CEAM012502

Operation & Maintenance Manual

WB140-2N

WB150-2N

BACKHOE LOADER

SERIAL NUMBERS WB140-2N A20637 and UP
WB150-2N A60029

October 2004

KOMATSU®

MidWestTech | Komatsu WB140-2N, WB150-2N Backhoe Loader Operation & Maintenance... Order the manual at mid-west-tech.com >

CONTENTS

INTRODUCTION

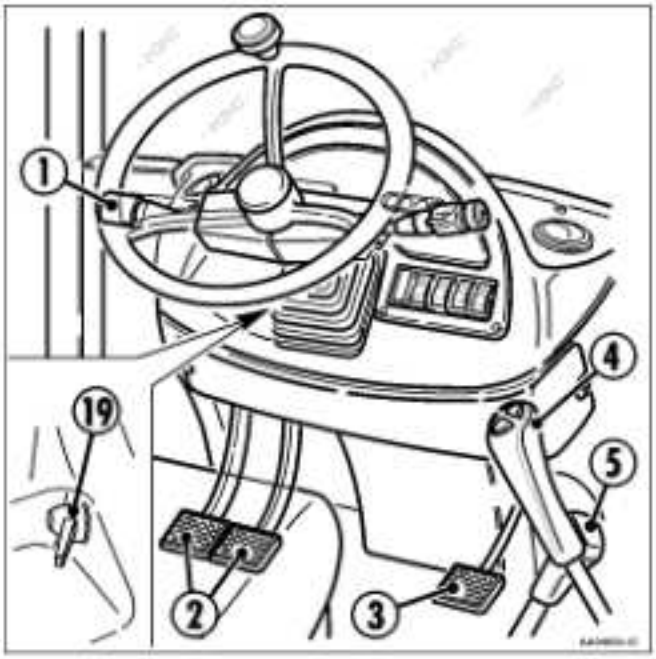
FOREWORD 0-2
SAFETY INFORMATION 0-3
APPROVED AND NON APPROVED USES 0-4
APPROVED 0-4
NON APPROVED 0-4
PRODUCT INFORMATION 0-5
MAIN FEATURES 0-5
BREAK IN PERIOD 0-5
SYNTHETIC BIODEGRADABLE OIL TYPES 0-5
PRODUCT IDENTIFICATION 0-6
MACHINE SERIAL NUMBER 0-6
MACHINE IDENTIFICATION PLATE 0-6
ENGINE SERIAL NUMBER AND EMISSION LABEL 0-6
FRONT AXLE SERIAL NUMBER 0-7
REAR AXLE SERIAL NUMBER 0-7
TRANSMISSION SERIAL NUMBER 0-8
CAB SERIAL NUMBER 0-8
CANOPY SERIAL NUMBER 0-8
SERIAL NUMBERS AND DISTRIBUTOR INFORMATION 0-9
MODEL: WB140-2N / WB150-2N 0-9
CONTENTS 0-10

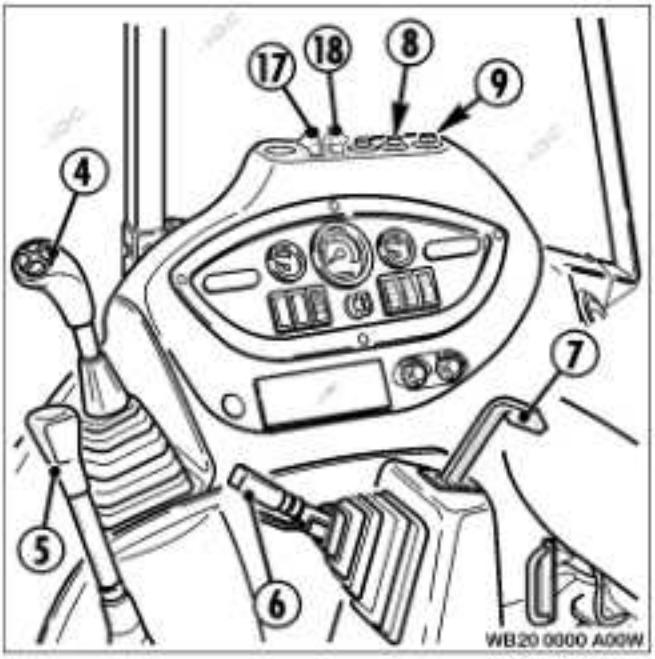
SAFETY

SAFETY AND WARNING DECALS 1-2
LOCATION OF THE SAFETY DECALS 1-2
LOCATION OF THE PICTOGRAM DECALS 1-16
DECALS DEFINED 1-18
SAFETY RULES AND PRECAUTIONS 1-20
GENERAL SAFETY RULES 1-20
SAFETY FEATURES 1-21
PERSONAL PROTECTIVE EQUIPMENT 1-21
UNAUTHORIZED MODIFICATIONS 1-21
LEAVING OPERATOR'S COMPARTMENT 1-22
MOUNTING AND DISMOUNTING 1-23
CHECKING THE REAR VIEW MIRROR 1-23
FIRE PREVENTION FOR FUEL AND OIL 1-24
PREVENTING BURNS 1-24
DUST HAZARD PRECAUTIONS 1-24
CRUSH OR PINCH POINT DANGERS 1-25
FIRE EXTINGUISHER AND FIRST AID KIT 1-25
INSIDE OPERATOR'S COMPARTMENT 1-25
PRECAUTIONS WHEN USING ROPS 1-26
PRECAUTIONS FOR ATTACHMENTS 1-26
PRECAUTIONS BEFORE STARTING WORK 1-26
PREOPERATIONAL CHECKS 1-26

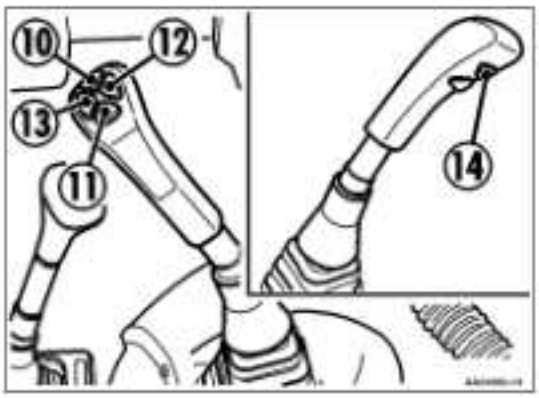
MidWestTech | Komatsu WB140-2N, WB150-2N Backhoe Loader Operation & Maintenance... Order the manual at mid-west-tech.com >

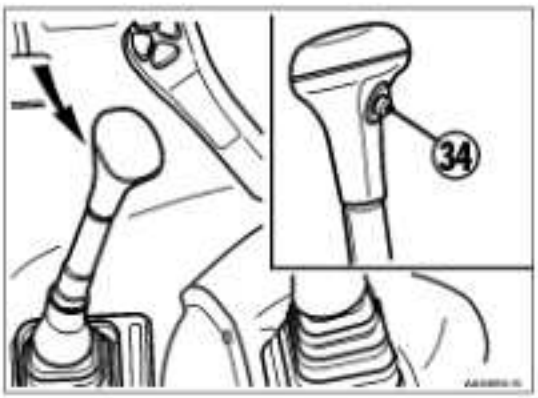
MACHINE CONTROLS - PPC SYSTEM





① Transmission Lever
② Brake Pedals
③ Accelerator
④ Front Loader Lever
⑤ Gear Shift Lever
⑥ Parking Brake
⑦ Hand Accelerator
⑧ Backhoe Boom Lock Switch
⑨ Lock Out Switch
⑩ Declutch Push Button
⑪ Differential Lock Push Button
⑫ Mp Bucket Open Push Button
⑬ Mp Bucket Close Push Button
⑭ Front Loader Speed Push Button
⑮ Left Backhoe Lever
⑯ Right Backhoe Lever
⑰ Left Outrigger Switch
⑱ Right Outrigger Switch
⑲ Steering Wheel Adjustment Lock Lever
㉞ Declutch Push Button





MidWestTech | Komatsu WB140-2N, WB150-2N Backhoe Loader Operation & Maintenance... Order the manual at mid-west-tech.com >

FIRST 250 HOURS OF OPERATION

Perform the following maintenance after the first 250 hours, together with those to be initiated EVERY 250 HOURS.
FRONT AXLE OIL CHANGE
REAR AXLE OIL CHANGE
HYDRAULIC TRANSMISSION OIL CHANGE
HYDRAULIC TRANSMISSION OIL FILTER CHANGE
ENGINE VALVE CLEARANCE CHECK AND ADJUSTMENT
HYDRAULIC OIL DRAIN FILTER CHANGE
For details on the various maintenance operations,

★ See "500 HOURS OF OPERATION" on page 3-44.

★ See "1000 HOURS OF OPERATION" on page 3-49.

For checks and adjustments, contact your distributor.

250 HOURS OF OPERATION

★ Perform the following operations together with those to be initiated at 10 and 50 HOURS:

FAN BELT TENSION

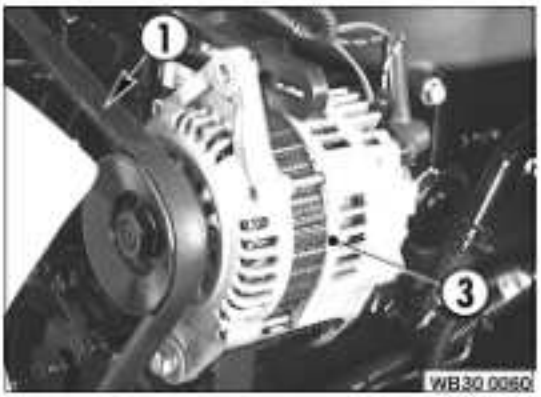
The fan belt can be reached after opening the engine hood, see ENGINE HOOD on page 2-63.
The test is manual:

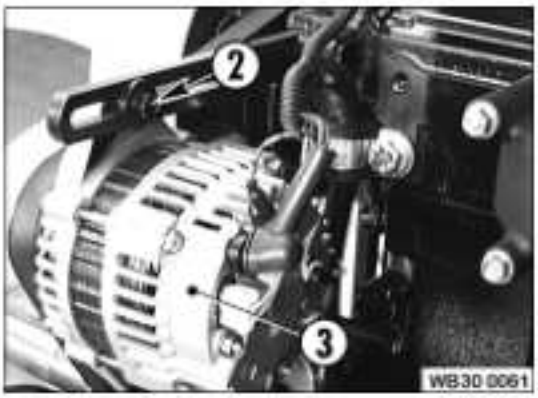
Press the belt ① with your thumb on the indicated point with a force equal to about 98 N; the resulting deflection must be about 10 to 15 mm. If the deflection exceeds this value, loosen the bolt ② that fastens the alternator ③ and, with a lever inserted between the engine block and casing, move the alternator. Lock the bolt and check again.

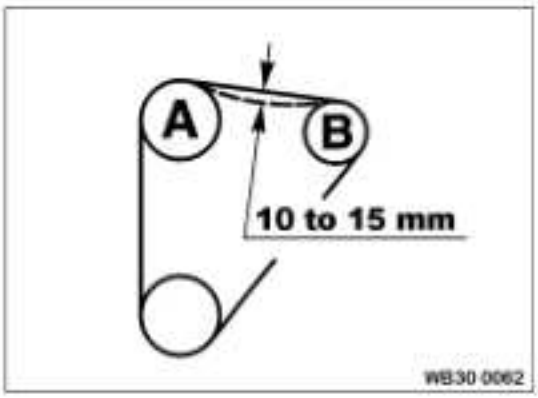
A Fan pulley

B Alternator pulley

★ If the belt is worn, replace it and check the tension again after a few hours of operation.







MidWestTech | Komatsu WB140-2N, WB150-2N Backhoe Loader Operation & Maintenance... Order the manual at mid-west-tech.com >

OPTIONAL EQUIPMENT MEASUREMENTS FOR WB140-2N

★ Specific weight of the material handling = 1.8 tons/m³

FRONT END LOADER

Equipment	Max Weight kg	Max Dimensions		Max SAE Capacity m³	Max Operating Pressure kg/cm²	Max Flow l/min
		Width mm	Height mm			
Front bucket	450	2320	940	1.1	---	---
Multipurpose bucket	750	2340	1015	1.00		75
Lifting forks on bucket	190	1	1	q	---	---
Pallet forks	320	1800	800	q	---	---

BACKHOE UNIT

Backhoe bucket	200	930	---	0.305	---	---
Ditch cleaning bucket	220	1600	---	0.250	---	---
Trapezoidal bucket	190	2100	900	0.300	---	---
Hydraulic hammer	450	---	---	---		80
Drill	360	800※	2000▲	---		120
Clamshell bucket	350	650	1800	0.200		120

OPTIONAL EQUIPMENT MEASUREMENTS FOR WB150-2N

★ Specific weight of the material handling = 1.8 tons/m³

FRONT END LOADER

Equipment	Max Weight kg	Max Dimensions		Max SAE Capacity m³	Max Operating Pressure kg/cm²	Max Flow l/min
		Width mm	Height mm			
Front bucket	450	2320	940	1.1	---	---
Multipurpose bucket	750	2340	1015	1.00		75
Lifting forks on bucket	190	1	1	q	---	---
Pallet forks	320	1800	800	q	---	---

BACKHOE UNIT

Backhoe bucket	200	930	---	0.305	---	---
Ditch cleaning bucket	220	1600	---	0.250	---	---
Trapezoidal bucket	190	2100	900	0.300	---	---
Hydraulic hammer	450	---	---	---		80
Drill	360	800※	2000▲	---		120
Clamshell bucket	350	650	1800	0.200		120

● - Fork length 1140 mm
❑ - Maximum capacity 2000 kg
※ - Measurement referenced to the tool diameter
▲ - Measurement referenced to the tool length

MidWestTech | Komatsu WB140-2N, WB150-2N Backhoe Loader Operation & Maintenance... Order the manual at mid-west-tech.com >

DECALS DEFINED

DANGER IN THE WORK AREA 306421689

Do not approach or stand near the work equipment operating radius when the loader is raised.


WB11 0033

ENGINE COMPARTMENT MOVING PARTS 312614646

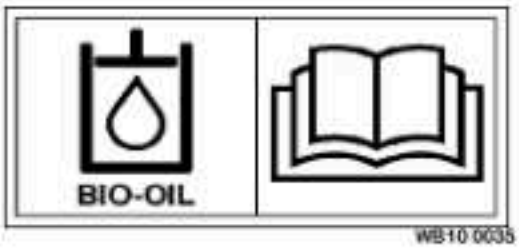
Keep clear of moving parts inside engine compartment.



WB11 0034

FILL THE SYSTEM WITH HEES TYPE OIL

HEES is a synthetic, biodegradeable type oil that is used only in the hydraulic oil tank.



WB10 0035

ENGINE OIL FILTER 3F05B2626

FUEL FILLER 3F05B2627


WB11 0036


WB11 0037

ENGINE AIR FILTER 3F05B2628

ENGINE COOLANT 355614626


WB11 0038


WB11 0039

MidWestTech | Komatsu WB140-2N, WB150-2N Backhoe Loader Operation & Maintenance... Order the manual at mid-west-tech.com >

① **Warning Decal**.....312614650

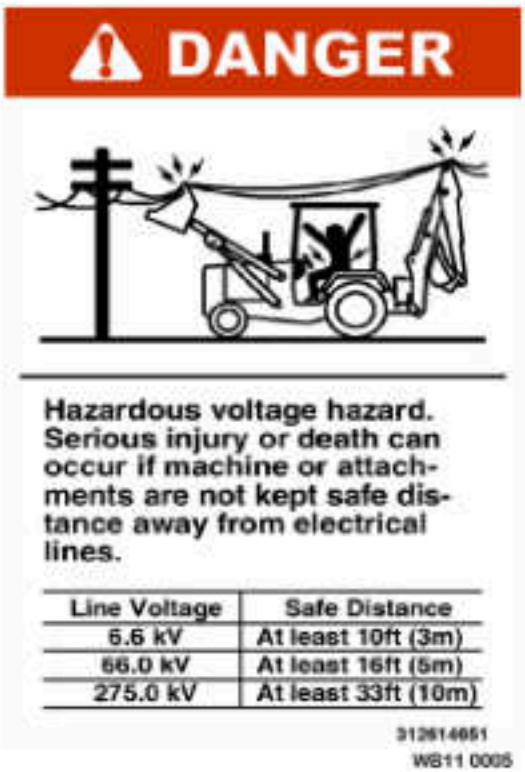
Before operating this machine:

- Study the operator's manual.
- Be aware of all the safety decals.
- Keep the operator's manual with the machine at all times for reference.



② **Height Decal**.....312614651

It is always a good idea to be aware of your clearances around, in front, behind and especially above your work area or travel route. Because of the additional height posed by the backhoe boom 1 m is added above the canopy when the machine is in the travel posture.



MidWestTech | Komatsu WB140-2N, WB150-2N Backhoe Loader Operation & Maintenance... Order the manual at mid-west-tech.com >