

# W11 ARTICULATED LOADER TABLE OF CONTENTS AND SERVICE MANUAL INTRODUCTION

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## Service Manual Introduction



This Symbol Shows Important Information About Safety In This Manual. When You See This Symbol, Carefully Read The Information That Follows and Understand The Possible Causes of Injury Or Death. 1-1-A

### Safety Rules

It is recommended that the warning tag shown in figure 1 be put on the key for the key switch when a person is working on the machine. A warning tag comes with the machine. Additional warning tags, part number 331-4614, are available from Service Parts Supply.

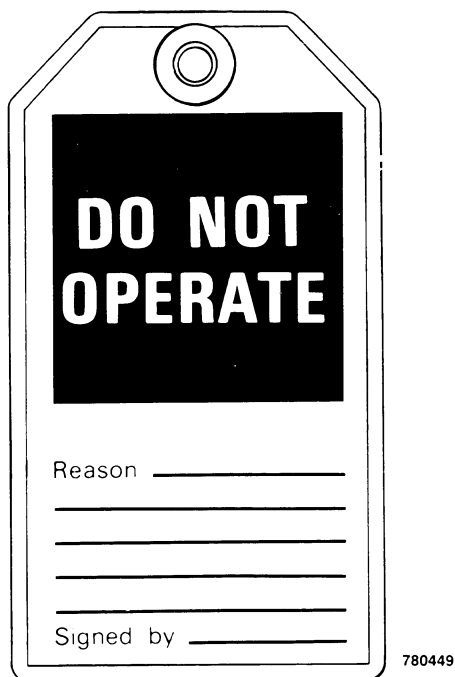


Figure 1



**WARNING:** Read operator's manual to familiarize yourself with control lever functions.

46-27



**WARNING:** Operate controls from the operator's seat only.

35-7



**WARNING:** When working in the area of the fan belt with the engine running, avoid loose clothing if possible, and use extreme caution.

35-4



**WARNING:** When doing checks and tests on the equipment hydraulics, follow the procedures as they are written. DO NOT change the procedure.

47-44



**WARNING:** When putting the hydraulic cylinders on this machine through the necessary cycles to check operation or to remove air from a circuit, make sure all people are out of the way.

47-45



**WARNING:** Whenever the bucket must be raised to aid in servicing, block the loader arms in place with lift cylinder safety strut or a suitable safety stand.

23-7-A



**WARNING:** This is a one man machine, no riders allowed.

35-8



**CAUTION:** When removing hardened pins such as a pivot pin, or a hardened shaft, use a soft head (brass or bronze) hammer or use a driver made from brass or bronze and a steel head hammer.

46-17



**CAUTION:** When using a hammer to remove and install pivot pins or separate parts, using compressed air or using a grinder, wear eye protection that completely encloses the eyes (approved goggles or other approved eye protectors).

46-13



**CAUTION:** When servicing or repairing the machine, keep the shop floor and operator's compartment and steps free of oil, water, grease, tools, etc. Use an oil absorbing material and/or shop cloths as required. Use safe practices at all times.

40-8



**CAUTION:** Use suitable floor (service) jacks or chain hoists to raise wheels off the floor. Always block machine in place with suitable safety stands.

40-7



**CAUTION:** *Pin sized and smaller streams of hydraulic oil under pressure can penetrate the skin and result in serious infection. If hydraulic oil under pressure does penetrate the skin, seek medical treatment immediately. Maintain all hoses and tubes in good condition. Make sure all connections are tight. Make a replacement of any tube or hose that is damaged or thought to be damaged. DO NOT use your hand to check for leaks; use a piece of cardboard or wood.* 40-6-A



**CAUTION:** *Some components of this machine are very heavy. Use suitable lifting equipment or additional help as instructed in this service manual.* 40-10

## General Information

This service manual has been prepared with the latest service information available. Troubleshooting, removal, disassembly, inspection and installation procedures and complete specifications and tightening references can be found in most sections. Some sections will have drawings without a written procedure because the job is easily done. This service manual is one of the most important tools available to the service technician.

The terms right-hand and left-hand and front and rear as used in this manual indicate the right and left sides, and front and rear of the machine as seen from the operator's seat for correct operation of the machine or attachment.

## Text

If the service manual is for more than one machine or different models of components (planetary axles, gear boxes, control valves, etc.) the procedures will have steps that are for a specific component.

## Table of Contents

The first two pages of this section are a Table of Contents which show the series number and title, and the sections that are in each series. The individual sections, where necessary, will have a Table of Contents on the second page of that section.

## Page Numbers

All page numbers are made of two sets of numbers separated by a dash, such as 4002-9. The numbers before the dash are the section numbers. The numbers following the dash are the page numbers in that section. Page numbers will be found at the up-

per right or left of each page.

## Illustrations

Illustrations are put as near as possible to the test and are to be used as a part of the text.

## Torque References

Most of the time two grades of fasteners (bolts, nuts and screws) are used on Case machines. The grades of the fasteners are grade 5 and grade 8. See Section 1051 for torque specifications and identification marks.

The specifications in Section 1051 are standard torque values and are to be used on all fasteners during assembly and installation unless special torque values are shown in a section.

## Product Identification Number, Serial Number and Model Number

When replacement parts are needed, it can be necessary to give the parts department one or all of the numbers. The model number is normally found on the Product Identification Number plate or the Serial Number plate.

The Product Identification Number and Serial Numbers will be found in the following locations.

Machine - Product Identification Number plate fastened to the instrument panel.

Engine - Serial Number plate on the right-hand side of the engine above the starter.

Other component parts - Serial Number plate on the part or the serial number is stamped in the part.

**NOTE:** A Part Number plate will be found on some parts.

## Classification of Lubricants

The Society of Automotive Engineers (SAE), the American Petroleum Institute (API), and the National Lubricating Grease Institute (NLGI) put oil and grease in classifications and grades according to temperature and use.

## Engine Oil

The SAE number is the viscosity of engine oils, for example, SAE 30 is a single viscosity oil. SAE 10W30 is a variable viscosity oil.

The API classification (SD, CD, etc.) is the oil performance according to the application of the engine. Only oil specified in Section 1050 is to be used. These oils have the needed additives to give maximum engine protection. Both the SAE grade and API classification must be found on the container.

## Gear Lubricant and Grease

Gear lubricant and grease for each application is specified in Section 1050.

## Special Tools

There are some special tools that are needed to remove and install, disassemble and assemble,

check and adjust the component parts of this machine. Some special tools are easily made locally and the necessary information to make the tool is in this service manual. Other special tools are more difficult to make locally and available from Service Tools in the U.S. and from Jobborn Manufacturing in Canada. Use these tools according to the instructions in this service manual for your personal safety and to do the job correctly.

Special tools are no longer available from Case Service Parts Supply. Special tools are available from:

Service Tools  
P.O. Box 314  
Owatonna, Minnesota 55060

Jobborn Manufacturing Co.  
97 Frid Street  
Hamilton, Ontario L8P 4M3  
Canada

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