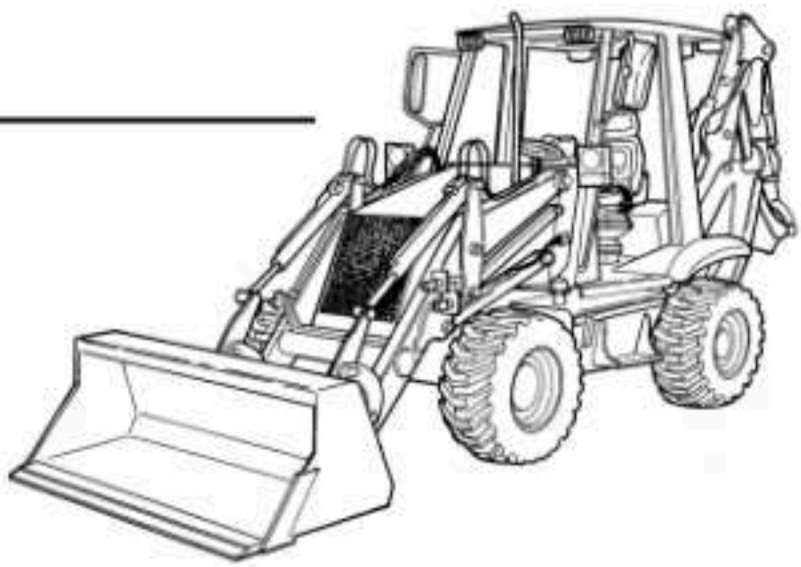
BL-370

B Series

Ingersoll-Rand

Operation & Maintenance Manual

S/N 572711001 & Above



6902604 (5-04) Revised (6-04) (4)

Printed in U.S.A.

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OPERATING INSTRUCTIONS OI-1

PREVENTIVE MAINTENANCE PM-1

SPECIFICATIONS. SPEC-1

REFERENCE INFORMATION

Write the correct information for YOUR Ingersoll-Rand Backhoe Loader in the spaces below. Always use these numbers when referring to your Ingersoll-Rand Backhoe Loader.

CALIFORNIA
PROPOSITION 65 WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

Backhoe Loader Serial Number _____

Engine Serial Number _____

NOTES:

_____

_____

_____

YOUR Ingersoll-Rand® DEALER:

_____

ADDRESS:

_____

PHONE:

_____

Ingersoll-Rand Company
Unitlity Equipment
P.O. Box 868
Mocksville, NC 27028

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FOREWORD

This Operation & Maintenance Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Ingersoll-Rand Backhoe Loader. READ AND UNDERSTAND THIS OPERATION & MAINTENANCE MANUAL BEFORE OPERATING YOUR BACKHOE LOADER. If you have any questions, see your Ingersoll-Rand dealer.

This manual may illustrate backhoe loaders with additional options and accessories not installed on your backhoe loader.

REGULAR MAINTENANCE ITEMS V

MOTOR OIL V

SERIAL NUMBER LOCATION VII

BACKHOE LOADER SERIAL NUMBER. VII

ENGINE SERIAL NUMBER VII

DELIVERY REPORT. VII

BACKHOE LOADER IDENTIFICATION VIII

FEATURES, OPTIONS, ACCESSORIES AND ATTACHMENTS IX

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BACKHOE HYDRAULIC CONTROLS

Backhoe Control Levers

Learn the function of the control levers before you start the engine to begin operation **[Figure OI-32]**.

LEVER NO. 1 **[Figure OI-32]** - Boom and Swing

To lower the boom, push the lever forward (Item 2) **[Figure OI-32]**.

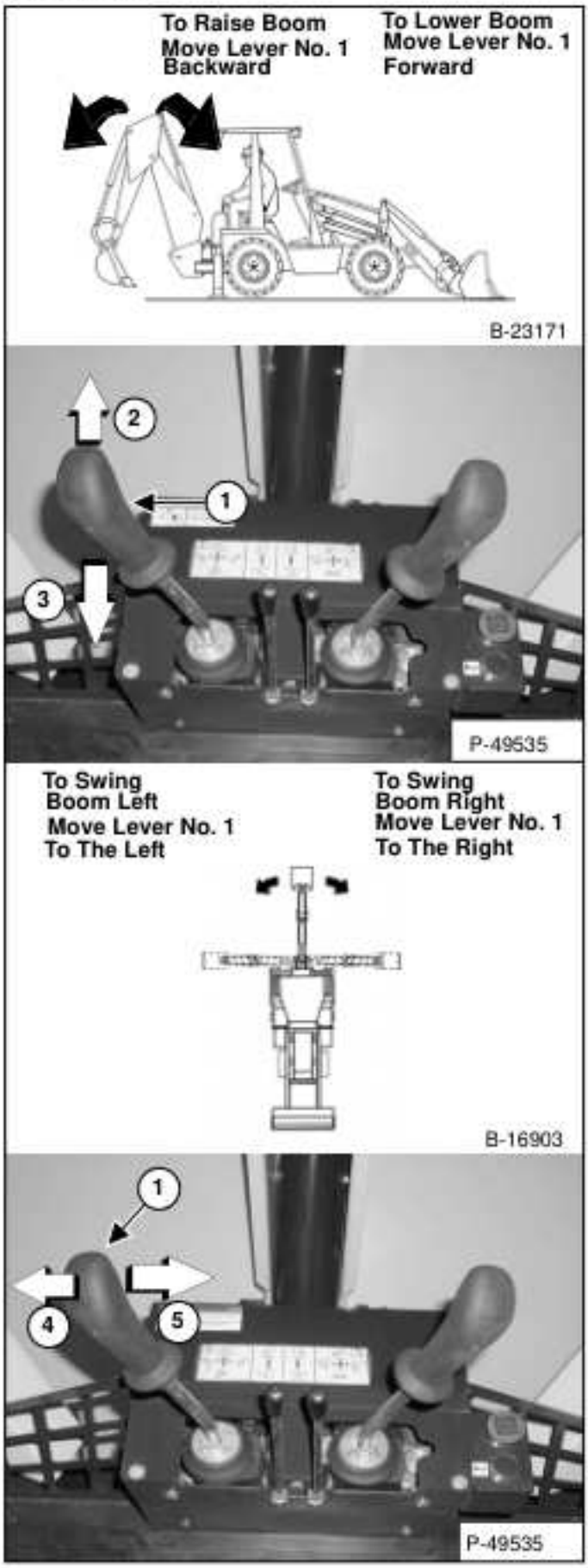
To raise the boom, pull the lever backward (Item 3) **[Figure OI-32]**.

To swing the boom to the left, move the lever to the left (Item 4) **[Figure OI-32]**.

To swing the boom to the right, move the lever to the right (Item 5) **[Figure OI-32]**.

NOTE: If you release the boom and swing control lever, the lever will return to the neutral position.

Figure OI-32



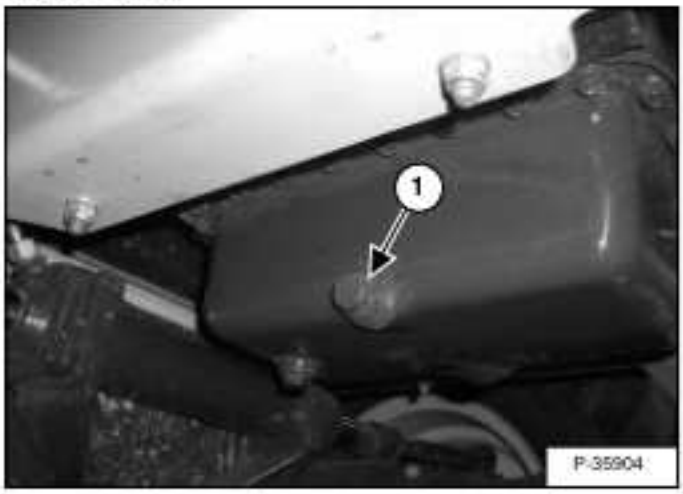
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Replacing The Oil And Filter

See the SERVICE SCHEDULE Page PM-5 for the service interval for replacing the engine oil and filter.

Run the engine until it is at operating temperature. Stop the engine.

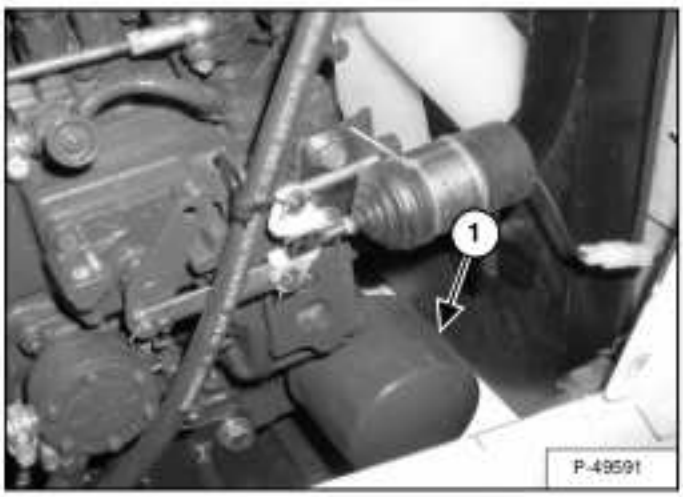
Figure PM-27



Remove the drain plug (Item 1) **[Figure PM-27]**.

Drain the oil into a container and recycle or dispose of used oil in an environmentally safe manner. Reinstall the drain plug.

Figure PM-28



Remove the engine cover from the right side.

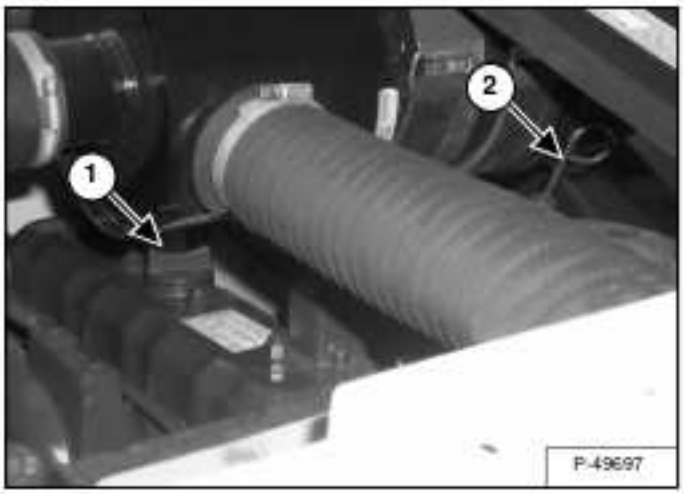
Remove the oil filter (Item 1) **[Figure PM-28]**.

Clean the filter housing surface.

Use a genuine Ingersoll-Rand filter only.

Put oil on the filter gasket. Install the filter and hand tighten.

Figure PM-29



Remove the fill cap (Item 1) **[Figure PM-29]**. Put 9.5 qts. (9 L) oil in the engine.

Start the engine and let it run for several minutes.

Stop the engine. and check for leaks at the oil filter.

Remove the dipstick (Item 2) **[Figure PM-29]** and check the oil level.

⚠ WARNING

Always clean up spilled fuel or oil. Keep heat, flames, sparks or lighted tobacco away from fuel and oil. Failure to use care around combustibles can cause explosion or fire which can result in injury or death.

W-2103-1285

IMPORTANT

Contain and dispose of any oil leakage in an environmentally safe manner.

I-2066-0395

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BACKHOE LOADER SPECIFICATIONS (CONT'D)

Loader Performance

*Loader Rated Operating Capacity (Per ISO 14397)	3150 lbs (1429 Kg)
Loader Tipping Load (ISO)	6300 lbs (2858 Kg)
Operating Weight	9260 lbs. (4200 Kg)
Travel Speed	9.0 MPH (14,5 Km/H)
Bucket Capacity (Loader)	17.1 ft^3 (0.5 m^3)
Loader Breakout	8430 lbs. (3825 kg)

*Determined with equipment shown (backhoe in the center transport position).

Backhoe Performance

Std. Backhoe Bucket Width	16 in. (400 mm)
Diggingforce Bucket Dipper	 6821 lbs. (3094 kg) 4627 lbs. (2099 kg)

Controls

Hydraulics (Loader and Backhoe)	Hand Operated Levers
Auxiliary Hydraulics	Hand Operated Lever for Loader, Button Activated for Backhoe
Parking Brake	Button Activated Spring Applied Pressure Release (SAPR)
Travel Direction Control	Hand Operated Lever (FNR)

Engine

Make/Model	Kubota/V2203
Fuel/Cooling	Diesel/Liquid (Antifreeze Mixture)
Horsepower (SAE Net)	46 HP (34 Kw) @3000 RPM
Displacement	134.07 ci (2.197 L)
Number Of Cylinders	Four
Lubrication	Pressure System with Filter
Air Cleaner	Dry replaceable cartridge
NOT equipped with spark arrestor exhaust system	

Hydraulic System

Hydraulic Pump	Gear Driven
Hydraulic Cooling	Cooler/Fan

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Safe Operation Is The Operator's Responsibility

Safety Alert Symbol

This symbol with a warning statement means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

WARNING

Operator must have instructions before running the machine. Untrained operators can cause injury or death.

W-2001-1285

IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

WARNING

Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause injury or death.

W-2044-1285

The Ingersoll-Rand Backhoe Loader and attachment must be in good operating condition before use.

Check all of the items on the Service Schedule Decal under the 8-10 hour column or as shown in the Operation & Maintenance Manual.

Safe Operation Needs A Qualified Operator

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine.

A Qualified Operator Must Do The Following:

Understand the Written Instructions, Rules and Regulations

- The written instructions from Ingersoll-Rand include the Delivery Report, Operation & Maintenance Manual, Operator's Handbook, Safety Manual and machine signs (decals).
- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.

Have Training with Actual Operation

- Operator training must consist of a demonstration and verbal instruction. This training is given by your Ingersoll-Rand dealer before the product is delivered.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine and attachment safely under all conditions of the work area. Always fasten seat belt before operating.
- Operator Training Courses are available from your Ingersoll-Rand dealer in English and Spanish. They provide information for safe and efficient equipment operation. Safety videos are also available.

Know the Work Conditions

- Know the weight of the materials being handled. Avoid exceeding the Rated Operating Capacity (R.O.C.) of the loader or the Rated Lift Capacity of the backhoe. Material which is very dense will be heavier than the same volume of less dense material. Reduce the size of load if handling dense material.
- The operator must know any prohibited uses or work areas, for example, he or she needs to know about excessive slopes.
- Know the location of any underground lines. Call local utilities or the TOLL FREE phone number found in the **Before Operation** Section of this manual.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses or hearing protection are required for some work. See your Ingersoll-Rand dealer about available Safety Equipment.

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