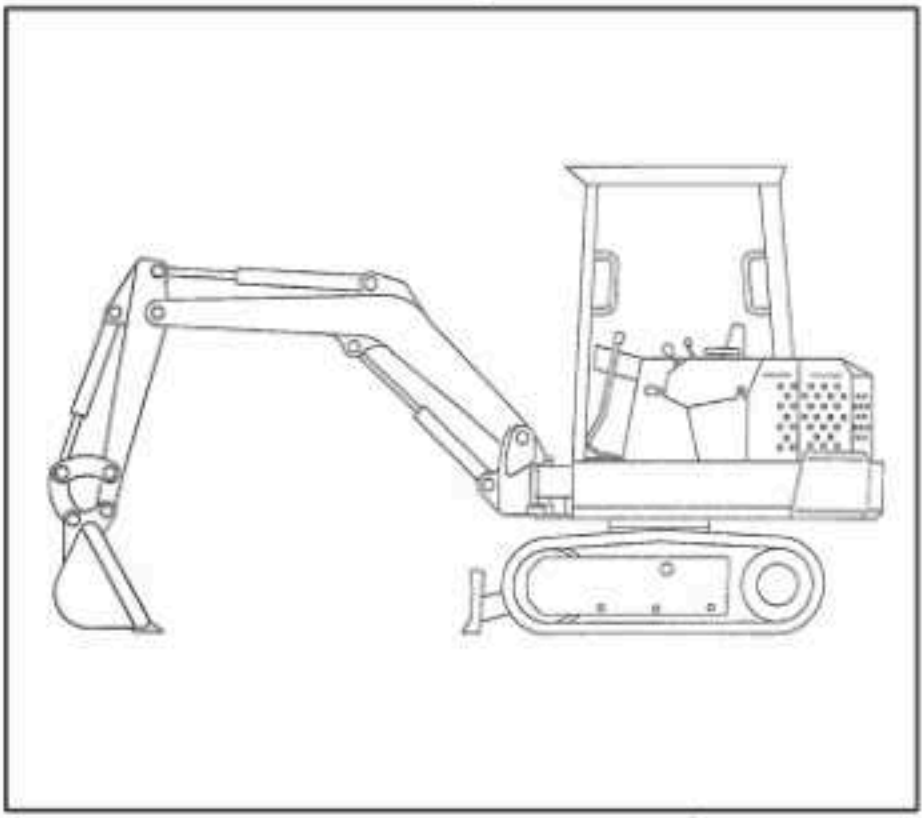
X 225

Excavator

Operation & Maintenance Manual

(S/N 508312001 & Above)



MELROE
INGERSOLL-RAND
6720537 (9-90) Revised (9-98)

Printed in U.S.A.

bobcat

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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.

REFERENCE INFORMATION

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

Bobcat Hydraulic Excavator
Serial Number ..... _____
Engine Serial Number ..... _____
_____
_____
_____

NOTES: _____
_____
_____
_____
_____
_____

YOUR BOBCAT EXCAVATOR DEALER: _____
ADDRESS: _____
PHONE: _____

Melroe Company
P.O. Box 128
Gwinner, ND 58040–0128

Melroe Europe
J. Huysmanslaan 59
B–1651 LOT
BELGIUM

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SPEED CONTROL LEVER

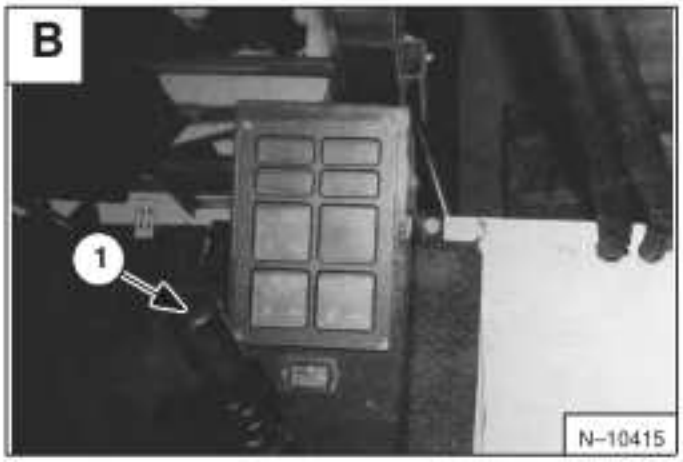
The speed control lever is used to control the engine speed **[A]**:

1. ENGINE STOP – Pull the lever all the way backward and hold until engine stops.
2. LOW IDLE POSITION – Lever is spring loaded to return from stop position to idle position.
3. HIGH IDLE POSITION – Push the lever fully forward from low idle position for full engine RPM.



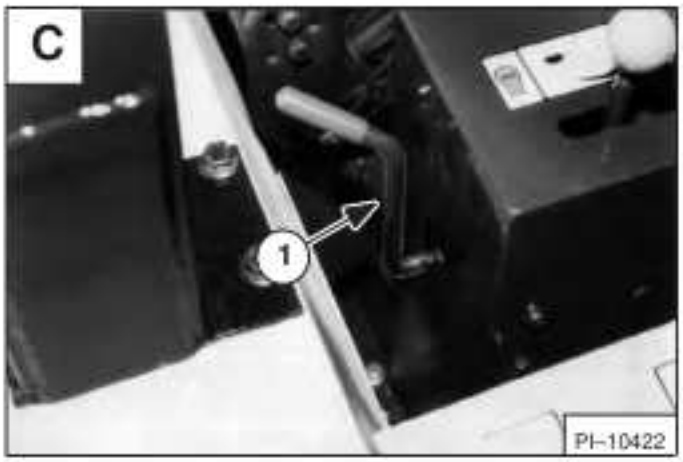
HORN BUTTON

The horn button (Item 1) **[B]** is located in the right control lever grip.

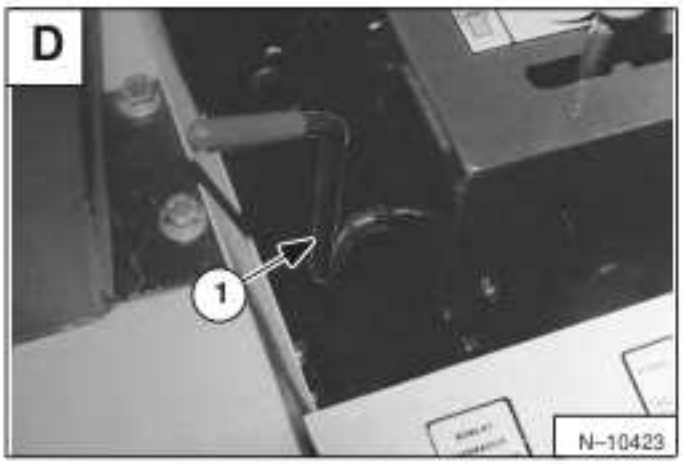


SWING LOCKING LEVER

When the swing lock pin (Item 1) **[C]** is engaged (locked postion), the upper works of the excavator is locked to the track frame and will not pivot.



Lift the swing lock pin (Item 1) **[D]** to disengage swing frame from the track frame, put the pin in the unlocked position.



⚠ WARNING

AVOID INJURY

The swing lock lever must be engaged when transporting the machine.

W-2197-0595

IMPORTANT

Engage the swing lock pin only after the upper works is parallel with the track frame.

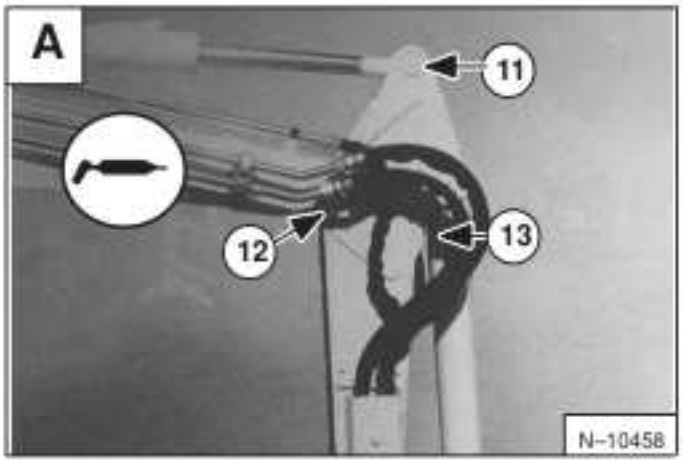
I-2052-0297

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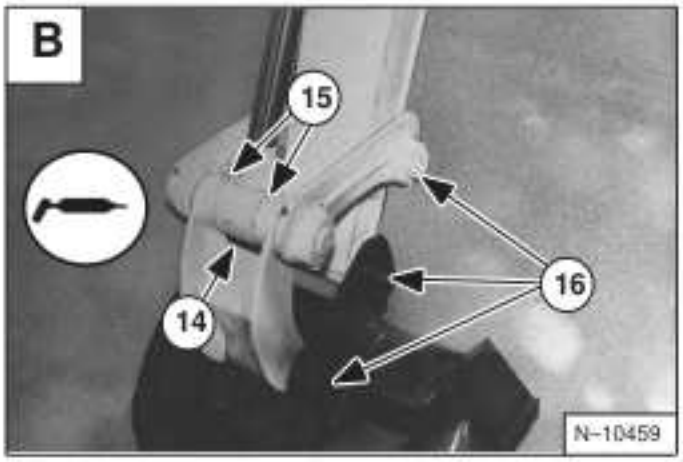
LUBRICATION OF THE HYDRAULIC EXCAVATOR (Cont'd)

Ref. Description (# of Fittings)

11. Arm Cylinder Rod End , every 8–10 hours (1) **[A]**.
12. Arm Base Pivot, every 8–10 hours (1) **[A]**.
13. Bucket Cylinder Base End, every 8–10 hours (1) **[A]**.

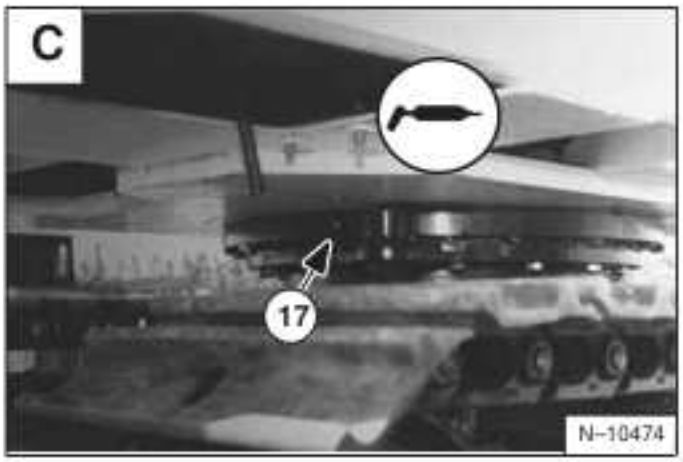


14. Bucket Cylinder Rod End, every 8–10 hours (1) **[B]**.
15. Bucket Link Pivots, every 8–10 hours (2) **[B]**.
16. Bucket Pivots, every 8–10 hours (4) **[B]**.



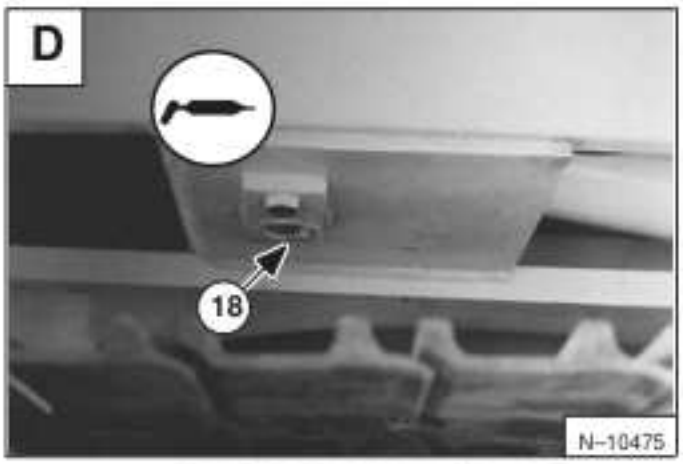
17. Swing Circle Ball Bearings, every 50 hours (2) **[C]**.

NOTE: Do not over–grease the swing circle or damage to the seals could result. Install four to five pumps of grease from a grease gun into each of the two grease fittings. Rotate the upper structure 90° and install four to five pumps of grease into each of the two grease fittings.



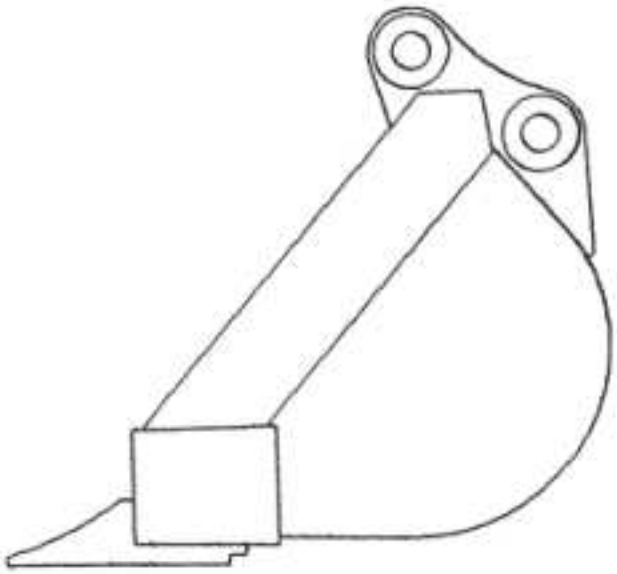
18. Boom Swing Cylinder Base End, every 8–10 hours (1) **[D]**.

    (Under the right side of the upperstructure)



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BUCKET SPECIFICATIONS



MC–1411

Bucket Size	Caacity SAE Heaped	Shipping Weight
12 in. (300 mm)	1.02 cu. ft. (0,029 cu. m.)	106.9 lbs. (48,5 kg)
16 in. (400 mm)	1.61 cu. ft. (0,046 cu. m.)	123.0 lbs. (55,8 kg)
20 in. (500 mm)	2.36 cu. ft. (0,067 cu. m.)	135.7 lbs. (61,6 kg)
24 in. (600 mm)	2.88 cu. ft. (0,082 cu. m.)	157.8 lbs. (68,9 kg)

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BEFORE OPERATING THE BOBCAT HYDRAULIC EXCAVATOR

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 operating Bobcat loader or excavator and approved attachment. Untrained operators can cause injury or death.

W–2253–0996



B–10731

The Excavator must be in good operating condition before use. Check all of the items on the Service Schedule under the 8–10 hour column or as shown in this manual.

WARNING

For your safety, warnings are on the machine and in the Operation & Maintenance manual. Failure to obey warnings can cause injury or death.

W–2044–1285

IMPORTANT

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

I–2019–0284

SAFE OPERATION NEEDS A QUALIFIED OPERATOR*

A QUALIFIED OPERATOR MUST DO THE FOLLOWING:

- UNDERSTAND THE WRITTEN INSTRUCTIONS, RULES AND REGULATIONS
  - The written instructions from Melroe Company include the Delivery Report, Operation & Maintenance Manual, Operator Handbook, 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 Slow Moving Vehicle 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 excavator dealer before the excavator is delivered.
  - The new operator should start in an area without bystanders and use all the controls until he can operate safely under all conditions of the work area.
  - The Compact Excavator Operator Training Course is available in English and Spanish. The course provides information for safe and efficient operation. See your dealer for availability.
- KNOW THE WORK CONDITIONS
  - For each material to be handled, the operator must know how to avoid exceeding the rated lift capacity of the excavator. For example, you should not use the excavator for lifting heavy objects.
  - The operator must know any prohibited uses or work areas, for example, he 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 *SAFETY INSTRUCTIONS* Section of this manual.
  - Wear tight fitting clothing. Always wear safety glasses when maintaining or servicing excavator. Safety glasses, hearing protection or an excavator special application kit are required for some work. See your dealer about Melroe Safety equipment.

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

SI23–0598

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