



# **NEW HOLLAND OPERATOR'S MANUAL**

**Series 610TL  
Farm Loader**

**LOADER SERIAL #Y6WS10001 AND GREATER**



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# INTRODUCTION

This manual provides operation, maintenance, assembly and parts identification for your new loader.

Your New Holland 610TL Loader is designed for use on New Holland TT45A and TT50A 2WD tractors .

Successful operation and long life of your loader depends. of course, on proper operation and the care given it. Please read this manual carefully and follow all instructions. Correct operation and maintenance will save much time and expense.

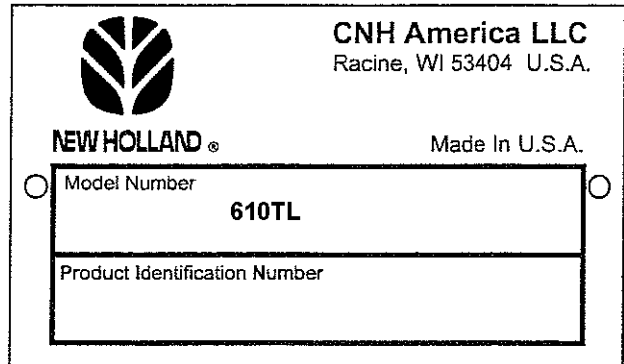


This SAFETY ALERT SYMBOL identifies IMPORTANT SAFETY MESSAGES in this manual. OBSERVE and FOLLOW all SAFETY MESSAGES to prevent personal injury

Reference to the left and right used in this manual refer to position when standing at the rear of the unit facing forward, unless otherwise specified.

If at any time you have a service problem with your loader, or need new parts, contact your local New Holland equipment dealer.

Your dealer will need your loader model, serial number and product identification number\* to give prompt efficient service.



\*Your loader serial and product identification numbers are stamped on this plate located on the inside of the left boom arm.

**DATE PURCHASED** \_\_\_\_\_

# Safety Precautions

Following are precautions suggested to help prevent accidents.

A careful operator operates best. Most accidents can be avoided by observing certain precautions. Read all precautions that follow before operating your tractor and loader to help prevent accidents. Equipment should be operated only by those who are responsible and instructed to do so.

## GENERAL

1. Read your Operator's Manuals carefully before using tractor or loader.
2. Replace damaged or illegible safety decals See page 22 for required decals.
3. Operate tractor and loader only from operator's seat.

## TRACTOR

- 1 Use an approved rollbar and seat belt for safe operation. Overturning a tractor without rollbar can result in death or serious injury. If your tractor is not equipped with a rollbar and seat belt, see your Tractor Dealer.
- 2 Equip your tractor with FOPS (Falling Object Protective Structure) before installing or operating loader.
- 3 Always use seat belt with ROPS in raised position. Do not use seat belt if ROPS is lowered.
- 4 Add recommended wheel ballast and/or rear weight as recommended in tractor operator's manual to provide good stability.
- 5 Move rear wheels to widest settings recommended to increase stability.
- 6 Move and turn tractor at low speeds.

## LOADER

- 1 Improper use of a loader can cause serious injury or death.
- 2 Do not lift or carry anybody on loader, in bucket or on attachment.
- 3 Never allow anyone to get under loader bucket or reach through lift arms when bucket is raised.
- 4 Do not walk or work under a raised loader or bucket or attachment unless it is securely blocked or held in position.
- 5 Avoid overhead wires and obstacles when loader is raised. Contacting electric lines can cause electrocution.
- 6 Make sure all parked loaders are on a hard, level surface. Engage all safety devices.

## OPERATING LOADER

- 1 As owner of this loader, it is your responsibility to be certain anyone operating this loader has read this manual first to be aware of safe operation of your tractor and loader.
- 2 Exercise caution when operating any loader with a raised loaded bucket or attachment.
- 3 Avoid loose fill, rocks and holes. They can be dangerous for loader operation or movement.
- 4 Use care when operating on steep grades to maintain proper stability. Always carry bucket or attachment as low as possible.
- 5 Allow for loader length when making turns.



Whenever you see this symbol it means:

**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

- 6 Stop loader arms gradually when lowering or lifting.
- 7 Use caution when handling loose or shiftable loads.
- 8 Carry bucket or attachment at a low position during transport for better visibility.
- 9 When parking or servicing, lower bucket or attachment to ground, stop engine and set park brakes before leaving tractor seat.
- 10 Operate loader controls only when properly seated at controls.
- 11 Using front end loaders without special attachments for handling large heavy objects such as large round or rectangular bales, logs and oil drums is NOT RECOMMENDED.
- 12 Handling large heavy objects can be extremely dangerous due to:
  - Danger of rolling tractor over.
  - Danger of upending tractor.
  - Danger of objects rolling or sliding down loader arms onto operator.
- 13 If you must perform this sort of work (see 12 above), protect yourself by:
  - Use proper attachments only.
  - Never lift load higher than necessary to clear ground when moving.
  - Ballast tractor rear to compensate for load.
  - Never lift large objects with equipment that does not have an anti-rollback device.
  - Move slowly and carefully, avoiding rough terrain.

## MAINTENANCE

- 1 When servicing or replacing pins in cylinder ends, buckets, etc., always use a drift and hammer of non-sparking material. Failure to do so could result in injury from flying metal fragments.
- 2 Do not modify or alter or permit anyone else to modify or alter loader or any of its components or any loader function without first consulting your Dealer. If you have any questions regarding loader modifications contact New Holland North America, Inc.
- 3 Always wear safety goggles when servicing or repairing tractor or loader.
- 4 Escaping hydraulic or diesel fluid under pressure can penetrate skin causing serious personal injury.
  - DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks.
  - Stop engine and relieve pressure before connecting or disconnecting hydraulic or diesel lines.
  - Tighten all connections before starting engine or pressurizing lines.
  - If any fluid is injected into skin, obtain medical attention immediately or gangrene may result.
- 5 Do not tamper with relief valve setting. Valve relief is factory-set. Changing relief setting can cause overloading of your tractor or loader and serious operator injury may result.

# OPERATION

## Preparing Tractor Prior To Operation



**WARNING:** Read all operator's manuals before inspecting, servicing or operating loader and tractor.

## INSPECTION

Thoroughly inspect your fully assembled tractor and loader before operation.

1. Check all hardware to be sure that it has been properly installed and tightened. Retighten all hardware after 10 hours of initial operation.
2. Check tire pressure. Refer to tractor operator's manual for recommended pressures and permissible loads.
3. Review tractor lubrication schedule and consult MAINTENANCE section of this manual to be certain all pivot points have been properly lubricated.
4. Use instructions listed in MAINTENANCE section of this manual to check all hose and tubing connections to ensure no leaks are present.
5. Be sure FOPS (Falling Object Protective Structure) is installed.
6. Front axle tread setting should not be set at narrowest position on FWA tractors due to tire interference with loader mounts. Adjust front and rear tires to widest allowable tread setting for better stability.

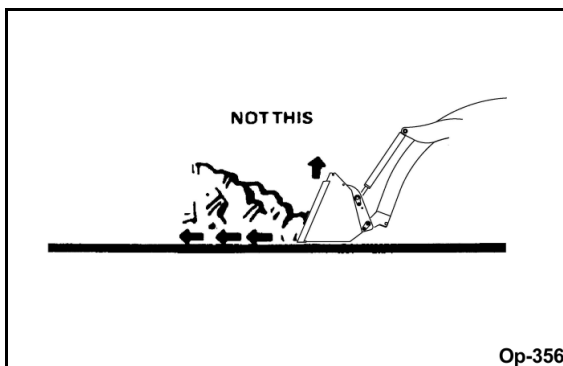
## Operating Loader

This loader should be operated with tractor engine running at 1700-2200 rpm. Excessive speeds are dangerous, and may cause bucket spillage and unnecessary strain on bucket and loader.

When operating in temperatures below 30°F., run tractor engine below 1200 rpm until oil temperature exceeds 30°F. Text and illustrations which follow offer suggested loader and tractor operating techniques.

- FILLING BUCKET

Approach and enter a pile with bucket level.



## Installing Counterbalance



**WARNING:** Before operating tractor and loader, add sufficient counterweight so a minimum of 30% of total weight of tractor, loader and rated load is on rear wheels when bucket contains rated load and is in maximum forward position.

Sufficient weight can be added to tractor by filling rear wheels with liquid ballast, installing wheel weights or 3-point hitch counterweight. If 3-point hitch counterweights are used, they should be carried as low as possible at all times to maximize stability.

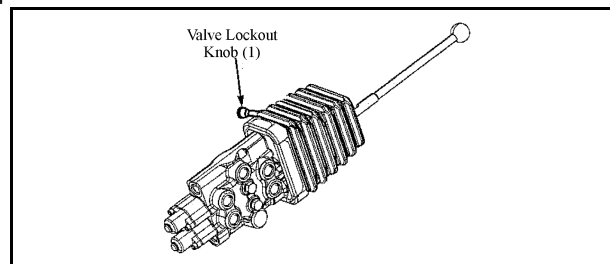
Effective counterbalance weight of mounted rear equipment is determined by multiplying actual weight of equipment by 1.50.

EXAMPLE: Equipment weighing 800 pounds, attached to rear of tractor, multiplied by 1.50, equals 1200 pounds of effective counterbalance weight.

After adding recommended counterweight, weigh tractor at rear axle to be sure counterbalance is adequate.

## Valve Lockout

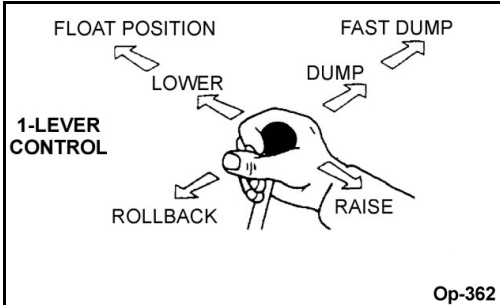
The valve lock mechanically locks the lift spool in the neutral position. To operate lock, pull and turn knob, 1, to release valve lock. To engage lock, turn knob and release, the lock mechanism is spring loaded to the engaged position.



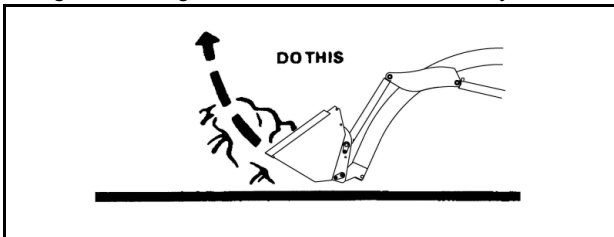
# OPERATION

## Loader Valve Control

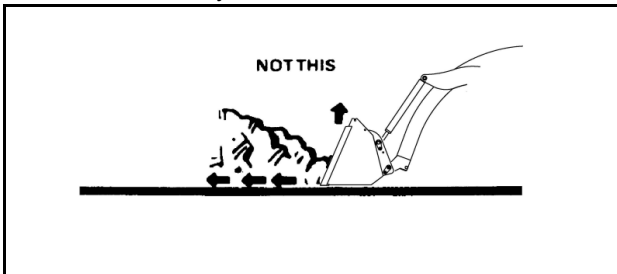
To operate loader 1-lever control, ease lever back and toward you to lift and curl bucket. Function requiring least amount of pressure will operate first. To lower bucket, push lever forward. Pushing lever all the way forward will put the loader in float position. To dump bucket, move lever slightly to the right. To dump faster, move lever further to the right to activate the regenerative function.



Lifting and curling bucket will increase efficiency because...



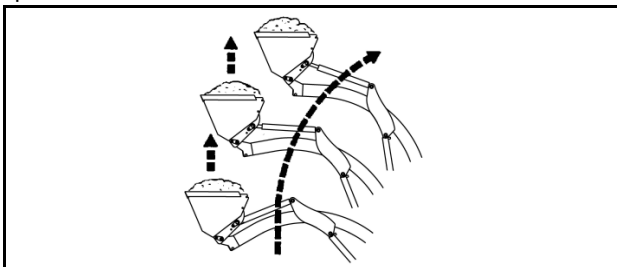
... a level bucket throughout lift cycle resists bucket lift and increases breakaway effort.



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

## Lifting Load

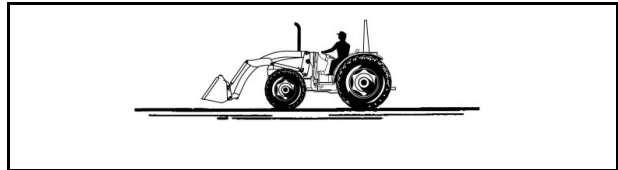
When lifting load, keep bucket positioned to avoid spill



**CAUTION:** Do not attempt to lift bucket loads in excess of loader capacity.

## Carrying Load

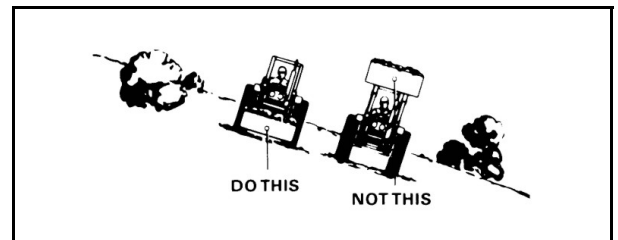
Position bucket just below level of tractor hood for maximum stability and visibility, whether bucket is loaded or empty.



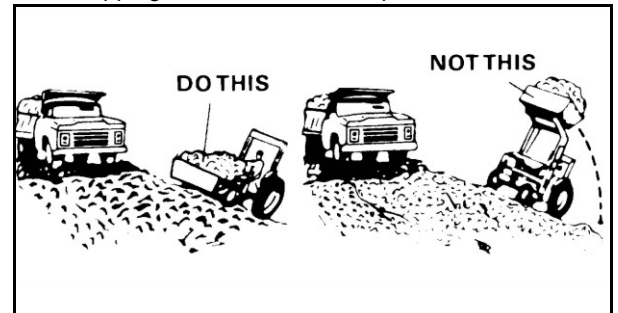
Use extreme care when operating loader on a slope, keep bucket as low as possible. This keeps center of gravity for loader, bucket and tractor low and will provide maximum tractor stability.



**WARNING:** Operating a loader on a hillside is dangerous. Extreme care is recommended to avoid overturn.

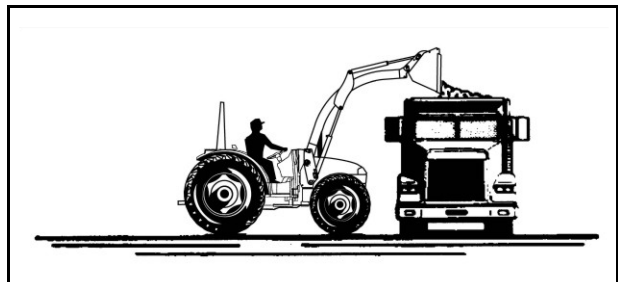


When transporting a load, keep bucket as low as possible to avoid tipping, in case a wheel drops in a rut.



## Dumping Bucket

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



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