

# LS180.B LS185.B LS190.B

Workshop  
Manual



# REPAIR MANUAL



**LS180.B**  
**LS185.B**  
**LS190.B**

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## Basic instructions ( - A.90.A.05)

### Technical Information

This manual has been produced by a new technical information system. This new system is designed to deliver technical information electronically through CDROM and in paper manuals. A coding system called ICE has been developed to link the technical information to other Product Support functions e.g. Warranty.

Technical information is written to support the maintenance and service of the functions or systems on a customers machine. When a customer has a concern on his machine it is usually because a function or system on his machine is not working at all, is not working efficiently, or is not responding correctly to his commands. When you refer to the technical information in this manual to resolve that customers concern, you will find all the information classified using the new ICE coding, according to the functions or systems on that machine. Once you have located the technical information for that function or system then you will find all the mechanical, electrical or hydraulic devices, components, assemblies and sub-assemblies for that function or system. You will also find all the types of information that have been written for that function or system, the technical data (specifications), the functional data (how it works), the diagnostic data (fault codes and troubleshooting) and the service data (remove, install adjust, etc.).

By integrating this new ICE coding into technical information , you will be able to search and retrieve just the right piece of technical information you need to resolve that customers concern on his machine. This is made possible by attaching 3 categories to each piece of technical information during the authoring process.

The first category is the Location, the second category is the Information Type and the third category is the Product:

**LOCATION** - is the component or function on the machine, that the piece of technical information is going to describe e.g. Fuel tank.

**INFORMATION TYPE** - is the piece of technical information that has been written for a particular component or function on the machine e.g. Capacity would be a type of Technical Data that would describe the amount of fuel held by the Fuel tank.

**PRODUCT** - is the model that the piece of technical information is written for.

Every piece of technical information will have those 3 categories attached to it. You will be able to use any combination of those categories to find the right piece of technical information you need to resolve that customers concern on his machine.

That information could be:

the description of how to remove the cylinder head

a table of specifications for a hydraulic pump

a fault code

a troubleshooting table

a special tool

### How to Use this Manual

This manual is divided into Sections. Each Section is then divided into Chapters. Contents pages are included at the beginning of the manual, then inside every Section and inside every Chapter. An alphabetical Index is included at the end of a Chapter. Page number references are included for every piece of technical information listed in the Chapter Contents or Chapter Index.

Each Chapter is divided into four Information types:

**(D)** Technical Data (specifications) for all the mechanical, electrical or hydraulic devices, components and, assemblies.

**(C)** Functional Data (how it works) for all the mechanical, electrical or hydraulic devices, components and assemblies.

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**(G)** Diagnostic Data (fault codes, electrical and hydraulic troubleshooting) for all the mechanical, electrical or hydraulic devices, components and assemblies.

**(F)** Service data (remove disassembly, assemble, install) for all the mechanical, electrical or hydraulic devices, components and assemblies.

### Sections

Sections are grouped according to the main functions or a systems on the machine. Each Section is identified by a letter A, B, C etc. The amount of Sections included in the manual will depend on the type and function of the machine that the manual is written for. Each Section has a Contents page listed in alphabetic/numeric order. This table illustrates which Sections could be included in a manual for a particular product.

| PRODUCT                                                              | SECTION                  |   |   |   |   |   |   |   |   |   |
|----------------------------------------------------------------------|--------------------------|---|---|---|---|---|---|---|---|---|
|                                                                      | A - Distribution Systems |   |   |   |   |   |   |   |   |   |
|                                                                      | B - Power Production     |   |   |   |   |   |   |   |   |   |
|                                                                      | C - Power Train          |   |   |   |   |   |   |   |   |   |
|                                                                      | D - Travelling           |   |   |   |   |   |   |   |   |   |
|                                                                      | E - Body and Structure   |   |   |   |   |   |   |   |   |   |
|                                                                      | F - Frame Positioning    |   |   |   |   |   |   |   |   |   |
|                                                                      | G - Tool Positioning     |   |   |   |   |   |   |   |   |   |
|                                                                      | H - Working Arm          |   |   |   |   |   |   |   |   |   |
|                                                                      | J - Tools and Couplers   |   |   |   |   |   |   |   |   |   |
|                                                                      | K - Crop Processing      |   |   |   |   |   |   |   |   |   |
|                                                                      | L - Field Processing     |   |   |   |   |   |   |   |   |   |
| Tractors                                                             | X                        | X | X | X | X | X |   | X | X |   |
| Vehicles with working arms: backhoes, excavators, skid steers, ..... | X                        | X | X | X | X | X | X | X | X |   |
| Combines, forage harvesters, balers, ....                            | X                        | X | X | X | X | X | X | X | X | X |
| Seeding, planting, floating, spraying equipment, ....                | X                        | X | X | X | X | X | X |   | X | X |
| Mounted equipment and tools, .....                                   |                          |   |   |   | X | X | X |   | X |   |

### Chapters

Each Chapter is identified by a letter and number combination e.g. Engine B.10.A The first letter is identical to the Section letter i.e. Chapter B.10 is inside Section B, Power Production.

#### CONTENTS

The Chapter Contents lists all the **(D)** technical data (specifications), **(C)** functional data (how it works), **(F)** service data (remove, install adjust, etc..) and **(G)** diagnostic data (fault codes and troubleshooting) that have been written in that Chapter for that function or system on the machine.

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# **REPAIR MANUAL**

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| LIGHTING SYSTEM<br>LS180.B , LS185.B , LS190.B                  | A.40.A |

## **DISTRIBUTION SYSTEMS - A**

### **PRIMARY HYDRAULIC POWER SYSTEM - 10.A**

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## DISTRIBUTION SYSTEMS - A

### PRIMARY HYDRAULIC POWER SYSTEM - 10.A

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## Hydraulic pump - Disassemble (A.10.A.20 - F.10.A.25)

1. Draw alignment marks on the housing with a white marker. These marks will be referenced during assembly.



GD98J801 1

2. Loosen and remove the socket bolts and washers.



GD98J802 2

3. Remove the cover.



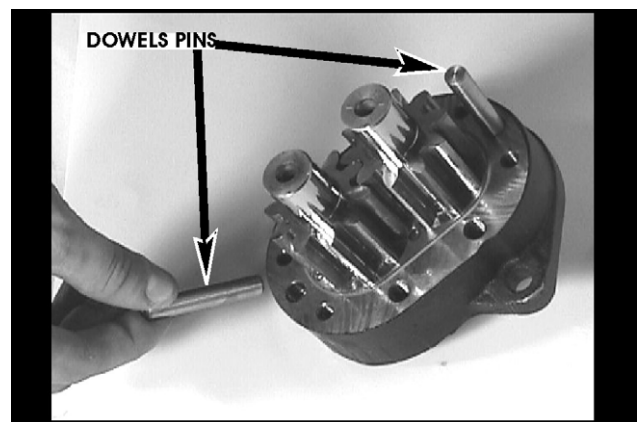
GD98J803 3

4. Remove the gear plate.



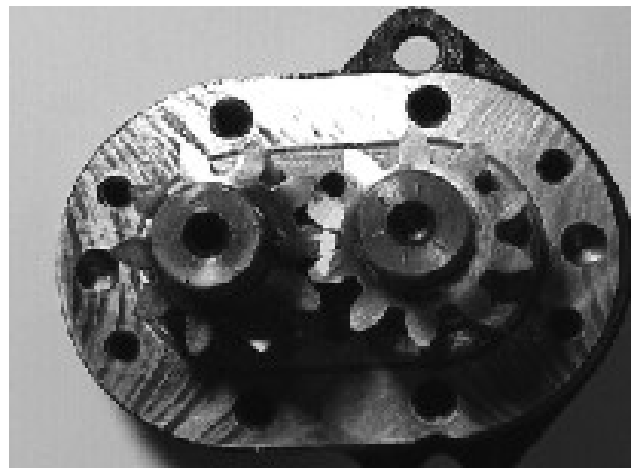
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5. Remove the dowel pins.



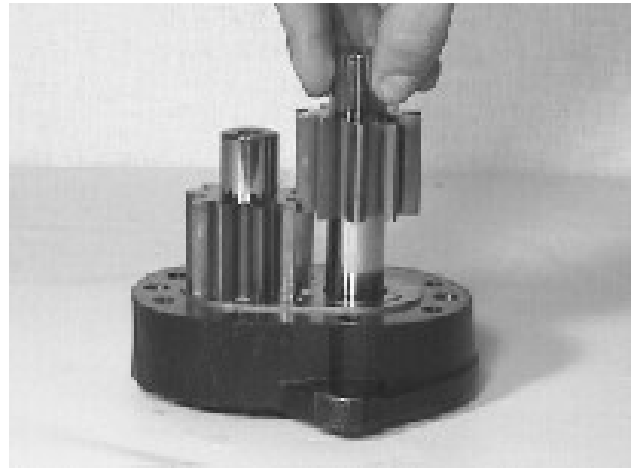
GD98J805\_2 5

6. Rotate the gear teeth until one gear tooth is centered inside two gear teeth. Draw a mark with a white marker. This mark will be referenced during assembly.



GD98J806 6

7. Remove the drive shaft.



GD98J807 7

8. Remove the idler shaft.



GD98J808 8

9. Remove the wear plate from the cover.



GD98J809 9



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10. Remove the wear plate from the body.



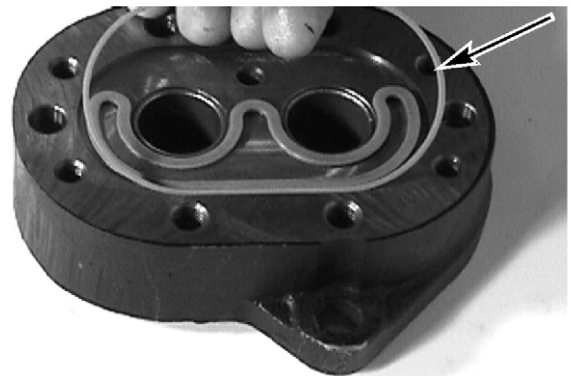
GD98J810 10

11. Remove and discard the seal ring from the cover.



GD98J811\_2 11

12. Remove and discard the seal ring from the body.



GD98J812\_2 12

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