CX31B

Compact Hydraulic Excavator

PIN number PW14-46519 and higher

OPERATOR'S MANUAL

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CASE CONSTRUCTION

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CONTENTS

CHAPTER 1
GENERAL INFORMATION
To the Owner 1-1
Right, Left, Front, and Rear of the Machine 1-2
Machine Components 1-3
PIN (Product Identification Numbers) 1-4

CHAPTER 2
SAFETY, DECALS, AND HAND SIGNALS
Contents 2-1
Safety Rules 2-3
Operator Precautions 2-5
Safety Rules and Signal Word Definitions 2-11
Decals 2-12
Hand Signals 2-27

CHAPTER 3
INSTRUMENTS AND CONTROLS
Contents 3-1
Operator Cab and Operator Seat 3-3
Machine Access Compartments and Doors 3-7
Operator's Compartment Controls and Accessories 3-8

CHAPTER 4
OPERATING INSTRUCTIONS
Contents 4-1
Before Operating the Machine 4-3
Operating the Machine 4-3
Starting and Stopping Machine Engine 4-4
Control Decal 4-7
Basic Operation of Hydraulic Controls 4-8
Practices to Improve Efficiency 4-16
Optional Equipment 4-20
Hydraulic Breaker 4-20

CHAPTER 5
TRANSPORTATION
Contents 5-1
Transporting the Machine 5-3
Machine Storage 5-7

CHAPTER 6
LUBRICATION, FILTERS, AND FLUIDS
Contents 6-1
Fluids and Filters 6-3
Lubricant Specifications 6-5
Bio-diesel Fuel 6-6
Use of Bio-Degradable Oils 6-7

CHAPTER 7
MAINTENANCE AND ADJUSTMENTS
Contents 7-1
General Information 7-3
Releasing Pressure in the Hydraulic System 7-6
Lubrication and Maintenance Quick Reference Chart 7-8

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Daily Inspection and Maintenance 7-10
50 Hour Maintenance: 7-17
250 Hour Maintenance 7-25
500 Hour Maintenance 7-31
1000 Hour Maintenance 7-34
1500 Hour Maintenance 7-37
2000 Hour Maintenance 7-38
5000 Hour Maintenance 7-47
Special Procedures 7-48

CHAPTER 8
ELECTRICAL
Contents 8-1
Electrical Components 8-3
Batteries 8-4
Work Lamps 8-8

CHAPTER 9
SPECIFICATIONS
Contents 9-1
General Specifications 9-3
Canopy Type Machine Working Ranges 9-6
Cab Type Machine Working Ranges 9-7
Lift Capacities 9-8
Torque Specifications 9-11

CHAPTER 10
INDEX

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CHAPTER 2

SAFETY, DECALS, AND HAND SIGNALS

CONTENTS

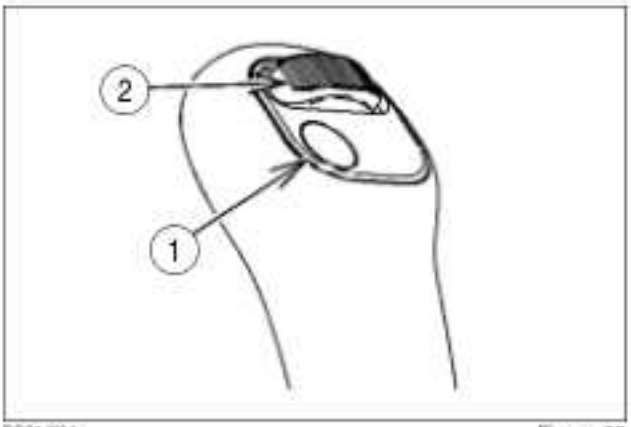
SAFETY RULES . . . 2-3
- Personal Safety . . . 2-3
- Safety Area . . . 2-3
- Utility Safety . . . 2-4

OPERATOR PRECAUTIONS . . . 2-5
- Personnel . . . 2-5
- General . . . 2-5
- Mounting and Dismounting Precautions . . . 2-5
- Starting and Stopping Precautions . . . 2-5
- Operating Precautions . . . 2-6
- Maintenance Precautions . . . 2-7
- Fuel Handling Precautions . . . 2-8
- Burn Prevention . . . 2-8
- Hazardous Chemical Precautions . . . 2-8
- Transporting Precautions . . . 2-8
- Roll-Over Protective Structure (If equipped) . . . 2-8
- ROPS/FOPS (Roll Over Protection - Falling Object Protections Systems. . . . 2-9
- Seat Belt Precautions . . . 2-10
- Emergency Exit Hammer . . . 2-10
- Fire Extinguisher . . . 2-10
- Fire Prevention . . . 2-10
- Specific Precautions to this Machine . . . 2-10

SAFETY RULES AND SIGNAL WORD DEFINITIONS . . . 2-11
- Personal Safety . . . 2-11
- Machine Safety . . . 2-11
- Information . . . 2-11

DECALS . . . 2-12
- Boom and Arm Movement - Caution . . . 2-13
- Hydraulic Oil - Warning . . . 2-13
- Safety Controls - Warning . . . 2-14
- Hot Surfaces - Caution . . . 2-14
- Pressurized Fluids and Lubricants - Warning . . . 2-15
- Engine Stop - Caution . . . 2-15
- Counterweight Swing Area - Danger . . . 2-16
- Engine Stop - Warning . . . 2-16
- Booster Cable - Warning . . . 2-17
- Track Tension Adjuster - Warning . . . 2-17
- Keep Clear of Working Area - Danger . . . 2-18
- Battery - Danger . . . 2-19
- Selector Valve - Caution . . . 2-20
- Safety Lock Lever - Warning . . . 2-20
- Seat Belt - Warning . . . 2-21
- Falling Front Window - Caution . . . 2-22
- Hydraulic Oil Check Position - Notice . . . 2-23
- Stop Engine - Danger . . . 2-24
- Confirm Attachment Movement- Warning . . . 2-24
- Do Not Operate This Machine- Warning . . . 2-25
- California Proposition 65 - Warning . . . 2-25
- California Proposition 65 - Warning . . . 2-26
- Use Specified Diesel Oil for Fuel . . . 2-26

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BSD8J524 Figure 35

OPTION SWITCH (BREAKER AND NIBBLER)

The proportional option switch (9) for breaker and nibbler is on the grip of the right control lever. This switch is used for opening and closing the nibbler by sliding right and left.

Do not touch the breaker (1) operation switch (button) when using the nibbler.

Operation of option switch 2

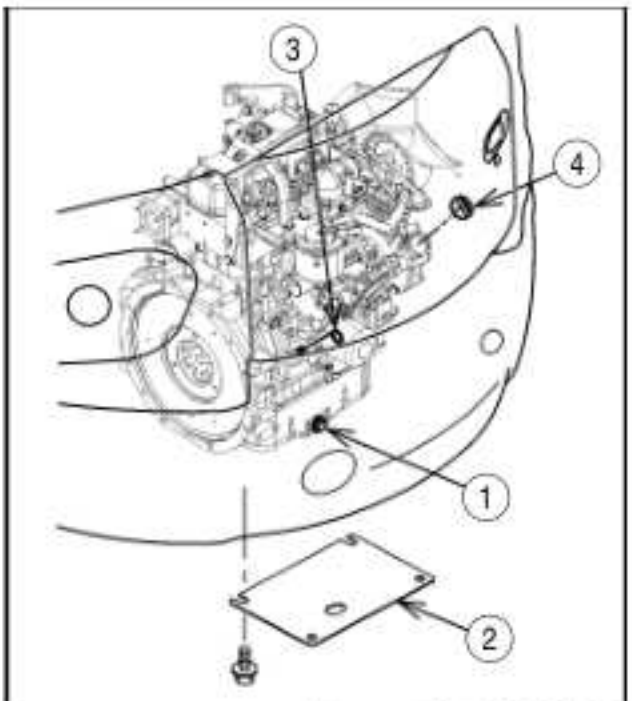
Slide left - attachment turns to left

Slide right - attachment turns to right

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250 HOUR MAINTENANCE

CHANGE ENGINE OIL



BS07N029

Figure 49

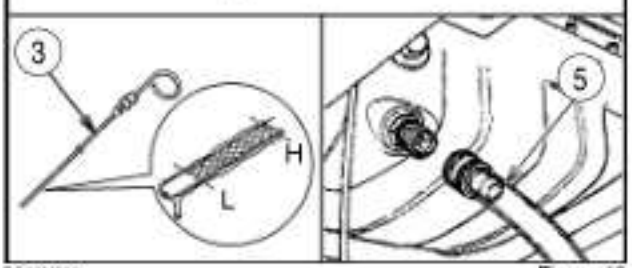
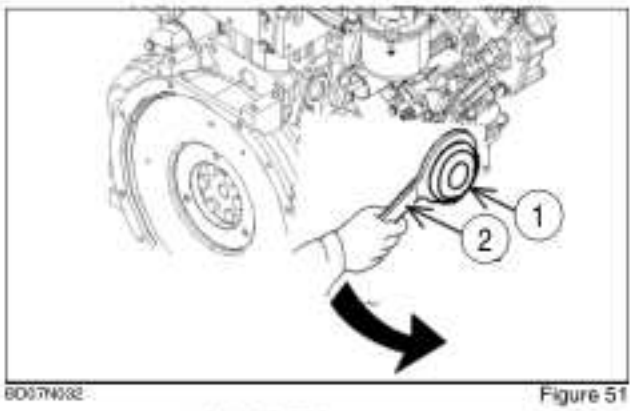


Figure 50

1. DRAIN CAP
2. COVER
3. DIPSTICK
4. OIL FILL CAP
5. DRAIN HOSE

1. Change oil and oil filter at 50 hour run-in period for a new machine, then at every 250 hours thereafter.
2. Move the machine to firm level ground and place the bucket/attachment on the ground. Turn the engine off. Raise the engine cover. Remove the dipstick to allow oil to run more freely.
3. Remove bolts and engine belly pan covers
4. Locate the engine oil drain plug and place an empty oil container [7 L (2 gal) capacity] under the plug. Attach the quick drain hose (5), and drain the oil into the container.
5. Remove engine oil drain plug and let the engine oil drain out completely.
6. After draining oil, remove drain hose, and tighten drain cap (1) securely. Remove any spilled oil.

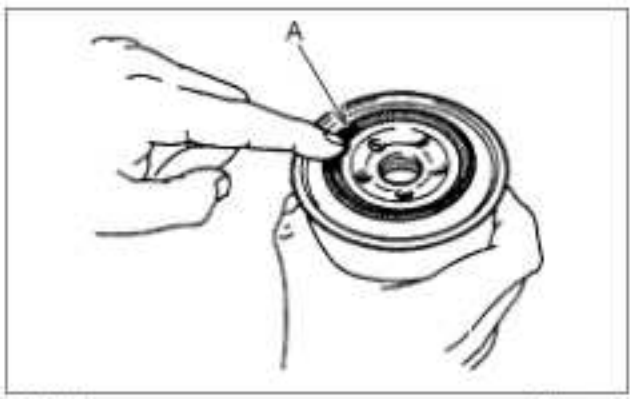


BO07N032

Figure 51

1. OIL FILTER
2. FILTER WRENCH

7. Use the filter wrench provided with the machine, and turn counter clockwise to remove the oil filter.



BO07N040

Figure 52

8. To install the oil filter, apply a thin coat of engine oil to the gasket (A) of the new oil filter, fill the filter partially with engine oil and then secure the filter by tightening 2/3 of a complete turn by hand after the gasket comes in contact with the oil filter head.

NOTICE: *Do not reuse the oil filter.*

9. Clean oil drain plug and install it. Tighten securely.
10. Check drained oil for any metal shavings, flakes, or particles. Contact your dealer if any debris is found.
11. Fill with the specified amount of oil through filler port (4) and install oil filler cap.
12. Before starting the engine, check oil level using the dipstick (3). The level should be between the L and H limits as shown. Start and run the engine for five minutes. Stop the engine and recheck the oil level after 30 minutes. Add oil if necessary.
13. Install cover (2) to its original position.

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LIFTING CAPACITIES

1. Do not attempt to lift any load that exceeds the rated values at their specified load radius and height.
2. Lifting capacities assume a machine standing on a level, firm, and uniform supporting surface. Operator must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, inexperienced personnel, weight of various other buckets, lifting slings, attachment, etc.
3. Rating at bucket lift hook.
4. The rated loads are in compliance with SAE Hydraulic Excavator Lift Capacity Standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Rated loads marked with asterisk (*) are limited by hydraulic capacity rather than tipping load.

⚠ WARNING ⚠

Do not attempt to operate this machine unless you have first read and understand the safety messages and instructions appearing in this manual. Failure to comply could result in death or serious injury

CE-NA020

5. Capacities apply to the machine as originally manufactured and normally equipped by the manufacturer.

IMPORTANT: *The operator must consider the weight of any device utilized for lifting to properly calculate the total lifting capacity of the machine. Example:*

1. *If the excavator uses the same bucket size indicated in the Lifting Chart, and a lifting cable, etc. weighing 100 kg (220 lbs) is used for lifting, then you have to subtract this additional 100 kg (220 lbs) from every value indicated in the Lifting Chart accordingly.*
2. *If a bucket is changed for a larger bucket, which weight is more than the bucket indicated in the Lifting Chart, then you have to subtract this additional weight from every value indicated in the Lifting Chart accordingly.*
3. *If a bucket is changed for a smaller bucket, which weight is less than the bucket indicated in the Lifting Chart, then you can add this additional weight to every value indicated in the Lifting Chart accordingly.*

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