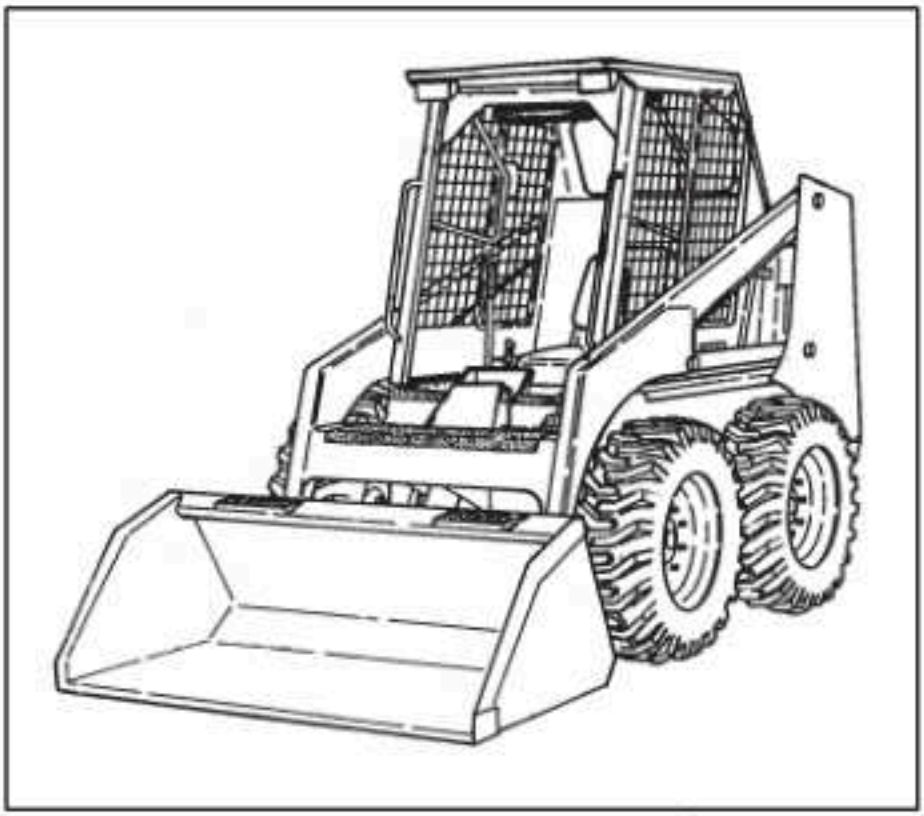
553

Service Manual

S/N 513011001 & Above

Europe Only – S/N 513031001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

MELROE
INGERSOLL-RAND

6724024 (11–95)

Printed in U.S.A.

bobcat

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CONTENTS

FOREWORD ii
SAFETY INSTRUCTIONS v
SERIAL NUMBER LOCATIONS vii
DELIVERY REPORT vii
BOBCAT LOADER IDENTIFICATION viii
PREVENTIVE MAINTENANCE 1–1
HYDRAULIC SYSTEM 2–1
HYDROSTATIC SYSTEM 3–1
DRIVE SYSTEM 4–1
MAIN FRAME 5–1
ELECTRICAL SYSTEM 6–1
ENGINE SERVICE 7–1
BICS™/BOSS® SYSTEM 8–1
SPECIFICATIONS 9–1

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.

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ELECTRICAL SYSTEM

TROUBLESHOOTING

The following troubleshooting chart is provided for assistance in locating and correcting problems. Many of the recommended procedures must be done by authorized Bobcat Service Personnel only.

⚠ WARNING

Instructions are necessary before operating or servicing machine. Read Operation & Maintenance Manuals, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Failure to follow instructions can cause injury or death [A].

W–2003–1289

PROBLEM	CAUSE
Battery will not take a charge.	1, 2, 3, 4, 5
Alternator will not charge.	1, 2, 5
Starter will not turn the engine.	2, 3, 4, 6, 7, 8, 9

KEY TO CORRECT THE CAUSE

1. Alternator belt is loose or damaged.
2. Battery connections are dirty or loose.
3. Battery is damaged.
4. The ground connection is not making a good contact.
5. The alternator is damaged.
6. The engine is locked.
7. The starter is damaged.
8. The wiring or the solenoid is damaged.
9. Check the fuses.

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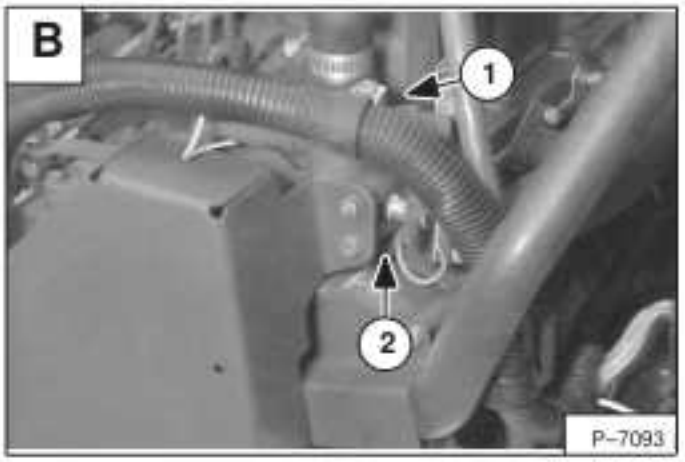
Removal and Installation (Cont'd)

Disconnect the red wire (Item 1) **[A]** and the harness connector (Item 2) **[A]** from the alternator.



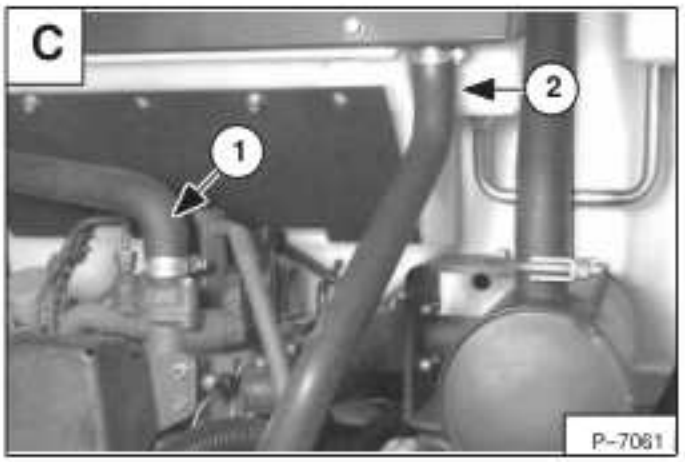
Disconnect the engine harness clamp (Item 1) **[B]** from the thermostat housing.

Disconnect the wire from the coolant temperature sensor (Item 2) **[B]**.



Disconnect the radiator hose (Item 1) **[C]** from the thermostat housing.

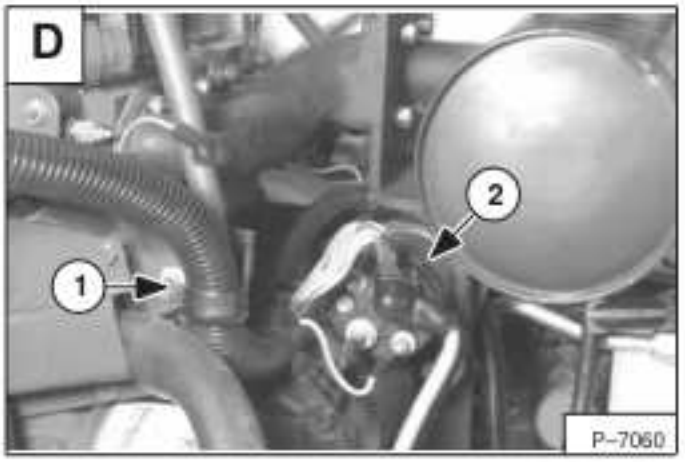
Disconnect the radiator hose (Item 2) **[C]** from inlet of the radiator.



Disconnect the harness clamp (Item 1) **[D]** from the bracket attached to the water pump.

Disconnect the wiring from the starter solenoid (Item 2) **[D]**.

Installation: Make note of the solenoid wiring connections to ensure correct installation.



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PISTONS AND CRANKSHAFT (Cont'd)

Crankshaft Installation

Install the main bearings on the crankshaft journals. Tighten the bolts to 15–17 ft.–lbs. (29–34 Nm) torque.

Install the thrust bearing with the oil grooves to the outside.

Install the crankshaft in the engine. Align the holes in the main bearings with the holes in the engine block.

NOTE: The marks on the bearing housing must face toward the flywheel [A].

Install the main bearing case bolts and tighten to 22–25 ft.–lbs. (64–69 Nm) torque **[A]**.

Install new seals on the crankshaft rear cover.

Install the rear cover and tighten the bolts to 7–8 ft.–lbs. (9,5–11 Nm) torque.

Servicing the Crankshaft

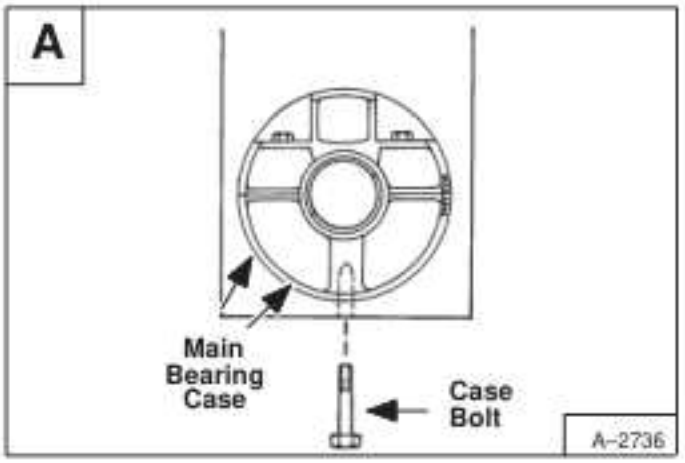
Put the crankshaft on v–blocks **[B]**.

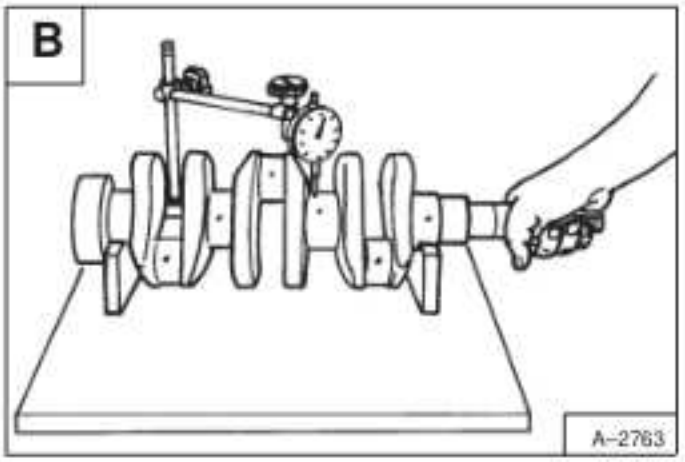
Put a dial gauge on the center journal. Turn the crankshaft at a slow rate.

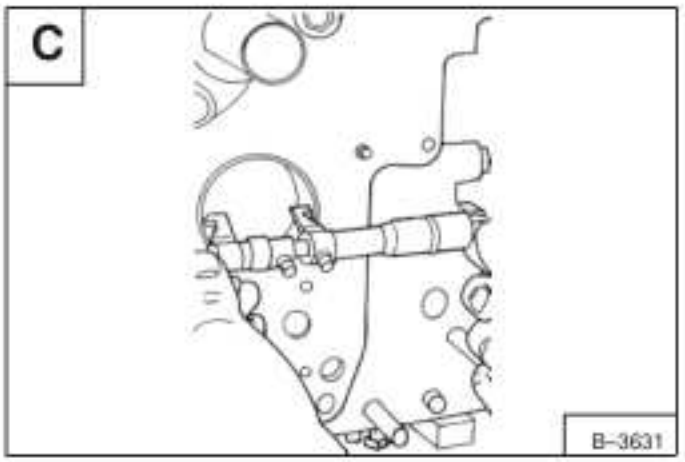
The specifications are 0.008" (0,02 mm). The allowable wear limit is 0.0031" (0,08 mm).

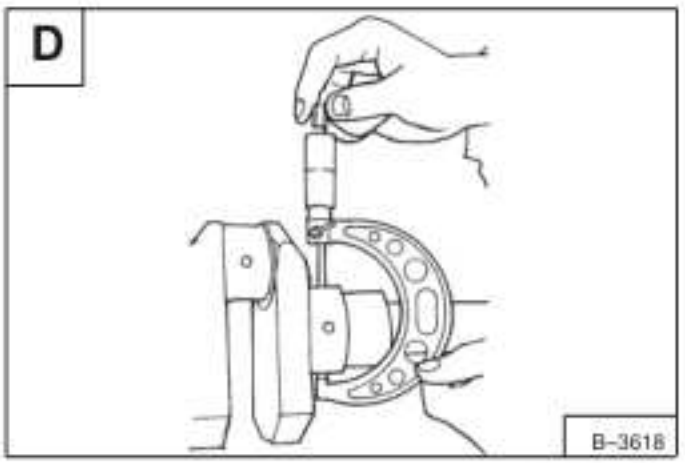
Measure the No. 1 main bearing **[C]**. The specifications are 1.7317–1.7339" (43,984–44,040 mm).

Measure the No. 1 main bearing journal **[D]**. The specifications are 1.7296–1.7303" (43,943–43,950 mm). The clearance between the bearing and the journal must be 0.0013–0.0042" (0,034–0,106 mm) and the allowable wear limit is 0.0079" (0,2 mm). Replace as needed.









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SAFETY INSTRUCTIONS

⚠ WARNING

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W-2003-1289

The following publications provide information on the safe use and maintenance of the loader and attachments:

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the machine is in safe operating condition.
- The Operation & Maintenance Manual delivered with the loader gives operating information as well as routine maintenance and service procedures. It is a part of the loader and must stay with the machine when it is sold. Replacement Operation & Maintenance Manuals can be ordered from your Bobcat loader dealer.
- The loader has machine signs (decals) which instruct on the safe operation and care. The signs and their locations are shown in the Operation & Maintenance Manual. Replacement signs are available from your Bobcat loader dealer.
- The loader has a plastic Operator's Handbook fastened to the operator cab. Its brief instructions are convenient to the operator. The handbook is available from your dealer in English edition or a combination English, French, German, Italian, Dutch & Spanish edition.
- The EMI Safety Manual (available in Spanish) delivered with the loader gives general safety information.
- The Service Manual and Parts Manual are available from your dealer for use by mechanics to do shop–type service and repair work.
- The Skid–Steer Loader Operator Training Course is available through your local dealer. This course is intended to provide rules and practices for correct operation of the Bobcat loader. The course is available in English and Spanish versions.

⚠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

IMPORTANT

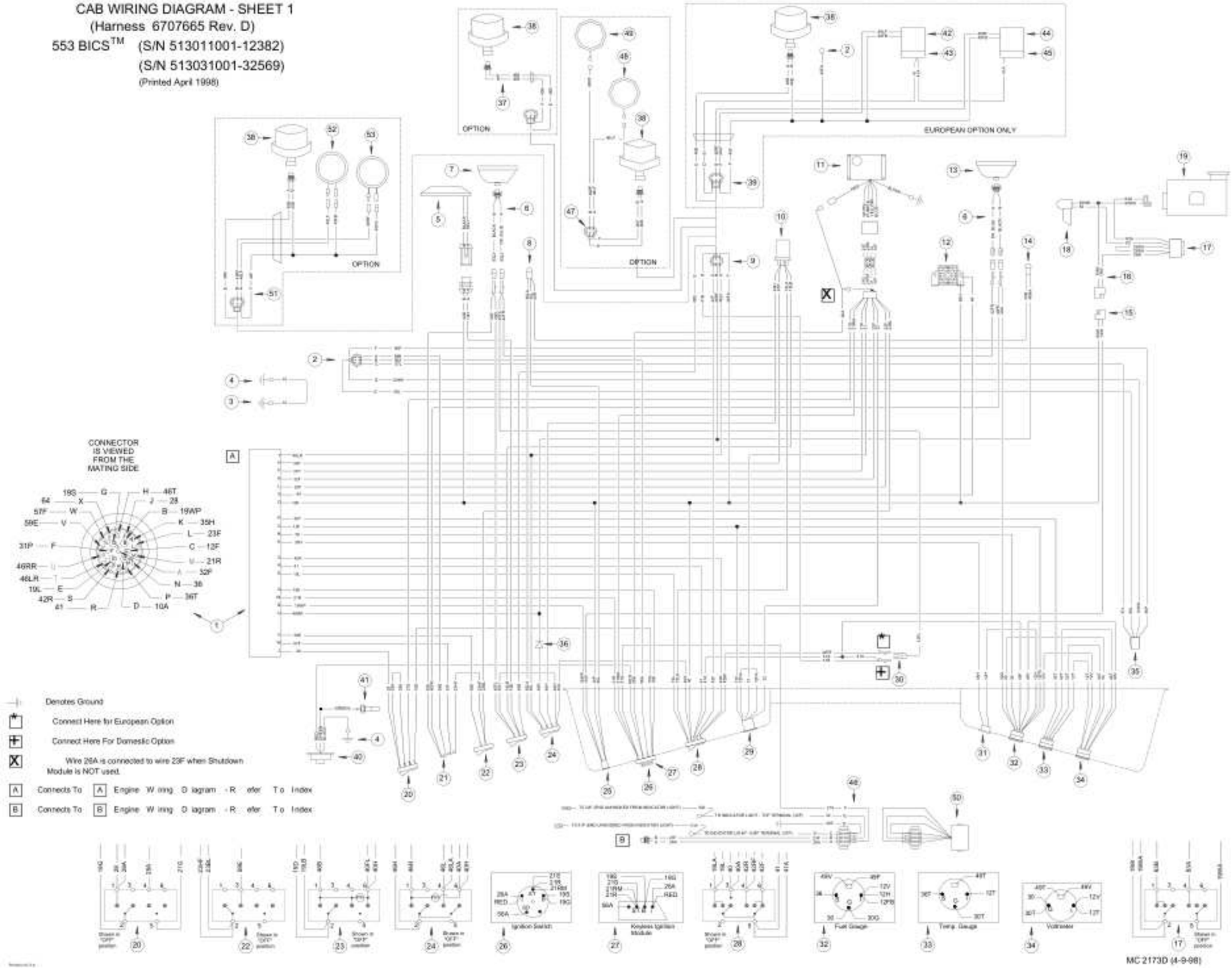
This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

Safety Alert Symbol: This Safety Symbol is used for important safety messages. When you see this symbol follow the safety message to avoid personal injury or death.

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CAB WIRING DIAGRAM - SHEET 1
(Harness 6707665 Rev. D)
553 BICS™ (S/N 513011001-12382)
(S/N 513031001-32569)
(Printed April 1998)



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