

MDF0730A

T4020 Deluxe – T4020 Supersteer – T4030 Deluxe – T4030 Supersteer – T4040 Deluxe – T4040 Supersteer – T4050 Deluxe – T4050 Supersteer TRACTORS SERVICE MANUAL

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T E C H N I C A L S U P P O R T

INTRODUCTORY NOTES

- *This manual is divided into sections identified by two-figure numbers and each section has independent page numbering.*
- *The different sections can easily be found by consulting the table of contents on the following pages.*
- *The document number of the manual and the edition/update dates are given at the bottom of each page.*
- *Pages updated in the future will be identified by the same document number followed by an additional digit: first edition standard manual 87666787A – 1st update 87666787A1 – 2nd update 87666787A2 – etc. The update pages can replace or supplement the pages of the standard manual; the information necessary for the procedure for adding or replacing pages is given on the title page of the update. The publication will be completed with an appropriate index. If it is necessary to issue a new updated manual (2nd edition) it will have document number 87666787B, this indicates that the manual is composed of the standard version 87666787A completed with all the updates: 1st update 87666787A1 – 2nd update 87666787A2 – etc.*
- *The information contained in this manual was current on the date printed on each section. As NEW HOLLAND constantly improves its product range, some information may be out of date subsequent to modifications implemented for technical or commercial reasons, or to meet legal requirements in different countries. In the event of conflicting information, consult the NEW HOLLAND Sales and Service Departments.*

IMPORTANT WARNINGS

- *All maintenance and repair work described in this manual must be performed exclusively by NEW HOLLAND service technicians, in strict accordance with the instructions given and using any specific tools necessary.*
- *Anyone performing the operations described herein without strictly following the instructions is personally responsible for any eventual injury or damage to property.*
- *The Manufacturer and all organisations belonging to the Manufacturer's distribution network, including but not restricted to national, regional or local distributors, will accept no responsibility for personal injury or damage to property caused by abnormal function of parts and/or components not approved by the Manufacturer, including those used for maintenance and/or repair of the product manufactured or marketed by the Manufacturer. In any case, the product manufactured or marketed by the Manufacturer is covered by no guarantee of any kind against personal injury or damage to property caused by abnormal function of parts and/or components not approved by the Manufacturer.*

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GENERAL INSTRUCTIONS

IMPORTANT NOTICE

All maintenance and repair work described in this manual must be performed exclusively by NEW HOLLAND service technicians, in strict accordance with the instructions given and using any specific tools necessary. Anyone performing the operations described herein without strictly following the instructions is personally responsible for any eventual injury or damage to property.

BATTERY

Before carrying out any kind of service operation disconnect and isolate the battery negative lead, unless otherwise requested for specific operations (e.g.: operations that require the engine running). Once the specific operation has been completed, disconnect the lead in order to complete the operation.

SHIMMING

For each adjustment operation, select adjusting shims and measure individually using a micrometer, then add up the recorder values: Do not rely on measuring the entire shimming set, which may be incorrect, or the rated value indicated for each on shim.

ROTATING SHAFT SEALS

For correct rotating shaft seal installation, proceed as follows:

- before assembly, allow the seal to soak in the oil it will be sealing for at least thirty minutes;
- thoroughly clean the shaft and check that the working surface on the shaft is not damaged;
- position the sealing lip facing the fluid; with hydrodynamic lips, take into consideration the shaft rotation direction and position the grooves so that they will deviate the fluid towards the inner side of the seal;
- smear the sealing lip with a thin layer of lubricant (use oil rather than grease) and fill the gap between the sealing lip and the dust lip on double lip seals with grease;
- insert the seal in its seat and press down using a flat punch; do not tap the seal with a hammer or mallet;
- whilst inserting the seal, check that the it is perpendicular to the seat; once settled, make sure that it makes contact with the thrust element, if required;
- to prevent damaging the seal lip on the shaft, position a protective guard during installation operations.

O-RING SEALS

Lubricate the O-RING seals before inserting them in the seats, this will prevent them from overturning and twisting, which would jeopardise sealing efficiency.

SEALING COMPOUNDS

Apply one of the following sealing compounds on the mating surfaces marked with an X: RTV SILMATE, RHODORSIL CAF 1 or LOCTITE PLASTIC GASKET.

Before applying the sealing compound, prepare the surfaces as follows:

- remove any incrustations using a wire brush;
- thoroughly de-grease the surfaces using one of the following cleaning agents: trichlorethylene, petrol or a water and soda solution.

BEARINGS

When installing bearings it is advised to:

- heat the bearings to 80 ÷ 90 °C before fitting on the shafts;
- allow the bearings to cool before installing them from the outside.

SPRING PINS

When fitting split socket elastic pins, ensure that the pin notch is positioned in the direction of the force required to stress the pin.

Spiral spring pins do not require special positioning

SPARE PARTS

Use genuine parts only.

Only genuine spare parts guarantee the same quality, duration and safety as they are the same parts that are assembled during production.

Only **genuine parts** can offer this guarantee.

When ordering spare parts, always provide the following information:

- tractor model (commercial name) and frame number;
- engine type and number;
- part number of the ordered part, which can be found in the "Microfiches" or the "Spare Parts Catalogue", used for order processing.

NOTES FOR EQUIPMENT

The tools that NEW HOLLAND propose and illustrate in this manual are:

- specifically researched and designed for use with NEW HOLLAND vehicles;
- necessary to make reliable repair;
- accurately built and strictly tested to offer efficient and long-lasting working means.

By using these tools, repair personnel will benefit from:

- operating in optimal technical conditions;
- obtaining the best results;
- saving time and effort;
- working in safe conditions.

IMPORTANT NOTES

Wear limit values indicated for certain parts are recommended, but not binding. The terms "front", "rear", "right-hand" and "left-hand" (when referred to different parts) are intended as seen from the driving position with the tractor in the normal direction of movement.

MOVING THE TRACTOR WITH THE BATTERY REMOVED

External power supply cables should only be connected to the respective positive and negative cable terminals, using efficient clamps that guarantee adequate and secure contact.

Disconnect all services (lights, windshield wipers, etc.) before starting the vehicle.

If the vehicle electrical system requires checking, carry out operations with the power supply connected; once checking is completed, disconnect all services and switch off the power supply before disconnecting the cables.

SAFETY REGULATIONS

WARNING AND DANGER SYMBOL

This warning symbol points out important messages concerning your safety.

Carefully read the following safety regulations and observe advised precautions in order to avoid potential hazards and safeguard your health and safety.

In this manual the symbol is accompanied by the following key-words:

WARNING - Warnings concerning unsuitable repair operations that may jeopardise the safety of Repair personnel.

DANGER - Specific warnings concerning potential hazards for operator safety or for other persons directly or indirectly involved.

TO PREVENT ACCIDENTS

Most accidents or injuries that occur in workshops are the result of non-observance of simple and fundamental safety regulations. For this reason, IN MOST CASES THESE ACCIDENTS CAN BE AVOIDED: by foreseeing possible causes and consequently acting with the necessary caution and care.

Accidents may occur with all types of vehicle, regardless of how well it was designed and built.

A careful and judicious service technician is the best guarantee against accidents.

Precise observance of the most basic safety rule is normally sufficient to avoid many serious accidents.

DANGER. Never carry out any cleaning, lubrication or maintenance operations when the engine is running.

SAFETY REGULATIONS

GENERAL

- Carefully follow specified repair and maintenance procedures.
- Do not wear rings, wristwatches, jewellery, unbuttoned or loose articles of clothing such as: ties, torn clothing, scarves, open jackets or shirts with open zips that may remain entangled in moving parts. It is advised to wear approved safety clothing, e.g.: non-slip footwear, gloves, safety goggles, helmets, etc.



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- Do not carry out repair operations with someone sitting in the driver's seat, unless the person is a trained technician who is assisting with the operation in question.
- Do not operate the vehicle or use any of the implements from different positions, other than the driver's seat.
- Do not carry out operations on the vehicle with the engine running, unless specifically indicated.
- Stop the engine and ensure that all pressure is relieved from hydraulic circuits before removing caps, covers, valves, etc.
- All repair and maintenance operations must be carried out using extreme care and attention.
- Service steps and platforms used in a workshop or in the field should be built in compliance with the safety rules in force.
- Disconnect the batteries and label all controls to indicate that the vehicle is being serviced. Block the machine and all equipment which should be raised.
- Do not check or fill fuel tanks, accumulator batteries, nor use starting liquid when smoking or near naked flames, as these fluids are inflammable.
- Brakes are inoperative when manually released for repair or maintenance purposes: Use blocks or similar devices to control the machine in these conditions.
- The fuel nozzle should always be in contact with the filling aperture: Maintain this contact until the fuel stops flowing into the tank to avoid possible sparks due to static electricity build-up.

SECTION 10 - ENGINE

Chapter 1 - Engine

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GENERAL SPECIFICATIONS	
Engine, technical type:	
- Model T4040 type F4CE9484N*J601 (BOSCH pump)	
- Model T4050 - type F4CE9484M*J601 (BOSCH pump) . .	
Cycle	diesel, 4-stroke
Fuel injection	Direct
Number of cylinders in line	4
Piston diameter	104 mm
Piston stroke	132 mm
Total displacement	4485 cm ³
Compression ratio	16.5:1
Maximum Power Output:	
- Model T4040 - type F4CE9484N*J601	63 kW (86 Hp)
- Model T4050 - type F4CE0454C*D600/*D603	71 kW (97 Hp)
Maximum power speed	2300 rpm
- Maximum torque: Model T4040 - type F4CE9484N*J601 .	370 Nm
- Maximum torque: Model T4050 - type F4CE9484M*J601	418 Nm
Maximum torque speed	1300 rpm
Number of main bearings	5
Sump pan	structural, cast iron
Lube	forced, with lobe pump
Pump drive	from crankshaft
Engine speed/oil pump speed ratio	1:1
Oil filtration	mesh screen on oil pick-up and filter cartridge in delivery line
Normal oil pressure with motor warmed-up	
at slow idling	1.2 bar
at fast idling	3.9 bar

(continued)

Op. 10 001 10 ENGINE Removal-Installation



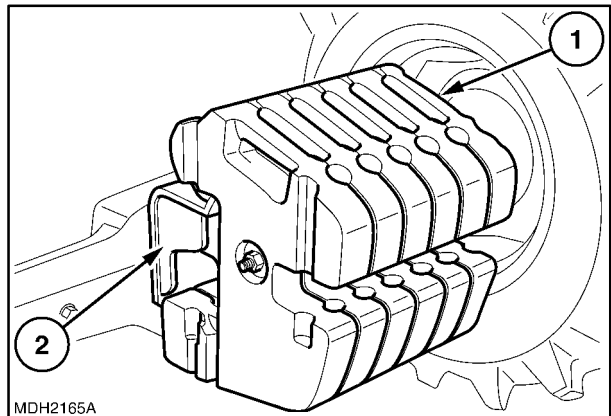
Lift and handle all heavy parts using suitable lifting equipment.

Make sure that assemblies or parts are supported by means of suitable slings and hooks. Ensure that no-one is in the vicinity of the load to be lifted.



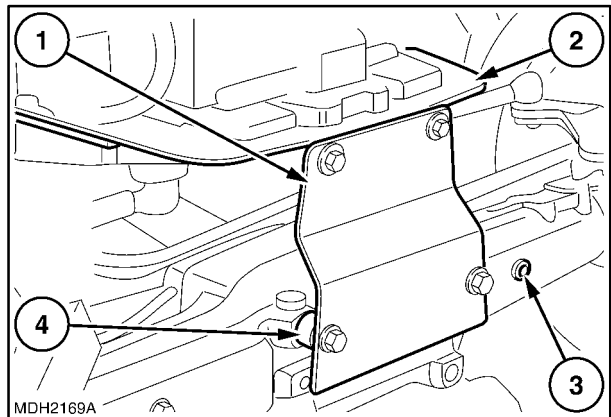
Use suitable tools to align the holes. **NEVER USE FINGERS OR HANDS.**

1. Remove the bonnet as described in operation **90 100 22**.
2. Extract the fixing pin and remove the ballast (1); unscrew the retaining screws and retrieve the ballast support (2).



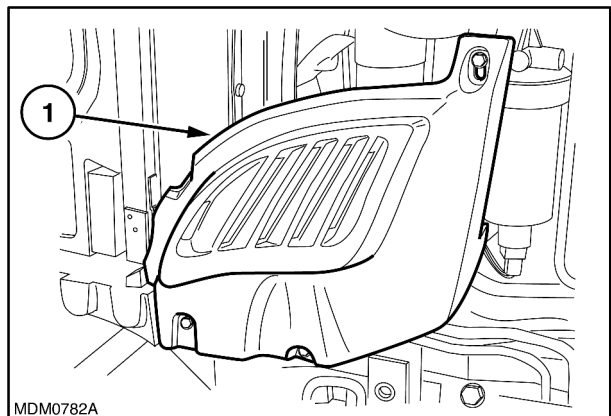
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3. If the tractor is a T4040 Supersteer or T4050 Supersteer model, position and secure the bracket **380001613** (1) together with the spacers **50162** (4) on the front axle (3) and associated support (2).



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4. Unscrew the retaining bolts and remove the side grille (1). Perform this operation on the other side of the tractor too.



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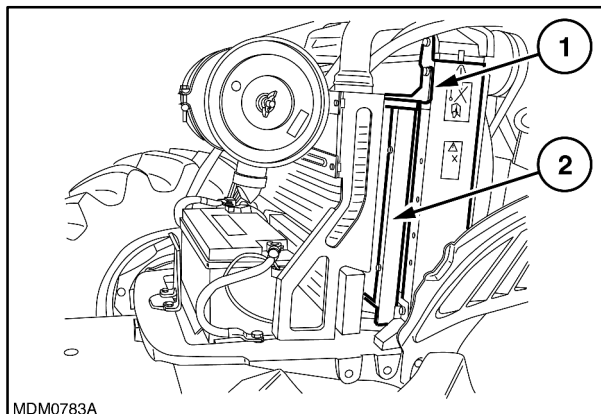
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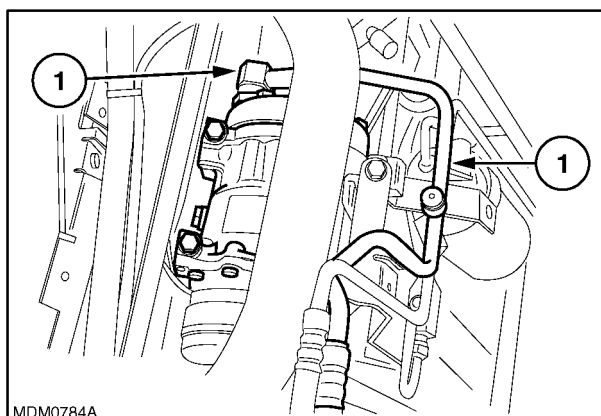
Thank you so much for reading

5. Unscrew the related retaining bolt and loosen the guide (1), unhook the catch and take out the condenser (2).



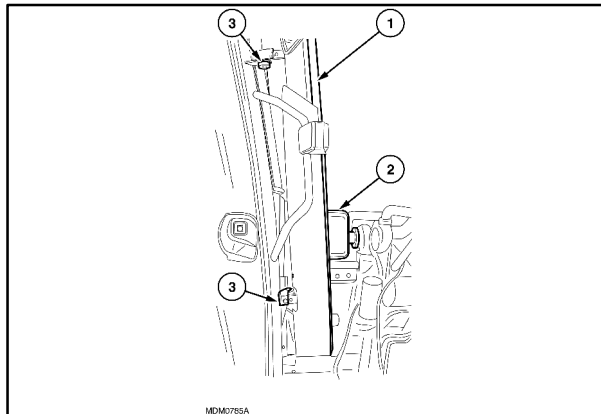
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6. Disconnect the electrical connection from the compressor (1) and unscrew the related retaining bolts. Remove the brackets fixing the pipes of the air conditioning system and take the condenser, compressor and pipes under the transmission without disconnecting the pipes.



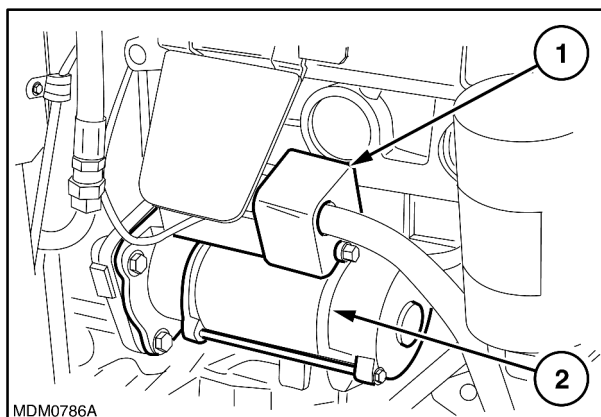
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7. Unscrew the bolts (3) securing the exhaust pipe (1), unscrew the exhaust silencer retaining bolts (2) and remove the entire assembly. Unscrew the retaining bolts and remove the heat shield.



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8. Remove the guard (1) and disconnect the cables from the starter motor (2).



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