filled with sand, or equivalent.
- Before installing or using the front loader, carefully read all instructions and precautions.
- Make sure the tractor transmission lever is in "neutral" before starting the engine.
- Operate the tractor and front loader at slow speeds until you become familiar with all the operating characteristics and controls.
- Do not operate the tractor and loader until you are sure the area is clear of people and pets.
- Sudden stops of the tractor and loader during operation can cause the tractor to overturn. Be especially careful during sharp turns and when the bucket has material in it.
- Carry the loader arms and bucket as low as possible during transport. This will enhance tractor and loader stability and front vision.
- Using the front loader for handling large objects such as logs or oil drums is not recommended. Such items can easily shift or roll down the loader front arms causing equipment damage or severe personal injury.
- Never operate the tractor and front loader when visibility is diminished by darkness or bad weather.
- Avoid loose fill, rocks and holes. They may cause tractor instability or cause the tractor to overturn.
- The front loader is intended for use on relatively flat terrain.
- Use a piece of paper or cardboard to check for hydraulic leaks.

- Avoid overhead wires and obstacles when the loader is in the raised position. Contact with electric wires can cause electrocution.
- Allow for the added length of the front loader when making turns to prevent striking people or objects.
- When operating the front loader on a slope, always drive up and down the face of the grade. Turning or driving across the face of the slope may cause the tractor to overturn.
- Operate the front loader arms gradually by "feathering" the loader controls to prevent abrupt movements that could cause damage to the tractor and front loader.
- Use added caution when working with shifting or loose loads in the bucket. It could cause tractor instability or fall out of the bucket and cause personal injury.
- Attempting to change gears while operating on a slope may adversely affect tractor stability and control and severe personal injury could result.
- Do not back down or rapidly accelerate up a sloping surface.
- To avoid loss of control or overturning, do not stop or turn on sloping surfaces.
- Do not operate the loader near the edge of a ditch or embankment. Slipping off the edge could lead to severe personal injury or equipment damage.
- When descending a slope, disengaging the clutch or shifting to neutral can cause loss of control and may result in severe personal injury.
- To avoid injury to yourself and others, always do the following before leaving the tractor and front loader unattended.
  - Park on level ground and lock the parking brake.
  - Lower the bucket to the ground.
  - Stop the engine and remove the ignition key.
- If it becomes necessary to park on a slope, be sure to lock the parking brake and securely block the wheels.

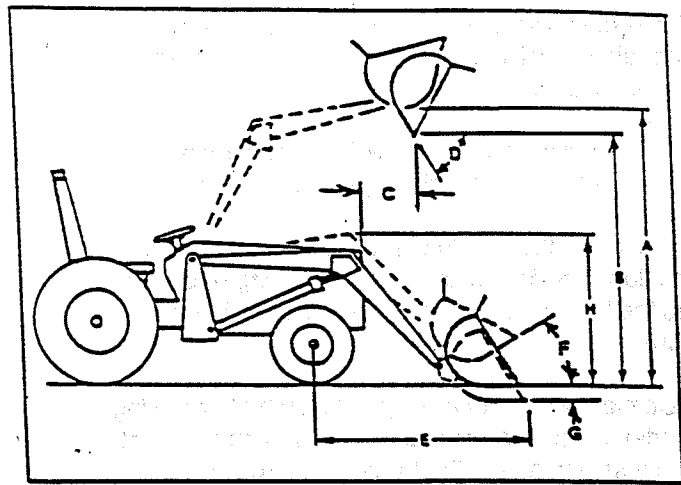


**LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS – ATTENTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.**

CONGRATULATIONS on your purchase of a Hydraulic Loader Attachment. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest Dealer. They have competent, well trained technicians and proper tools to service or repair this unit.

Please read and retain this manual. The instructions will enable you to assemble and maintain your Loader properly. Always observe the "SAFETY RULES".



Maximum lift height	"A"	75.5 Inches
Clearance w/bucket dumped	"B"	53 Inches
Reach at maximum height	"C"	20.5 Inches
Maximum dump angle	"D"	40 Degrees
Reach w/bucket on ground	"E"	53 Inches
Bucket roll back angle	"F"	25 Degrees
Digging depth	"G"	5.5 Inches
Overall Height in carry position	"H"	42 Inches
Lift Capacity at 0" - 32"		500 Pounds
Lift Capacity at full height 75.5"		380 Pounds
Break-out Force		900 Pounds
Control		Dual acting Joystick Lever. Mounted on Tractor.
Bucket Size		48"
Hydraulic cylinders		Double Acting Lift & Bucket Cylinders
Counterweight		Min. 300 lbs. Required (Use the weight box or equivalent)
Subframe		Frame mounted to tractor
Hydraulics		Hydraulics from tractor Transmission-connected to 4 quick couplers on tractor.
Weight w/subframe w/o Bucket		445 Pounds
Cycle time		
Bucket Raised		5.0 Seconds
Bucket Lowered		4.0 Seconds
Bucket Dumped		3.0 Seconds
Bucket Roll Back		3.0 Seconds

MODEL NUMBER: **1694396 1694486**

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

DATE OF PURCHASE: \_\_\_\_\_

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A DECAL ATTACHED TO THE UPPER INSIDE OF THE L.H. LOADER UPRIGHT.

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

#### CUSTOMER RESPONSIBILITIES

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your loader.
- Follow the instructions of this Owner's Manual.

## Limited Warranty

All K-W PRODUCTS have been manufactured from the very finest materials and by skilled workmen, therefore, K-W Manufacturing Co., Inc. guarantees PRODUCTS against defective workmanship and materials for a period of two years from the date of purchase.

This warranty is not a service guarantee, nor is it any assurance that the product is perfectly designed or perfectly built; neither is it an expression of any belief that the product cannot be improved. Further, this warranty is not a guarantee against hazards such as wear, tear, misuse or misfortune nor against problems arising from incorrect set-up or servicing and is not a guarantee that the performance will meet the expectations of the purchaser.

This warranty is void should the product be repaired or modified in any way not authorized by K-W Manufacturing Company.

There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose other than the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy, and liability for consequential damages under any and all warranties are excluded to the extent exclusion is permitted by law.

Components such as pumps, winches, hoses, etc., will carry only their respective manufacturer's warranty. This warranty does not cover any merchandise which, in the opinion of the company, has been subject to negligent handling, misuse, or accident.

Warranty claims on components will not be approved and credit issued until defective items are returned to the factory (PREPAID) and our respective suppliers have approved our Warranty Claims. When credit is received by K-W Manufacturing Co., Inc., we will issue credit in an amount equal to that received from the component supplier. K-W cannot warrant any merchandise, which, in the opinion of the company, has been subjected to negligent handling, misuse, or accident. All Warranty Claims must be submitted in writing. Written approval from the company must be obtained before any merchandise and warranty parts are returned to the factory.

K-W Manufacturing Company, Inc., reserves the right to make changes, improvements, and modifications at any time without incurring the obligation to make such changes, improvements, and modifications on any products sold previously.

### K-W MANUFACTURING COMPANY, INC.

800 South Marion Road  
Sioux Falls, South Dakota 57106  
Phone: 605/336-6032

ALL INFORMATION HEREIN ACCUMULATED JANUARY 1, 1982

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## LOADER REMOVAL FROM CRATE

- Remove the top of the crate.
- Remove the sides of the crate.
- Inspect the loader for shipping damage.
- Remove the loader from the base of the crate.
- Remove the parts from the parts bag and check that you have received all the parts and pieces for the loader.

## ASSEMBLY

NOTE: The drive shaft must be removed on 4 W/D tractors before mounting the subframe: Remove (2) bolts in rear of drive shaft, slide forward and remove. Reattach the drive shaft after the subframe is mounted to the tractor.

### MOUNTING THE SUBFRAME

- Place the subframe under the tractor. Raise the subframe and secure the front of the subframe to the tractor frame. Use (2) 1/2-13 x 1-1/2 hex head capscrews, lockwashers, and nuts on both sides. See Fig. 1.
- Secure the rear of the subframe to the tractor frame. Use (2) 1/2-13 x 1-1/2 hex head capscrews, lockwashers and nuts on both sides. See Fig. 1.
- Tighten all capscrews.

### ATTACH THE FRONT MOUNT

- Attach the front mount to the front of the tractor frame. Use (2) 5/8-11 x 2 hex head capscrews, lockwashers and nuts on both sides. See Fig. 2.
- Tighten all capscrews.

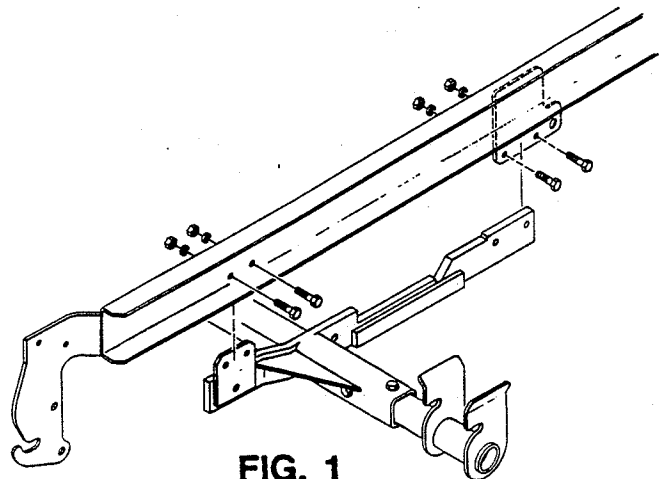


FIG. 1

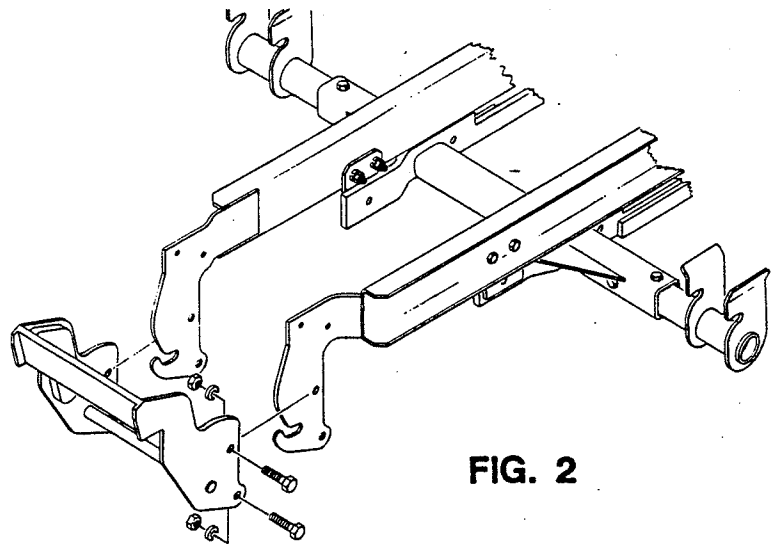
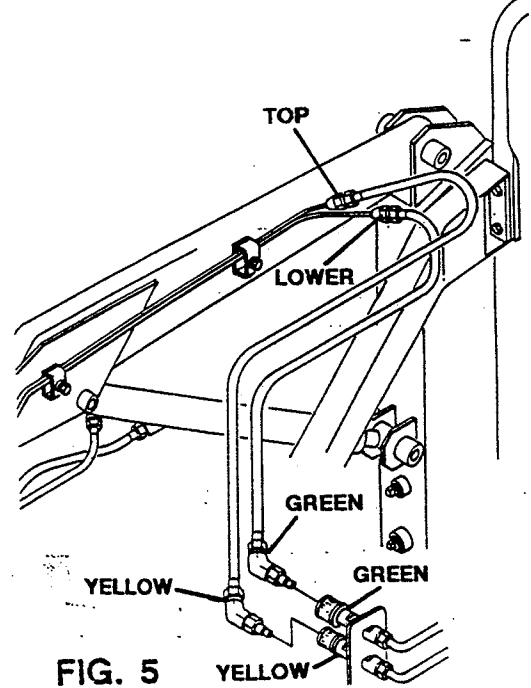
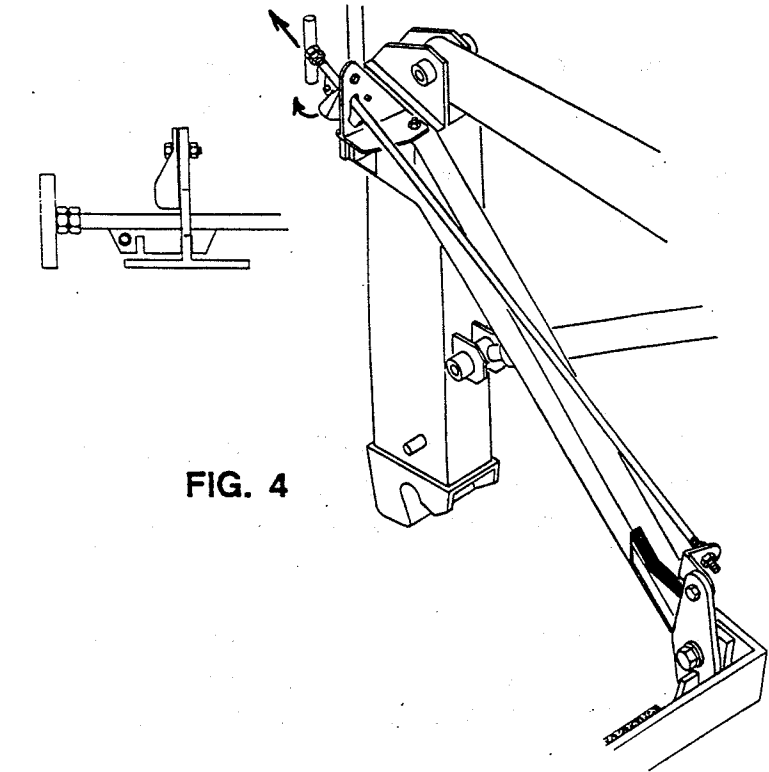
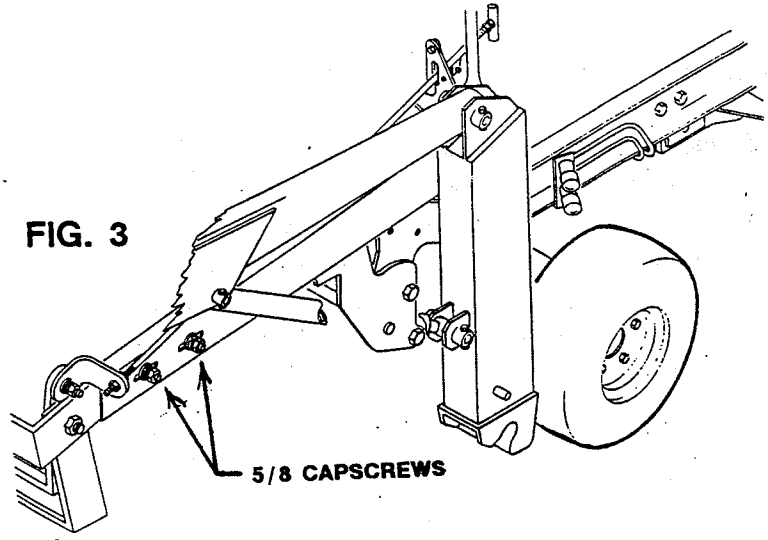


FIG. 2

**MOUNTING THE LOADER UPRIGHTS AND MAINFRAME ASSEMBLY**

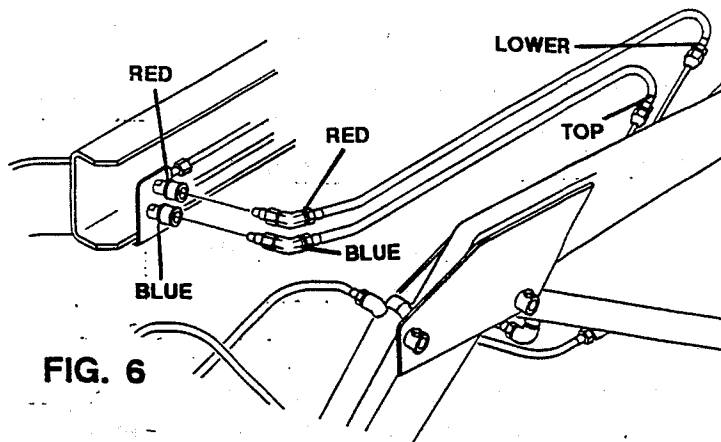
**NOTE: STEERING WHEEL MUST BE TILTED DOWN.**

- Start the tractor engine and drive tractor forward so front wheels are behind loader uprights.
- Stop tractor engine and lock park brake.
- Relieve pressure from tractor hydraulic system by moving the hydraulic control lever back and forth and side to side several times.
- Slightly loosen, but do not remove the (4) 5/8-11 x 2 hex head capscrews that secure the brace arms to the latch frame weldment. Fig. 3.
- Rotate latch keeper up and to the left. Grasp handle on latch rod, lift rod up and out of slot. Pull handle back to the unlatch (remove) position and down into the slot. Fig. 4.
- Connect the hydraulic hose with yellow washer on the top feedline on the R.H. side of the mainframe to the bottom quick coupler on the R.H. side of the tractor. Fig. 5.
- Connect the lower hydraulic hose with green washer to the top quick coupler. Fig 5.





- Connect the hydraulic hose with blue washer on the top feedline on the L. H. side of the mainframe to the bottom quick coupler on the L.H. side of the tractor. See Fig. 6.

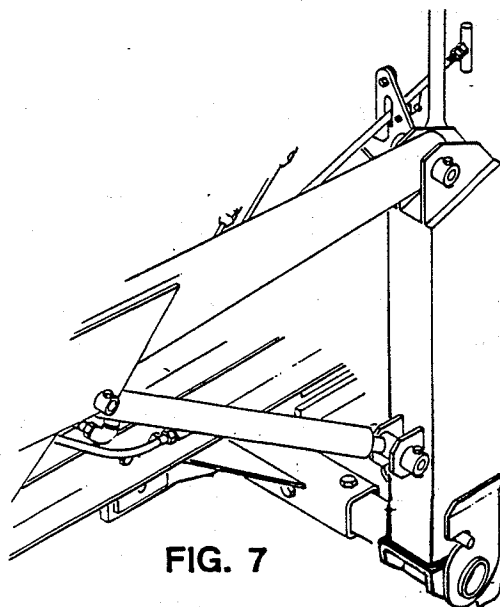


- Connect the lower hydraulic hose with red washer to the top quick coupler. See Fig. 6.

- Start engine and unlock parking brake.
- Pull hydraulic control lever back to raise loader uprights to slightly higher than the loader subframe end tubes and front tires.
- Drive tractor forward so subframe end tubes are positioned under the base of the uprights.

**NOTE:** When mounting loader uprights onto the subframe end tubes, the tractor may need to be positioned to obtain proper alignment.

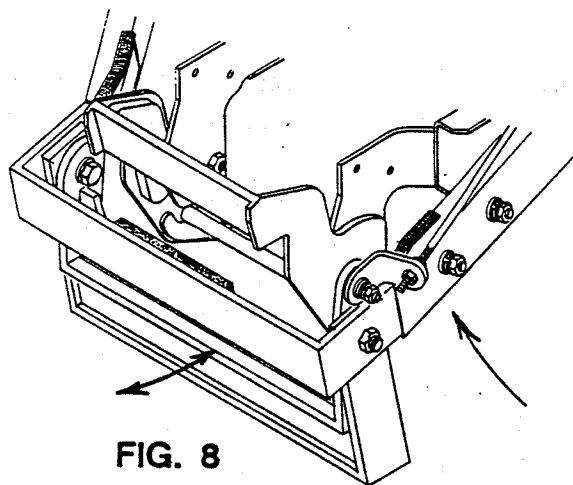
Lower the loader uprights slowly to prevent uprights from hitting tractor footrests.



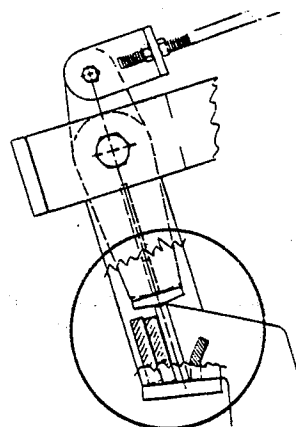
- Push hydraulic control lever forward to lower loader uprights onto the ends of the subframe. Make sure lower upright hooks center on the subframe end tubes on both sides. See Fig. 7.

**NOTE:** Check to make sure the lower upright hooks have dropped completely down onto the subframe end tubes.

- Slowly retract the lift cylinders until the front latch frame has fully captured the front mount.
- Push hydraulic control lever to the right to roll bucket until front wheels are slightly off the ground.



**NOTE:** Before latching, make sure the front latch frame has fully captured the front mount. Also check to make sure the upright hooks have completely captured the subframe end tubes on both sides. See Fig. 8.



- Grasp latch rod handle. Lift out of slot and push the latch rod forward and down into the slot to the mounted ( latch ) position. See Fig. 9.
- Rotate latch keeper to the right and down position. See Fig. 9.

**NOTE: Make sure latch and keeper are positioned properly to prevent loader damage or personal injury.**

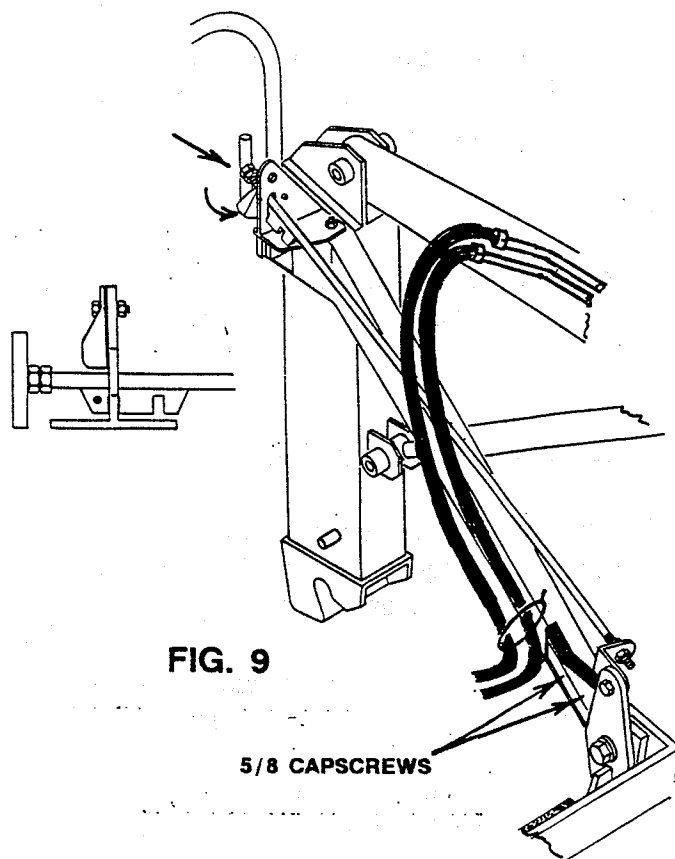
- Latch bar must be centered on the cross bar of the front mount. Adjust as required by loosening 1/2-13 hex nuts and adjust to center and make sure nuts are tightened securely after adjusting. See Fig. 10.
- Make sure latch bar has fully captured the cross bar on the front mount.
- Tighten (4) 5/8-11 x 2 hex head capscrews that secure the latch frame weldment to the brace arms. Tighten to 180 ft. lbs. Torque so they will not loosen from loader use. See Fig. 9.

**NOTE: If the 5/8 capscrews in brace arms loosen or slip during loader use, adjustment process must be repeated.**

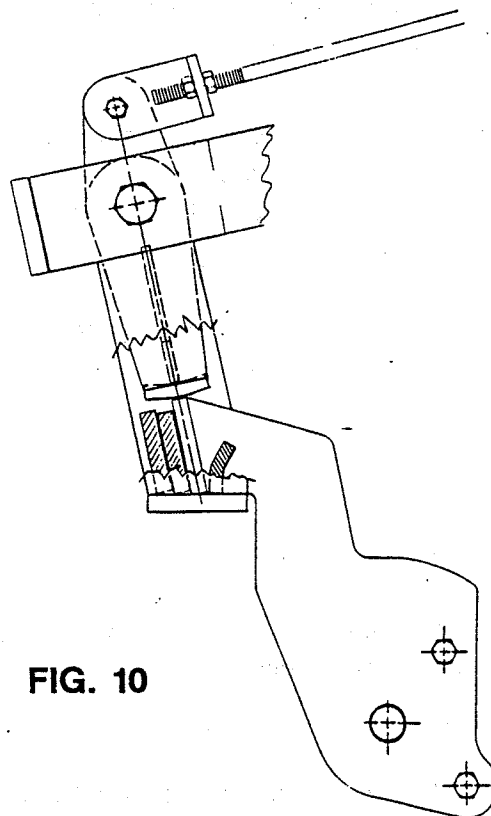
- If loader does not attach easily to the tractor the adjustment process must be repeated.
- Cycle the loader lift and bucket cylinders several times after completing the installation. This will purge the air from the hydraulic lines and cylinders. Fill tractor hydraulic system with transaxle oil per specifications found in Tractor Operator Manual.

**IMPORTANT: To avoid damage! The transaxle oil level must be checked at this time. Operating the tractor without sufficient transaxle oil will cause extensive damage.**

- Check tractor transaxle fluid. Use type F transmission fluid.
- Tie hoses to brace arm on both R. H. & L. H. sides as shown in Fig. 9. Use nylon tie straps.



**FIG. 9**



**FIG. 10**

## INSTALLING WEIGHT BOX OR BALLAST

- The assembly and mounting instructions for the weight box are included with the weight box.

### **Caution: Avoid Injury!**

The tractor may become unstable when operating with a loader. Tractor rollover may cause serious injury or death. Ballast must be added as specified. See your Simplicity dealer.

Remove ballast from tractor when loader is removed.

- **Ballast Required**  
2 WD Tractors: 300 lbs. of total ballast minimum.  
4 WD Tractors: 300 lbs. of total ballast minimum.

**NOTE: A 3-point hitch implement may be used as part of the ballast requirement.**

**If a 3-point hitch implement is to be operated while the loader is attached to the tractor, put the bucket in lowest position that provides ground and obstacle clearance.**

## CHECK TIRE PRESSURE

- Check tire pressure with an accurate gauge.
- Inflate tires to tire pressure as specified in the Tractor Operator's Manual.


## OPERATIONAL CHECK

Check all pivot points on the loader. Lubricate as necessary. (See lubrication chart on page 18)

Check tractor transaxle fluid. Use type F transmission fluid.

**NOTE:** Check fluid level with loader arms down and bucket flat on the ground.

Operate and check the loader main frame and bucket for interference, noise, and bending of parts.

** CAUTION** Before using loader, double check.

- Tractor Owner's Manual for recommended tire pressure.
- That all bolts and hoses have been tightened and that all tools have been removed from tractor and loader.
- Weight box is installed and correct weight added.
- Make sure the rear wheels of the tractor are mounted to the rear axle in the position that will provide the widest tread width.

## START UP PROCEDURE

Check tractor transaxle fluid level. Use type F transmission fluid.

NOTE: Bucket and lift cylinders should be fully retracted when checking hydraulic fluid level.

Check all hydraulic hose connections to ensure that they are not leaking.

Lubricate all pivot points that incorporate grease fittings.

Start tractor and run engine at approximately 1200-1400 RPM for initial cycling of loader.

**⚠ WARNING** To prevent injury

Before using front loader for the first time, cycle lift and bucket cylinders to purge air from cylinders. Air in the hydraulic system can cause unexpected fall of mainframe, causing injury or damage to loader or tractor.

Cycle lift and bucket cylinders with bucket empty several times to seat-in cylinder components.

Check all hydraulic hose routings to ensure adequate clearances exist between hoses and adjacent components.

**⚠ WARNING** To prevent injury.

The tractor/front loader should only be operated with all safety equipment properly installed.

**⚠ CAUTION** Operate loader from the tractor seat only.

### OPERATING TIPS

NOTICE: Do not use the bucket for pushing down material with bucket cylinders partially extended. Cylinder and rod may be damaged.

Do not tip bucket cutting edge down (fully extend bucket cylinders) during backfilling/backgrading operation. Cylinder and rod may be damaged.

Position vehicles to be loaded as near the pile as possible and in such a direction as to minimize the amount of tractor turning required to dump.

Do not use spill guard to push objects as it will deform and become damaged.

Keep the unit clean and perform regular service. Observe safety instructions whenever cleaning, servicing, or lubricating.

We urge you to follow this advice:

1. Read and understand this manual as well as the tractor owner's manual.
2. Remember and observe the Safety Precautions brought to your attention in this manual, the tractor manual and on the loader itself.
3. Use good common sense in the everyday operation of this unit. Safety instructions can never be all inclusive. You are responsible for watching out for, and avoiding unsafe conditions.
4. Never exceed the limits of a piece of machinery. If its ability to do a job or to do so safely is in question-DON'T TRY IT.
5. Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new loader and tractor.
6. When lowering a heavy load, ease it downward slowly. Never drop a loaded bucket and "catch" hydraulically. Stopping a load after it has gained downward momentum places undue strain on the unit and may cause damage to the loader or tractor.

**⚠ WARNING** To prevent injury.

Before disconnecting hydraulic lines, relieve all hydraulic pressure. Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin causing serious personal injury. If injured by escaping hydraulic oil, consult a physician immediately. Use a piece of paper or cardboard to check for hydraulic leaks.

**WARNING**

To prevent injury. Do not operate the loader if the hydraulic fittings or hoses are leaking or damaged. A sudden line burst can cause the main frame to drop suddenly, causing damage to the tractor or loader or injury to personnel.

**BEFORE OPERATING, LUBRICATE ALL MOVING PARTS. (REFER TO LUBRICATION SECTION)**

**COLD WEATHER OPERATION**

To assure smooth operation in cold weather, allow the tractor to warm up. Slowly cycle the loader and bucket several times to warm the fluid in the hydraulic fluid system. The loader may operate erratically until the hydraulic fluid has warmed to operating temperatures.

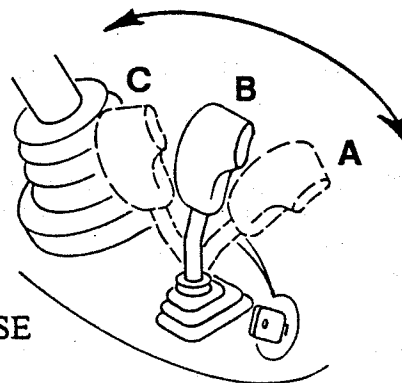
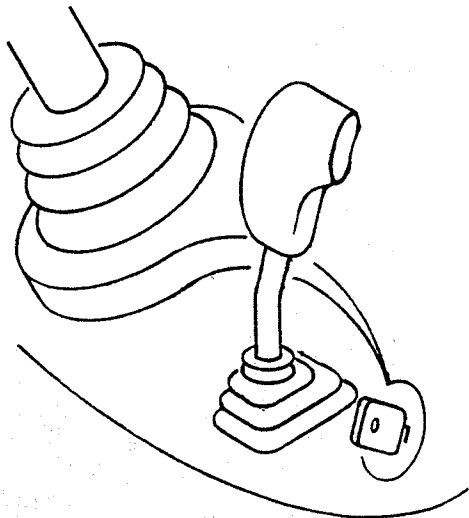
**OPERATING INSTRUCTIONS**

Main, lift and bucket cylinders are double acting type (both push and pull under hydraulic power). This means that the loader can be forced down as well as up. It means that the bucket can be tilted down or up with hydraulic pressure.

**HYDRAULIC CONTROL VALVE**

The tractor/loader control valve has one handle. The handle operates the lift cylinders (the loader) and has a float position. The handle also operates the bucket cylinders. The handle will return to neutral except from float position when released.

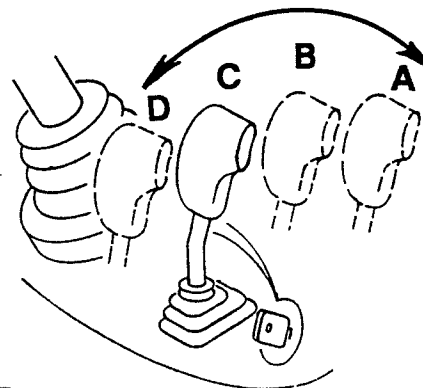
**CAUTION: Avoid injury! Do not move hydraulic control lever to float position to lower loader. Loss of control results, and loader will fall to ground.**



**HANDLE USE**

**BUCKET**

- POSITION A - The handle pushed to the right, bucket will dump.
- POSITION B - Neutral position.
- POSITION C - The handle pushed to the left, bucket will roll back.



**LOADER**

- POSITION A - The handle pushed all the way forward (this is float position). Handle will stay until pulled back.
- POSITION B - The handle pushed half way forward, bucket will lower.
- POSITION C - Neutral position.
- POSITION D - The handle pulled back, bucket will raise.

**NOTE:** In float position there is no hydraulic pressure going to the lift cylinders. If the loader frame is up off the ground, it will lower to the ground by gravity. When the bucket is on the ground (and the valve is still in float) the bucket will follow the shape of the ground even when the tractor is moving. This allows hydraulic oil to flow back and forth in the hydraulic system as the loader is raised and lowered by the ground contour.

**CAUTION** -Do not allow bucket lip to dig into ground when tractor is moving forward in float. The bucket bottom should be level with the ground or slightly rolled back.

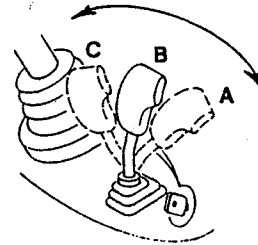
The float position is most commonly used with attachments in snow removal. Tractor should be run at slow ground speed and the lift and bucket cylinders used to work material loose and fill the bucket.

## CONTROLLED RATE OF LOADER FUNCTIONS

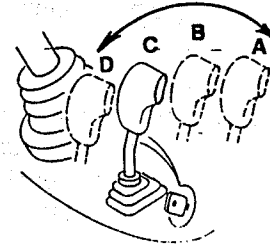
By feathering (slightly moving) the control lever, precise operational speeds can be obtained. This action controls the position of the valve spools in the control valve and regulates flow of oil from/to cylinders.

It is important to utilize this operational practice when lowering the main frame when the bucket is loaded with material.

- A - Bucket Dump
- B - Neutral
- C - Bucket Back.



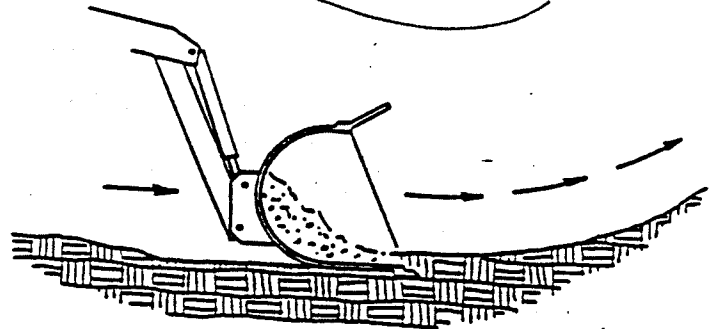
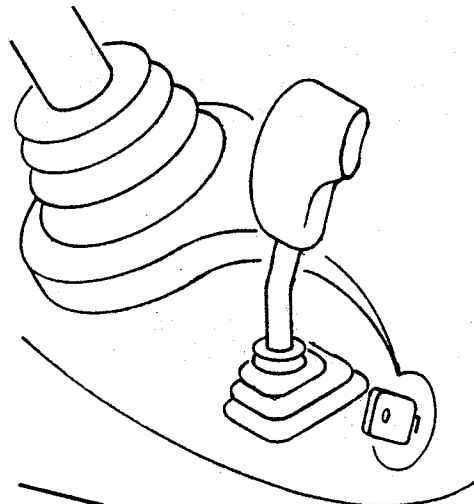
- A - Float Position
- B - Loader Down
- C - Neutral
- D - Loader Up



## SCRAPING

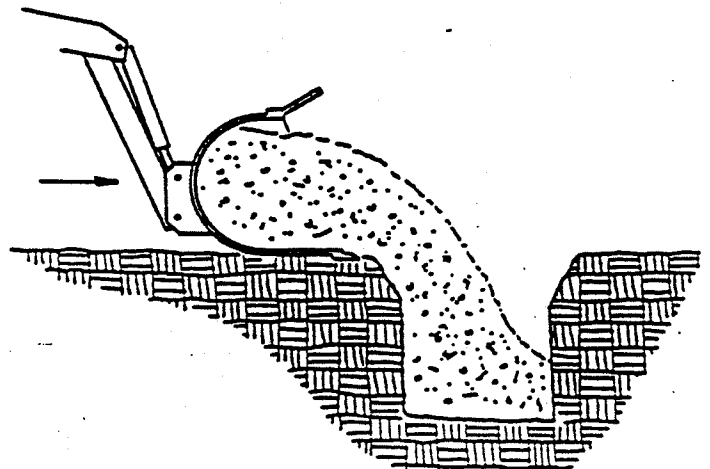
When scraping, the "float" position should be utilized to maintain the bucket firmly on the ground and at the same time allow the bucket to follow ground contours.

The bucket should be positioned level to the ground during "scraping" operations.



## BACKFILLING/BACKGRADING

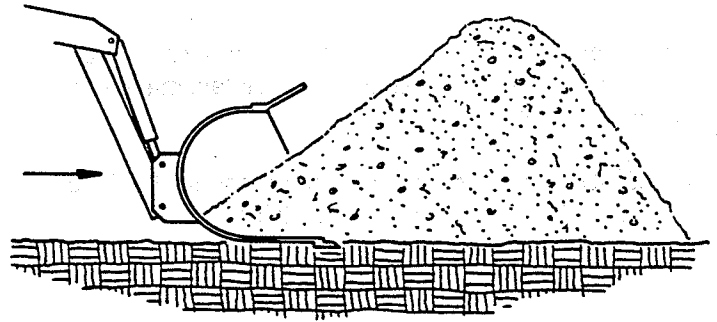
When "backfilling" or "backgrading", position the bucket so it is level on the ground. Do not dump material from the bucket. Additional weight of material in bucket will assist in "backgrading" and increases loader efficiency during "backfilling".



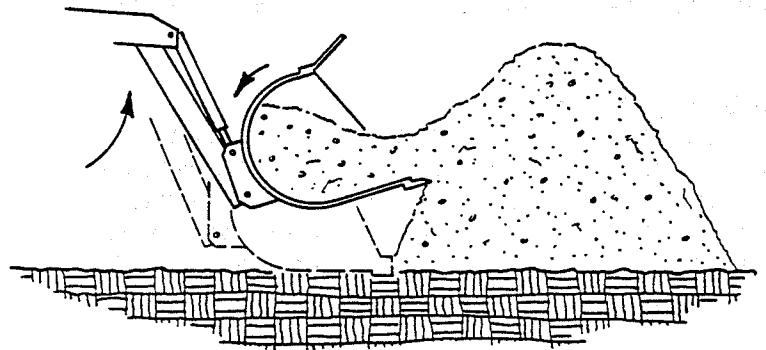
## LOADING

Drive straight ahead into pile with bucket cutting edge level with the ground. In order to prevent possibility of damaging tractor or loader:

- Do not ram into pile at high speed.
- Do not attempt to turn tractor while loading.

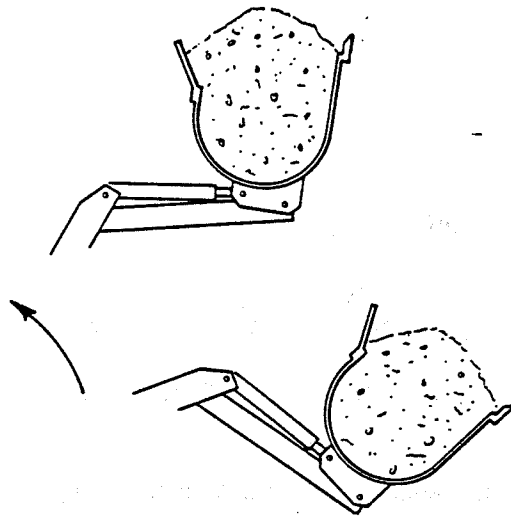


As bucket begins to fill with material, gradually roll the bucket back and raise the loader to increase "fill" capacity. This procedure also results in the material being removed in layers from the top for maximum loading efficiency.



When the bucket is full, raise loader so that the bucket is clear of material and slowly back out of pile.

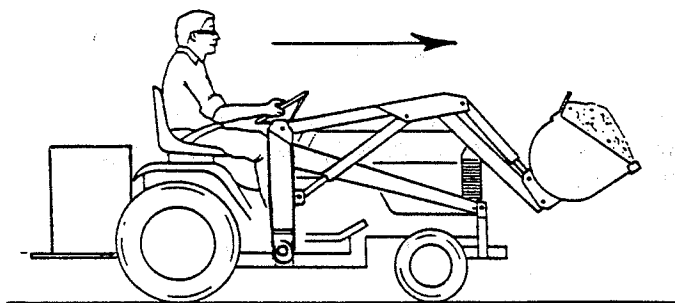
For maximum loading efficiency, minimize angle of turn and distance between the loading and unloading points.



## TRANSPORTING MATERIAL

Transport material to "unloading point" with loader bucket as low as possible to prevent spillage and maintain maximum tractor/loader stability.

**NOTICE** –During transport the loader should be in a position that will not impair operator's vision.



Observe the following safety messages:

**⚠ DANGER** –Avoid any overhead wires or obstacles when loader is raised, to avoid damage or possible death by electrocution.

**⚠ WARNING** –A loaded bucket should be transported in a low position at slow ground speeds, especially if the ground is irregular. Make turns slowly and use the tractor brakes cautiously. A full bucket in the raised position alters the center of gravity of the unit and increases the possibility of mishaps.

**⚠ WARNING** –Do not lift or carry personnel on a loader or attachment; a slip or fall could cause serious injury.

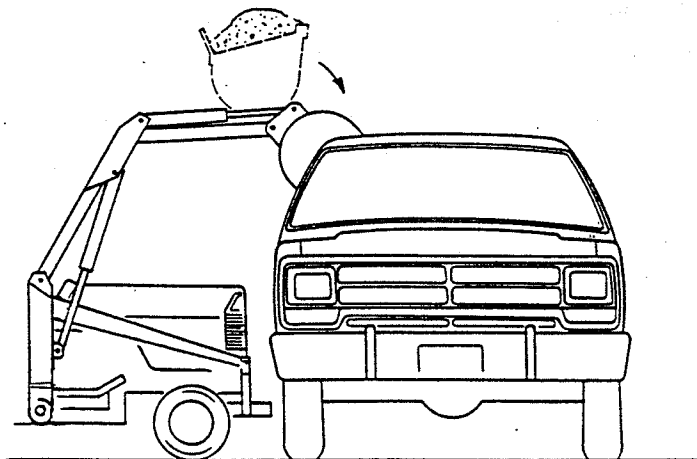
## UNLOADING

As the tractor approaches the "unloading point", raise the loader to the height required for clearance to "dump" bucket.

Drive slowly to position bucket above "unloading point", stop tractor and dump bucket.

For best stability, do not raise loader higher than required for "dumping" clearance.

As "dumping" clearance height increases, the bucket position must be adjusted to maintain a level bucket to prevent excessive spillage of material from bucket.





## LUBRICATION AND MAINTENANCE

Do not perform any service/maintenance operations with front loader raised off the ground.

Lower front loader to the ground and relieve pressure in loader hydraulic lines prior to performing any service/maintenance operations on tractor or loader.

**⚠ DANGER** -Keep hands and body from pressurized lines. Use paper or cardboard, not body parts, to check for leaks. Hydraulic oil under pressure will penetrate the skin causing serious injury.

Make sure that all operating and service personnel know that in the event hydraulic fluid penetrates the skin, it must be surgically removed within a few hours by a doctor familiar with this form of injury, or gangrene may result.

**⚠ WARNING** -Do not operate the front loader if the fittings or the hoses are leaking or damaged. A sudden line burst could cause the main frame to drop suddenly, causing damage to the tractor or loader or injury to personnel.

**⚠ WARNING** -Accidental movement of control lever or leak in the hydraulic system could cause main frame to drop, causing serious injury. Do not stand or walk under a raised attachment.

When checking Tractor hydraulic system oil level, the loader should be on the ground and bucket fully retracted (all cylinders in the retracted position). Grease all loader pivot points as indicated on lubrication chart.

Inspect hydraulic hoses, connections, control valve and cylinders for evidence of leakage.

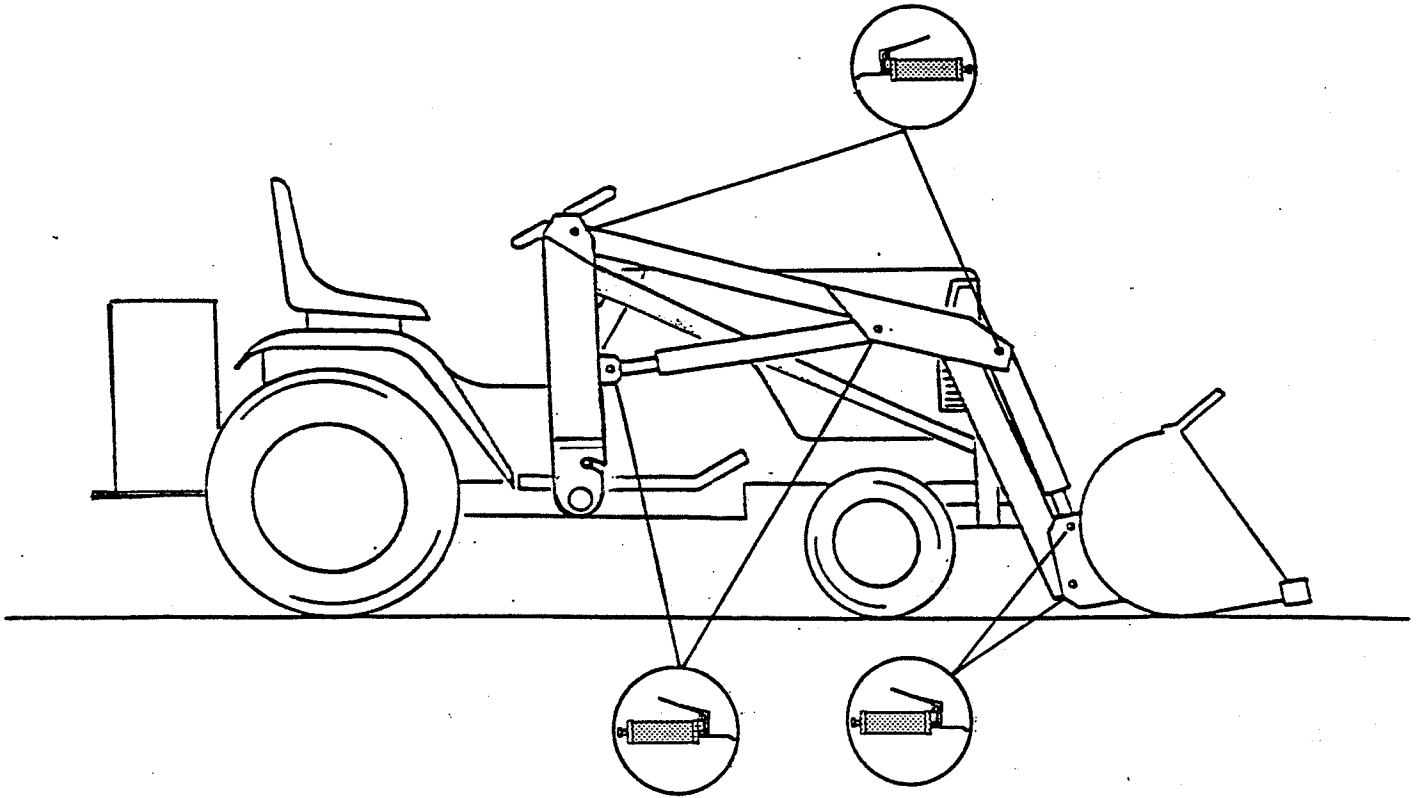
If oil seepage past cylinder rod is evident, look for scoring on rod.

Tractor tire inflation should be checked as listed in tractor owner's manual to ensure tire inflation is to specification.

Unequal inflation can result in bucket not being level to the ground.

Front tires should be maintained at maximum recommended inflation to maintain normal tire profile with added loader weight and material.

## LUBRICATION AND MAINTENANCE CHART



### LUBRICATION AND MAINTENANCE CHART

Hydraulic oil level .....	Check .....	Daily/10 Hrs
Tire inflation .....	Check .....	Weekly/50 Hrs
Loader pivot points .....	Lubricate .....	Daily/10 Hrs
Hydraulic lines hoses and connections .....	Check for leakage wear and damage .....	Daily/10 Hrs
Lift and bucket cylinders .....	Check for seepage .....	Daily/10 Hrs
Mounting pins, Clip pins Fixing pins .....	Check, replace if missing .....	Daily/10 Hrs
Sub-frame mounting and hardware .....	Check Re-torque .....	Weekly/50 Hrs

## LOADER REMOVAL FROM TRACTOR

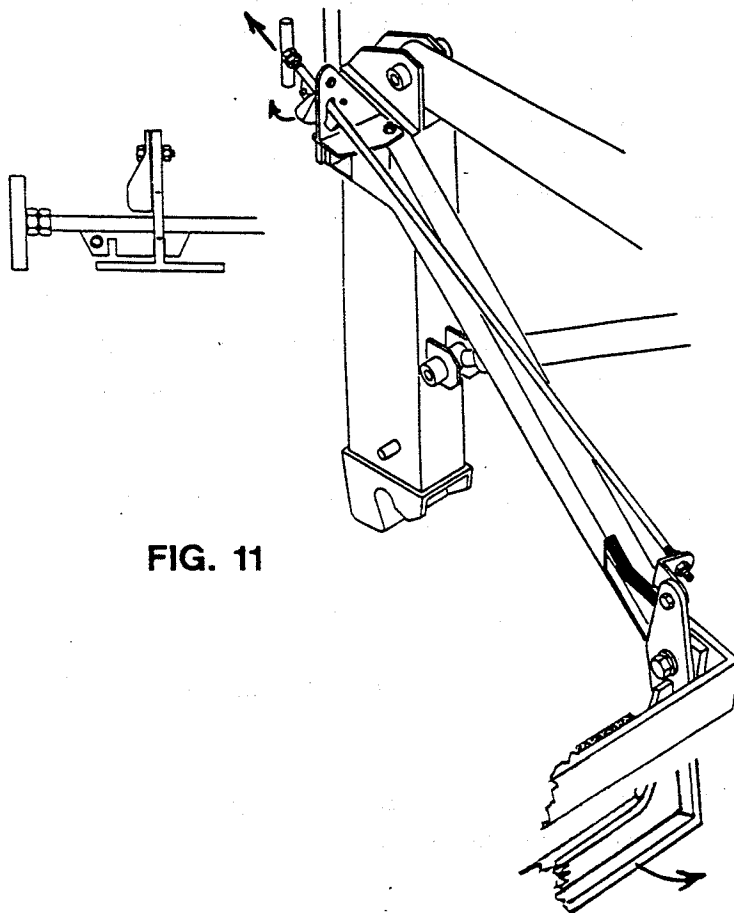
- Select a level, safe and solid place for loader removal.
- Start engine and unlock park brake.
- Lower bucket to the ground.
- Push the hydraulic control lever to the right to roll the bucket until the front wheels are slightly off the ground.
- Rotate latch keeper up and to the left. Grasp handle on latch rod, lift up and out of slot. Pull handle back to the unlatch (remove) position and down into the slot. See Fig. 11.



**CAUTION: Avoid injury! Before attempting to release front latch, make sure loader boom is down and bucket is on ground.**

*Latching and unlatching of loader must be performed with front wheels of tractor slightly raised off ground.*

- Push the hydraulic control lever to the left to roll the bucket back until the cutting edge is slightly off the ground.
- Pull hydraulic control lever back until the uprights unlock and clear the subframe end tubes and front tires.
- Stop engine and lock park brake.



**FIG. 11**

## DISCONNECT HYDRAULIC HOSES



**CAUTION: Avoid injury! Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.**

- Relieve hydraulic pressure by moving the hydraulic control lever back and forth and side to side several times.
- Disconnect the four loader hydraulic hoses at the hydraulic quick couplers.
- Install dust caps on tractor hydraulic couplers.
- Store hydraulic hoses between the mainframe and lift cylinders.
- Start engine, unlock park brake and slowly back the tractor away from the loader.



**CAUTION: Avoid injury!**

**When the attachment is removed, you must also remove any ballast that was added to the machine.**

**Use only attachments and accessories recommended by the manufacturer.**

- Remove ballast.  
See weight box instructions included with the weight box.

## STORAGE

### END OF SEASON

1. If loader is to be dismantled from the tractor during storage, make sure parking area is on hard, level ground.
2. Store in a dry, sheltered area, if possible.

**NOTE:** All hydraulic cylinders should be in the retracted position.

3. Thoroughly clean the loader of all accumulated dirt and grease.
4. Completely lubricate the loader as specified in the lubrication section of manual.
5. Using an oil soaked cloth, lubricate all hydraulic cylinder rods to protect them from rust and corrosion.
6. Repaint any areas where paint is worn or damaged.
7. Wear areas on buckets or other attachments should be coated with grease to prevent rust or corrosion.
8. Replace any safety or warning labels that are not readable due to wear or damage.



**WARNING** To prevent injury.

Do not allow children to play on or around the tractor or loader.

## PROCEDURES

### BEGINNING OF SEASON

1. Review safety precautions and operation sections of manual.
2. Thoroughly clean loader of all accumulated dirt and grease.
3. If removed from tractor for storage, remount loader per "Loader Installation" section of this manual.
4. Completely lubricate the loader per the lubrication section of this manual. Make sure all fittings are taking grease properly.
5. Clean with solvent any exposed surfaces which had been coated with grease. Wipe dry with a clean cloth, then lubricate with an oil soaked cloth.
6. Tighten any bolts that may have been loosened and make sure all pins are in place.
7. Start tractor and operate loader to make sure it is operating properly and all hoses are properly connected.
8. Check hydraulic fluid level in tractor and fill if required. Use oil recommended in tractor manual. **Use type F transmission fluid.**
9. Make sure hydraulic hoses, lines and fittings are in good shape and are not leaking. Repair or replace as needed.
10. Ensure rear weight box is in place and is properly weighted, or equivalent counterweight has been added to 3 pt. hitch.
11. Make sure the rear wheels of the tractor are mounted to the rear axle in the position that will provide the widest tread width.

# TROUBLE SHOOTING

## SLOW OR JERKY LOADER OPERATION

- Increase engine speed.
- Cycle loader several times to purge air.
- Check tractor transaxle oil level.
- Check hydraulic system for oil leaks.
- Replace transaxle oil filter.

## OIL LEAKS

- Tighten fittings, use thread sealant.
- Replace defective parts.
- Check cylinders for damaged o-ring or wiper seal.

## INSUFFICIENT LIFT CAPACITY

- Increase engine speed.
- Check if load exceeds maximum lift capacity specifications.
- Check hydraulic cylinders for internal leakage.

## BOOM AND BUCKET MOVEMENT DOES NOT CORRESPOND TO PROPER CONTROL LEVER MOVEMENT

- Check hydraulic hose connections to the tractor quick couplers.

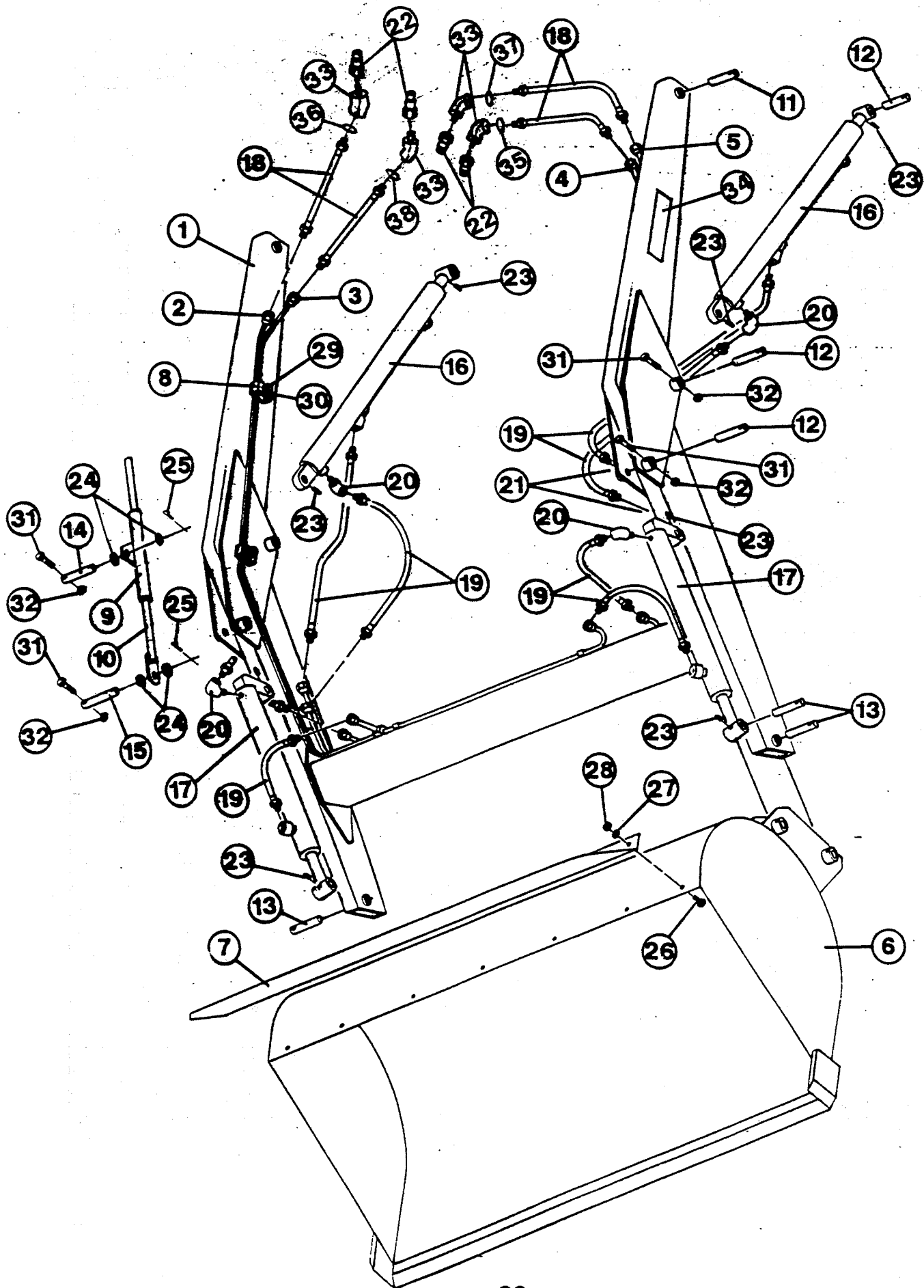
## CYLINDERS DO NOT OPERATE

- Check connections between control valve and cylinder hoses and correct if required.

## BUCKET OR MAINFRAME DRIFT DOWN FROM RAISED POSITION

- Check hydraulic system for oil leaks.
- Check control valve for damaged o-rings or internal leakage.
- Check hydraulic cylinders for internal leakage.

# ASSEMBLY AND REPAIR PARTS - MAINFRAME

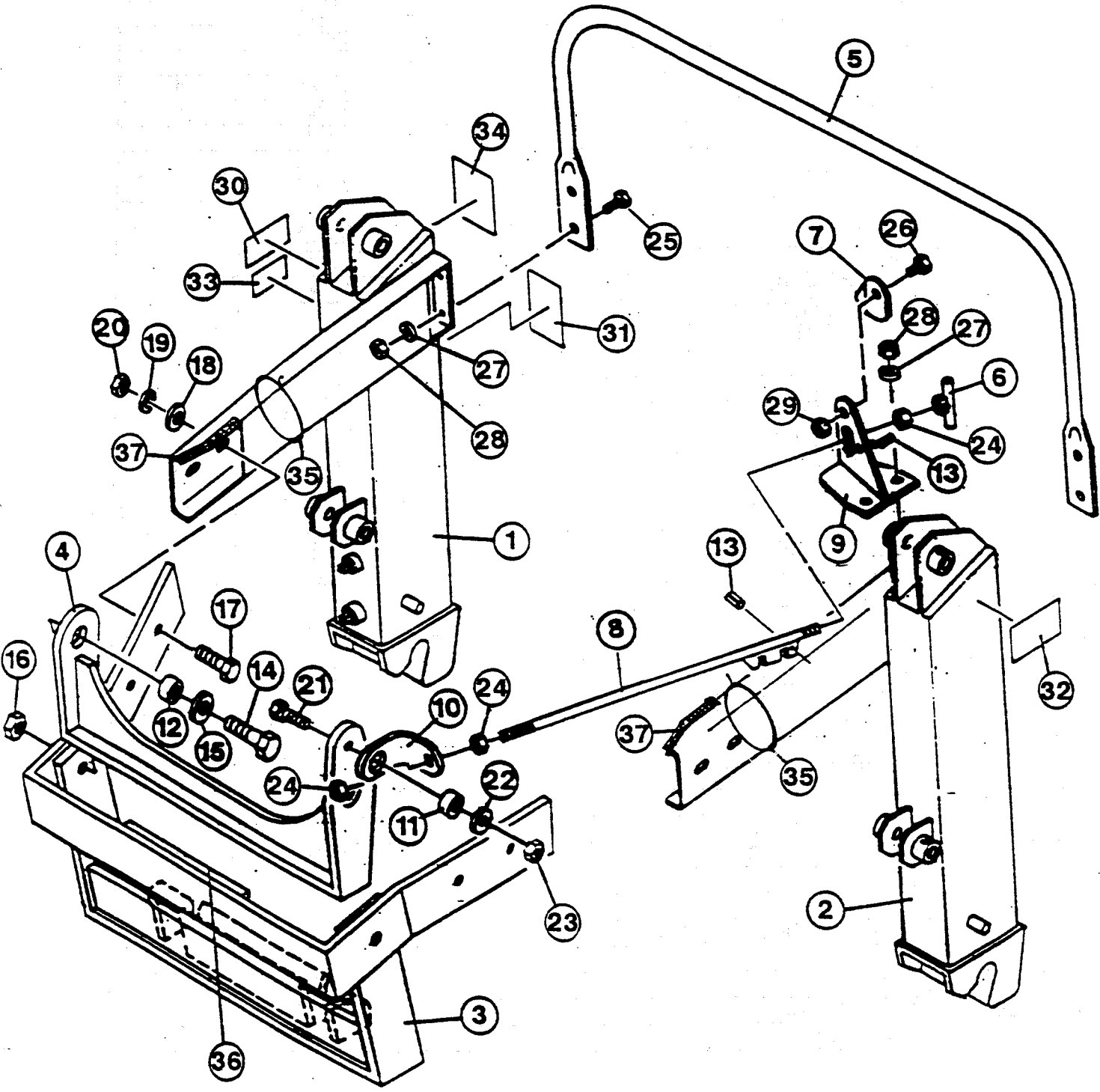


## REPAIR PARTS - MAINFRAME

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	MAINFRAME W/O FEEDLINES	19901	1
2	FEEDLINE - 1 - RH TOP	103064	1
3	FEEDLINE - 2 - RH BOTTOM	103065	1
4	FEEDLINE - 3 - LH TOP	103083	1
5	FEEDLINE - 4 - LH BOTTOM	103084	1
6	48" BUCKET W/O SPLASH GUARD	19964	1
7	SPLASH GUARD	19967	1
8	FEEDLINE CLAMP	12749	6
9	TUBE	17362	1
10	ROD	17365	1
11	PIN - 3.812	19931	2
12	PIN - 3.500	19932	5
13	PIN - 4.000	19933	3
14	PIN - 4.467	19934	1
15	PIN - 4.779	19935	1
16	LIFT CYLINDER	103062	2
17	BUCKET CYLINDER	103102	2
18	3/8 X 42 HYD HOSE 1/4 NPTM X 9/16-18 MJIC	103082	4
19	1/4 X 16 HYD HOSE 9/16-18 ORBM X 9/16-18 MJIC	103080	8
20	9/16-18 ORBM X 9/16-18 ORBF 90° ELBOW	103081	4
21	9/16-18 SWIVEL NUT 90° ELBOW	100900	2
22	1/4 QUICK COUPLER - MALE	103093	4
23	1/4-28 X 5/32 GREASE ZERK	101704	12
24	MACHINERY BUSHING	102033	4
25	5/32 X 1 COTTER PIN	100965	2
26	3/8-16 X 3/4 HEX HD CAPSCREW	100179	7
27	3/8 LOCKWASHER	100074	7
28	3/8-16 HEX NUT	100085	7
29	5/16-18 X 3/4 HEX HD CAPSCREW	100039	6
30	5/16 LOCKWASHER	100073	6
31	1/4-20 X 1-3/4 HEX HD CAPSCREW	100303	12
32	1/4-20 HEX LOCKNUT	101281	12
33	1/4 X 45° STEEL ST. ELBOW	100588	4
34	DECAL - SIMPLICITY FL500	103114	2
35	WASHER - NYLON - BLUE	103117	1
36	WASHER - NYLON - YELLOW	103118	1
37	WASHER - NYLON - RED	103119	1
38	WASHER - NYLON - GREEN	103120	1



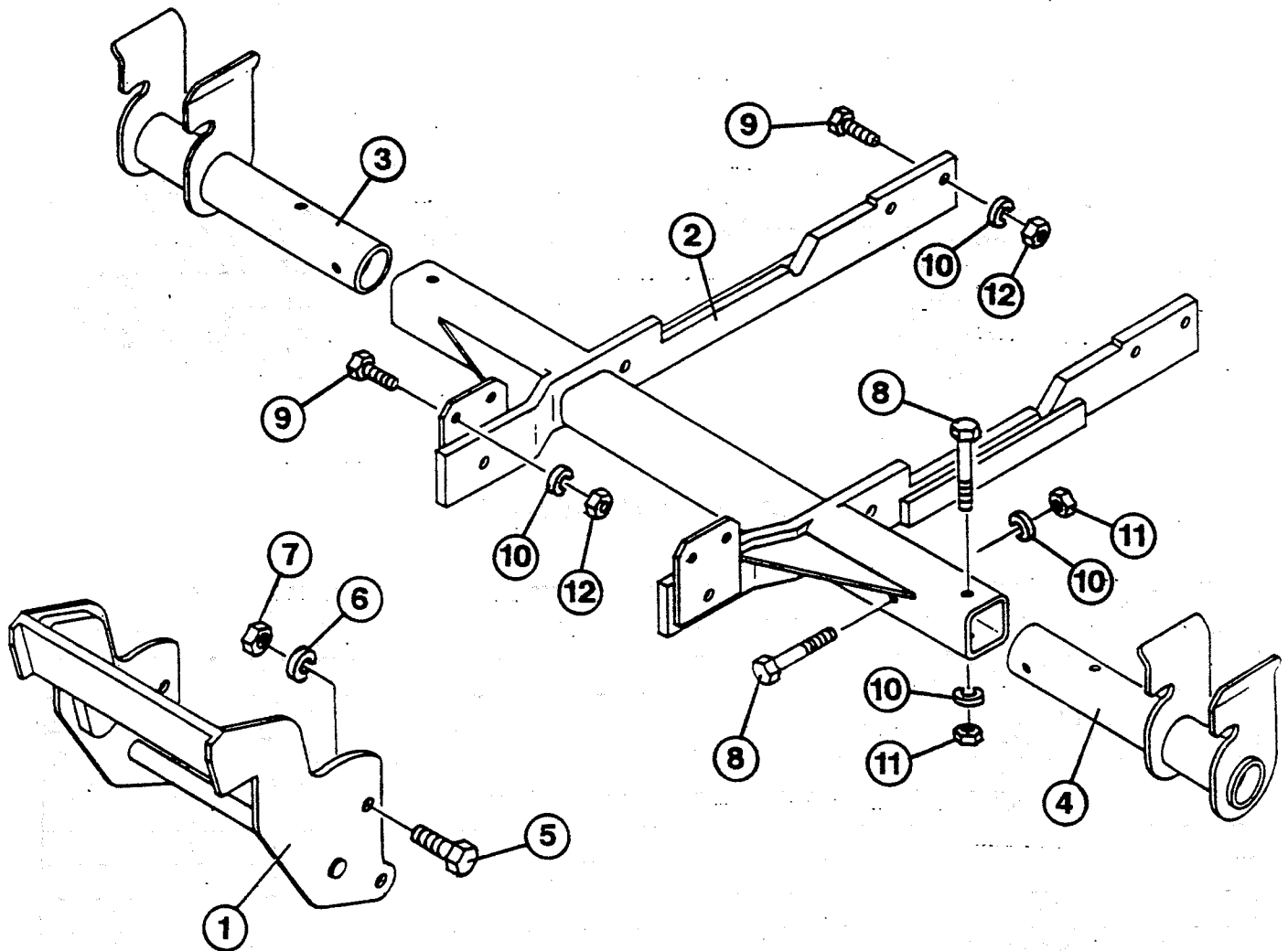
# ASSEMBLY AND REPAIR PARTS - UPRIGHTS



## REPAIR PARTS - UPRIGHTS

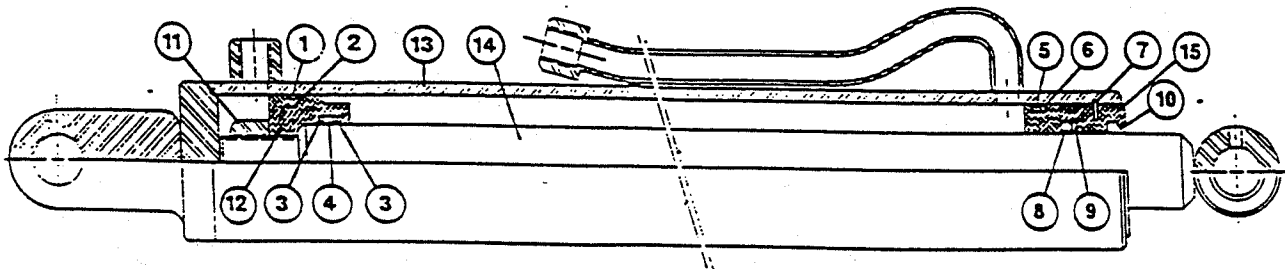
REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	UPRIGHT - RH	19928	1
2	UPRIGHT - LH	19914	1
3	LATCH FRAME	19952	1
4	LATCH	19936	1
5	CROSS TUBE	19951	1
6	LOCK ROD HANDLE	19949	1
7	LOCK TAB	19948	1
8	ROD LOCK	19944	1
9	ROD - LATCH	19941	1
10	ROD BRACKET	20003	1
11	BUSHING	19947	1
12	BUSHING	19961	2
13	1/4 X 1 SPRING PIN	101416	2
14	3/4-10 X 2-1/2 HEX HD CAPSCREW	100453	2
15	3/4 FLATWASHER	100252	2
16	3/4-10 HEX LOCKNUT	103094	2
17	5/8-11 X 2 HEX HD CAPSCREW	100238	4
18	5/8 FLATWASHER	100082	4
19	5/8 LOCKWASHER	100077	4
20	5/8-11 HEX NUT	100239	4
21	1/2-13 X 1-1/2 HEX HD CAPSCREW	100057	1
22	7/16 FLATWASHER	100080	1
23	1/2-13 HEX LOCKNUT	101936	1
24	1/2-13 HEX NUT	102932	3
25	3/8-16 X 1 HEX HD CAPSCREW	100045	4
26	3/8-16 X 3/4 HEX HD CAPSCREW	100179	1
27	3/8 LOCKWASHER	100074	6
28	3/8-16 HEX NUT	100085	6
29	3/8-16 HEX LOCKNUT	101450	1
30	DECAL - WARNING	102039	1
31	DECAL - WARNING	102045	1
32	DECAL - WARNING	102046	1
33	DECAL - NOTICE	103132	1
34	DECAL - LOADER INSTRUCTION	102727	1
35	NYLON TIE	100979	4
36	CUSHION STRIP	20020	1
37	TRIM STRIP	20021	2

# ASSEMBLY AND REPAIR PARTS - SUBFRAME



REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	FRONT MOUNT	19986	1
2	SUBFRAME	19992	1
3	SUBFRAME TUBE - RH	19999	1
4	SUBFRAME TUBE - LH	20002	1
5	5/8-11 X 2 HEX HD CAPSCREW	100238	4
6	5/8 LOCKWASHER	100077	4
7	5/8-11 HEX NUT	100239	4
8	1/2-20 X 3-1/2 HEX HD CAPSCREW GR. 8	103096	4
9	1/2-13 X 1-1/2 HEX HD CAPSCREW	100057	8
10	1/2 LOCKWASHER	100076	12
11	1/2-20 HEX NUT GR. 8	103097	4
12	1/2-13 HEX NUT	100087	8

# HYDRAULIC CYLINDER ASSEMBLY AND REPAIR PARTS



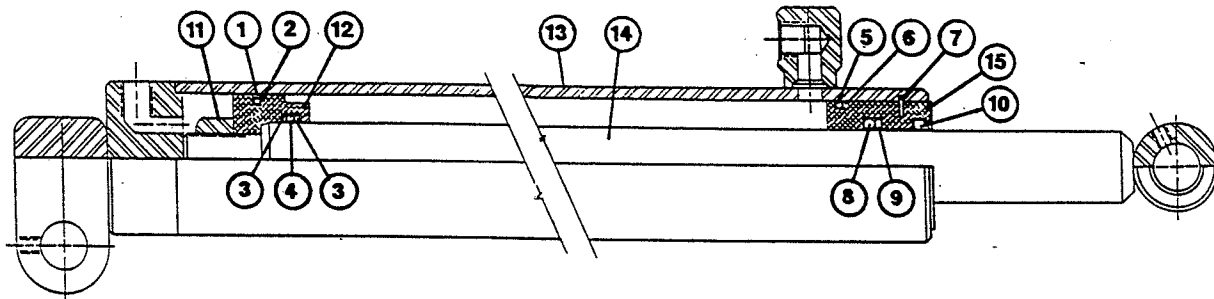
## CYLINDER P/N 103062

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	PISTON RING	103104	1
2	O-RING	103105	1
3	BACK-UP	102192	2
4	O-RING	102193	1
5	O-RING	103106	1
6	BACK-UP	103107	1
7	SNAP RING	103108	1
8	O-RING	102197	1
9	BACK-UP	102198	1
10	WIPER	102199	1
11	3/4-16 LOCKNUT	102206	1
12	PISTON	103109	1
13	BARREL	103113	1
14	ROD	102202	1
15	HEADGLAND	103111	1

ITEMS 1 THRU 10, IN QUANTITIES SHOWN  
ARE INCLUDED IN SEAL KIT P/N 103112  
THESE ITEMS ARE NOT AVAILABLE SEPARATELY.

CYLINDER DIA.	1 3/4
ROD DIA.	1 1/8
STROKE	16 1/2
RETRACTED LENGTH	24 1/2
EXTENDED LENGTH	41

# HYDRAULIC CYLINDER ASSEMBLY AND REPAIR PARTS



## CYLINDER P/N 103102

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	PISTON RING	102190	1
2	O-RING	102191	1
3	BACK-UP	102192	2
4	O-RING	102193	1
5	O-RING	102194	1
6	BACK-UP	102195	1
7	SNAP RING	102196	1
8	O-RING	102197	1
9	BACK-UP	102198	1
10	WIPER	102199	1
11	3/4-16 LOCKNUT	102206	1
12	PISTON	102200	1
13	BARREL	103103	1
14	ROD	102205	1
15	HEADGLAND	102203	1

ITEMS 1 THRU 10, IN QUANTITIES SHOWN  
ARE INCLUDED IN SEAL KIT P/N 102189.  
THESE ITEMS ARE NOT AVAILABLE SEPARATELY.

CYLINDER DIA.	2
ROD DIA.	1 1/8
STROKE	11
RETRACTED LENGTH	20 1/2
EXTENDED LENGTH	31 1/2

# **OWNER'S MANUAL**

ASSEMBLY • REPAIR PARTS

## **WEIGHT BOX**

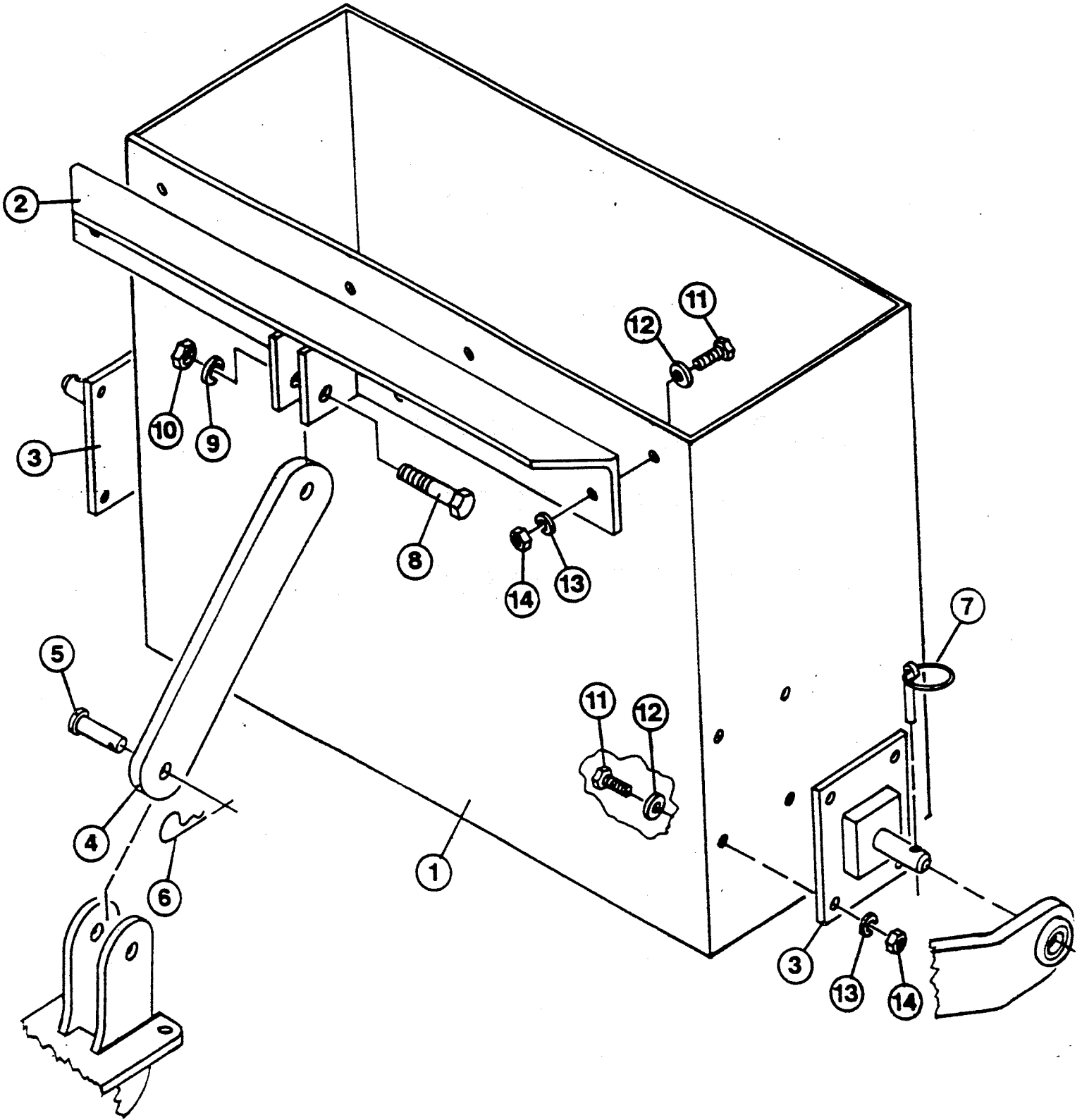
FOR

### **SIMPLICITY LEGACY XL**

### **AGCO 2027**

### **MASSEY FERGUSON 2927**

# WEIGHT BOX ASSEMBLY AND REPAIR PARTS (FOR TRACTORS EQUIPPED WITH 3-PT. HITCH)

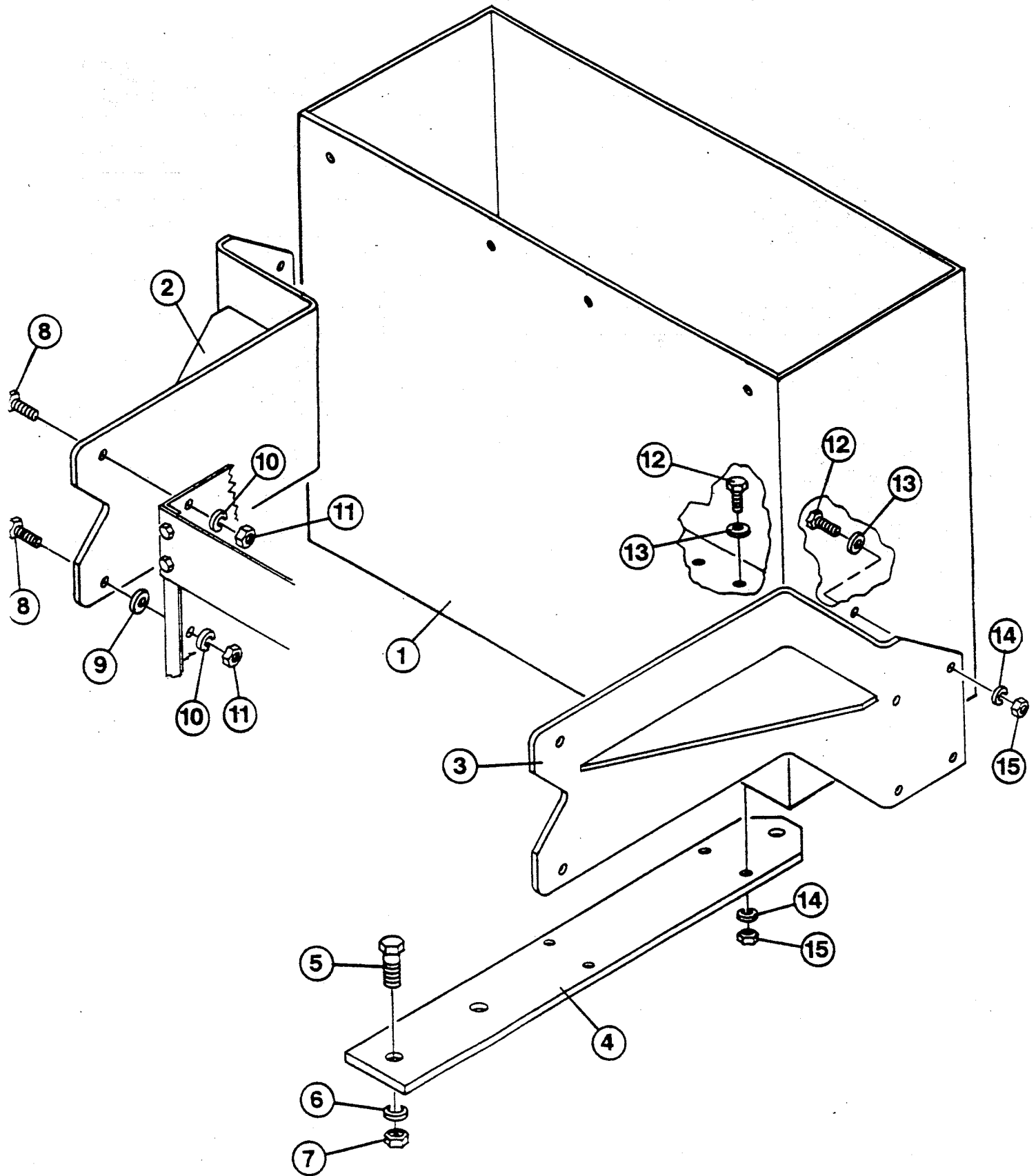


**WEIGHT BOX REPAIR PARTS**  
**(FOR TRACTORS EQUIPPED WITH 3-PT. HITCH)**

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	WEIGHT BOX	20024	1
2	UPPER MOUNT	19972	1
3	LOWER LINK BRACKET	19975	2
4	UPPER LINK STRAP	19979	1
5	5/8 X 2-1/4 CLEVIS PIN	102156	1
6	#11 CLIP PIN	100172	1
7	1/4 X 1-3/4 LYNCH PIN	101307	2
8	5/8-11 X 2 HEX HD CAPSCREW	100238	1
9	5/8 LOCKWASHER	100077	1
10	5/8-11 HEX NUT	100239	1
11	3/8-16 X 1 HEX HD CAPSCREW	100045	12
12	3/8 FLATWASHER	100079	12
13	3/8 LOCKWASHER	100074	12
14	3/8-16 HEX NUT	100085	12

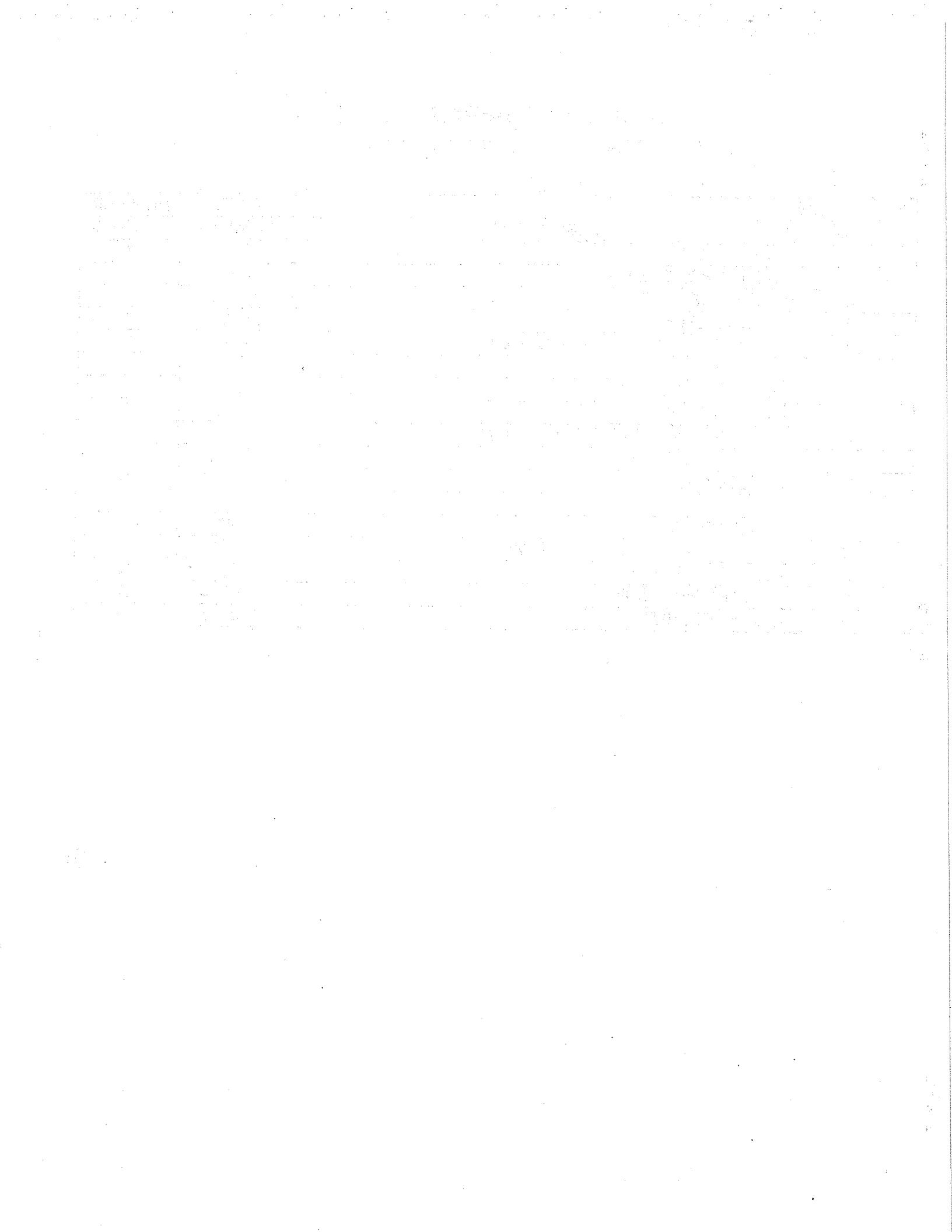


# WEIGHT BOX ASSEMBLY AND REPAIR PARTS (FOR TRACTORS WITHOUT 3-PT. HITCH)



**WEIGHT BOX REPAIR PARTS**  
(FOR TRACTORS WITHOUT 3-PT. HITCH)

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	WEIGHT BOX	20024	1
2	MOUNT BRACKET-RH	19980	1
3	MOUNT BRACKET-LH	19983	1
4	HITCH PLATE	20027	1
5	3/4-10 X 1-1/2 HEX HD CAPSCREW	100451	1
6	3/4 LOCKWASHER	100170	1
7	3/4-10 HEX NUT	100169	1
8	1/2-13 X 1-1/4 HEX HD CAPSCREW	100056	4
9	1/2 FLATWASHER	100081	2
10	1/2 LOCKWASHER	100076	4
11	1/2-13 HEX NUT	100087	4
12	3/8-16 X 1 HEX HD CAPSCREW	100045	12
13	3/8 FLATWASHER	100079	12
14	3/8 LOCKWASHER	100074	12
15	3/8-16 HEX NUT	100085	12



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