EN

325
328

Bobcat

Operation and Maintenance Manual

325 - S/N 234111001 and Above
328 - S/N 234211001 and Above
(G Series)



Ingersoll Rand

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REFERENCE INFORMATION

Write the correct information for YOUR excavator in the spaces below. Always use these numbers when referring to your Bobcat Excavator.

Bobcat Excavator Serial Number _____

Engine Serial Number _____

_____

_____

NOTES _____

_____

_____

_____

_____

YOUR BOBCAT EXCAVATOR DEALER:

_____

ADDRESS:

_____

PHONE:

_____

CE

Bobcat Company Europe
Drève Richelle 167
B-1410 WATERLOO
Belgium

FOREWORD

SAFETY

OPERATING INSTRUCTIONS

PREVENTIVE MAINTENANCE

SYSTEM SETUP AND ANALYSIS

SPECIFICATIONS

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FOREWORD

This Operation and Maintenance Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Bobcat Excavator. READ AND UNDERSTAND THIS OPERATION and MAINTENANCE MANUAL BEFORE OPERATING YOUR BOBCAT EXCAVATOR. If you have any questions, see your Bobcat Excavator dealer.

BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED V

BOBCAT EXCAVATOR IDENTIFICATION IX

DELIVERY REPORT VIII

FEATURES AND ACCESSORIES: 2341 11001 - 2341 99999 X
- Attachments X
- Buckets X
- Options and Accessories X
- Standard Items X

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- Buckets XI
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MOTOR OIL V

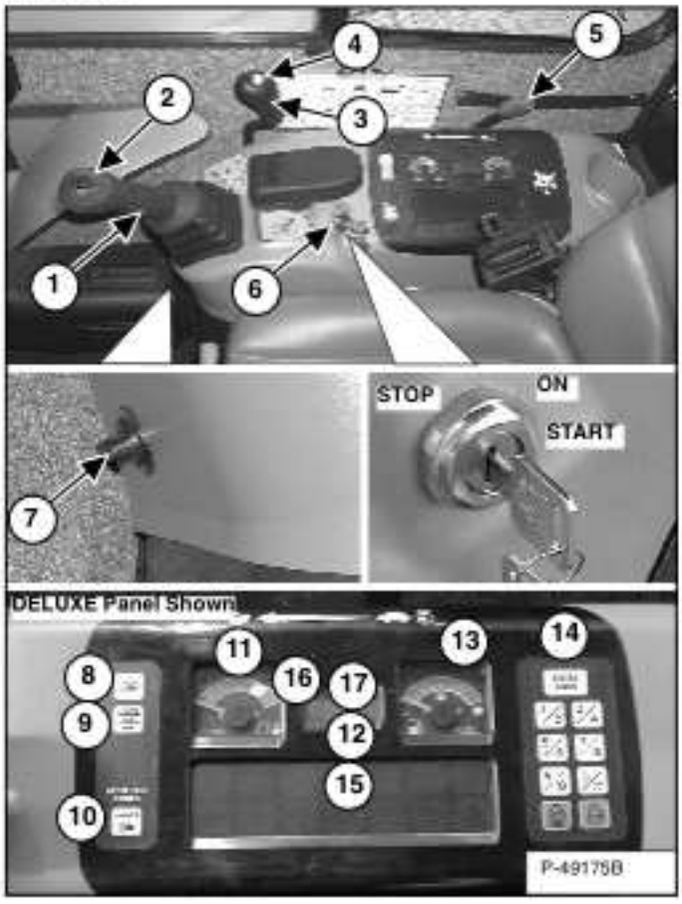
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- Engine Serial Number VII
- Excavator Serial Number VII

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Right Console

Figure OI-3



Right Control Lever (Joystick) - (Item 1) **[Figure OI-3]** (See HYDRAULIC CONTROLS on Page 16.)

Auxiliary Hydraulics Switch - (Item 2) **[Figure OI-3]** Controls the fluid flow to the auxiliary quick connectors (attachment). (See Auxiliary Hydraulics on Page 42.)

Blade Control Lever - (Item 3) **[Figure OI-3]** Controls raising and lowering the blade. (See BLADE CONTROL LEVER on Page 17.)

Two-Speed Button - (Item 4) **[Figure OI-3]** Engages and disengages High Range Driving Speed. (See Two-Speed Driving on Page 7.)

Speed Control Lever - (Item 5) **[Figure OI-3]** Controls the RPM of the engine.

Key Switch (STANDARD Panel Only) - (Item 6) **[Figure OI-3]** Always perform the PRE-STARTING PROCEDURE before starting the engine. (See PRE-STARTING PROCEDURE on Page 20.) (See STARTING THE ENGINE on Page 22.)

STOP	- Key switch OFF; engine stopped
ON	- Position when the engine is running.
START	- Start engine.

NOTE: Always turn key switch and all accessories to OFF position when the engine is stopped, the battery will discharge if the key is left ON. Audible alarm will sound if the key is in the ON position with the engine stopped.

Auxiliary Power Outlet - (Item 7) **[Figure OI-3]** Provides 12 volt receptacle for accessories.

Auxiliary Hydraulic Button - (Item 8) **[Figure OI-3]** Activates and deactivates auxiliary hydraulic function. (See Auxiliary Hydraulics on Page 42.)

HOURS/JOB/RPM - (Item 9) **[Figure OI-3]** Press to show HOURS, JOB CLOCK or Engine RPM in LCD (Liquid Crystal Display, Item 12.) **[Figure OI-3]** (See Job Clock on Page 95.)

LIGHTS/HOLD FOR CODES - (Item 10) **[Figure OI-3]** Press once to turn lights ON; press again to turn lights OFF. Press and hold two seconds for display of SERVICE CODES in LCD (Item 12) **[Figure OI-3]**.

TEMPerature - (Item 11) **[Figure OI-3]** Shows the engine coolant temperature.

LCD (Liquid Crystal Display) - (Item 12) **[Figure OI-3]** The LCD is the HOURMETER during normal operation of the Excavator. When preheat is activated (Keyless Start), the LCD will show remaining preheat time. Can also be used to display JOB CLOCK or Engine RPM. (See Job Clock on Page 95.)

FUEL Gauge - (Item 13) **[Figure OI-3]** Shows the amount of fuel in the tank.

Keyless Start (DELUXE Panel Only) - (Item 14) **[Figure OI-3]** Always perform the PRE-STARTING PROCEDURE before starting the engine. (See PRE-STARTING PROCEDURE on Page 20.) (See STARTING THE ENGINE on Page 22.)

Function Icons - (Item 15) **[Figure OI-3]** (See Function Icons on Page 5.)

JOB - (Item 16) **[Figure OI-3]** On when JOB CLOCK is activated.

RPM - (Item 17) **[Figure OI-3]** On when Engine RPM is activated.

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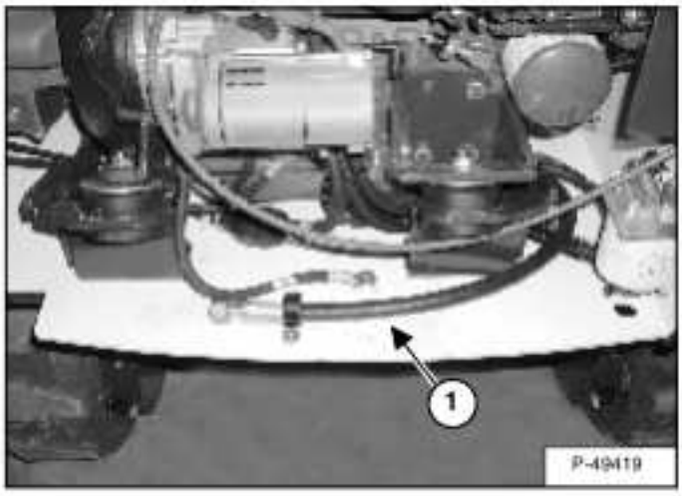
Replacing Oil And Filter

See the SERVICE SCHEDULE for the service interval for replacing the engine oil and filter. (See SERVICE SCHEDULE on Page 59.)

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

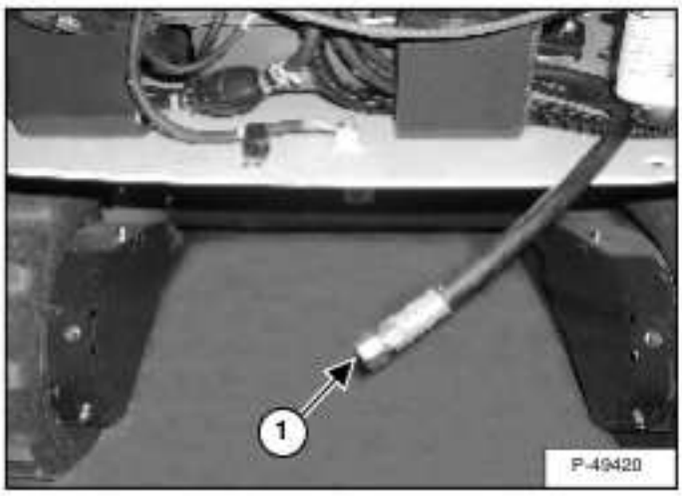
Open the tailgate.

Figure PM-20



Thread the drain hose (Item 1) **[Figure PM-20]** out the tailgate.

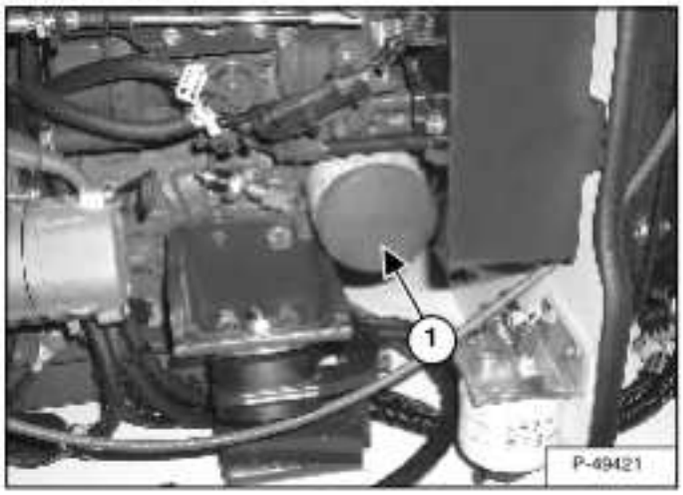
Figure PM-21



Remove the cap (Item 1) **[Figure PM-21]**. Drain the oil into a container.

Recycle or dispose of used oil in an environmentally safe manner.

Figure PM-22

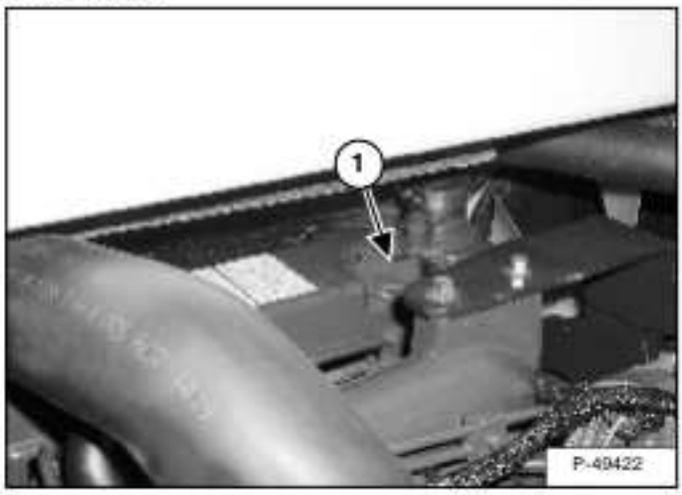


Remove the oil filter (Item 1) **[Figure PM-22]** and clean the filter housing surface.

Use a genuine Bobcat replacement filter. Put clean oil on the filter gasket. Install the filter and tighten by hand.

Install and tighten the oil cap.

Figure PM-23



Remove the fill cap (Item 1) **[Figure PM-23]**.

Put oil in the engine.

Install the fill cap. Start the engine and let it run for several minutes.

Stop the engine. Check for leaks at the oil filter. Check the oil level.

Add oil as needed if it is not at the top mark on the dipstick.

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Performance

Digging force, dipperstick (ISO 6015)	12544 N
Digging force, bucket (ISO 6015)	21200 N
Drawbar pull (theoretical at 90% efficiency)	24376 N
Ground pressure with ROPS canopy and rubber tracks	28.4 kPa
Ground pressure with ROPS cab and rubber tracks	29.1 kPa
Ground pressure with steel tracks	29.1 kPa

Function Time

Boom raise time	3.4 s
Boom lower time	4.5 s
Bucket curl time	2.0 s
Bucket dump time	1.5 s
Dipperstick retract time	3.0 s
Dipperstick extend time	2.2 s
Boom swing left time	4.9 s
Boom swing right time	4.4 s
Blade raise time	2.4 s
Blade lower time	2.4 s
Slew rate	9.2 RPM

Weights

Operating weight with ROPS canopy, rubber tracks, 508 mm bucket	2788 kg
Additional weight for cab with heater	119 kg
Additional weight for steel tracks	66 kg
Reduction for shipping weight	82 kg

Controls

Engine	Hand lever on right-hand side
Starting	Key-type starter switch and shutdown
Blade	Right hand lever
Boom swing	Right foot pedal
Hydraulics	Two joysticks control boom, bucket, dipperstick and upper structure slew
Auxiliary hydraulics	Electric switch in right joystick
Upper structure slew brake	Hydraulic lock on motor
Holding brake for upper structure slew	Pin lock
Steering	Direction and speed controlled by two hand levers or foot pedals

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