

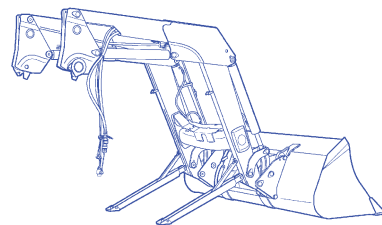
NEW HOLLAND

870TL

For TG Series Tractors

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1st Printing

OPERATOR'S MANUAL



NEW HOLLAND

TO THE OWNER

This manual contains information concerning the adjustment and maintenance of your New Holland Model 870TL Loader. You have purchased a dependable machine, but only by proper care and operation can you expect to receive the performance and long service built into this loader. Please have all operators read this manual carefully and keep it available for ready reference.



The 870TL loader was designed to mount on New Holland TG series tractors. The loader is designed to load and move materials with a variety of buckets and approved New Holland attachments.

Your New Holland dealer will instruct you in the general operation of your loader. (Refer to the "Delivery Report" at the back of this manual.) Your dealer's staff of factory-trained service technicians will be glad to answer any questions that may arise regarding the operation of your loader.

Your New Holland dealer carries a complete line of genuine New Holland service parts. These parts are manufactured and carefully inspected to insure high quality and accurate fitting of any necessary replacement parts. Be prepared to give your dealer the model and product identification number of the engine and loader, when ordering parts. Locate these numbers now and record them below. Refer to the "General Information" section of this manual for the location of the model and product identification numbers of your loader.

Loader Model _____ Tractor Model _____

Loader PIN Number _____ Tractor PIN Number _____

		CNH America LLC Racine, WI 53404 U.S.A. Made in Sweden	
Model Number XXXXXXX			
Product Identification Number *XXXXXXXXXX*			
Year Built 2006-03-14			
5514x80000		123456789	
			



This safety alert symbol indicates important safety messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death.



Pictures in this manual may show protective shielding open or removed to better illustrate a particular feature or adjustment. Be certain, however, to close or replace all shielding before operating the machine.

IMPROVEMENTS

CNH America LLC is continually striving to improve its products. We reserve the right to make improvements or changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.

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FEDERAL EMISSIONS WARRANTY

(North America Only)

(California owner's emissions warranty is covered elsewhere)

CNH UK Ltd warrants that your new 1996 and later heavy-duty off-road diesel engine was designed, built, and equipped to conform to applicable U.S. Environmental Protection Agency regulations for a period of use of five years or 3,000 hours of operation, whichever occurs first.

The new model year, class of diesel engine, and emission application determination for your engine are identified on the emission control information label affixed to the engine. The warranty period begins on the date the new equipment is sold to the first retail purchaser.

Any emission control system parts which are proven defective during normal use will be repaired or replaced during the warranty period. The warranty repairs and service will be performed by any authorized CNH dealer at the dealer's place of business, with no charge for parts or labor (including diagnosis).

As the engine owner, you are responsible to perform all the required maintenance listed in your owner's manual. CNH UK Ltd will not deny an emission warranty claim solely because you have no record of maintenance; however, a claim may be denied if your failure to perform maintenance resulted in the failure of a warranted part. Receipts covering regular maintenance should be retained in the event of questions and these receipts should be passed on to each subsequent owner of the engine.

It is recommended replacement parts used for maintenance or repairs be CNH Service Parts to maintain the quality originally designed into your emission certified engine. The use of non-CNH parts does not invalidate the warranty on other components unless the use of such parts causes damage to warranted parts.

CNH UK Ltd wishes to assure the emission control systems warranty is being properly administered. If you believe you have not received the service entitled to under this warranty, you should contact the nearest CNH Office for assistance. The address and phone number of each Office is in your equipment owner's manual. If additional assistance or information is needed, contact:

Service Department
CNH America, LLC
500 Diller Avenue
New Holland, PA 17557
(717) 355-1121

Please note that the Emission Warranty does not cover:

1. Systems and parts that were not first installed on the new equipment or engine as original equipment by CNH UK Ltd.
2. Part malfunctions caused by abuse, misuse, improper adjustment, modification, alteration, tampering, disconnection, improper or inadequate maintenance, or use of non-recommended fuels and lubricating oils.
3. Accident caused damage, acts of nature, or other events beyond CNH UK Ltd's control.
4. Replacement of expendable items made in connection with scheduled maintenance.
5. Parts requiring replacement, inspection or adjustment maintenance intervals for reasons other than being defective.
6. Parts which are not CNH Service Parts.
7. Loss of time, inconvenience, loss of use of equipment/engine or commercial loss.
8. Equipment with altered or disconnected hourmeter where the hours cannot be determined.
9. Equipment normally operated outside the United States.
10. Non-defective parts replaced by other than CNH dealers.

Coverage

This emission control system warranty applies only to the following emission control parts.

Electronic Control Unit
Fuel Injection Pump
Fuel Injectors
Turbocharger
Intake Manifold
Exhaust Manifold
Boost Pressure Tubing-connection to Aneroid Device ON F.I.P.

CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT

(North America Only)

(California Only)

Your Warranty Rights and Obligations

The California Air Resources Board and CNH UK LTD are pleased to explain the emission control system warranty on your engine. In California, new 2004 and later heavy-duty off-road engines from 50 to 750 HP must be designed, built and equipped to meet the State's stringent anti-smog standards. CNH UK LTD must warrant the emission control system on your engine for the periods of time listed below, provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system includes parts such as the fuel injection system and the air induction system.

Where a warrantable condition exists, CNH UK LTD will repair your heavy-duty off-road engine at no cost to you including diagnosis, parts and labor.

Manufacturer's Warranty Coverage:

The 2004 and later heavy-duty off-road engines are warranted from the original date of delivery for five years or 3000 hours of operation, whichever occurs first. If any emission-related part on your engine is defective, the part will be repaired or replaced by CNH UK LTD.

Owner's Warranty Responsibilities:

- As the heavy-duty off-road engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. CNH UK LTD recommends that you retain all receipts covering maintenance on your heavy-duty off-road engine, but CNH UK LTD cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- As the heavy-duty off-road engine owner, you should, however, be aware that CNH UK LTD may deny you warranty coverage if your heavy-duty off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.
- Your engine is designed to operate on commercially available diesel fuel only. Use of any other fuel may result in your engine no longer operating in compliance with California's emissions requirements.
- You are responsible for initiating the warranty process. The ARB suggests that you present your heavy-duty off-road engine to a CNH dealer as soon as a problem exists. The warranty repairs should be completed by the dealer as expeditiously as possible.
- If you have any questions regarding your warranty rights and responsibilities, you should contact your nearest CNH Office at the address and telephone number listed on the Owner Assistance page of your equipment's operator manual.
- Prior to the expiration of the warranty, you must give notice of any failure of an emission control warranted part. Such notice must be given to CNH UK LTD or an authorized CNH dealer, and you must deliver the engine to the repair location.
- You, the owner, are responsible for incidental costs incurred by yourself or your employees as a result of an unwarrantable failure. Examples of such costs are communication expenses, meals and lodging.
- The owner is responsible for any business costs or losses, any "downtime" expenses and any "cargo" damage which result from the failure of a warranted part. CNH UK LTD is not responsible for other incidental or consequential damages, including, but not limited to fines, theft, vandalism or collisions.

Parts covered:

This emission control system warranty applies to the following emission control parts:

Electronic Control Unit
Fuel Injection Pump
Fuel Injectors
Turbocharger

Intake Manifold
Charge Air Cooler
Exhaust Manifold
Boost Pressure Tubing (connection to Aneroid Device on F.I.P.)

Any replacement part, equivalent in performance and durability, may be used in the performance of any maintenance or repairs and must be provided without charge to the owner. The use of these parts does not reduce the warranty obligations of CNH UK LTD. However, CNH UK LTD recommends the use of new, genuine CNH service parts or CNH approved rebuilt parts and assemblies. CNH UK LTD also recommends that the engine be serviced by a CNH authorized dealer.

CNH UK LTD Responsibilities:

Warranty work will be provided at no charge to the owner at any authorized dealer, using genuine CNH service parts or CNH approved rebuilt parts or assemblies.

The owner will not be charged for diagnostic labor which leads to the determination that a warranted part is defective, if the diagnostic work was performed at a warranty station.

CNH UK LTD is liable for damages to other engine components caused by the failure under warranty of any warranted part.

Warranty Limitations

CNH UK LTD is not responsible for failures resulting from abuse or neglect by owner or operator.

CNH UK LTD warrants to the ultimate purchaser and each subsequent purchaser that the engine is designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board, and that it is free from defects in materials and workmanship which cause the failure of a warranted part.

Any warranted part which is not scheduled for replacement as required maintenance, or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" is warranted for the warranty period.

Any warranted part which is scheduled for replacement as required maintenance is warranted for the period of time prior to the first scheduled replacement point of that part.

CNH UK LTD is not liable to warrant failures caused by the use of add-on or modified parts.

CNH UK LTD is concerned to ensure proper maintenance of the engine to maximise emissions performance. Information on care and replacement of engine air cleaner, and all other aspects of engine maintenance is provided in a manual supplied to the owner. A maintenance schedule chart is provided in the manual.

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

PRECAUTIONARY STATEMENTS

PERSONAL SAFETY

Throughout this manual and on machine decals, you will find precautionary statements (“**DANGER**”, “**WARNING**”, and “**CAUTION**”) followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.



DANGER



This word “**DANGER**” indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.



WARNING



This word “**WARNING**” indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.



CAUTION



This word “**CAUTION**” indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

FAILURE TO FOLLOW THE “DANGER”, “WARNING”, AND “CAUTION” INSTRUCTIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH.

MACHINE SAFETY

The precautionary statement (“**IMPORTANT**”) is followed by specific instructions. This statement is intended for machine safety.

IMPORTANT: *The word “IMPORTANT” is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.*

INFORMATION

NOTE: *Instructions used to identify and present supplementary information.*

SAFETY

PRECAUTIONARY STATEMENTS

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, read the following precautions before operating this equipment. Equipment should be operated only by those who are responsible and instructed to do so.

Carefully review the procedures given in this manual with all operators. It is important that all operators be familiar with and follow safety precautions.

OPERATING THE LOADER

1. The equipment owner is responsible to make certain that all operators read this manual thoroughly and understand the safety precautions and proper operating procedures. Be certain all operators are qualified before allowing operation.
2. Always check with proper authorities for underground utilities before digging.
3. Exercise caution when operating the loader with a raised bucket or attachment.
4. Avoid loose fill, rocks and holes. These are dangerous conditions for loader operation or transport.
5. Use caution when operating on steep grades. Always carry the bucket or attachment in the lowest possible position to maintain maximum stability. Select the proper gear BEFORE attempting to travel on a steep grade. Avoid shifting on grades and never "free wheel".
6. Be sure to allow for the length of the loader when making turns or working in confined areas.
7. Stop the loader arms gradually when raising or lowering the loader.
8. Carry the bucket or attachment as low as possible to increase visibility and stability during transport.
9. When parked or during servicing of the loader, lower the bucket to the ground, stop the engine, set the park brake and remove the key from the key switch. Special care should be taken to park or store attachments with sharp points or edges in a safe manner.
10. Do not operate loader controls unless properly seated in the operator's seat.
11. NEVER attempt to handle large, heavy objects such as large round or rectangle bales, logs or oil drums unless the specific special attachments are used. Handling such objects is not recommended without special equipment.
12. Handling large heavy objects can be dangerous due to the following:
 - danger of overturning the tractor
 - danger of upending the tractor
 - danger of the object rolling or sliding down the loader arms onto the operator
13. If the type of work in precaution # 12 must be performed adhere to the following:
 - always use the proper attachment
 - never lift the load higher than necessary to clear the ground while moving
 - ballast the rear of the tractor to compensate for the weight of the load
 - never lift large or heavy objects with equipment that does not have an anti-rollback device
 - move slowly and carefully, avoiding rough or uneven terrain
14. Loader lift capacity and break-away capacity diminish as the loader height is increased. Use care not to grasp more material than the loader is designed to handle.

MAINTENANCE

1. Always wear eye protection when servicing or repairing the loader.
2. Do not modify, alter or permit anyone else to modify or alter the loader or any of its components or functions without first consulting a New Holland dealer. Contact your dealer with questions about the loader.
3. Escaping hydraulic fluid or diesel fuel under pressure can penetrate the skin causing serious injury. To prevent serious personal injury:
 - DO NOT use your hand to check for suspected leaks under pressure
 - Use a piece of cardboard or heavy paper to search for leaks
 - Stop the engine and relieve the pressure in the system before connecting or disconnecting hydraulic or diesel lines and fittings
- Tighten all lines and fittings before starting the engine and pressurizing the system
- If any fluid is injected into the skin, obtain medical attention IMMEDIATELY to avoid the onset of Gangrene
4. DO NOT tamper with or change the relief valve settings. The relief valve is preset at the manufacturer for optimum performance and safety. Changing the settings may cause overloading of the tractor hydraulic system resulting in equipment failure and/or serious operator injury.
5. When servicing or replacing the pins in the cylinder ends, bucket, etc., always use a brass drift. Failure to do so could result in equipment damage and/or personal injury due to flying metal fragments.



**WHEN YOU SEE THIS SYMBOL
IT MEANS:
ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!**

SAFETY INSTRUCTIONS

GENERAL INFORMATION

Operator safety is one of the most important matters when a new loader is designed. The designer builds in as many safety functions as practical. However, accidents still occur which could have been avoided by a few seconds of reflection and more careful operation of the machine.

Avoid personal injury. Read the following personal safety instructions and insist that everybody who works with you or for you also complies with the instructions.

Only use attachments which have been approved by the manufacturer for use with the loader.

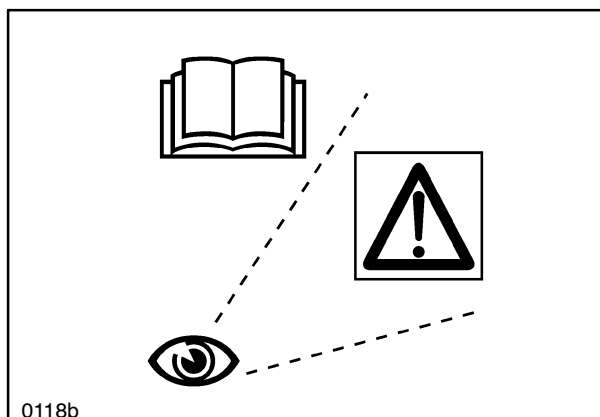
Guards

This instruction manual may contain illustrations that show guards removed, to give a better picture. Never use the machine with guards removed. If a guard has been removed for service or repairs, re-install the guard before the machine is taken back into service.

Safety Decals

Safety decals are installed at various places on the loader and the attachments. Locate, read and understand the safety decals before using the loader and attachments. Refer to the "Location of Safety Decals" section for description and location on pages 0-19 and 0-20.

Do not cover or remove any safety sign. If a safety sign is missing or illegible, replace it. New safety signs are available from your dealer.



Safety Alert Symbol

When you see the safety alert symbol and signal word on decals and in this book, you **MUST** follow the instruction because it relates to your personal safety.

—————  **DANGER**  —————

Indicates a **imminently hazardous situation that, if not avoided, will result in DEATH OR SERIOUS INJURY.**

—————  **WARNING**  —————

Indicates a **potentially hazardous situation that, if not avoided, could result in DEATH OR SERIOUS INJURY.**

—————  **CAUTION**  —————

Indicates a **potentially hazardous situation that, if not avoided, may result in a MINOR OR MODERATE INJURY.**

The following words and instructions are not related to personal safety, but are used throughout this book to give you additional tips as you operate or service this equipment.

IMPORTANT: *Indicates a special instruction or procedure which, if not strictly followed, may cause damage to, or destruction of, the machine, the process, or surroundings.*

NOTE: *Indicates additional information about a subject or procedure for more efficient or convenient repair or operation.*



Symbol Explanation



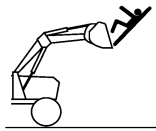
A. Electric shock. Get to know the site and the ground. Be aware of free working heights and the limitations related to the increased range.

B



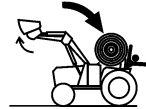
B. Overturning risk. The tractor can overturn and result in personal injury.

C



C. Fall risk. Do not use the loader or the bucket as working platforms.

D



D. Crush risk. Objects can fall or roll backwards when the loader is raised. Only lift loads which fit inside the tools.

E



E. Pinch risk. Never stand between the front of the loader and the cross-tube on the loader.

F

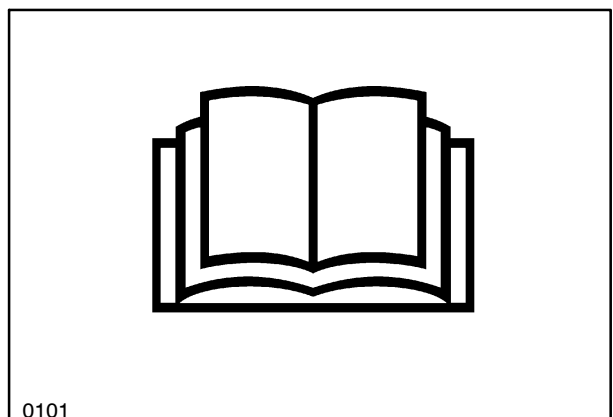


F. Fall risk. Do not use the loader to lift or transport people.

SAFETY RULES

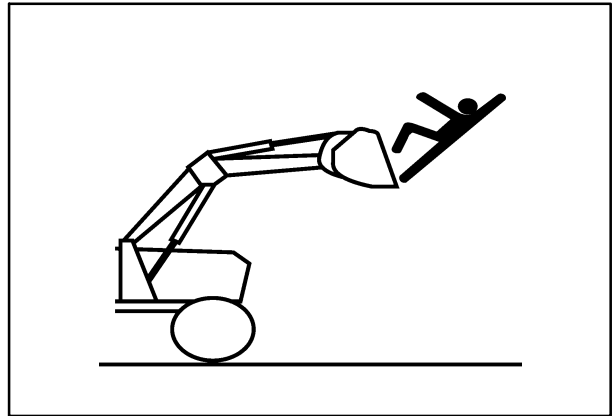
Always store this instruction manual and the tractor's instruction manual in the tractor.

- If there is no instruction manual for the tractor, get one from the dealer before you install and use the loader.
- Read through all material carefully and learn how to use the equipment in a safe, correct manner.
- DO NOT let an untrained or unqualified person operate this machine.



DO NOT use the loader or the attachment as a working platform.

DO NOT use the loader to lift or transport people.



4

Roll Over Protective Structure

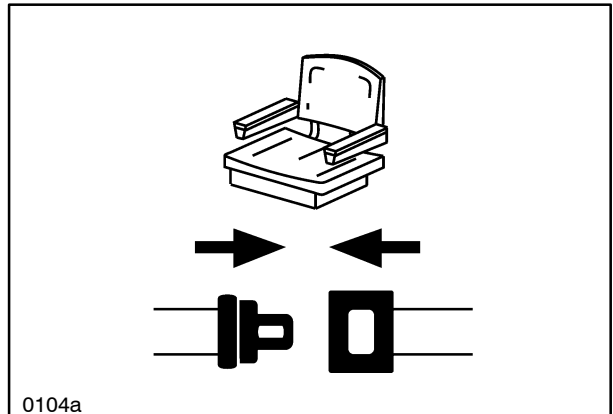
The tractor must be equipped with a roll-over protective structure (ROPS) - frame or cab.

—————  **WARNING**  —————

Use the loader only on a tractor with the ROPS installed.

Whenever possible, operate the tractor and loader with the ROPS in the upright and locked position and the seat belt fastened and correctly adjusted.

When operating in restricted overhead environment with the ROPS folded down, do not wear the seat belt. ALWAYS return the ROPS to the upright and locked position as soon as operating conditions permit.



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