

# SERVICE MANUAL

## DI80C Tier 2 Crawler Dozer

*PIN NDDC18000 and above; PIN NEDC18000 and above; PIN NFDC18000 and above*

Part number 47907879  
2<sup>nd</sup> edition English  
October 2015  
Replaces part number 47645622





## SERVICE MANUAL

**D180C Bulldozer (BD) Blade, Extra Long Track (XLT) - Non-regulated [NDDC18000 - ] , D180C Bulldozer (BD) Blade, Extra Long Track (XLT) - Non-regulated [NEDC18000 - ] , D180C Bulldozer (BD) Blade, Extra Long Track (XLT) - Non-regulated [NFDC18000 - ] , D180C Bulldozer (BD) Blade, Long Track (LT) - Non-regulated [NDDC18000 - ] , D180C Bulldozer (BD) Blade, Long Track (LT) - Non-regulated [NEDC18000 - ] , D180C Bulldozer (BD) Blade, Long Track (LT) - Non-regulated [NFDC18000 - ] , D180C Bulldozer (BD) Blade, Low Ground Pressure (LGP) - Non-regulated [NDDC18000 - ] , D180C Bulldozer (BD) Blade, Low Ground Pressure (LGP) - Non-regulated [NEDC18000 - ] , D180C Bulldozer (BD) Blade, Low Ground Pressure (LGP) - Non-regulated [NFDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Extra Long Track (XLT) - Non-regulated [NDDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Extra Long Track (XLT) - Non-regulated [NEDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Extra Long Track (XLT) - Non-regulated [NFDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Long Track (LT) - Non-regulated [NDDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Long Track (LT) - Non-regulated [NEDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Long Track (LT) - Non-regulated [NFDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Low Ground Pressure (LGP) - Non-regulated [NDDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Low Ground Pressure (LGP) - Non-regulated [NEDC18000 - ] , D180C Power Angle Tilt (PAT) Blade, Low Ground Pressure (LGP) - Non-regulated [NFDC18000 - ]**

## Link Product / Engine

| Product  | Market Product        | Engine         |
|--|-----------------------|----------------|
| D180C Power Angle Tilt (PAT) Blade, Long Track (LT) - Non-regulated [NDDC18000 - ] | Latin America         | F4HFA613N*E002 |
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# INTRODUCTION

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## Foreword - Important notice regarding equipment servicing

D180C

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All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given, and using, whenever possible, the special tools.

Anyone who performs repair and maintenance operations without complying with the procedures provided herein shall be responsible for any subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional, or local dealers, reject any responsibility for damages caused by parts and/or components not approved by the manufacturer, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer. In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages caused by parts and/or components not approved by the manufacturer.

The manufacturer reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication but are subject to change without notice.

In case of questions, refer to your NEW HOLLAND CONSTRUCTION Sales and Service Networks.

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## Safety rules

D180C

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### Personal safety





This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.**

### Machine safety

**NOTICE:** Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

### Information

**NOTE:** Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

---

## Safety rules - Personal safety

D180C

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### General safety rules

Use caution when you operate the machine on slopes. Raised equipment, full tanks and other loads will change the center of gravity of the machine. The machine can tip or roll over when near ditches and embankments or uneven surfaces.

Never permit anyone other than the operator to ride on the machine.

Never operate the machine under the influence of alcohol or drugs, or while you are otherwise impaired.

When digging or using ground-engaging attachments, be aware of buried cables. Contact local utilities to determine the locations of services.

Pay attention to overhead power lines and hanging obstacles. High voltage lines may require significant clearance for safety.

Hydraulic oil or diesel fuel leaking under pressure can penetrate the skin, causing serious injury or infection.

- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper.
- Stop the engine, remove the key, and relieve the pressure before you connect or disconnect fluid lines.
- Make sure that all components are in good condition. Tighten all connections before you start the engine or pressurize the system.
- If hydraulic fluid or diesel fuel penetrates the skin, seek medical attention immediately.
- Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.

Keep clear of moving parts. Loose clothing, jewelry, watches, long hair, and other loose or hanging items can become entangled in moving parts.

Wear protective equipment when appropriate.

DO NOT attempt to remove material from any part of the machine while it is being operated or while components are in motion.

Make sure that all guards and shields are in good condition and properly installed before you operate the machine. Never operate the machine with shields removed. Always close access doors or panels before you operate the machine.

Dirty or slippery steps, ladders, walkways, and platforms can cause falls. Make sure these surfaces remain clean and clear of debris.

A person or pet within the operating area of a machine can be struck or crushed by the machine or its equipment. DO NOT allow anyone to enter the work area.

Raised equipment and/or loads can fall unexpectedly and crush persons underneath. Never allow anyone to enter the area underneath raised equipment during operation.

Never operate the engine in enclosed spaces as harmful exhaust gases may build up.

Before you start the machine, be sure that all controls are in neutral or park lock position.

Start the engine only from the operator's seat. If you bypass the safety start switch, the engine can start with the transmission in gear. Do not connect or short across terminals on the starter solenoid. Attach jumper cables as described in the manual. Starting in gear may cause death or serious injury.

Always keep windows, mirrors, and all lighting clean to provide the best possible visibility while you operate the machine.



## SERVICE MANUAL

### Engine

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# Engine - Remove

D180C

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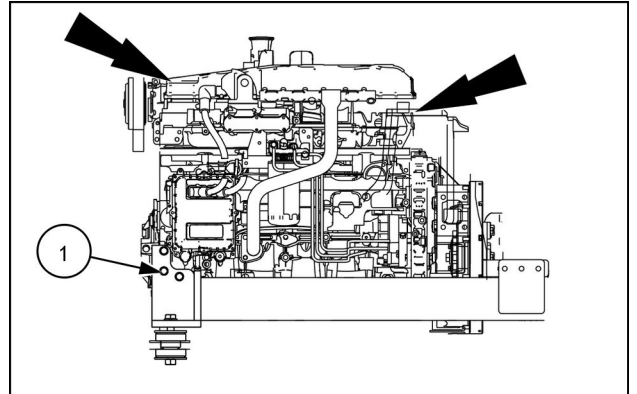
## Prior operation:

### Frame - Remove (39.100)

**NOTICE:** The engine weighs approximately **631 kg (1391 lb)**. Use appropriate lifting equipment to prevent personal injury or property damage.

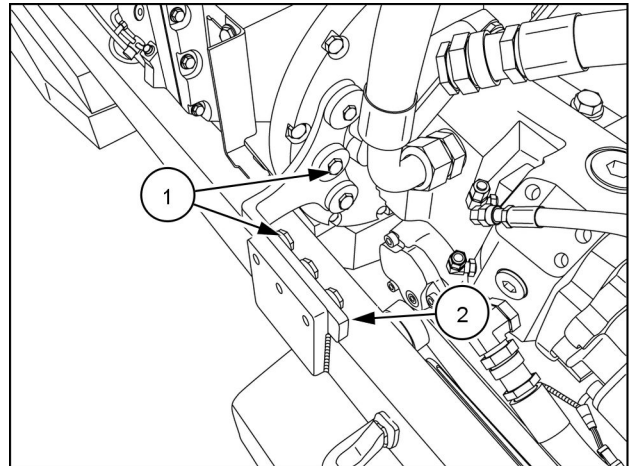
**NOTICE:** The engine must be balanced as shown, or personal injury or property damage will occur.

1. Attach an appropriate lifting device to the engine lift points.
2. Support the front of the hydraulic pump stack with an appropriate lifting device or stand.
3. Remove the bolts and washers **(1)** from the right front engine-to-frame cradle mount and the left front engine-to-frame cradle mount.



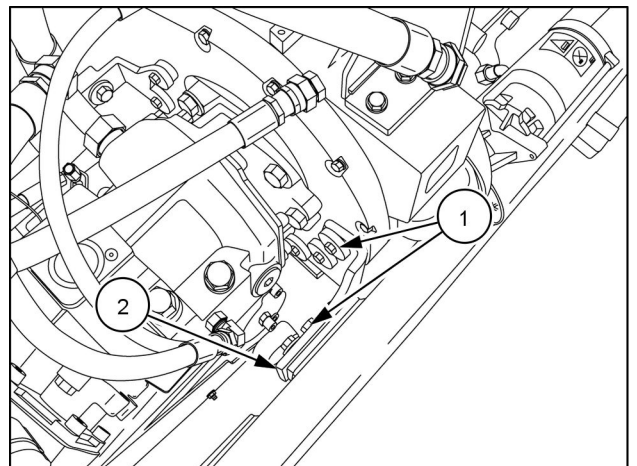
RAIL14DOZ0447AA 1

4. Remove the mounting bolts and washers **(1)** from the left side engine-to-frame cradle mounting bracket **(2)**. Remove the mounting bracket.



RAIL14DOZ0209AA 2

5. Remove the mounting bolts and washers **(1)** from the right side engine-to-frame cradle mounting bracket **(2)**. Remove the bracket.



RAIL14DOZ0202AA 3



**Suggest:**

**If the above button click is invalid.**

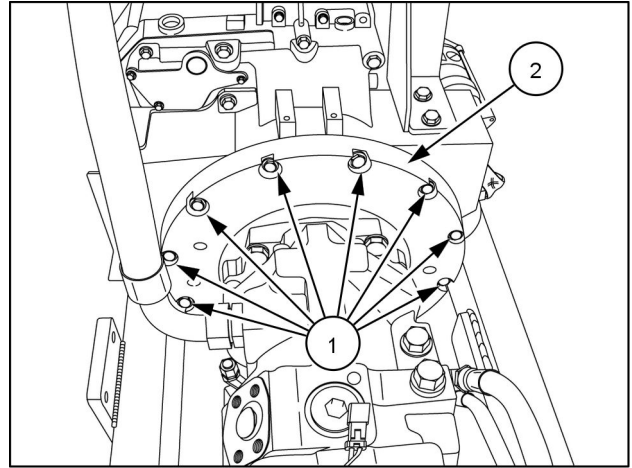
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6. Remove the mounting bolts and washers **(1)** from the engine-to-pump stack adapter plate **(2)**.
7. Slowly move the engine forward to separate it from the hydrostatic drive pump stack, and remove the engine from the frame cradle.



RAIL14DOZ0203AA 4

8. Remove the tandem pump flexible coupling assembly from the flywheel.

**Next operation:**

**Engine - Install (10.001)**

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