KEAM003300

Operation & Maintenance Manual

KOMATSU®

D61EX-12
D61PX-12

BULLDOZER

SERIAL NUMBERS D61EX-12 - B1501 and up
D61PX-12 - B1501

May 2000

Copyright 1999 Komatsu
DataKom Publishing Corporation

MidWestTech | Komatsu D61EX-12, D61PX-12 Bulldozer Operation & Maintenance Manual... Order the manual at mid-west-tech.com >

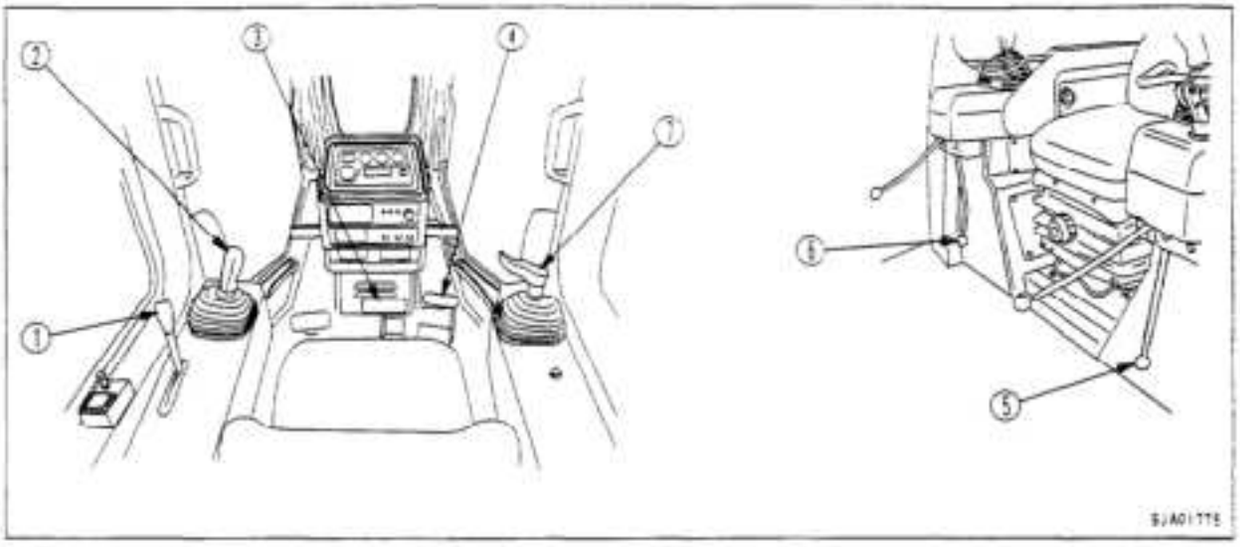
MACHINE OPERATION 3- 64
SHIFTING GAER 3- 68
SHIFTING BETWEEN FORWARD AND REVERSE 3- 69
STEERING MACHINE 3- 71
PRECAUTIONS FOR OPERATION 3- 75
WORK POSSIBLE USING BULLDOZER 3- 77
ADJUSTING POSTURE OF WORK EQUIPMENT 3- 79
PARKING MACHINE 3- 81
CHECK AFTER FINISHING WORK 3- 83
LOCKING 3- 83
TIPS FOR LONGER UNDERCARRIAGE LIFE 3- 84
TRANSPORTATION 3- 87
TRANSPORTATION PROCEDURE 3- 87
PRECAUTIONS WHEN REMOVING WORK EQUIPMENT 3- 87
REMOVING CAB 3- 88
LOADING, UNLOADING WORK 3- 89
LIFTING MACHINE 3- 93
COLD WEATHER OPERATION 3- 96
PRECAUTIONS FOR LOW TEMPERATURE 3- 96
AFTER COMPLETION OF WORK 3- 98
AFTER COLD WEATHER 3- 98
LONG-TERM STORAGE 3- 99
BEFORE STPRAGE 3- 99
DUHING STPRAGE 3- 99
AFTER STORAGE 3- 99
STARTING MACHINE AFTER LONG-TERM STORAGE 3- 99
TROUBLESHOOTING 3-100
AFTER RUNNING OUT OF FUEL 3-100
TOWING THE MACHINE 3-100
IF BATTERY IS DISCHARGED 3-101
OTHER TROUBLE 3-104
MAINTENANCE 4- 1
GUIDE TO MAINTENANCE 4- 2
OUTLINE OF SERVICE 4- 4
OUTLINE OF OIL, FUEL, COOLANT 4- 4
RELATING TO ELECTRIC SYSTEM 4- 5
WEAR PARTS 4- 6
WEAR PARTS LIST 4- 6
USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE 4- 7
PROPER SELECTION OF FUEL, COOLANT AND LUBRICANTS 4- 7
STANDARD TIGHTENING TORQUES FOR BOLTS AND NUTS 4- 11
TORQUE LIST 4- 11
PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS 4- 12
SAFETY CRITICAL PARTS 4- 13
MAINTENANCE SCHEDURE CHART 4- 14
MAINTENANCE SCHEDURE CHART 4- 14
SERVICE PROCEDURE 4- 16
WHEN REQUIRED 4- 16
CHECK BEFORE STARTING 4- 36
EVERY 50 HOURS SERVICE 4- 37

MidWestTech | Komatsu D61EX-12, D61PX-12 Bulldozer Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

EVERY 250 HOURS SERVICE ---- 4- 38
EVERY 500 HOURS SERVICE ---- 4- 45
EVERY 1000 HOURS SERVICE ---- 4- 48
EVERY 2000 HOURS SERVICE ---- 4- 53
EVERY 4000 HOURS SERVICE ---- 4- 55
SPECIFICATIONS ---- 5- 1
SPECIFICATIONS ---- 5- 2
ATTACHMENTS, OPTIONS ---- 6- 1
GENERAL PRECAUTIONS ---- 6- 2
PRECAUTIONS RELATED TO SAFETY ---- 6- 2
SUSPENSION SEAT ---- 6- 3
HEADREST ---- 6- 4
EQUIPPING THE FIRE EXTINGUISHER AND THE FIRST-AID KIT ---- 6- 5
INDEX ---- 7- 1

MidWestTech | Komatsu D61EX-12, D61PX-12 Bulldozer Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

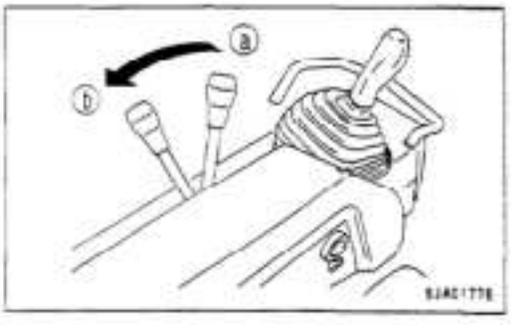
CONTROL LEVERS AND PEDALS



(1)Fuel control lever
(2)Steering, directional and gear shift lever
(3)Brake pedal
(4)Decelerator pedal
(5)Brake lock lever
(6)Safety lock lever (for blade control lever)
(7)Blade control lever

FUEL CONTROL LEVER

This lever(1) is used to control the engine speed and output.
(a)Low idling position: Push the lever forward fully.
(b)High idling position: Pull the lever fully



MidWestTech | Komatsu D61EX-12, D61PX-12 Bulldozer Operation & Maintenance Manual | P... Order the manual at mid-west-tech.com >

LIFTING MACHINE

⚠ WARNING

- **Do not lift the machine with any worker on it.**
- **Use wire ropes having sufficient strength for the weight of this machine.**
- **Lift the machine in only the position shown below. If it is lifted in another position, it may be unbalanced.**
- **Lift the machine horizontally.**

NOTICE

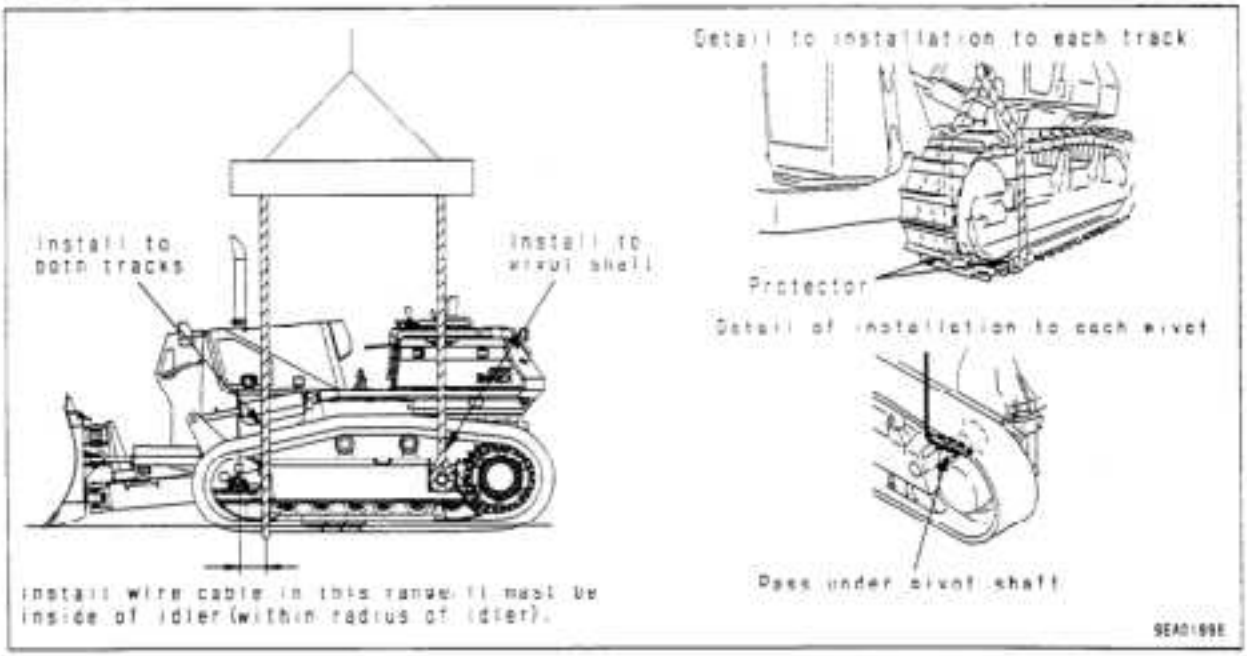
The lifting procedure applies to machines with standard specifications.

The method of lifting differs according to the attachments and options actually installed. In such cases, please contact your Komatsu distributor for information.

For details of the weight, see "SPECIFICATIONS (PAGE 5-2)".

PROSEDURE FOR LIFTING OPERATIONS

(For D61EX)



MidWestTech | Komatsu D61EX-12, D61PX-12 Bulldozer Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

EVERY 500 HOURS SERVICE

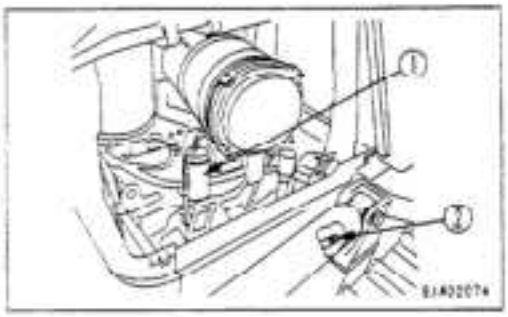
Maintenance for every 50 and 250 hours service should be carried out at the same time.

REPLACE FUEL FILTER CARTRIDGE

⚠ WARNING

- **Engine is at high temperature immediately after the machine has been operated. Wait for engine to cool down before replacing the filter.**
- **Do not bring fire or sparks near the fuel.**

Prepare a filter wrench and a container to catch the fuel.



1. Set the container to catch the fuel under the filter cartridge.
2. Using a filter wrench, turn filter cartridge (1) counterclockwise to remove it.
3. Clean the filter holder, fill a new filter cartridge with clean fuel, coat the packing surface with engine oil, then install it to the filter holder.
4. When installing, tighten until the packing surface contacts the seal surface of the filter holder, then tighten it up 1/2 to 3/4 of a turn.
   If the filter cartridge is tightened too far, the packing will be damaged and this will lead to leakage of fuel. If the filter cartridge is too loose, fuel will also leak from the packing, so always tighten to the correct amount.
5. Loosen the knob of feed pump(2) and operate it 50 to 60 times up and down. This will bleed the air.
6. Push in the knob of feed pump(2) and tighten it.
7. After replacing the filter cartridge, start the engine and check that there is no leakage of fuel from the filter seal surface. If there is any leakage of fuel, check the tightening of the filter cartridge. Whenever there is leakage of fuel, follow Steps 1 and 2 to remove the filter cartridge, then check the packing surface for damage or foreign material.
   If any damage or foreign material is found in the packing, replace the packing with a new part, then repeat Steps 3 - 6 to install the filter cartridge.

MidWestTech | Komatsu D61EX-12, D61PX-12 Bulldozer Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >