SERVICE MANUAL

T4.75N / T4.85N / T4.95N
T4.105N / T4.65V / T4.75V
T4.85V / T4.95V / T4.105V

Tractor

Part number 47888373
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NEW HOLLAND AGRICULTURE

SERVICE MANUAL

T4.105N With cab [ZDJE16586 -], T4.105N Without cab [ZDJE18360 -], T4.105V With cab [ZDJE17896 -], T4.105V Without cab [ZDJE13827 -], T4.65V With cab [ZDJE10473 -], T4.65V Without cab [ZDJE11549 -], T4.75N With cab [ZDJE10131 -], T4.75N Without cab [ZDJE11495 -], T4.75V With cab [ZDJE10095 -], T4.75V Without cab [ZDJE11310 -], T4.85N With cab [ZDJE09941 -], T4.85N Without cab [ZDJE12418 -], T4.85V With cab [ZDJE11669 -], T4.85V Without cab [ZDJE10317 -], T4.95N With cab [ZDJE10238 -], T4.95N Without cab [ZDJE12231 -], T4.95V With cab [ZDJE11682 -], T4.95V Without cab [ZDJE11554 -]

Link Product / Engine

Product	Market Product	Engine
T4.105N With cab [ZDJE16586 -]	Australia New Zealand	F4CE9484
T4.105N With cab [ZDJE16586 -]	Europe	F4CE9484
T4.105N With cab [ZDJE16586 -]	Middle East Africa	F4CE9484
T4.105N With cab [ZDJE16586 -]	Asia Pacific	F4CE9484
T4.105N Without cab [ZDJE18360 -]	Australia New Zealand	F4CE9484
T4.105N Without cab [ZDJE18360 -]	Asia Pacific	F4CE9484
T4.105N Without cab [ZDJE18360 -]	Middle East Africa	F4CE9484
T4.105N Without cab [ZDJE18360 -]	Europe	F4CE9484
T4.75N With cab [ZDJE10131 -]	Australia New Zealand	F5AE9484B
T4.75N With cab [ZDJE10131 -]	Asia Pacific	F5AE9484B
T4.75N With cab [ZDJE10131 -]	Middle East Africa	F5AE9484B
T4.75N With cab [ZDJE10131 -]	Europe	F5AE9484B
T4.75N Without cab [ZDJE11495 -]	Australia New Zealand	F5AE9484B
T4.75N Without cab [ZDJE11495 -]	Middle East Africa	F5AE9484B
T4.75N Without cab [ZDJE11495 -]	Europe	F5AE9484B
T4.75N Without cab [ZDJE11495 -]	Asia Pacific	F5AE9484B
T4.85N With cab [ZDJE09941 -]	Europe	F5AE9484G
T4.85N With cab [ZDJE09941 -]	Middle East Africa	F5AE9484G
T4.85N With cab [ZDJE09941 -]	Asia Pacific	F5AE9484G
T4.85N With cab [ZDJE09941 -]	Australia New Zealand	F5AE9484G
T4.85N Without cab [ZDJE12418 -]	Asia Pacific	F5AE9484G
T4.85N Without cab [ZDJE12418 -]	Australia New Zealand	F5AE9484G
T4.85N Without cab [ZDJE12418 -]	Middle East Africa	F5AE9484G
T4.85N Without cab [ZDJE12418 -]	Europe	F5AE9484G
T4.95N With cab [ZDJE10238 -]	Middle East Africa	F4CE9484
T4.95N With cab [ZDJE10238 -]	Asia Pacific	F4CE9484
T4.95N With cab [ZDJE10238 -]	Australia New Zealand	F4CE9484
T4.95N With cab [ZDJE10238 -]	Europe	F4CE9484
T4.95N Without cab [ZDJE12231 -]	Middle East Africa	F4CE9484
T4.95N Without cab [ZDJE12231 -]	Europe	F4CE9484
T4.95N Without cab [ZDJE12231 -]	Asia Pacific	F4CE9484
T4.95N Without cab [ZDJE12231 -]	Australia New Zealand	F4CE9484
T4.105V With cab [ZDJE17896 -]	Asia Pacific	F4CE9484

Product	Market Product	Engine
T4.105V With cab [ZDJE17896 -]	Middle East Africa	F4CE9484
T4.105V With cab [ZDJE17896 -]	Australia New Zealand	F4CE9484
T4.105V With cab [ZDJE17896 -]	Europe	F4CE9484
T4.105V Without cab [ZDJE13827 -]	Middle East Africa	F4CE9484
T4.105V Without cab [ZDJE13827 -]	Australia New Zealand	F4CE9484
T4.105V Without cab [ZDJE13827 -]	Europe	F4CE9484
T4.105V Without cab [ZDJE13827 -]	Asia Pacific	F4CE9484
T4.65V With cab [ZDJE10473 -]	Australia New Zealand	F5AE9484A
T4.65V With cab [ZDJE10473 -]	Middle East Africa	F5AE9484A
T4.65V With cab [ZDJE10473 -]	Asia Pacific	F5AE9484A
T4.65V With cab [ZDJE10473 -]	Europe	F5AE9484A
T4.65V Without cab [ZDJE11549 -]	Middle East Africa	F5AE9484A
T4.65V Without cab [ZDJE11549 -]	Asia Pacific	F5AE9484A
T4.65V Without cab [ZDJE11549 -]	Europe	F5AE9484A
T4.65V Without cab [ZDJE11549 -]	Australia New Zealand	F5AE9484A
T4.75V With cab [ZDJE10095 -]	Asia Pacific	F5AE9484B
T4.75V With cab [ZDJE10095 -]	Europe	F5AE9484B
T4.75V With cab [ZDJE10095 -]	Australia New Zealand	F5AE9484B
T4.75V With cab [ZDJE10095 -]	Middle East Africa	F5AE9484B
T4.75V Without cab [ZDJE11310 -]	Middle East Africa	F5AE9484B
T4.75V Without cab [ZDJE11310 -]	Asia Pacific	F5AE9484B
T4.75V Without cab [ZDJE11310 -]	Australia New Zealand	F5AE9484B
T4.75V Without cab [ZDJE11310 -]	Europe	F5AE9484B
T4.85V With cab [ZDJE11669 -]	Middle East Africa	F5AE9484G
T4.85V With cab [ZDJE11669 -]	Australia New Zealand	F5AE9484G
T4.85V With cab [ZDJE11669 -]	Europe	F5AE9484G
T4.85V With cab [ZDJE11669 -]	Asia Pacific	F5AE9484G
T4.85V Without cab [ZDJE10317 -]	Middle East Africa	F5AE9484G
T4.85V Without cab [ZDJE10317 -]	Europe	F5AE9484G
T4.85V Without cab [ZDJE10317 -]	Asia Pacific	F5AE9484G
T4.85V Without cab [ZDJE10317 -]	Australia New Zealand	F5AE9484G
T4.95V With cab [ZDJE11682 -]	Australia New Zealand	F4CE9484
T4.95V With cab [ZDJE11682 -]	Europe	F4CE9484
T4.95V With cab [ZDJE11682 -]	Middle East Africa	F4CE9484
T4.95V With cab [ZDJE11682 -]	Asia Pacific	F4CE9484

Product	Market Product	Engine
T4.95V Without cab [ZDJE11554 -]	Asia Pacific	F4CE9484
T4.95V Without cab [ZDJE11554 -]	Europe	F4CE9484
T4.95V Without cab [ZDJE11554 -]	Middle East Africa	F4CE9484
T4.95V Without cab [ZDJE11554 -]	Australia New Zealand	F4CE9484

Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

Clutch 18

[18.100] Clutch mechanical release control 18.1

[18.104] Clutch hydraulic release control 18.2

[18.110] Clutch and components 18.3

Transmission 21

[21.114] Mechanical transmission 21.1

[21.130] Mechanical transmission external controls 21.2

[21.140] Mechanical transmission internal components 21.3

[21.112] Power shuttle transmission 21.4

[21.134] Power shuttle transmission external controls 21.5

[21.154] Power shuttle transmission internal components 21.6

[21.145] Gearbox internal components 21.7

[21.160] Creeper 21.8

[21.162] Reverser 21.9

[21.168] Hi-Lo unit 21.10

[21.182] Differential 21.11

Four-Wheel Drive (4WD) system 23

[23.304] Four-Wheel Drive (4WD) gearbox 23.1

[23.314] Drive shaft 23.2

Front axle system 25

[25.100] Powered front axle 25.1

[25.102] Front bevel gear set and differential 25.2

[25.108] Final drive hub, steering knuckles, and shafts 25.3

[25.122] Axle suspension control 25.4
[25.310] Final drives 25.5
[25.400] Non-powered front axle 25.6
Rear axle system 27
[27.100] Powered rear axle 27.1
[27.106] Rear bevel gear set and differential 27.2
[27.120] Planetary and final drives 27.3
[27.126] Spur gear and final drives 27.4
Power Take-Off (PTO) 31
[31.101] Rear mechanical control 31.1
[31.146] Front Power Take-Off (PTO) 31.2
Brakes and controls 33
[33.202] Hydraulic service brakes 33.1
[33.110] Parking brake or parking lock 33.2
[33.220] Trailer brake hydraulic control 33.3
Hydraulic systems 35
[35.160] Front hitch controls and lines 35.1
[35.000] Hydraulic systems 35.2
[35.300] Reservoir, cooler, and filters 35.3
[35.104] Fixed displacement pump 35.4
[35.204] Remote control valves 35.5
[35.600] High flow hydraulics 35.6
[35.100] Main lift system 35.7
[35.114] Three-point hitch control valve 35.8
[35.116] Three-point hitch cylinder 35.9
Hitches, drawbars, and implement couplings 37
[37.110] Rear three-point hitch 37.1
[37.108] Rear three-point hitch external controls 37.2

[37.162] Front hitch 37.3
Steering 41
[41.101] Steering control 41.1
[41.200] Hydraulic control components 41.2
Wheels 44
[44.511] Front wheels 44.1
Cab climate control 50
[50.100] Heating 50.1
[50.104] Ventilation 50.2
[50.200] Air conditioning 50.3
Electrical systems 55
[55.000] Electrical system 55.1
[55.100] Harnesses and connectors 55.2
[55.201] Engine starting system 55.3
[55.301] Alternator 55.4
[55.302] Battery 55.5
[55.202] Cold start aid 55.6
[55.640] Electronic modules 55.7
[55.051] Cab Heating, Ventilation, and Air-Conditioning (HVAC) controls 55.8
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system 55.9
[55.047] Steering control system 55.10
[55.523] Cab hitch controls 55.11
[55.130] Rear three-point hitch electronic control system 55.12
[55.404] External lighting 55.13
[55.514] Cab lighting 55.14
[55.511] Light harnesses 55.15
[55.408] Warning indicators, alarms, and instruments 55.16
[55.DTC] FAULT CODES 55.17

Platform, cab, bodywork, and decals 90
[90.110] Operator platform less cab 90.1
[90.114] Operator protections 90.2
[90.150] Cab 90.3
[90.151] Cab interior 90.4
[90.154] Cab doors and hatches 90.5
[90.100] Engine hood and panels 90.6
[90.102] Engine shields, hood latches, and trims 90.7
[90.160] Cab interior trim and panels 90.8

INTRODUCTION

Contents

INTRODUCTION

Advice Important notice 3
Note to the Owner WARNINGS FOR AIR CONDITIONING SYSTEM REPAIR OPERATIONS (*) 4
Safety rules SAFETY REGULATIONS 5
Personal safety CAB AIR CONDITIONING SYSTEM (*) 8
Basic instructions 9
Consumables 11

(*) See content for specific models

Advice 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.

Note to the Owner WARNINGS FOR AIR CONDITIONING SYSTEM REPAIR OPERATIONS

T4.105N With cab [ZDJE16586 -]	ANZ --- APAC --- MEA --- WE
T4.105V With cab [ZDJE17896 -]	ANZ --- APAC --- MEA --- WE
T4.65V With cab [ZDJE10473 -]	ANZ --- APAC --- MEA --- WE
T4.75N With cab [ZDJE10131 -]	ANZ --- APAC --- MEA --- WE
T4.75V With cab [ZDJE10095 -]	ANZ --- APAC --- MEA --- WE
T4.85N With cab [ZDJE09941 -]	ANZ --- APAC --- MEA --- WE
T4.85V With cab [ZDJE11669 -]	ANZ --- APAC --- MEA --- WE
T4.95N With cab [ZDJE10238 -]	ANZ --- APAC --- MEA --- WE
T4.95V With cab [ZDJE11682 -]	ANZ --- APAC --- MEA --- WE

Starting the system at low temperatures can damage the compressor. Only operate the air conditioner when the engine is hot and the temperature inside the cab is at least **20 °C** (**68.00 °F**).
When disconnecting the hoses, close the ends with plastic caps to prevent foreign matter and humidity from getting inside the hoses.
Handle the thermostatic sensor carefully to avoid damage that may prevent efficient system operation.
Always use two spanners to unscrew the hose fittings to avoid twisting the fitting.
Do not use any type of engine oil to lubricate the compressor and the system.
Never leave the compressor oil container open, always make sure that it is tightly closed. If left exposed the oil will absorb humidity from the air and may, subsequently, damage the system.
Do not transfer compressor oil from the original container to another container.
Do not introduce any additives to the compressor oil. Any additional substances could contain elements which are incompatible with the chemical base of the refrigerant and thus alter its characteristics.
Check that the thermostatic sensor is correctly inserted in the fins on the evaporator to ensure efficient system operation.

Safety rules SAFETY REGULATIONS

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.

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.
- 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.
- Operate the vehicle and use the implements exclusively from 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 if manually released for repair or maintenance purposes.
  In such cases, the machine should be kept constantly under control using blocks or similar devices.
- The fuel nozzle should always be in contact with the filling aperture. Maintain this position until filling operations are completed in order to avoid possible sparks caused by the accumulation of static electricity.
- Only use specified towing points for towing the tractor, connect parts carefully.Make sure that all pins and/or locks are secured in position before applying traction.
  Never remain near the towing bars, cables or chains that are operating under load
- Transport vehicles that cannot be driven using a trailer or a low--loading platform trolley, if available.
- When loading or unloading the vehicle from the trailer (or other means of transport), select a flat area capable of sustaining the trailer or truck wheels, firmly secure the tractor to the truck or trailer and lock the wheels in the position.
- Electric heaters, battery--chargers and similar equipment must only be powered by auxiliary power supplies with efficient ground insulation to avoid electrical shock hazards.
- Always use suitable hoisting or lifting devices when raising or moving heavy parts.
- Take extra care if bystanders are present.
- Never pour gasoline or diesel oil into open, wide and low containers.
- Never use gasoline, diesel oil or other inflammable liquids as cleaning agents. Use non-flammable non-toxic proprietary solvents.
- Wear safety goggles with side guards when cleaning parts with compressed air.
- Limit the air pressure to a maximum of **2.1 bar** (**30.5 psi**), according to local regulations.

- Do not run the engine in confined spaces without suitable ventilation.
- Do not smoke, use naked flames, or cause sparks in the area when fuel filling or handling highly inflammable liquids.
- Never use naked flames for lighting when working on the machine or checking for leaks.
- All movements must be carried out carefully when working under, on or near the vehicle and wear protective equipment: helmets, goggles and special footwear.
- When carrying out checks with the engine running, request the assistance of an operator in the driver's seat. The operator must maintain visual contact with the service technician at all times.
- If operating outside the workshop, position the vehicle on a flat surface and lock in position. If working on a slope, lock the vehicle in position and move to a flat area as soon as is safely possible.
- Damaged or bent chains or cables are unreliable. Do not use them for lifting or towing.
  Always use suitable protective gloves when handling chains or cables.
- Chains should always be safely secured. Ensure that fastening device is strong enough to hold the load foreseen. No persons should stop near the fastening point, trailing chains or cables.
- Maintenance and repair operations must be carried out in a CLEAN and DRY area, eliminate any water or oil spillage immediately.
- Do not create piles of oil or grease--soaked rags as they represent a serious fire hazard; store them in a closed metal container.
  Before starting the vehicle or implements, make sure that the driver's seat is locked in position and always check that the area is free of persons or obstacles.
- Empty pockets of all objects that may fall unobserved into the vehicle parts when disassembled.
- In the presence of protruding metal parts, use protective goggles or goggles with side guards, helmets, special footwear and gloves.
- Handle all parts carefully, do not put your hands or fingers between moving parts, wear suitable safety clothing -- safety goggles, gloves and shoes.

WELDING OPERATIONS

- When welding, use protective safety devices: tinted safety goggles, helmets, special overalls, gloves and footwear. All persons present in the area where welding is taking place must wear tinted goggles.
  NEVER LOOK AT THE WELDING ARC IF YOUR EYES ARE NOT SUITABLY PROTECTED.
- Where possible, remove the part or tool that requires arc welding from the tractor.
- Disconnect both battery leads. Isolate the cable ends to avoid contact with each other and the tractor.
- Position the welder ground clamp as near as possible to the area where welding is taking place.
- Remove the electronic control units located on the tractor if welding is to be carried out near these control units.
- Never allow welding cables to lay on, near or across any electrical wiring or electronic component while welding is in progress.
- Metal cables tend to fray with repeated use. Always use suitable protective devices (gloves, goggles, etc.) when handling cables.

START UP

- Never start the engine in confined spaces that are not equipped with adequate ventilation for exhaust gas extraction.
- Never place the head, body, limbs, feet, hands or fingers near fans or rotating belts.

ENGINE

- Always loosen the radiator cap slowly before removing it to allow any remaining pressure in the system to be discharged. Coolant should be topped up only when the engine is stopped or idle if hot.
- Never fill up with fuel when the engine is running, especially if hot, in order to prevent the outbreak of fire as a result of fuel spillage
- Never check or adjust fan belt tension when the engine is running.
  Never adjust the fuel injection pump when the vehicle is moving.

- Never lubricate the vehicle when the engine is running.

ELECTRICAL SYSTEMS

- If it is necessary to use auxiliary batteries, remember that both ends of the cables must be connected as follows: (+) with (+) and (-) with (-).
- Avoid short-circuiting the terminals. GAS RELEASED FROM BATTERIES IS HIGHLY INFLAMMABLE.
- During charging, leave the battery compartment uncovered to improve ventilation.
- Never check the battery charge using ”jumpers” (metal objects placed on the terminals).
- Avoid sparks or flames near the battery zone to prevent explosion hazards.
- Before servicing operations, check for fuel or current leaks. Eliminate any eventual leaks before starting work.
- Never charge batteries in confined spaces. Make sure that there is adequate ventilation in order to prevent accidental explosion hazards as a result of the accumulation of gases released during charging operations.
- Always disconnect the battery before performing any kind of servicing on the electrical system.

HYDRAULIC SYSTEMS

- Some fluid slowly coming out from a very small port can be almost invisible and be strong enough to penetrate the skin. Check for leaks using a piece of cardboard, NEVER USE HANDS.
- If any liquid penetrates skin tissue, call for medical aid immediately
- Serious skin infections may result if medical attention is not given.
- Use the specific tools when checking pressure values on the hydraulic system.

WHEELS AND TYRES

- Check that the tyres are correctly inflated at the pressure specified by the manufacturer.
  Periodically check possible damages to the rims and tyres.
- Stand away from (at the side of) the tire when checking inflation pressure.
- Only check pressure when the vehicle is unloaded and the tires are cold, to avoid incorrect readings as a result of over--pressure.
- Do not re--use parts of recovered wheels as incorrect welding or brazing may heat the material, causing it to weaken and eventually damage or break the wheel.
- Never cut, nor weld a rim with the inflated tyre assembled.
- When removing the wheels, lock both the front and rear vehicle wheels.
- Always position support stands when raising the vehicle, in order to conform to current safety regulations.
- Deflate the tyre before removing any object caught into the tyre tread.
- Never inflate tires using inflammable gases; this could cause an explosion and put operator safety at risk.

REMOVAL AND RE-FITTING

- Lift and handle all heavy parts using suitable lifting equipment and make sure that all slings and hooks are correctly secured.
- Handle all parts carefully during lifting operations, keep an eye on the personnel working near the load to be lifted. Never insert hands or fingers between parts, always wear approved accident prevention clothing (goggles, gloves and work boots).
- Avoid twisting chains or metal cables and always wear safety gloves when handling cables or chains.

Personal safety CAB AIR CONDITIONING SYSTEM

T4.105N With cab [ZDJE16586 -]	ANZ --- APAC --- MEA --- WE
T4.105V With cab [ZDJE17896 -]	ANZ --- APAC --- MEA --- WE
T4.65V With cab [ZDJE10473 -]	ANZ --- APAC --- MEA --- WE
T4.75N With cab [ZDJE10131 -]	ANZ --- APAC --- MEA --- WE
T4.75V With cab [ZDJE10095 -]	ANZ --- APAC --- MEA --- WE
T4.85N With cab [ZDJE09941 -]	ANZ --- APAC --- MEA --- WE
T4.85V With cab [ZDJE11669 -]	ANZ --- APAC --- MEA --- WE
T4.95N With cab [ZDJE10238 -]	ANZ --- APAC --- MEA --- WE
T4.95V With cab [ZDJE11682 -]	ANZ --- APAC --- MEA --- WE

SAFETY REGULATIONS

- The refrigerant must be handled with great care in order to avoid personal injury; always use safety goggles and gloves.
- Liquid refrigerant can cause freezing of the skin and serious damage to the eyes, sometimes resulting in permanent blindness.
- Keep the refrigerant container away from heat sources. Heat will cause an increase in pressure of the refrigerant and could cause the container to explode.
- If refrigerant comes into contact with a naked flame or a hot metal surface it produces a toxic gas, which is dangerous if inhaled.
- In order to avoid accidents follow the simple precautions described below.
- The operation of emptying and charging the system must be carried out in a well-ventilated area, well away from any naked flames.
- During the charging and emptying operations, take the necessary precautions to protect the face and above all the eyes from accidental contact with refrigerant.
- In the event of an accident, proceed as follows:
  - if refrigerant splashes into the eyes, wash immediately with a few drops of mineral oil, then wash them thoroughly with a solution of boric acid and water (one spoonful of acid in 1/4 cup of water) and seek medical assistance immediately.
  - freezing of the skin caused by contact with liquid refrigerant may be treated by gradually warming the injured area with cold water, followed by the application of a greasy cream. Request medical assistance.
  - the air conditioning system contains a mixture of refrigerant and oil under high pressure; under no circumstances loosen pipe fittings/unions or work on the pipes without having first drained the system.
  - do not loosen or remove the compressor oil level check cap with the system pressurized.
  - do not heat the refrigerant container. If the temperature exceeds **50 °C** (**122.00 °F**) the pressure will increase very rapidly.
  - keep the air conditioning system away from heat sources to prevent explosions as a result of an increase in pressure in the system piping.
- When transferring refrigerant from one container to another, only use homologated liquid refrigerant containers equipped with safety valves.
- Never fill liquid refrigerant containers over **80 %** (**80.0 %**) of their maximum capacity.
- Do not modify the settings of safety valves and the control devices.
- Never connect the recovery/recycling and evacuation/charging stations to electrical power outlets with voltages other than those specified; do not leave the stations powered up unless they are to be used immediately.

Basic instructions

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: **LOCTITE® 518™** , **LOCTITE® 5205**.
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 “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.

Consumables

Tractor refuelling

COMPONENT TO BE FILLED OR TOPPED UP	QUANTITY dm3 (litres)	RECOMMENDED NEW HOLLAND PRODUCT	NEW HOLLAND SPECIFICATION	INTERNATIONAL SPECIFICATION
Cooling system: less cab with cab	 10 12	Water and **NEW HOLLAND AMBRA AGRIFLU** fluid **50 %** + **50 %**	**NH900A**	-
Washer fluid reservoir	2	Water and cleaning fluid	-	-
Fuel tank: − T4020V, T4030V, T4040V , e T4050V − T4030N, T4040N T4050N	 74 77	Decanted, filtered diesel fuel	-	-
Engine oil sump: — T4020V, T4030V, T4040V, T4030N, T4040N — T4050V, T4050N :	 8,5 9,5	**NEW HOLLAND AMBRA SUPER GOLD 15W-40**	NH 330G (**SAE 15W40**)	API CF−4/SG CCMC D4 MIL−L−2104E
Brake circuit With front brakes	0,5 0,7	**NEW HOLLAND AMBRA BRAKE LHM** oil	**NH610A**	**ISO 7308**
Standard front axle axle housing: with brake without brake − final drives (each):	 4,0 4,0 0,6	**NEW HOLLAND AMBRA MULTI G™ HYDRAULIC TRANSMISSION OIL** oil	**NH410B**	**API GL-4** **ISO 32/46** **SAE 10W30**
Super Steer front axle, axle housing: − final drives (each): with brake without brake	 2,8 1,75 1,0	**NEW HOLLAND AMBRA MULTI G™ HYDRAULIC TRANSMISSION OIL** oil	**NH410B**	**API GL-4** **ISO 32/46** **SAE 10W30**
Rear transmission (bevel drive, final drives and brakes), gearbox, hydraulic lift, PTO and hydraulic steering:	44	**NEW HOLLAND AMBRA MULTI G™ HYDRAULIC TRANSMISSION OIL** oil	**NH410B**	**API GL-4** **ISO 32/46** **SAE 10W30**
Grease fittings	-	**NEW HOLLAND AMBRA GR-9 MULTI-PURPOSE GREASE**	**NH710A**	**NLGI 2**

SERVICE MANUAL

Engine

T4.105N With cab [ZDJE16586 -], T4.105N Without cab [ZDJE18360 -], T4.105V With cab [ZDJE17896 -], T4.105V Without cab [ZDJE13827 -], T4.65V With cab [ZDJE10473 -], T4.65V Without cab [ZDJE11549 -], T4.75N With cab [ZDJE10131 -], T4.75N Without cab [ZDJE11495 -], T4.75V With cab [ZDJE10095 -], T4.75V Without cab [ZDJE11310 -], T4.85N With cab [ZDJE09941 -], T4.85N Without cab [ZDJE12418 -], T4.85V With cab [ZDJE11669 -], T4.85V Without cab [ZDJE10317 -], T4.95N With cab [ZDJE10238 -], T4.95N Without cab [ZDJE12231 -], T4.95V With cab [ZDJE11682 -], T4.95V Without cab [ZDJE11554 -]

Contents

Engine - 10

[10.001] Engine and crankcase 10.1

Engine - 10

Engine and crankcase - 001

T4.105N With cab [ZDJE16586 -], T4.105N Without cab [ZDJE18360 -], T4.105V With cab [ZDJE17896 -], T4.105V Without cab [ZDJE13827 -], T4.65V With cab [ZDJE10473 -], T4.65V Without cab [ZDJE11549 -], T4.75N With cab [ZDJE10131 -], T4.75N Without cab [ZDJE11495 -], T4.75V With cab [ZDJE10095 -], T4.75V Without cab [ZDJE11310 -], T4.85N With cab [ZDJE09941 -], T4.85N Without cab [ZDJE12418 -], T4.85V With cab [ZDJE11669 -], T4.85V Without cab [ZDJE10317 -], T4.95N With cab [ZDJE10238 -], T4.95N Without cab [ZDJE12231 -], T4.95V With cab [ZDJE11682 -], T4.95V Without cab [ZDJE11554 -]

Contents

Engine - 10

Engine and crankcase - 001

SERVICE

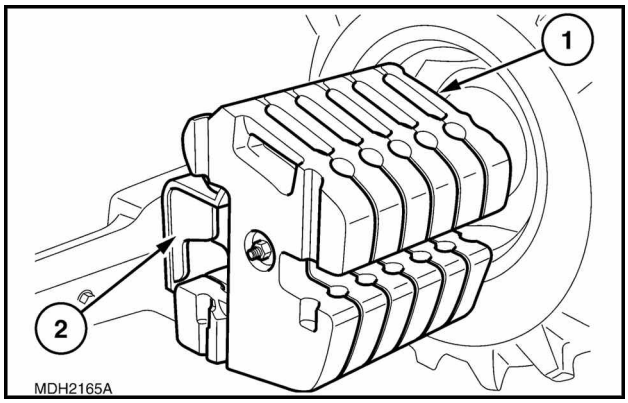
Engine

Remove 3

Install 7

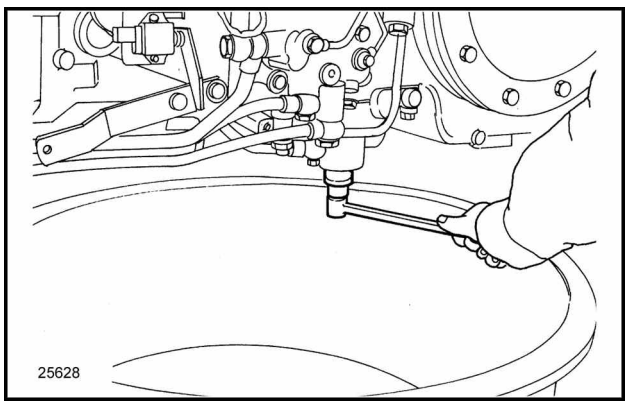
Engine - Remove

1. Remove the cab as described in operation " **Cab - Remove (90.150)**".
2. Extract the fixing pin and remove the ballast **(1)** ; unscrew the retaining screws and retrieve the ballast support **(2)** .



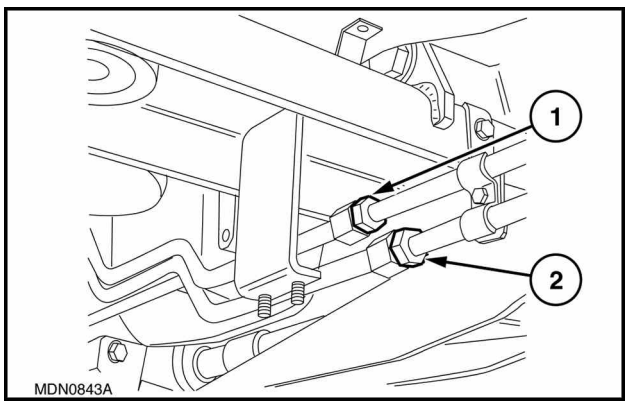
WLSPVNS10C1-10A 1

3. Carry out operation in: **Drive shaft - Disassemble (21.145)**, propeller shafts and guard, only removal.
4. Unscrew the plug and drain the front transmission casing (prescribed quantity: **44 l** (**11.62 US gal**)).



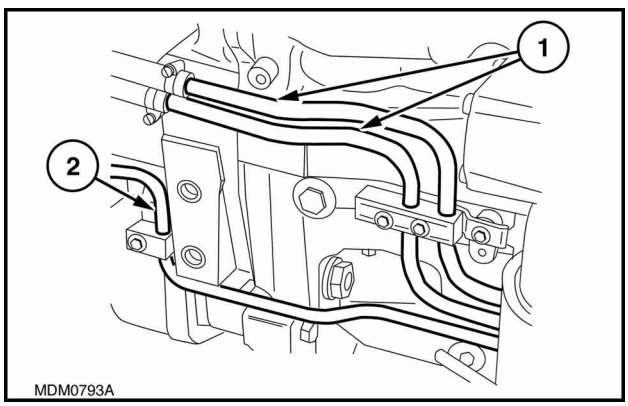
WLSPVNS10C1-11A 2

5. Disconnect the pipes (**(1)** and **(2)**) of the transmission oil cooler and of the front axle differential lock.



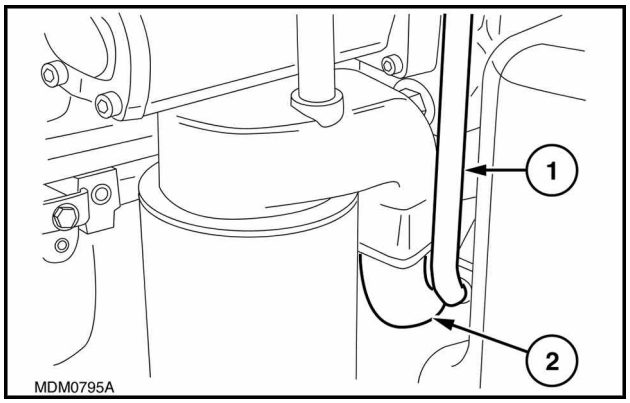
WLSPVNS10C1-12A 3

6. Disconnect: the transmission oil cooler pipes **(1)** and the front axle differential lock pipe **(2)** .



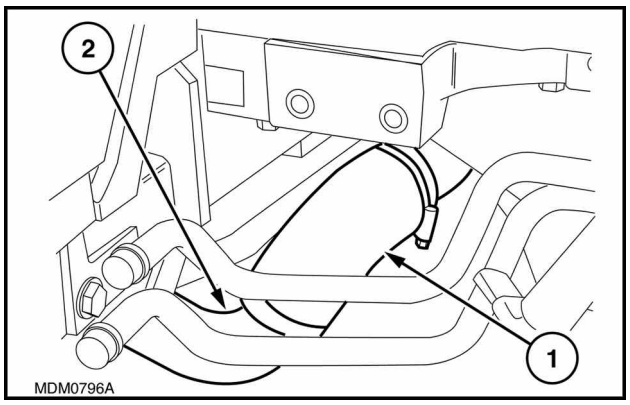
WLSPVNS10C1-13A 4

7. Unscrew: the retaining bolts of the pipe **(1)** delivering oil to the pump and the bolts retaining the pipe **(2)** to the filter support.



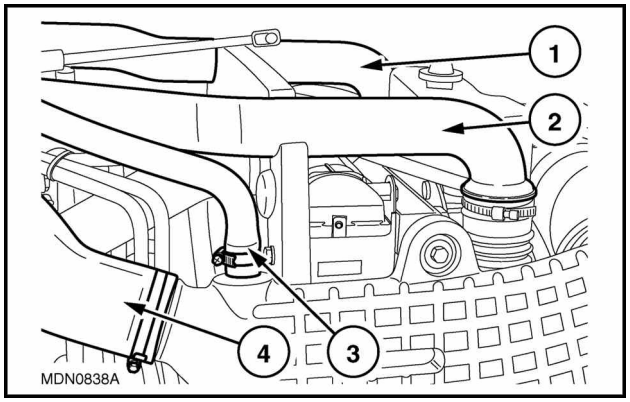
WLSPVNS10C1-14A 5

8. Loosen the related clamps and remove the sleeve **(2)** from the pipe **(1)** and remove the transmission oil inlet pipe together with the above-mentioned sleeve.



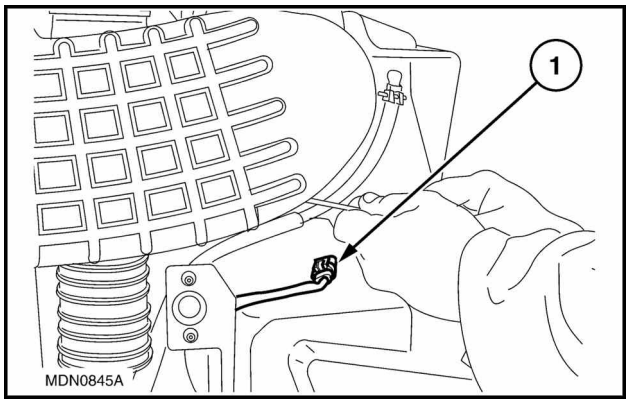
WLSPVNS10C1-15A 6

9. Unscrew the fixing clamps and disconnect the pipes (**(1)** and **(2)**) from the cooler, the sleeve **(4)** between the air filter and the turbocharger and the oil vapour recirculation pipe **(3)** .



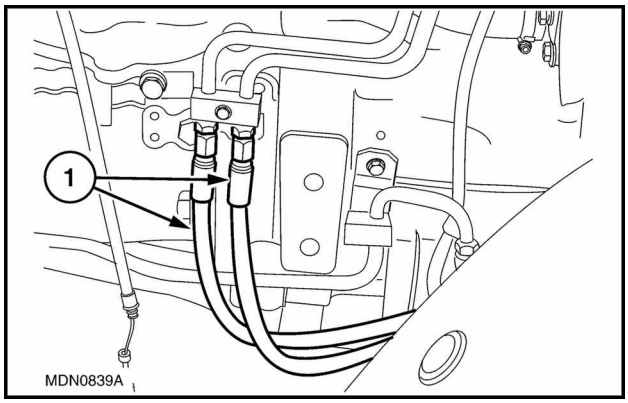
WLSPVNS10C1-16A 7

10. Disconnect the secondary tank fuel level connection **(1)** and the clogged air filter pressure switch connection.



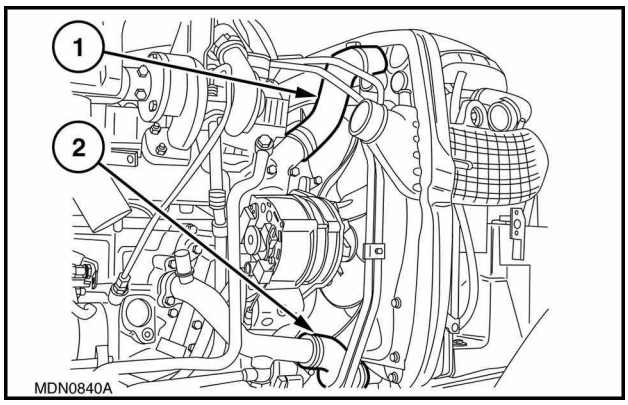
WLSPVNS10C1-17A 8

11. Disconnect the steering hydraulic cylinder control pipes **(1)** .



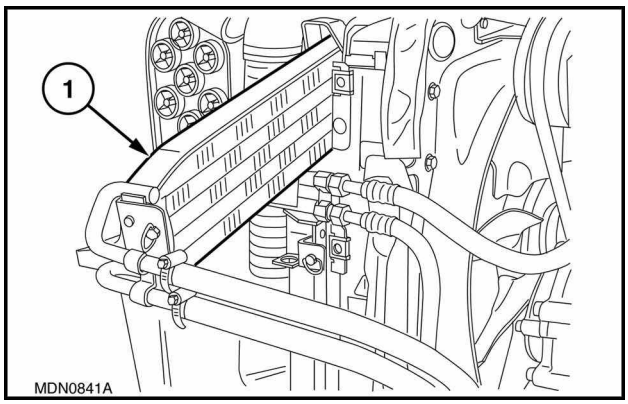
WLSPVNS10C1-18A 9

12. Unscrew the fixing clamps and detach the upper **(1)** and lower **(2)** sleeves from the engine radiator.



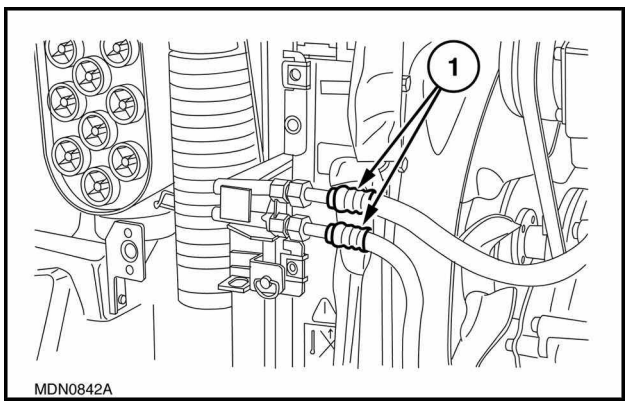
WLSPVNS10C1-19A 10

13. Unhook the catch and extract the transmission oil radiator **(1)** .



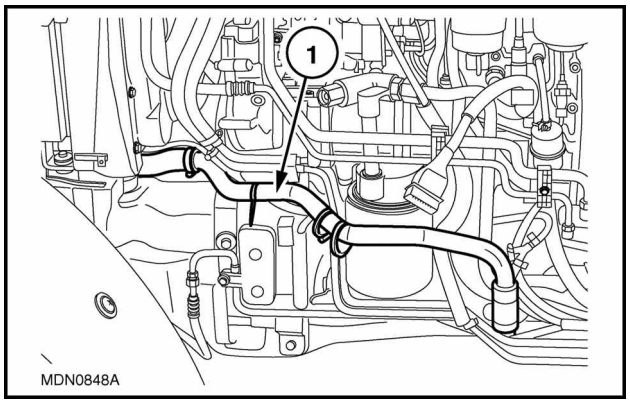
WLSPVNS10C1-20A 11

14. Disconnect the pipes **(1)** of the air-conditioning system from the related condenser.



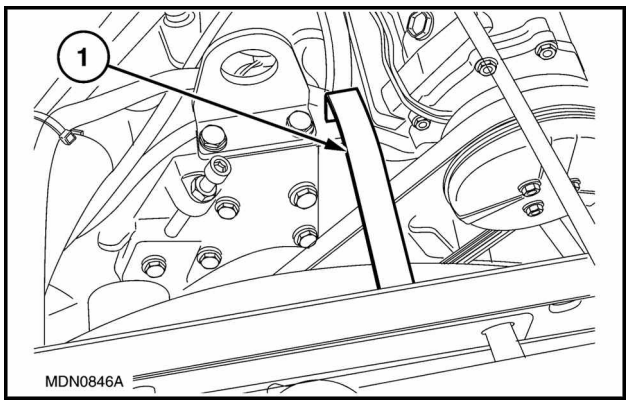
WLSPVNS10C1-21A 12

15. Unscrew the fixing screws, loosen the related clamp and detach the pipe **(1)** joining the tanks: main to secondary.



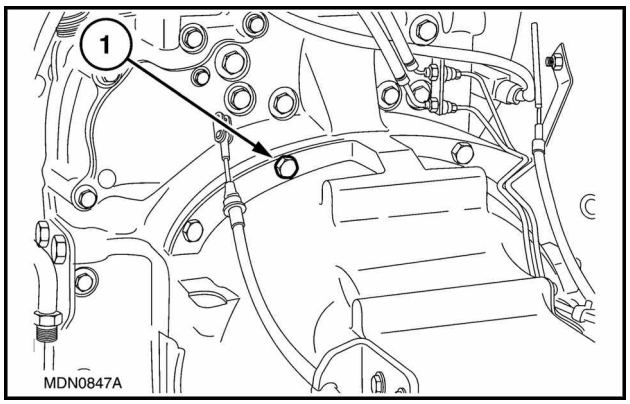
WLSPVNS10C1-22A 13

16. Unscrew the fixing screw and detach the bracket **(1)** locking the engine radiator.



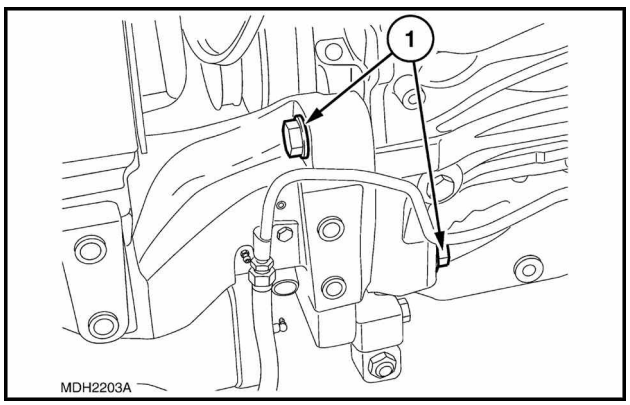
WLSPVNS10C1-23A 14

17. Position a fixed stand under the transmission− clutch casing.
18. Connect the engine to the hoist using a chain and make it take up the strain.
19. Unscrew the bolts **(1)** securing the engine to the transmission-clutch casing and detach the engine assembly and front axle.



WLSPVNS10C1-24A 15

20. Set up two fixed stands: one under the axle support at the rear and the other under the front side.
21. Unscrew the bolts **(1)** on both sides and separate the engine from the axle-support assembly with the radiators.
22. Rest the engine on an adequate support.



WLSPVNS10C1-26A 16

Engine - Install

1. Respect the tightening torques.
2. Connect the engine, with chains, to the hoist.
3. Refit the engine to the front axle-support assembly with the radiator and cooler.
4. Before refitting the engine to the clutch box carefully clean the mating surfaces and apply sealing compound (**2 mm** (**0.08 in**) diameter), according to the diagram shown in **Transmission housing - Reseal (21.114)** .
5. Position the engine on the clutch casing and secure it with the specific bolts.
6. Position and secure the retaining bracket between the radiator and engine.
7. Secure the pipe joining the main tank to the secondary one.
8. Position and secure the guard between the radiator and engine.
9. Connect the air-conditioning system pipes to the condenser.
10. Insert the transmission oil radiator into its seat and secure it.
11. Connect and secure the top and bottom sleeves to the engine radiator.
12. Connect the steering cylinder control piping.
13. Connect the electrical connections of the secondary tank fuel level and clogged air filter.
14. Position and secure the connecting pipes of the cooler, turbocharger, air filter and oil vapour recirculation.
15. Position and connect the transmission oil inlet pipe.
16. Position and secure the pipes of the transmission oil filter support.
17. Connect the transmission oil cooler and front axle differential lock pipes.
18. Carry out operation **Drive shaft - Assemble (21.145)** Propeller shafts and guard, only installation
19. Connect the cooler and front axle differential lock pipes.
20. For models fitted with brakes on the front axle it is necessary to fill the relevant tank (see dedicated section for the prescribed product and quantity) and bleed the braking system.
21. Screw the plug on the rear transmission casing and fill up with oil (see dedicated section for the prescribed product and quantity).
22. Position and secure the ballast support.
23. Position and secure the ballast.
24. Install the cab as described in operation **Cab - Install (90.150)**.

Index

Engine - 10

Engine and crankcase - 001

Engine - Install 7
Engine - Remove 3

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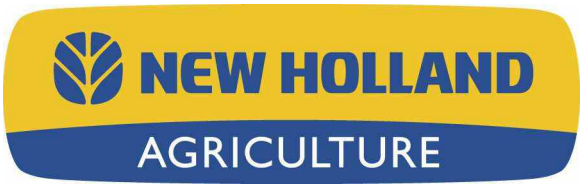
SERVICE - Technical Publications & Tools



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All data given in this publication is subject to production variations. Dimensions and weight are approximate only and the illustrations do not necessarily show products in standard condition. For exact information about any particular product, please consult your NEW HOLLAND Dealer.

SERVICE MANUAL

Clutch

T4.105N With cab [ZDJE16586 -], T4.105N Without cab [ZDJE18360 -], T4.105V With cab [ZDJE17896 -], T4.105V Without cab [ZDJE13827 -], T4.65V With cab [ZDJE10473 -], T4.65V Without cab [ZDJE11549 -], T4.75N With cab [ZDJE10131 -], T4.75N Without cab [ZDJE11495 -], T4.75V With cab [ZDJE10095 -], T4.75V Without cab [ZDJE11310 -], T4.85N With cab [ZDJE09941 -], T4.85N Without cab [ZDJE12418 -], T4.85V With cab [ZDJE11669 -], T4.85V Without cab [ZDJE10317 -], T4.95N With cab [ZDJE10238 -], T4.95N Without cab [ZDJE12231 -], T4.95V With cab [ZDJE11682 -], T4.95V Without cab [ZDJE11554 -]

Contents

Clutch - 18

[18.100] Clutch mechanical release control 18.1

[18.104] Clutch hydraulic release control 18.2

[18.110] Clutch and components 18.3

Clutch - 18

Clutch mechanical release control - 100

T4.105N With cab [ZDJE16586 -], T4.105N Without cab [ZDJE18360 -], T4.105V With cab [ZDJE17896 -], T4.105V Without cab [ZDJE13827 -], T4.65V With cab [ZDJE10473 -], T4.65V Without cab [ZDJE11549 -], T4.75N With cab [ZDJE10131 -], T4.75N Without cab [ZDJE11495 -], T4.75V With cab [ZDJE10095 -], T4.75V Without cab [ZDJE11310 -], T4.85N With cab [ZDJE09941 -], T4.85N Without cab [ZDJE12418 -], T4.85V With cab [ZDJE11669 -], T4.85V Without cab [ZDJE10317 -], T4.95N With cab [ZDJE10238 -], T4.95N Without cab [ZDJE12231 -], T4.95V With cab [ZDJE11682 -], T4.95V Without cab [ZDJE11554 -]

Contents

Clutch - 18

Clutch mechanical release control - 100

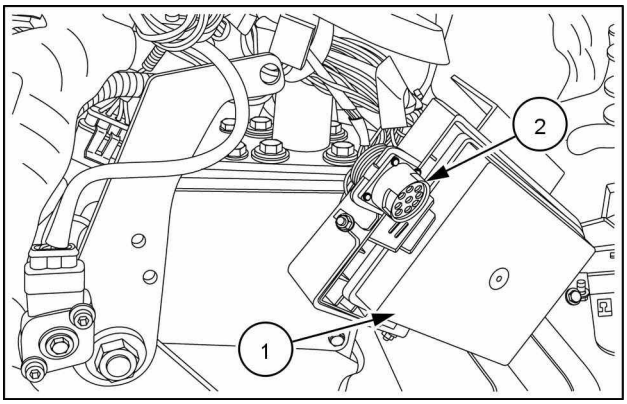
SERVICE

Clutch mechanical release control
Remove 3
Install 6

Clutch mechanical release control - Remove

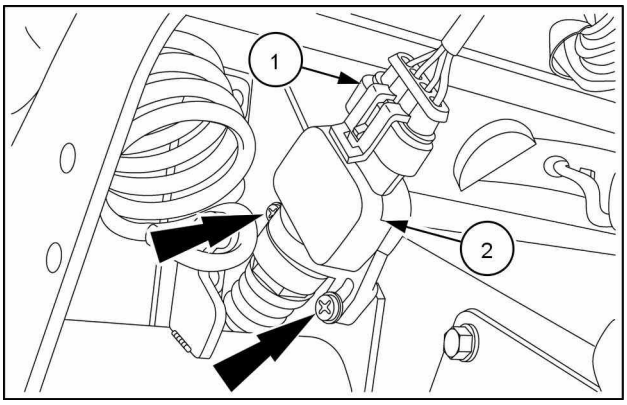
Prior operation:
A. Disconnect the battery negative prong.
B. Remove the front left-hand panel.

1. Partially disconnect the fuse holder box **(1)** and the diagnosis socket **(2)**.



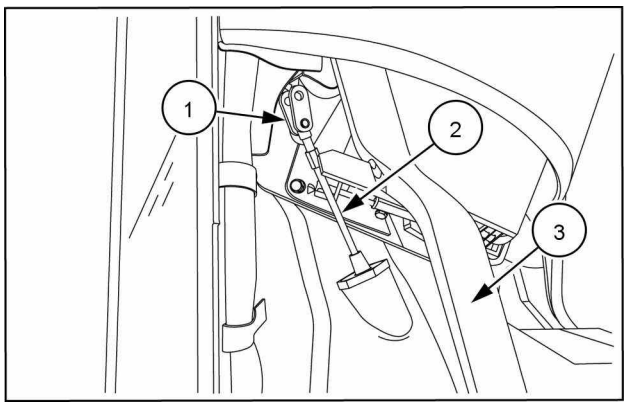
MOIL16TR01988AA 1

2. Correctly disconnect the electrical connector **(1)** from the engine starting inhibitor switch **(2)**.
3. Loosen the two indicated connection screws of the switch **(2)** and the relevant washers.
4. Store the switch **(2)** in a suitable location.



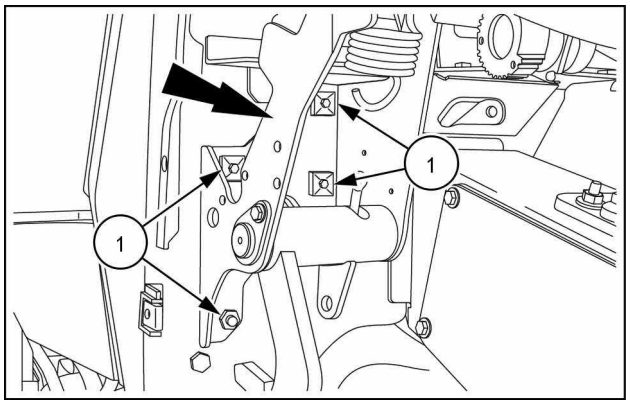
MOIL16TR01989AA 2

5. Disconnect the retaining clip **(1)** of the clutch **(3)** control lever cable **(2)** under the dashboard on the right-hand side of the vehicle.



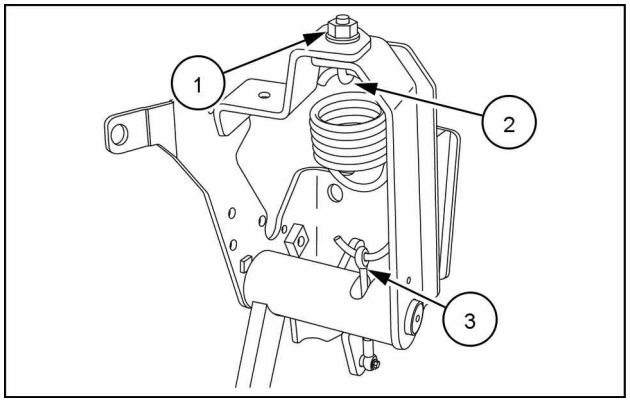
MOIL16TR01344AA 3

6. Unscrew the four nuts **(1)** on the master clutch pedal.



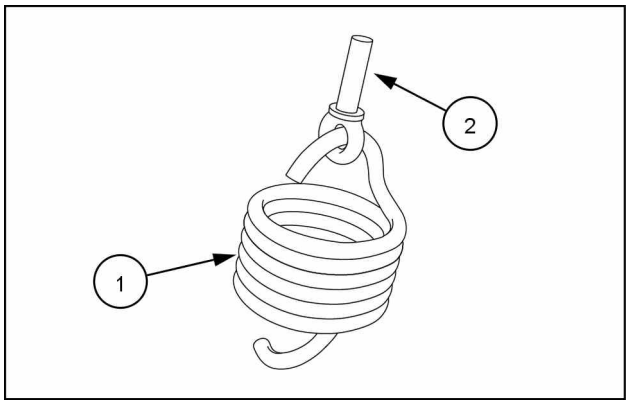
MOIL16TR00373AA 4

7. Unscrew the nut **(1)** and release the upper side of the spring **(2)**.
8. Remove the lower side of the spring from the small rod **(3)**.



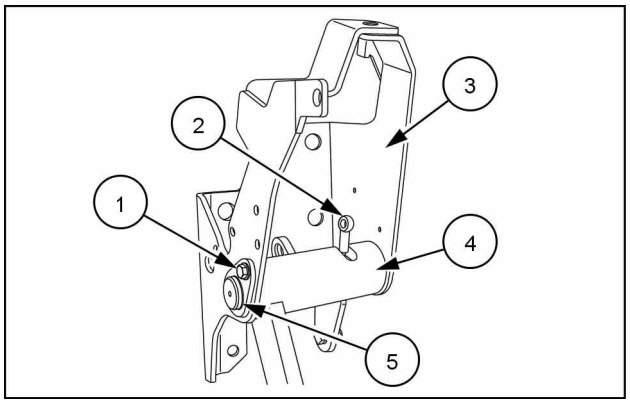
MOIL16TR00374AA 5

9. Manually remove the spring **(1)** including eyelet screw **(2)** and store them in a suitable place.



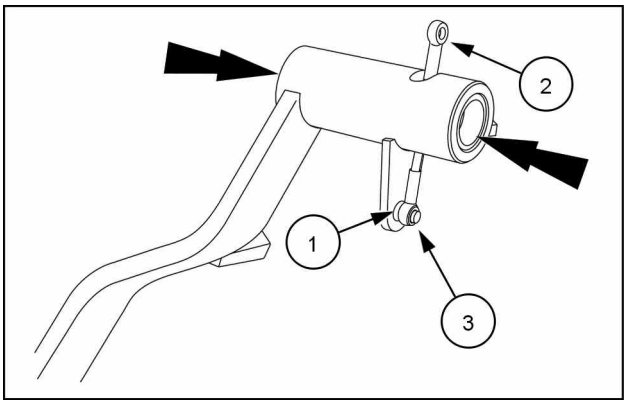
MOIL16TR00375AA 6

10. Loosen the screw **(1)**.
11. Move down the tie rod **(2)**.
12. Manually extract the pedal axle rod **(5)** and store it in a suitable place.
13. Manually remove the master clutch pedal **(4)** including the tie rod **(2)** from the pedal holder **(3)**.



MOIL16TR00376AA 7

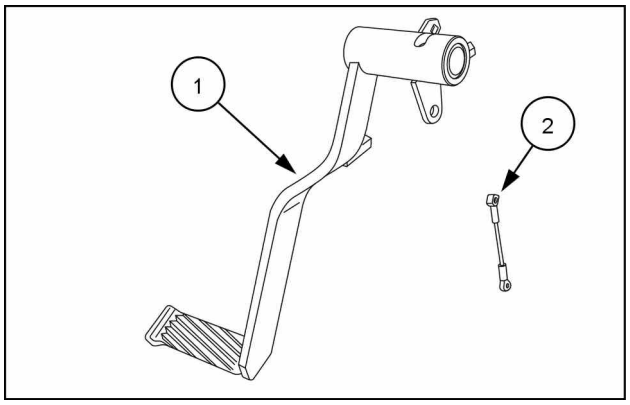
14. Remove the seeger **(3)** and release the tie rod pin **(1)**.
15. Remove the tie rod **(2)** and store it in a suitable place.
16. Remove the two indicated needle bearings from the clutch pedal axle.



MOIL16TR00378AA 8

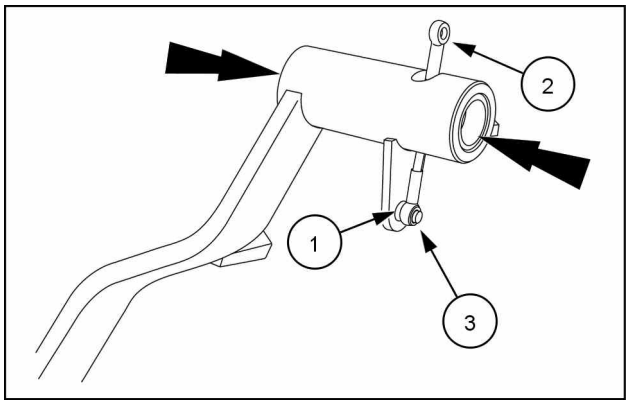
Clutch mechanical release control - Install

1. Recover and thoroughly clean the master clutch pedal **(1)** and the tie rod **(2)**.



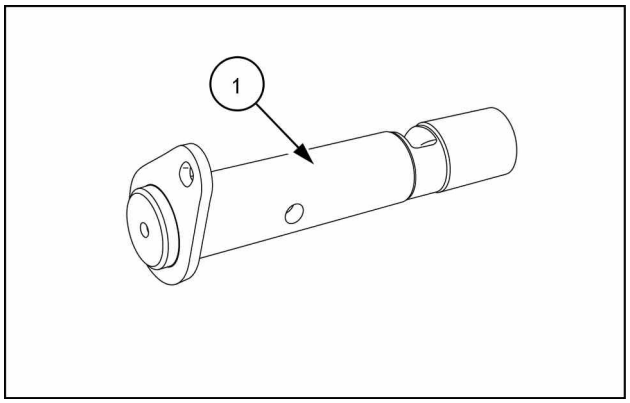
MOIL16TR00379AA 1

2. Install the tie rod pin **(1)**.
3. Install the tie rod **(2)** and fasten the seeger **(3)**.
4. Install the two indicated needle bearings inside the clutch pedal axle.



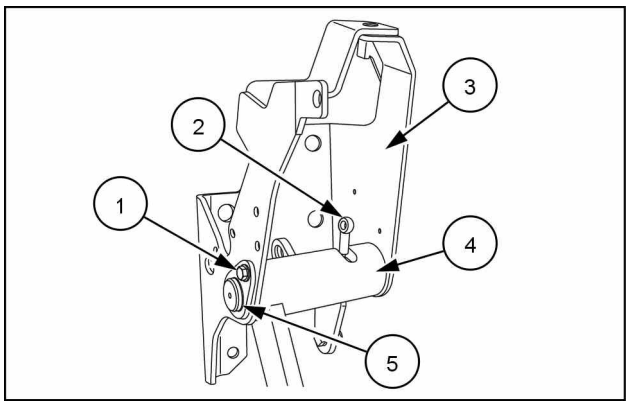
MOIL16TR00378AA 2

5. Recover and thoroughly clean the pedal axle rod **(1)**.



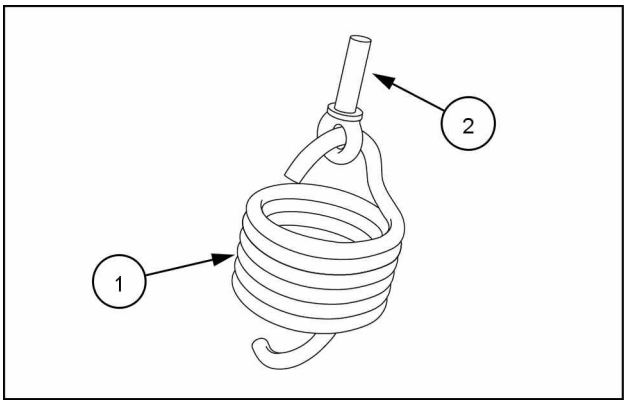
MOIL16TR00377AA 3

6. Recover and thoroughly clean the master clutch pedal holder.
7. Correctly place the master clutch pedal axle **(4)** on the holder **(3)**.
8. Move down the tie rod **(2)**.
9. Correctly insert the rod **(5)** inside the pedal axle **(4)**.
10. Fasten the screw **(1)**.



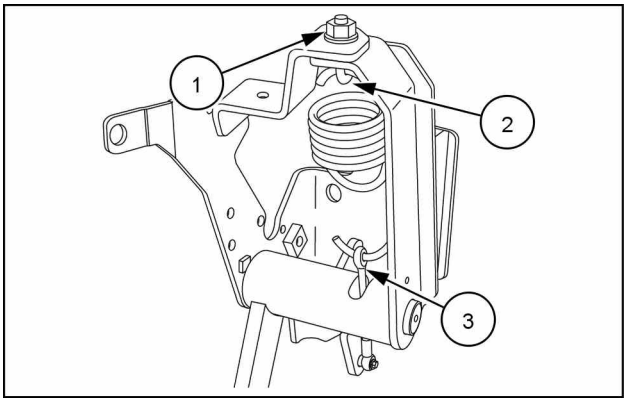
MOIL16TR00376AA 4

11. Recover and thoroughly clean the spring **(1)** including the eyelet screw **(2)**.



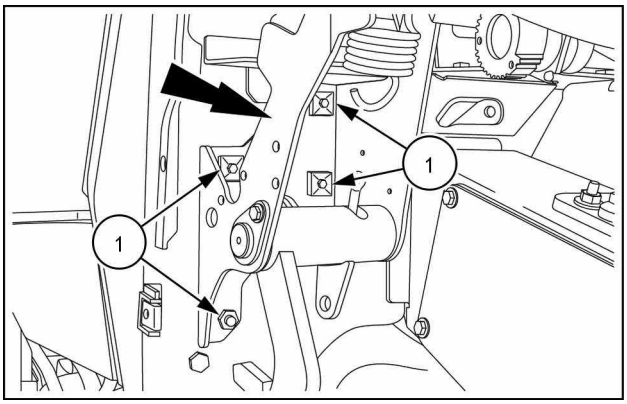
MOIL16TR00375AA 5

12. Clip the lower side of spring on the small rod **(3)**.
13. Correctly place the eyelet screw **(2)** of the upper side of the spring.
14. Fasten the nut **(1)**.



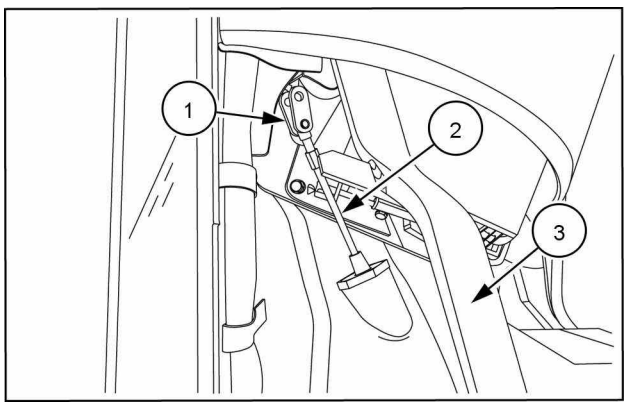
MOIL16TR00374AA 6

15. Thoroughly clean the master clutch pedal assembly housing under the dashboard column on the left side of the vehicle.
16. Carefully place the master clutch pedal assembly on its housing.
17. Fasten the four indicated nuts **(1)**.



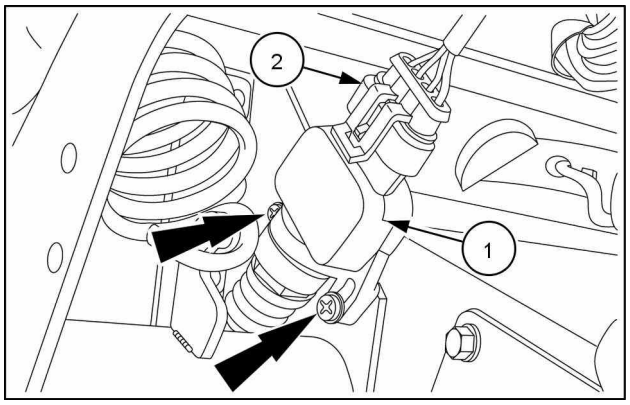
MOIL16TR00373AA 7

18. Correctly place and fasten the clip **(1)** of the cable **(2)** on the master clutch pedal **(3)** under the dashboard column on the left side of the vehicle.



MOIL16TR01344AA 8

19. Recover and thoroughly clean the engine starting inhibitor switch **(1)**.
20. Correctly connect the electrical connector **(2)** to the switch **(1)**.
21. Tighten the two indicated connection screws and the relevant washers.



MOIL16TR01989AA 9

Next operation:
A. Connect the battery negative prong.
B. Proceed to the clutch pedal calibration through the menu HH.
C. Reconnect the front left-hand panel.

Index

Clutch - 18

Clutch mechanical release control - 100

Clutch mechanical release control - Install 6
Clutch mechanical release control - Remove 3

Clutch - 18

Clutch hydraulic release control - 104

T4.105N With cab [ZDJE16586 -], T4.105N Without cab [ZDJE18360 -], T4.105V With cab [ZDJE17896 -], T4.105V Without cab [ZDJE13827 -], T4.65V With cab [ZDJE10473 -], T4.65V Without cab [ZDJE11549 -], T4.75N With cab [ZDJE10131 -], T4.75N Without cab [ZDJE11495 -], T4.75V With cab [ZDJE10095 -], T4.75V Without cab [ZDJE11310 -], T4.85N With cab [ZDJE09941 -], T4.85N Without cab [ZDJE12418 -], T4.85V With cab [ZDJE11669 -], T4.85V Without cab [ZDJE10317 -], T4.95N With cab [ZDJE10238 -], T4.95N Without cab [ZDJE12231 -], T4.95V With cab [ZDJE11682 -], T4.95V Without cab [ZDJE11554 -]

Contents

Clutch - 18

Clutch hydraulic release control - 104

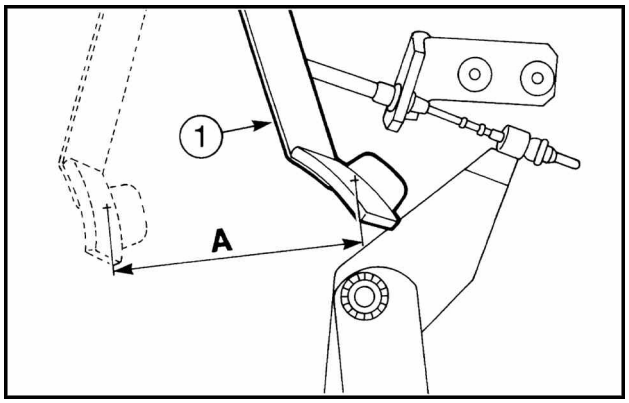
SERVICE

Clutch hydraulic release control

Travel adjust 3

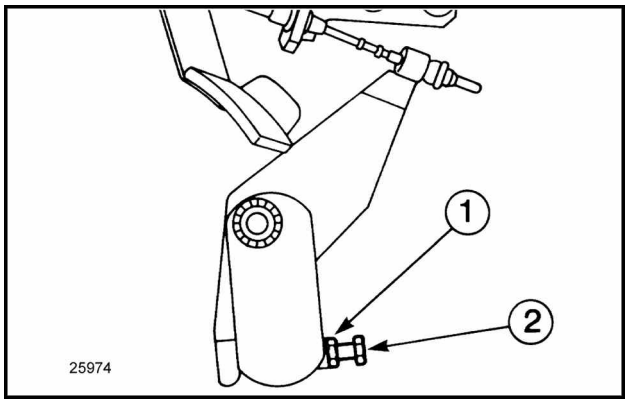
Clutch hydraulic release control - Travel adjust

1. If the position of the clutch pedal **(1)** requires adjustment, or after a clutch overhaul, check that main clutch pedal travel **(A)** is between **148 - 152 mm** (**5.8268 - 5.9842 in**). If not, adjust as follows:



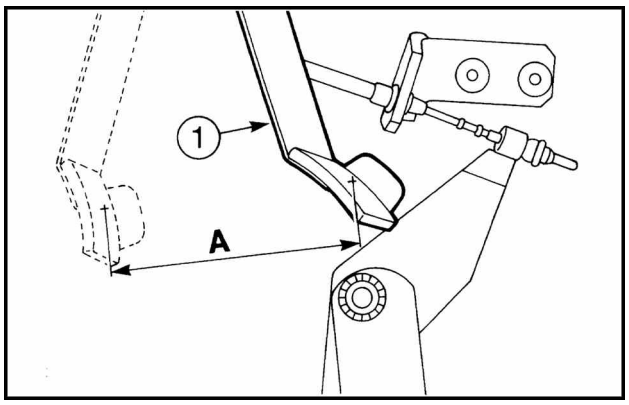
WLSPVNS18C1-48A 1

- Loosen the locknut **(1)** and turn the nut **(2)** anticlockwise.
- Check that travel is between **148 - 152 mm** (**5.8268 - 5.9842 in**).
- Tighten the locknut **(1)**.



WLSPVNS18C1-49A 2

- Operate the unit four or five times.
- Check that the clutch pedal **(1)** travel is as prescribed.
- If necessary, reset to the correct value **(A)**, as previously described.
- After having correctly adjusted pedal travel, check that the entire distance is travelled with a maximum load of **190 N·m** (**140.14 lb ft**).



WLSPVNS18C1-50A 3

Index

Clutch - 18

Clutch hydraulic release control - 104

Clutch hydraulic release control - Travel adjust 3

Clutch - 18

Clutch and components - 110

T4.105N With cab [ZDJE16586 -], T4.105N Without cab [ZDJE18360 -], T4.105V With cab [ZDJE17896 -], T4.105V Without cab [ZDJE13827 -], T4.65V With cab [ZDJE10473 -], T4.65V Without cab [ZDJE11549 -], T4.75N With cab [ZDJE10131 -], T4.75N Without cab [ZDJE11495 -], T4.75V With cab [ZDJE10095 -], T4.75V Without cab [ZDJE11310 -], T4.85N With cab [ZDJE09941 -], T4.85N Without cab [ZDJE12418 -], T4.85V With cab [ZDJE11669 -], T4.85V Without cab [ZDJE10317 -], T4.95N With cab [ZDJE10238 -], T4.95N Without cab [ZDJE12231 -], T4.95V With cab [ZDJE11682 -], T4.95V Without cab [ZDJE11554 -]

Contents

Clutch - 18

Clutch and components - 110

TECHNICAL DATA

Clutch
- General specification . . . 3
- Torque . . . 5
- Special tools . . . 5

FUNCTIONAL DATA

Clutch
- Sectional view . . . 6

SERVICE

Clutch
- Remove . . . 8
- Install . . . 12
- Overhaul . . . 13
- Repair - checks and measurements . . . 18
- Alignment . . . 20

DIAGNOSTIC

Clutch
- Troubleshooting . . . 22

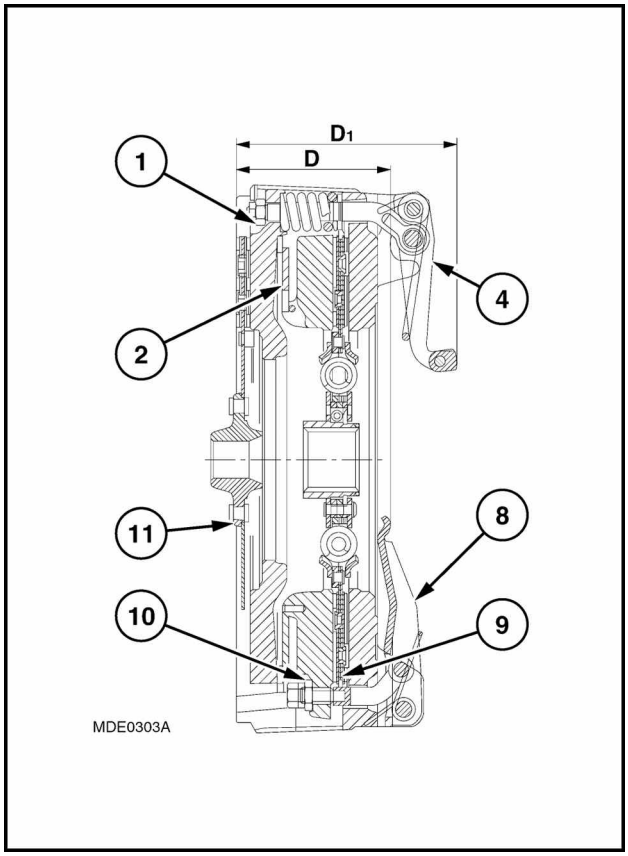
Clutch - General specification

LUK 11”/11” clutch

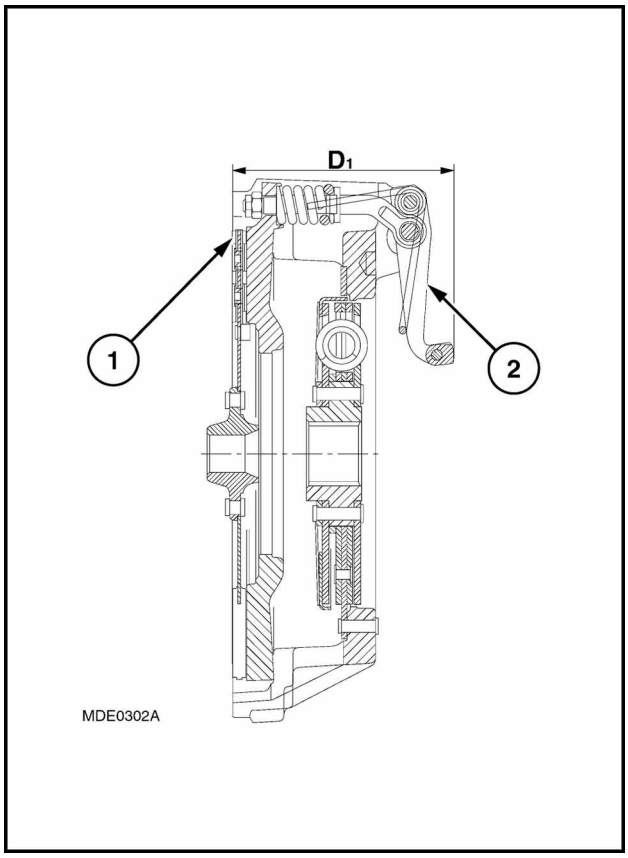
Type	single disk, dry plate dual clutch unit
Mechanical	operation: pedal operated main transmission clutch; hand lever operated P.T.O. clutch
Engagement and release mechanism	single Belleville spring disc
P.T.O. clutch engagement and release mechanism	spiral springs
Driven plate lining material for main transmission clutch: power shuttle transmissions mechanical transmissions	 organic agglomerate cerametallic
Driven plate lining material for P.T.O. clutch	cerametallic
Driven disc thickness: main clutch (**(9)**, Fig. **1**): P.T.O. clutch (**(11)**, Fig. **1**) wear limit	 **9.6 - 10.4 mm** (**0.38 - 0.41 in**) **7.3 - 7.9 mm** (**0.29 - 0.31 in**) see **Clutch - Repair - checks and measurements (18.110)**
Clearance between main transmission clutch release sleeve and housing	**0.050 - 0.151 mm** (**0.019 - 0.059 in**)
Clearance between main transmission clutch release sleeve and housing	**0.050 - 0.151 mm** (**0.019 - 0.059 in**)
Clearance between P.T.O. clutch release sleeve and housing	**0.060 - 0.136 mm** (**0.0023 - 0.0053 in**)
Release lever coplanarity adjustment	see **Clutch - Alignment (18.110)**
Clutch control adjustment	see **Clutch hydraulic release control - Travel adjust (18.104)**

LUK 11” clutch

Type	single dry plate clutch
Mechanical	operation with pedal
Engagement and release mechanism	spiral springs
Driven plate lining material for P.T.O. clutch	cerametallic pads
Driven plate thickness for P.T.O. clutch (**(1)** ,Fig. **2**) Driven plate wear limit	 **7.3 - 7.9 mm** (**0.2874 - 0.3110 in**) **Clutch - Repair - checks and measurements (18.110)**
Clearance between clutch release sliding sleeve and support	**0.050 - 0.151 mm** (**0.0019 - 0.0059 in**)



WLSPVNS18C1-02B 1



WLSPVNS18C1-03B 2

Clutch - Torque

Parts to be tightened	Thread	Tightening torque	
11”/11” clutch/flywheel retaining bolts	**M8 x 1.25**	**20 - 25 N·m (14.75 - 18.44 lb ft)**	**2 - 2.5 kgm**
Release command fork securing bolt	**M16 x 1.5**	**136 - 165 N·m (100.31 - 121.70 lb ft)**	**13.9 - 16.1 kgm**
Clutch housing/engine retaining nuts	**M12 x 1.25**	**117 - 129 N·m (86.29 - 95.15 lb ft)**	**11.6 - 13.1 kgm**
Nut for sleeve cover fixing stud	**M8 x 1.25**	**20 - 25 N·m (14.75 - 18.44 lb ft)**	**2 - 2.5 kgm**

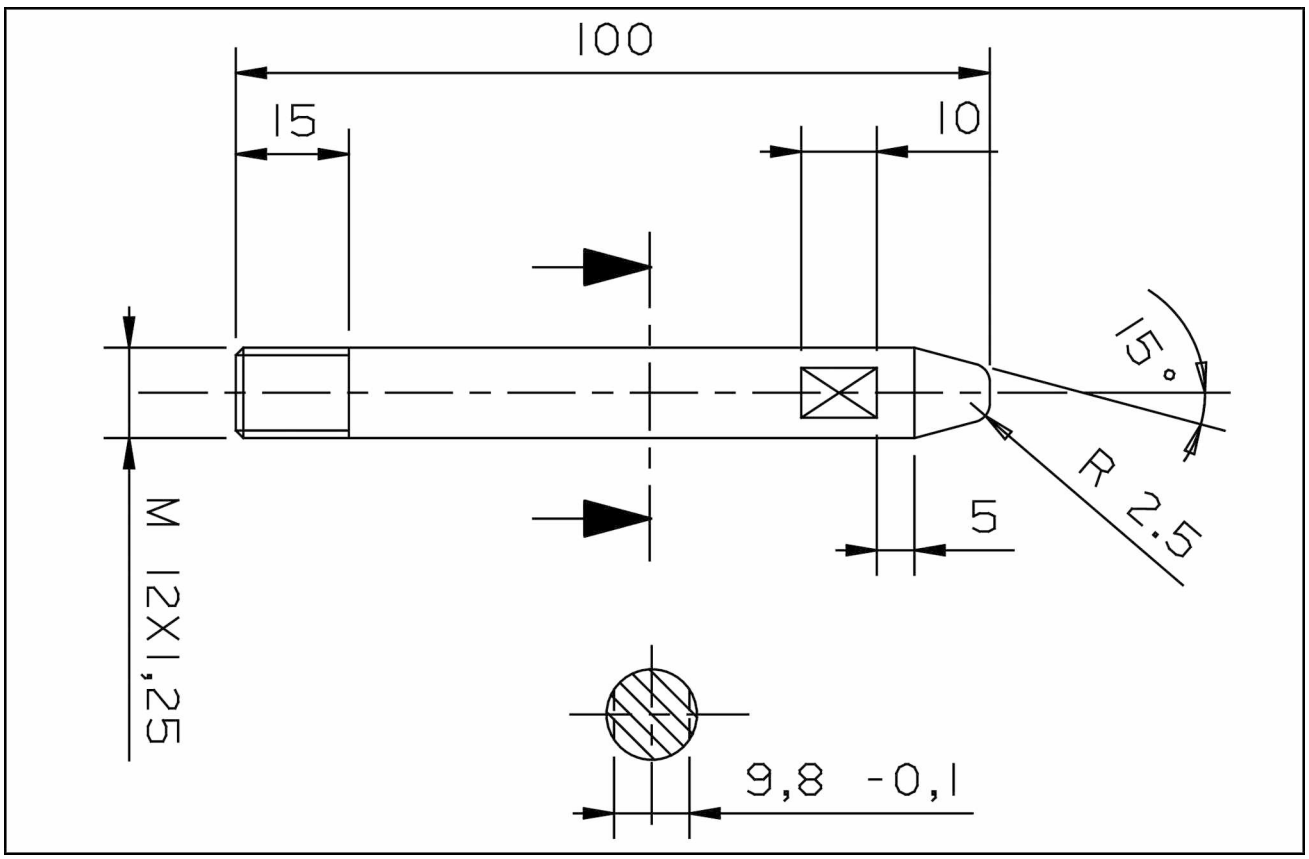
Clutch - Special tools

Mandatory tools

- **380000293**: Clutch adjustment gauge (with 380001760).

Not mandatory tools

- 380001760 : Pin for centring and adjustment of 11”/11” clutches.
- **380000256**: Set of wrenches for adjustment of levers in 11”/11” LUK clutches.
- 50169: Guide pin for fitting the engine to the clutch housing.



50169 1

Guide pin for fitting the engine to the clutch housing (Mark part with no. 50169 − Measurements in mm) made in C 40 material.

Clutch - Sectional view

Longitudinal section of 11”/11” LUK clutch

(1): P.T.O. clutch release lever adjuster.

(2): Belleville spring disc.

(4): P.T.O. clutch release levers.

(8): Main clutch release levers.

(9): Main clutch disk.

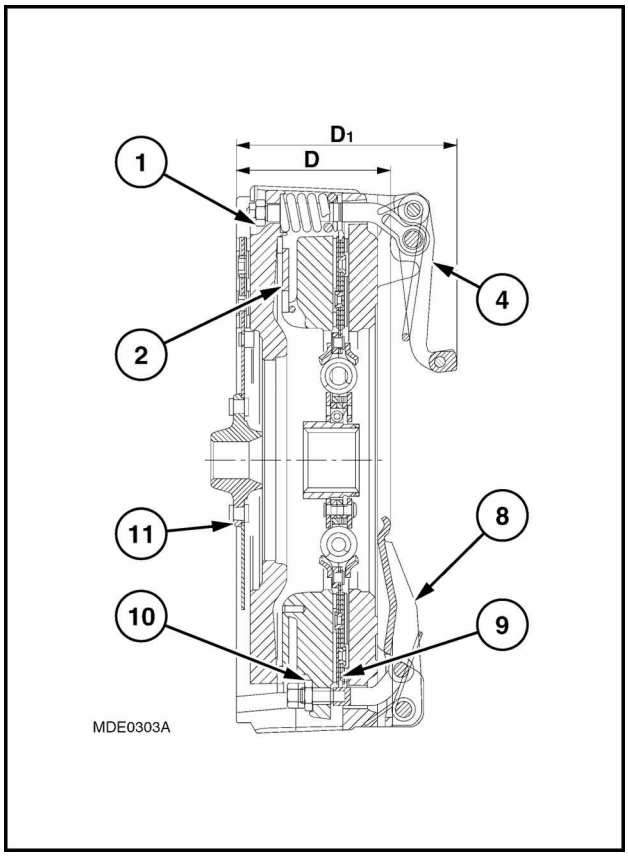
(10): Main clutch release lever adjuster.

(11): P.T.O. clutch disk.

(D) = 97.5 mm (**3.8385 in**). Nominal distance of release levers **(8)** from clutch contact surface on flywheel.

(D1) = 139.5 mm (**5.4921 in**). Nominal distance of release levers **(4)** from clutch contact surface on flywheel.

NOTE: *When assembling, apply sealing compound on surfaces marked with an "X" as shown in* ***Transmission housing - Reseal (21.114)****.*



WLSPVNS18C1-02B 1

Longitudinal section of 11” LUK clutch

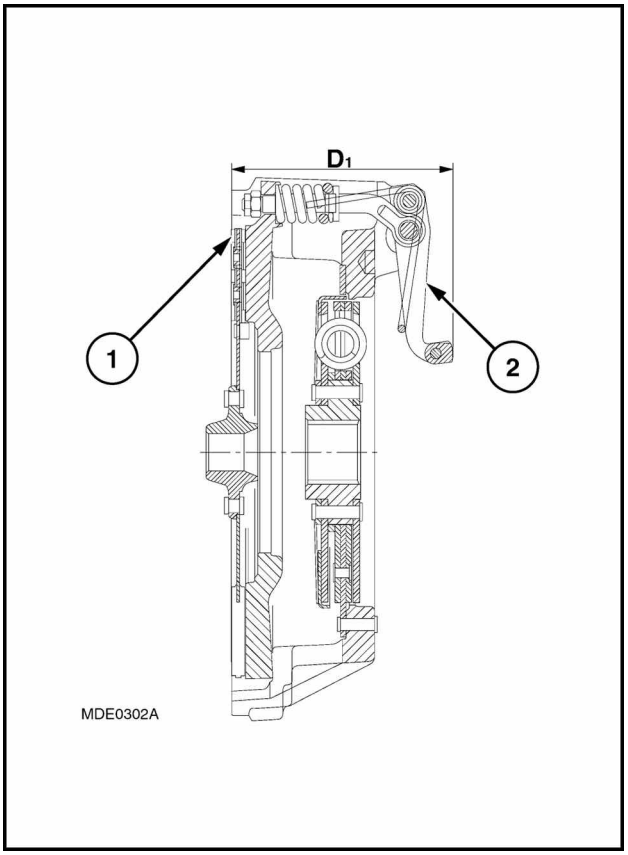
(1): Main clutch disk.

(2): P.T.O. clutch release levers.

(D1) = **139.5 mm** (**5.4921 in**) Nominal distance of release levers **(2)** from clutch contact surface on flywheel.

NOTE: *When refitting the clutch, check that the clutch disks are positioned as in the drawing.*

NOTE: *When assembling apply sealing compound on surfaces marked with an "X" as shown in* ***Transmission housing - Reseal (21.114)****.*



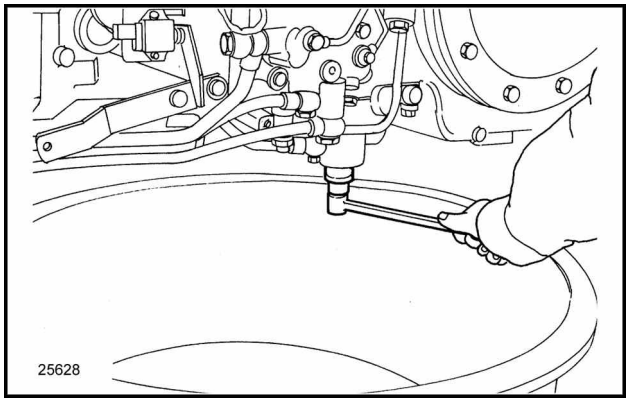
WLSPVNS18C1-03B 2

Clutch - Remove

1. Carry out operation cab with platform unit, only removal (see **Cab and platform - Remove (90.150)**) (models with cab).

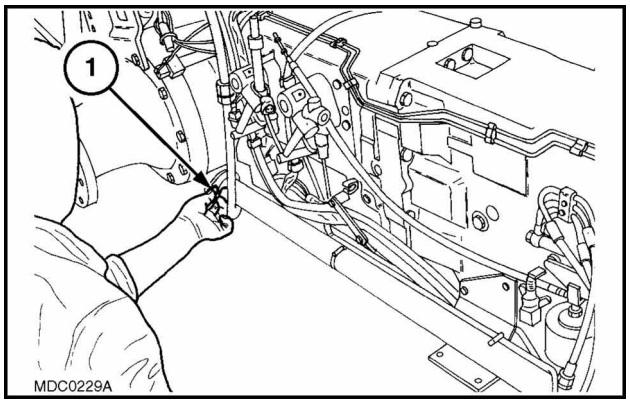
NOTE: *Make sure that the bracket* ***380001613*** *locking the front axle in relation to the engine is positioned and secured between them.*

2. Carry out operation, platform assembly, only removal (see **Cab and platform - Remove (90.150)**) (models with platform).
3. Remove the front roll bar.
4. Unscrew the plug and drain the front transmission casing (prescribed quantity: **44 l** (**11.62 US gal**)).



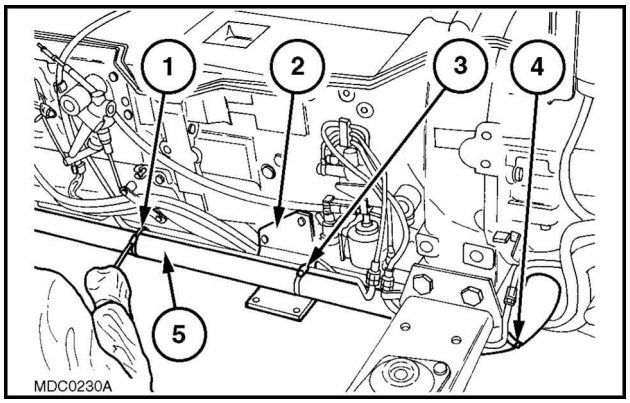
WLSPVNS18C1-05A 1

5. Loosen the hydraulic pump line piping bolts **(1)**.



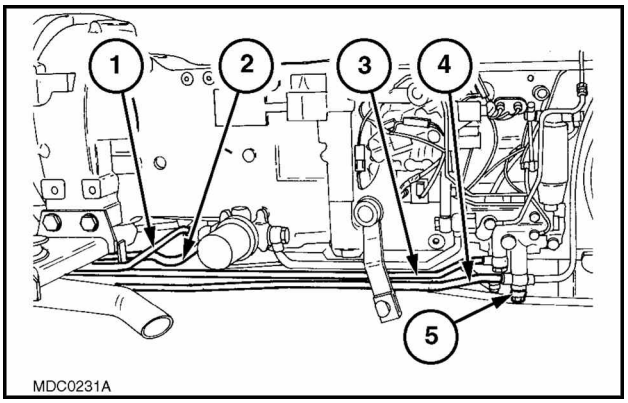
WLSPVNS18C1-06A 2

6. Loosen the clamps **(1)**, **(3)** and **(4)**, unscrew the bracket retaining bolts **(2)** and remove the hydraulic pump line piping **(5)**.



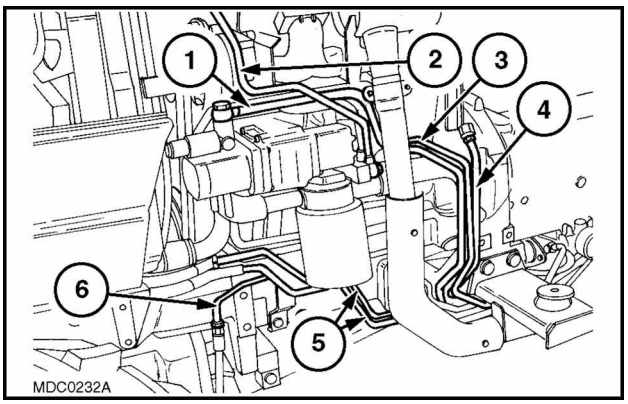
WLSPVNS18C1-07A 3

7. Unscrew the filter piping **(1)** and **(2)**.
8. Unscrew the services distributor piping **(3)**, **(4)** and **(5)**.



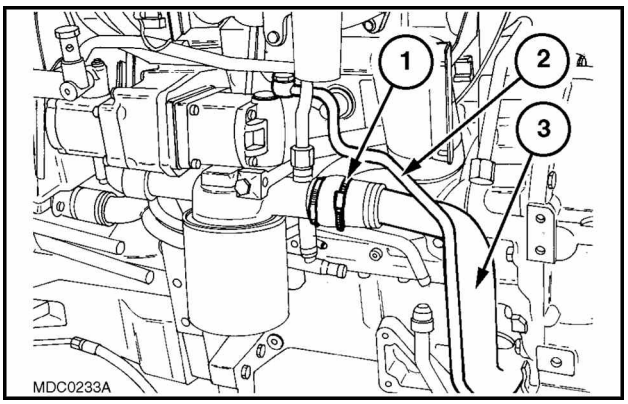
WLSPVNS18C1-08A 4

9. Disconnect and remove piping **(1)**, **(2)**, **(3)**, **(4)**, **(5)** and **(6)**.
10. Carry out operation exhaust pipe, only removal (see engine).



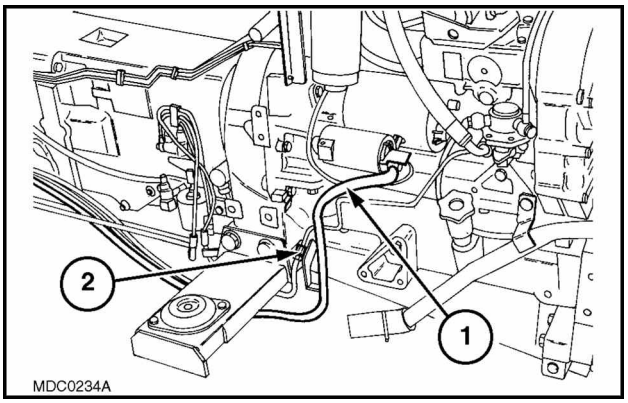
WLSPVNS18C1-09A 5

11. Disconnect the piping **(2)**, unscrew the clamp **(1)**, the piping/clutch housing retaining bolt, and remove piping **(1)** and **(3)**.



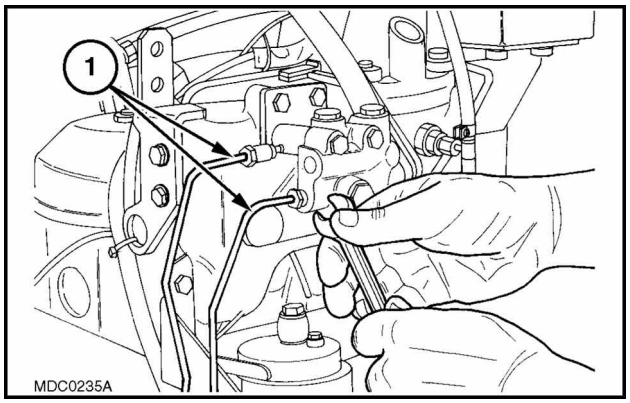
WLSPVNS18C1-10A 6

12. Remove the starter motor guard and disconnect the wire **(1)**.
13. Remove the retaining clamps and disconnect the electrical wires from the engine.
14. Disconnect the piping **(2)**.



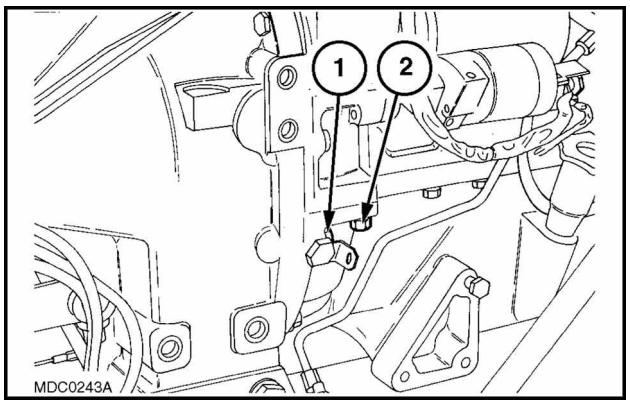
WLSPVNS18C1-11A 7

15. Disconnect the brake piping **(1)** from the block.
16. Carry out operation, propeller shafts and guard, only removal (see **Drive shaft - Disassemble (21.145)**).



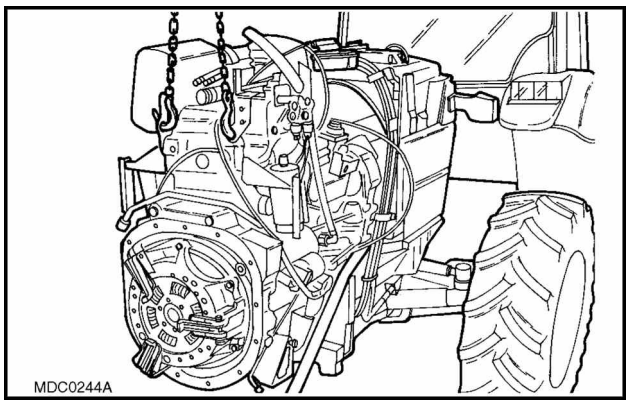
WLSPVNS18C1-12A 8

17. Using a chain, connect the engine to a hoist and position a fixed stand under the clutch casing.
18. Unscrew the bolt **(2)** accessing the allen screw **(1)** (on both sides).



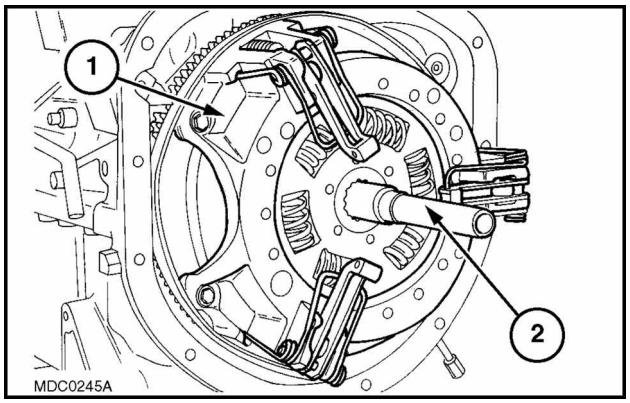
WLSPVNS18C1-13A 9

19. Unscrew all of the clutch casing − engine bolts and detach the engine.



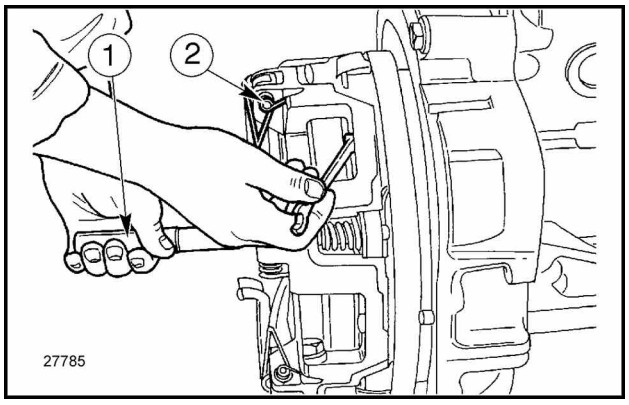
WLSPVNS18C1-14A 10

20. Using tool 380001760 **(2)**, unscrew the retaining bolts and remove the clutch **(1)** (models fitted with Power Shuttle).



WLSPVNS18C1-15A 11

21. Using tool 380001760 **(1)**, unscrew the retaining bolts and remove the clutch **(2)** (models fitted with mechanical gearbox).



WLSPVNS18C1-17A 12