CEAM024602

Operation & Maintenance Manual

PC350LL-7E0

LOGGING EXCAVATOR

SERIAL NUMBERS PC350LL-7E0 A50001 and up

ENGINE 6D114E-3

March 2016

KOMATSU®

MidWestTech | Komatsu PC350LL-7E0 Logging Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

INTRODUCTION

FOREWORD 0-2
SAFETY INFORMATION 0-3
INTRODUCTION 0-5
Intended Use 0-5
Features 0-5
Directional Reference of Machine 0-5
Breaking in a New Machine 0-6
Plate Locations 0-6
Product Identification Number (Pin)/machine Serial No. Plate 0-6
Komatsu Forestry Front S/N Plate 0-7
Engine Serial Number Plate 0-8
Service Meter Location 0-8
Table To Enter Serial Numbers And Distributor 0-9
TABLE OF CONTENTS 0-10

SAFETY

SAFETY AND WARNING DECALS 1-2
Location of the Safety Decals 1-2
Normal Excavator Decals 1-2
Safety Labels 1-4
Unique Safety Decals for Log Loader and Road Builder Excavators 1-10
GENERAL SAFETY RULES AND PRECAUTIONS 1-15
General Safety Rules 1-15
Unauthorized Modifications 1-16
General Safety at Job Site 1-16
Working on Loose Ground 1-16
Safety Features 1-17
Personal Protective Equipment 1-17
Fire and Explosion Prevention 1-17
Fire Caused by Fuel or Oil 1-18
Fire Caused by Accumulation of Flammable Material 1-18
Fire coming from Electric Wiring 1-19
Fire coming from Hydraulic Line 1-19
Windshield Washer Fluid 1-19
Action if Fire Occurs 1-19
Dust Hazard Precautions 1-19
Asbestos Hazard Alert 1-20
Keep Operator's Compartment Clean 1-20
Leaving Operator's Seat with Lock 1-20
Mounting and Dismounting 1-21
Fire Extinguisher and First Aid Kit 1-21
Inside Operator's Compartment 1-22
Protection Against Falling or Flying Objects 1-22
Precautions for Attachments 1-23

MidWestTech | Komatsu PC350LL-7E0 Logging Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

Quick Coupler Attachment 1-23
Large Attachments and Combinations 1-23
PRECAUTIONS BEFORE STARTING OPERATIONS 1-24
Pre-operational Checks 1-24
Starting Your Work Operations 1-24
Work Site Hazards 1-24
Avoiding Dangerous Situations 1-25
Digging Hard Rocky Ground 1-28
Sudden Lever Shifting High Speed Travel 1-28
Working Clearances 1-29
Operations on Slopes 1-30
Operations on Snow 1-30
RULES FOR ROAD TRAVEL 1-31
Traveling with Carrage Reversed 1-31
Travel on Slopes 1-32
Shipping the Machine 1-33
Parking the Machine 1-34
PRECAUTIONS DURING MAINTENANCE OPERATIONS 1-35
Warning Tags 1-35
Equipment Storage 1-35
Working Under The Machine 1-36
Using Drop Lamps 1-36
Keeping The Machine Clean 1-36
Performing General Maintenance Procedures 1-37
Running the Engine during Maintenance 1-38
Proper Tools 1-38
Welding, Grinding or Cutting 1-39
Adjusting Track Tension 1-39
Do Not Disassemble Recoil Springs 1-39
When Using Hammer 1-39
Rules for Refueling the Machine 1-40
Cooling System Precautions 1-40
Battery Precautions 1-41
Starting Engine with Booster Cables 1-41
Starting Precautions 1-41
High Pressure Hoses 1-42
Safety Handling High-pressure Hoses 1-42
Precaution For High Fuel Pressure 1-42
High Temperatures Areas 1-43
Disposal of Waste Materials 1-43
Mercury Containing Component(s) 1-43
Accumulator 1-44
Critical Parts 1-44
High Voltage 1-44
Towing 1-44
Safety Rules for Towing 1-44

OPERATION

MidWestTech | Komatsu PC350LL-7E0 Logging Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

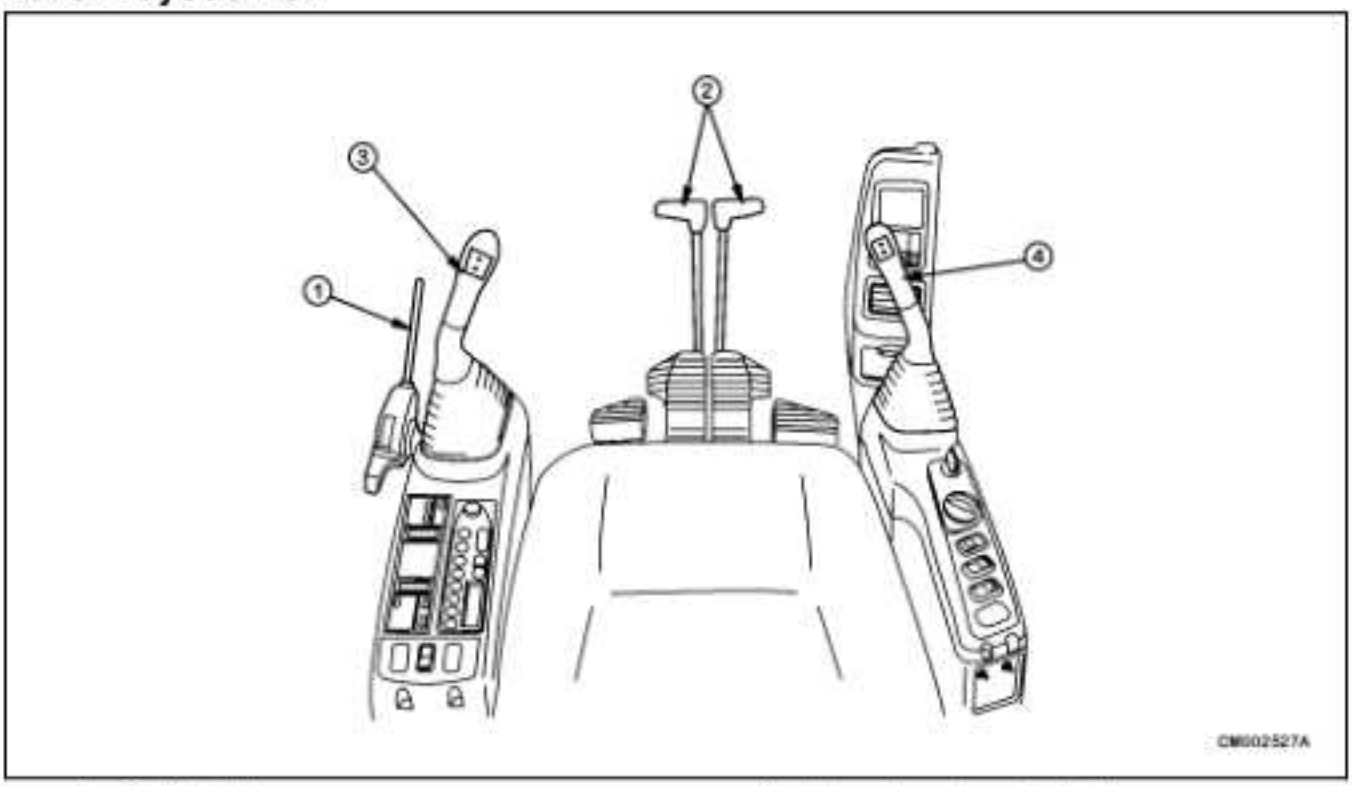
GENERAL VIEWS 2-2
General View of Log Loader Machine 2-2
General View of Road Builder Machine 2-3
View Controls and Gauges 2-4
MACHINE MONITOR SYSTEM 2-5
Monitor Layout 2-5
Basic Operation of Machine Monitor 2-6
Abnormality Occurs when Starting the Engine 2-7
Abnormality Occurs During Operation 2-8
Color Warning or Alert System 2-9
MONITOR CHECK ITEMS 2-10
Emergency Alerts 2-10
Engine Coolant Temperature Monitor 2-10
Hydraulic Oil Temperature Monitor 2-11
Engine Oil Pressure Monitor 2-11
Warning Alerts 2-12
Engine Coolant Temperature Monitor 2-12
Hydraulic Oil Temperature Monitor 2-13
Fuel Level Monitor 2-13
Charge Monitor 2-13
Air Cleaner Clogging Monitor 2-13
Water Separator Monitor 2-14
Check Alerts 2-15
Coolant Level Monitor 2-15
Engine Oil Level Monitor 2-16
Maintenance Interval Monitor 2-16
Meter Display 2-17
Pilot Displays 2-17
Gauges 2-20
MONITOR SWITCHES 2-22
Switch Layout View 2-22
Working Mode Selector Switch 2-23
Auto-deceleration Switch 2-24
Travel Speed Selector Switch 2-25
Wiper Switch 2-26
Window Washer Switch 2-26
Maintenance Switch 2-27
Select Switch 2-29
Back Switch 2-31
Up Switch, Down Switch 2-31
Input Confirmation Switch 2-32
Liquid Crystal Adjustment Switch 2-32
Alarm Buzzer Stop Switch 2-33
CONSOLE CONTROL SWITCHES 2-34
Switch Layout View 2-34
Ignition Switch 2-36
Engine Speed Control Dial 2-36
Cigarette Lighter 2-36
Swing Lock Switch 2-37

MidWestTech | Komatsu PC350LL-7E0 Logging Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

CONTROL LEVERS AND PEDALS

The control levers and pedals are used to travel with the machine and operate the work equipment. It is important to become familiar with there functions as they relate to the movement of the machine and it's work equipment. Failure to do so may lead to damage to the machine or surrounding property as well as injury to the operator or other personnel.

Lever Layout View



1. Safety lock lever
2. Travel levers (With pedals and auto-deceleration system)
3. Left work equipment control lever
4. Right work equipment control lever

MidWestTech | Komatsu PC350LL-7E0 Logging Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

Fuel

- To prevent the moisture in the air from condensing and forming water inside the fuel tank, always fill the fuel tank after completing the day's work.
- The fuel pump is a precision instrument, and if fuel containing water or dirt is used, it cannot work properly.
- Be extremely careful not to let impurities get in when storing or adding fuel.
- Always use the fuel specified in the Operation and Maintenance Manual.
- Fuel may congeal depending on the temperature when it is used (particularly in low temperature below -15°C (5°F). It is necessary to use the fuel that is suitable for the temperature.
- Before starting the engine, or when 10 minutes have passed after adding fuel, drain the sediment and water from the fuel tank.
- If the engine runs out of fuel, or if the filters have been replaced, it is necessary to bleed the air from the circuit.
- If there is any foreign material in the fuel tank, wash the tank and fuel system.

Remark

Always use diesel oil for the fuel.

To ensure good fuel consumption characteristics and exhaust gas characteristics, the engine mounted on this machine uses an electronically controlled high-pressure fuel injection device. This device requires high precision parts and lubrication, so if low viscosity fuel with low lubricating ability is used, the durability may drop markedly.

Coolant and Water for Dilution

- The coolant has the important function of preventing corrosion as well as preventing freezing.
  Even in the areas where freezing is not an issue, the use of antifreeze coolant is essential.
  Komatsu machines are supplied with Komatsu Supercoolant (AF-NAC). Komatsu Supercoolant (AF-NAC) has excellent anticorrosion, antifreeze and cooling properties and can be used continuously for two years or 4000 hours.
  Komatsu Supercoolant (AF-NAC) is strongly recommended wherever available. For details, "Clean Inside of Cooling System" on page 3-24. If machine is not equipped with a corrosion resistor, Komatsu Supercoolant must be used.
- When diluting the antifreeze coolant, use distilled water or tap water (soft water).
  Natural water, such as a river water or well water (hard water), contains large amounts of minerals (calcium, magnesium, etc.), and this makes it easier for scale to form inside the engine or radiator. Once scale is deposited inside the engine or radiator, it is extremely difficult to remove. It also causes overheating due to poor heat exchange, so when you dilute the coolant, we recommend that you use water with an overall hardness of less than 100 PPM.
- When using antifreeze, always observe the precautions given in the Operation and Maintenance Manual.
- Antifreeze coolant is flammable, so be sure to keep it away from flame.
- The ratio of Supercoolant (AF-NAC) to water differs according to the ambient temperature.
  For details of the ratio when mixing, "Clean Inside of Cooling System" on page 3-24.
  Supercoolant (AF-NAC) may be supplied in premix. In this case, never add diluting water.
- If the engine overheats, wait for the engine to cool before adding coolant.
- If the coolant level is low, it will cause overheating, and will also cause problems with corrosion due to air entering the coolant.

Grease

- Grease is used to prevent binding and noise at the joints.
- The nipples not included in the MAINTENANCE section are nipples used when overhauling, so they do not need to be greased periodically.
- If any part becomes stiff or generates noise after being used for a long time, grease it.
- Wipe off all of the old grease that is pushed out when greasing.
- Be particularly careful to wipe off the old grease in places where sand or dirt sticking in the grease would cause wear of the rotating parts.

MidWestTech | Komatsu PC350LL-7E0 Logging Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

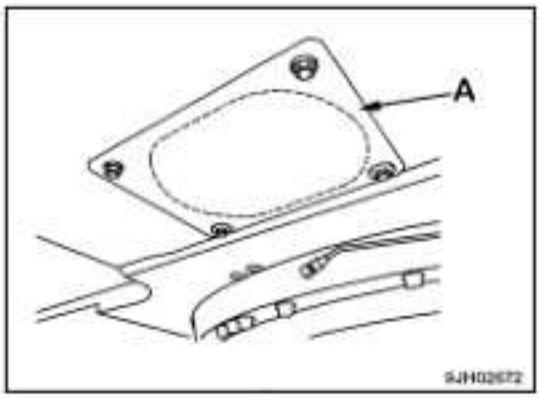
Change Oil in Swing Machinery Case

⚠ WARNING

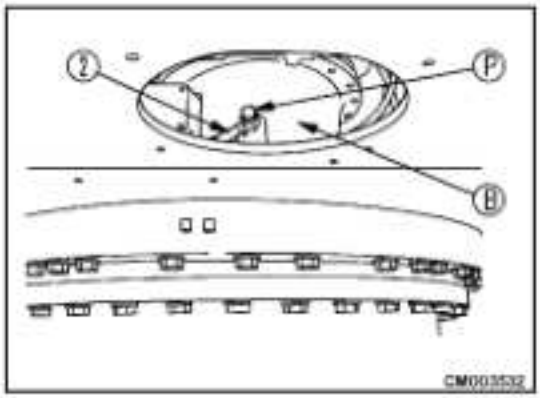
Parts and oil are at high temperature immediately after the engine is stopped and may cause serious burns. Wait for the oil temperature to go down before performing this operation.

- Refill capacity: 13.4 ℓ (3.54 US gal)

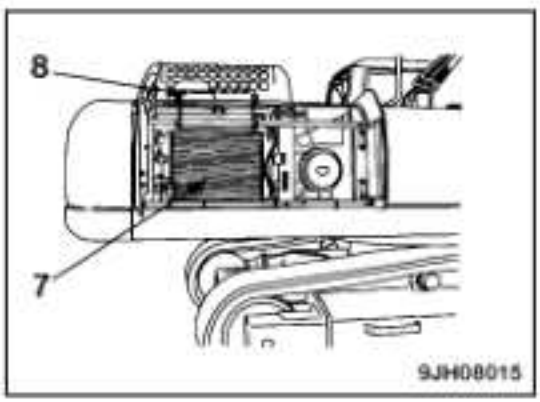
1. Remove cover (A) of the inspection hole. (Only demolition specification machine).



2. Set a container under drain valve (P) under the machine body to catch the oil.
3. Loosen drain valve (P) under the body, drain the oil, then tighten the drain valve again.
   - When draining the oil, first pull hose (2) out from inspection hole (B), then turn the drain valve to the OPEN position.



4. Remove dipstick (G) and air bleed plug (1).
5. Add the replacement amount of oil through the insertion guide for dipstick (G).
6. Check the oil level.
7. Install air bleed plug (1).



MidWestTech | Komatsu PC350LL-7E0 Logging Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >