

SERVICE MANUAL

Workmaster™ 55

Workmaster™ 65

Workmaster™ 75

Tractor

Part number 51489998

1st edition English

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51489998 09/10/2018

Link Product / Engine

Product	Market Product	Engine
WORKMASTER 55 Workmaster 55 ROPS 2WD	North America	8035.25A IIIB
WORKMASTER 55 Workmaster 55 CAB 2WD	North America	8035.25A IIIB
WORKMASTER 55 Workmaster 55 CAB 4WD	North America	8035.25A IIIB
WORKMASTER 55 Workmaster 55 ROPS 4WD	North America	8035.25A IIIB
WORKMASTER 65 Workmaster 65 ROPS 2WD	North America	8035.25B IIIB
WORKMASTER 65 Workmaster 65 CAB 2WD	North America	8035.25B IIIB
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WORKMASTER 65 Workmaster 65 CAB 4WD	North America	8035.25B IIIB
WORKMASTER 75 Workmaster 75 CAB 2WD	North America	8035.25C IIIB
WORKMASTER 75 Workmaster 75 ROPS 2WD	North America	8035.25C IIIB
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New unit pre-delivery operations - Overview GENERAL INSTRUCTION

NOTE: Take due care and attention during all maintenance and repairs. We recommend you work with a service center authorized by NEW HOLLAND. Each section contains warnings for careful maintenance. Do not make adjustments without the necessary special tools. Anyone who carries out procedures outside of a service center is responsible for those procedures.

SHIMS

When adjusting with shims, collect the values found by measuring each shim separately with a micrometer. Do not simply consider the nominal thickness values given on the shims or the overall thickness of the shim.

ROTATING SHAFT SEALS

To correctly position the rotating shaft seals, carry out the following steps:

1. Before you position the seal in its recess, soak the seal in oil for at least half an hour to ensure the seal sits in its location properly.
2. Carefully clean the shafts and ensure that the seal and contact surface are not worn.
3. Turn the seal so that its edge moves toward the oil. If the seal is an oil-recycling seal, turn the seal so that the grooved lip goes into the oil. Thus, oil is expelled while the shaft rotates.
4. Coat the seal lips with a light oil (choose engine oil rather than grease). Fill the gap between the seal lip and the dust prevention lip with grease. (also applicable to double-lip seal)
5. Position the seal with a flat-tipped tool. Do not use a hammer.
6. When you position the seal in its recess, ensure the seal is not positioned at an angle. Make sure that the seal fits snugly into its recess by applying a constant pressure perpendicular to the seal surface.
7. When you slide the seal along the shaft, use a protective sleeve to protect the seal lips.

O-RINGS

Oil each O-ring before you position the O-ring. When you install the O-ring, slide the O-ring flat along the part, but do not twist. Otherwise, a leak will occur.

LIQUID SEALS

Apply one of the following sealants to the joint surfaces marked with an 'X': RTV SILMATE, RHODORSIL CAF 1, or LOCTITE PLASTIC GASKET

Do the following to the joint surfaces before you apply the sealant:

1. Clean away debris thoroughly with a wire brush.
2. Thoroughly clean and degrease the surfaces with a mixture of hot water and soda or solvent gas oil.

BEARINGS

When you position the bearings:

1. Heat the bearings to **80–90 °C** before you position the bearings on the shaft.
2. Cool the bearings before you hammer the bearings into their housings.

PINS

When you position beveled spring pins, make sure that the cut end of the pin is installed perpendicularly to the direction of work. Spiral spring pins can be placed in any position.

REPLACEMENT PARTS

Only use genuine NEW HOLLAND replacement parts. Genuine parts are durable and safe. Genuine NEW HOLLAND replacement parts guarantee quality, durability, and safety.

Specify the following information when you request replacement parts:

1. Tractor model and chassis number
2. Engine type and number
3. Part number (specified in the spare parts catalog or on barcodes)

SERVICE TOOLS

Tools detailed in the service catalog

1. These tools have been specially produced for NEW HOLLAND tractors.
2. They are essential for safe repair.
3. They are manufactured and tested to be robust and efficient work tools.

Use these special tools to ensure:

1. Optimum working conditions
2. The best results
3. Time and energy savings
4. Safer operation

ATTENTION: *The wear limit values recommended for some parts are provided as an indication only. When references are made to the "front", "rear", "right", and "left", these are from the driver's perspective when facing forward.*

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Start-up - Technical Data LIQUID AND OIL CAPACITIES

SPECIFICATION	AMOUNT	PRODUCT RECOMMENDED BY NEW HOLLAND
Engine Cooling System		Conventional coolant: NEW HOLLAND AMBRA AGRIFLU mixed 50% with distilled water Alternative type coolant: NEW HOLLAND AMBRA ACTIFULL™ OT EXTENDED LIFE COOLANT (If the premixed coolant is not available, mix the concentrate with 50% distilled water)
On Workmaster series	9 L	
Windshield Washer Fluid Container		Water with Detergent
On all models	2 L	
Fuel Tank		Stabilized, Filtered Diesel
On all models	82 L	
Crank Case Oil		NEW HOLLAND AMBRA UNITEK 10W-40 or NEW HOLLAND AMBRA UNITEK SSL 0W-40
Unfiltered		
On all models	7,9 L	
Filtered		
On all models	8,6 L	
Braking Unit		NEW HOLLAND AMBRA BRAKE LHM
On all models	0,7 L	
Front Axle		NEW HOLLAND AMBRA MULTI G™ HYDRAULIC TRANSMISSION OIL or NEW HOLLAND AMBRA MASTERTRAN® ULTRACTION
On all models		
Front Axle Casing	6 L	
Front Axle Reducer (each)	1 L	
Mechanic Transmission		
On all models	30 L	
Powershuttle Transmission		
On all models	35 L	
Air Conditioning System Coolant Gas		NEW HOLLAND AMBRA GR-9 MULTI-PURPOSE GREASE
On all models	1,5 kg	
Front Wheel Wheel Rim Hub	–	
On all models	–	
All Grease Points		
On all models	–	

Start-up - Overview

OPERATION

1. Do not operate the engine in an enclosed environment with insufficient ventilation for exhaust gas emissions.
2. Do not insert your head, your body, feet, fingers, or arms between the rotating parts of the fan or the belt.

ENGINE

1. Before you remove the radiator cap, turn the cap slowly to reduce the pressure. Add water to the engine when the engine is at a standstill, or in idle when the engine is warm.
2. Make sure that the engine is stopped when you refuel. Be careful when the engine is hot, as the fuel may ignite.
3. Never check or adjust the fan belts when the engine is running. Do not adjust the fuel pump while the engine is running.
4. Never lubricate while the engine is running.

ELECTRICAL SYSTEM

1. When you use the auxiliary battery, make sure that the cable end connections to the terminals are (+) to (+) and (-) to (-). Do not short the ends. BATTERY VAPOR IGNITES VERY QUICKLY. While the battery is charging, open the battery plugs to ensure adequate ventilation. Do not place metal items between the terminals to check the battery charge. Protect the battery from light and sparks. Do not smoke near the battery.
2. Check for fuel and battery electrolyte leaks before you carry out servicing or maintenance. Repair any leaks before you start work.
3. Do not charge the battery in an enclosed area. After the battery is charged, ensure proper ventilation so that explosive gasses produced during battery charging can escape.
4. Disconnect the battery before any repair work, or before you start work on the electrical system.

HYDRAULIC SYSTEM

1. Pressurized liquid leaking from a very small hole may not be visible and can damage your skin. As such, DO NOT CHECK FOR LEAKS WITH YOUR HANDS. Use a piece of wood or cardboard to check for leaks. Seek medical attention if you are injured by leaking liquid. If you do not receive immediate medical attention, a serious infection or reaction may develop.
2. When you check the pressure, use an indicator appropriate for the expected pressure.

WHEELS AND TIRES

1. Ensure that tires are inflated to the pressure values indicated by their manufacturer. Check tires periodically for wear.
2. Take care when you adjust tire pressure and position yourself safely.
3. Check tire pressure with the tractor empty. To avoid over-inflation, only check tires when they are cold. Do not use worn tires. Improper welding heating or soldering reduces the resistance of the wheels and causes the wheels to malfunction.
4. Never weld inflated tires to the rims.
5. Use chocks on the front and rear wheels when you carry out tire maintenance. After you raise the tractor on a jack, position a support stand underneath the tractor to prevent the tractor from falling.
6. Deflate the tires before you remove items that may cause tires to burst from the tire tread.
7. Never inflate tires with flammable gas. This can cause explosions and injury.

EQUIPMENT

1. Use lifters with appropriate capacities to lift heavy parts. Make sure that parts are properly supported (with rings, hooks, rings, etc.). Use a jack if necessary. Be aware of people around you.

2. Be very careful when you carry parts. Take care not to trap fingers or toes. Wear work gloves, shoes, and safety glasses as instructed by the authorities.
3. Look out for twisted chains and cables. Always wear thick gloves when handling chains and cables manually.

Start-up - Warning SAFETY PRECAUTIONS

ATTENTION: WARNINGS ARE THERE FOR YOUR HEALTH AND SAFETY. BE CAUTIOUS AND AWARE.

AVOID ACCIDENTS.

Most accidents in workshops can be avoided by observing basic safety rules. Most accidents can be avoided by taking precautionary measures and applying the safety rules. No matter how well equipment is designed or manufactured, unsafe situations that hinder your ability to access and to work with equipment may still exist. The best insurance against an accident is a careful user. By following all of the basic rules below, you can avoid the risk of serious accident.

ATTENTION: *Never lubricate or make adjustments when the tractor is running.*

SAFETY PRECAUTIONS

1. Carry out specified maintenance and repair procedures in full.
2. While you work, avoid wearing clothes or items that may become caught in moving parts such as rings, watches, jewelry, torn or loose clothing, ties, scarves, buttons, or zips. Use protective helmets, boots, gloves, and goggles.
3. Do not service the tractor without someone to start the tractor.
4. Never operate the tractor without sitting in the driver's seat. Never use the equipment other than in the ways specified.
5. Never lubricate, service, or make adjustments while the engine is running.
6. Stop the engine and check whether the hydraulic system is pressurized before you remove covers or caps.
7. Carry out all service procedures with utmost care and diligence.
8. Platforms and ladders used in the workshop or in the field for tractor maintenance and repair should be manufactured to respond to local or national conditions.
9. Disconnect the battery and the start controls when you work. Make sure that equipment to be lifted is under control.
10. Because of the presence of flammable substances, do not refuel, or check or replenish the battery fluid while you are smoking or near a flame.
11. When the tractor is in neutral, use chocks or another method when you service the brakes to ensure that the tractor is secure and under control.
12. Only use the specified tow hitch points. Before you tow, make sure that locking equipment and pins are working. Under load, stand away from chains, cables, and tow hooks.
13. To prevent static electricity or any kind of spark when you refuel, make sure that the fuel nozzle is in contact with the tank.
14. To move a non-operational tractor, use a tow truck or a low-body truck if available.
15. Make sure that the truck wheels are secured when you load or unload the tractor. Place chocks under the tractor wheels after you have loaded the tractor on the truck.
16. To reduce the risk of electric shock, only use grounded auxiliary power outputs to charge devices, pumps, and similar equipment.
17. Lift heavy parts with appropriate machinery.
18. Be aware of those around you when you work with the tractor.
19. Do not put diesel in open containers.
20. Never use diesel, solvents, or other flammable liquids to clean parts. Always use flame resistant, non-toxic solvents.
21. Wear protective goggles when you use pressurized air to clean parts.
22. In accordance with national regulations, limit air pressure to **2,1 bar**.
23. Do not run the engine in buildings with inadequate ventilation.
24. Do not smoke when you work with flammable materials.
25. Do not use an open-flame lighting device to carry out any checks on the tractor or to check for leaks.

26. Be careful when you are near, in, or near a tractor or equipment. Wear appropriate safety equipment (protective helmets, goggles, boots).
27. When you check equipment when the engine is running, the driver should be seated in the driver's seat. Take the nature of the equipment into account.
28. When you service the tractor in the field position the tractor on flat ground, if possible.
29. If this is not possible, use chocks to secure the tractor and equipment. Position the tractor on flat ground as soon as possible.
30. Watch out for twisted chains or cables. Do not lift or tow the tractor with twisted chains. Use thick gloves when you use chains or cables.
31. Make sure that cables are hooked and that the connection points are strong enough for the prescribed loads. Move people away from the connection points of chains and cables.
32. Keep your service area dry and clean. Clean the water or oil deposits.
33. Keep highly flammable material such as oily rags or grease cloths in a closed metal container. Check, adjust, and lock the driver's seat before you start the tractor. Make sure that no one is in the vicinity of the tractor.
34. Do not carry items in your pockets that could fall into spaces within the tractor.
35. If you do drop an item, wear protective goggles, steel-capped boots, thick gloves, and a hard hat when you try to retrieve the item.
36. Wear protective clothing, a helmet, and dark protective glasses when you weld. Make sure that those around you also wear dark protective glasses while you weld. **DO NOT LOOK AT WELDING LIGHT WITHOUT PROTECTIVE GLASSES**
37. Metal shavings may be present on steel wires. Use work gloves and protective gloves when you handle steel wires.
38. Hold parts carefully. Make sure that your hands or fingers do not get trapped between parts. Wear safety glasses, gloves, and boots as recommended by the authorities.

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