CEAM026702

Operation & Maintenance Manual

WA470-7

WHEEL LOADER

SERIAL NUMBERS WA470-7 A47001 and up

ENGINE 6D125E-6

February 2016

KOMATSU®

MidWestTech | Komatsu WA470-7 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

CONTENTS (PC-0310-001-A-00-A)

FOREWORD 1-1
BEFORE READING THIS MANUAL 1-2
SAFETY INFORMATION 1-3
INTRODUCTION 1-4
USE OF MACHINE 1-4
DIRECTIONS OF MACHINE 1-4
VISIBILITY FROM OPERATOR'S SEAT 1-4
PRODUCT INFORMATION 1-5
PRODUCT IDENTIFICATION NUMBER (PIN)/MACHINE SERIAL NO. PLATE 1-5
ENGINE NUMBER PLATE 1-5
SERVICE METER LOCATION 1-6
YOUR MACHINE SERIAL NUMBERS AND DISTRIBUTOR 1-6
CONTENTS 1-7
SAFETY 2-1
SAFETY 2-2
SAFETY LABELS 2-4
LOCATION OF SAFETY LABELS 2-4
GENERAL PRECAUTIONS COMMON TO OPERATION AND MAINTENANCE 2-13
PRECAUTIONS BEFORE STARTING OPERATION 2-13
PREPARATIONS FOR SAFE OPERATION 2-14
FIRE PREVENTION 2-16
PRECAUTIONS WHEN GETTING ON OR OFF MACHINE 2-18
DO NOT GET CAUGHT IN WORK EQUIPMENT 2-21
PRECAUTIONS RELATED TO PROTECTIVE STRUCTURES 2-21
UNAUTHORIZED MODIFICATION 2-21
PRECAUTIONS RELATED TO ATTACHMENTS AND OPTIONS 2-22
PRECAUTIONS WHEN RUNNING ENGINE INSIDE BUILDING 2-22
PRECAUTIONS FOR OPERATION 2-23
PRECAUTIONS FOR JOBSITE 2-23
STARTING ENGINE 2-26
OPERATION 2-29
TRANSPORTATION 2-35
TOWING 2-36
PRECAUTIONS FOR MAINTENANCE 2-37
PRECAUTIONS BEFORE STARTING INSPECTION AND MAINTENANCE 2-37
PRECAUTIONS FOR INSPECTION AND MAINTENANCE 2-42
TIRES 2-46
OPERATION 3-1
GENERAL VIEW 3-2
GENERAL VIEW OF MACHINE 3-2
GENERAL VIEW OF CONTROLS AND GAUGES 3-4
SWITCH PANEL 3-5
MACHINE MONITOR 3-6
EXPLANATION OF COMPONENTS 3-8
MACHINE MONITOR 3-8
SWITCHES 3-81
CONTROL LEVERS AND PEDALS 3-95
OIL FILLER CAP 3-101
ASHTRAY 3-103
FRAME LOCK BAR 3-104
TOWING PIN 3-105
GREASE PUMP HOLDER 3-106
BATTERY DISCONNECT SWITCH 3-107
SYSTEM OPERATING LAMP 3-109
BACKUP ALARM 3-110
OPEN AND CLOSE CAB DOOR 3-111
FUSE 3-116

MidWestTech | Komatsu WA470-7 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

SLOW BLOW FUSE 3-118
AUXILIARY ELECTRIC POWER 3-119
OPTIONAL POWER SUPPLY OUTLET 3-120
HANDLING RADIO 3-121
HANDLING AUTO AIR CONDITIONER 3-126
HANDLING FRONT WIPER 3-137
FIRE EXTINGUISHER 3-138
HANDLING REAR VIEW MONITOR 3-139
HANDLING Komatsu Diesel Particulate Filter (KDPF) 3-140
HANDLING Komatsu Closed Crankcase Ventilation (KCCV) 3-149
HANDLING MACHINES EQUIPPED WITH KOMTRAX 3-150
MACHINE OPERATIONS AND CONTROLS 3-152
CHECKS AND ADJUSTMENT BEFORE STARTING ENGINE 3-152
TRANSPORTATION 3-221
COLD WEATHER OPERATION 3-228
LONG-TERM STORAGE 3-230
TROUBLES AND ACTIONS 3-231
MAINTENANCE 4-1
RULES FOR MAINTENANCE 4-2
SERVICE METER READING 4-2
KOMATSU GENUINE REPLACEMENT PARTS 4-2
KOMATSU GENUINE LUBRICANTS 4-2
ALWAYS USE CLEAN WASHER FLUID 4-2
FRESH AND CLEAN LUBRICANTS 4-2
CHECK DRAINED OIL AND USED FILTER 4-2
CAUTION FOR REFILLING OIL OR FUEL 4-2
WELDING INSTRUCTIONS 4-2
DO NOT DROP THINGS INSIDE MACHINE 4-2
PRECAUTIONS FOR KDPF 4-2
DUSTY JOBSITES 4-2
AVOID MIXING OIL 4-3
LOCKING INSPECTION COVERS 4-3
BLEEDING AIR FROM HYDRAULIC CIRCUIT 4-3
PRECAUTIONS WHEN INSTALLING HYDRAULIC HOSES 4-3
CHECKS AFTER INSPECTION AND MAINTENANCE 4-3
FUEL AND LUBRICANTS TO MATCH THE AMBIENT TEMPERATURE 4-3
CLOSE ENGINE SIDE COVER SECURELY 4-3
OUTLINE OF MAINTENANCE 4-4
HANDLING OIL, FUEL, COOLANT, AND PERFORMING OIL CLINIC 4-4
HANDLING ELECTRICAL COMPONENTS 4-8
STANDARD TIGHTENING TORQUE FOR BOLTS AND NUTS 4-9
TIGHTENING TORQUE LIST 4-9
MAINTENANCE SCHEDULE 4-10
MAINTENANCE SCHEDULE TABLE 4-10
MAINTENANCE PROCEDURE 4-12
EVERY 10 HOURS MAINTENANCE (ONLY FOR THE FIRST 50 HOURS) 4-12
INITIAL 250 HOURS MAINTENANCE (ONLY AFTER THE FIRST 250 HOURS) 4-12
WHEN REQUIRED 4-13
CHECKS BEFORE STARTING 4-36
EVERY 50 HOURS MAINTENANCE 4-37
EVERY 100 HOURS MAINTENANCE 4-38
EVERY 250 HOURS MAINTENANCE 4-40
EVERY 500 HOURS MAINTENANCE 4-49
EVERY 1000 HOURS MAINTENANCE 4-52
EVERY 2000 HOURS MAINTENANCE 4-57
EVERY 4000 HOURS MAINTENANCE 4-67
EVERY 4500 HOURS MAINTENANCE 4-70
EVERY 8000 HOURS MAINTENANCE 4-72

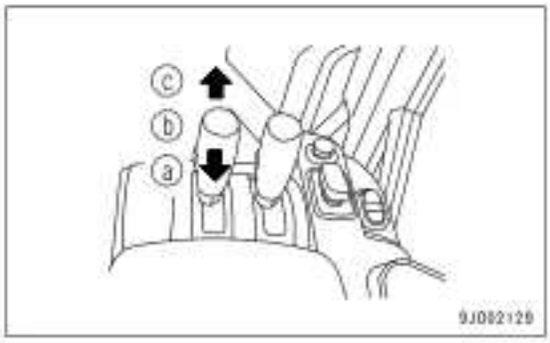
MidWestTech | Komatsu WA470-7 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

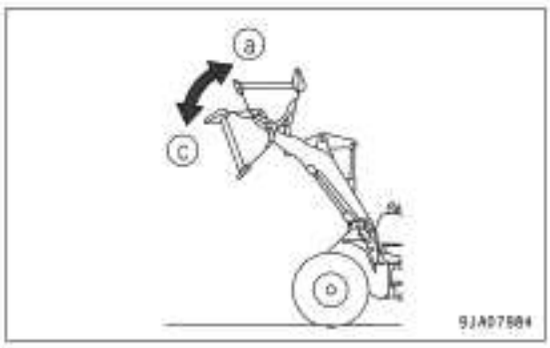
EVERY 9000 HOURS MAINTENANCE 4-73
SPECIFICATIONS 5-1
SPECIFICATIONS 5-2
ATTACHMENTS AND OPTIONS 6-1
TIRE AND BUCKET SELECTION 6-2
HANDLING JOYSTICK STEERING SYSTEM 6-3
EXPLANATION OF COMPONENTS 6-3
FUNCTION AND STRUCTURE OF JOYSTICK STEERING 6-9
PRECAUTIONS WHEN HANDLING JOYSTICK STEERING 6-10
OPERATION METHOD OF JOYSTICK STEERING 6-11
GETTING ON OR OFF MACHINE 6-14
ADJUST JOYSTICK CONSOLE 6-15
HANDLING MULTI-FUNCTION MONO-LEVER 6-21
NAME OF EACH PART 6-21
REPLACEMENT PARTS 7-1
SAFETY CRITICAL PARTS 7-2
SAFETY CRITICAL PARTS LIST 7-2
CONSUMABLE PARTS 7-3
CONSUMABLE PARTS LIST 7-3
RECOMMENDED FUEL, COOLANT, AND LUBRICANT 7-4
LUBRICATION CHART 7-4
LUBRICANTS TO MATCH THE AMBIENT TEMPERATURE AND RECOMMENDED GENUINE LUBRICANTS 7-7
RECOMMENDED BRANDS AND QUALITY FOR PRODUCTS OTHER THAN KOMATSU GENUINE OIL 7-9
INDEX 8-1

MidWestTech | Komatsu WA470-7 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

BUCKET CONTROL LEVER (WA-PK33-100-K-00-A)

Position (a): TILT
When the bucket control lever is pulled further from the "TILT" position, the lever stops in that position until the bucket reaches the preset position by the bucket positioner, and the lever returns to the "HOLD" position.
Position (b): HOLD
The bucket remains in the position where it was stopped.
Position (c): DUMP



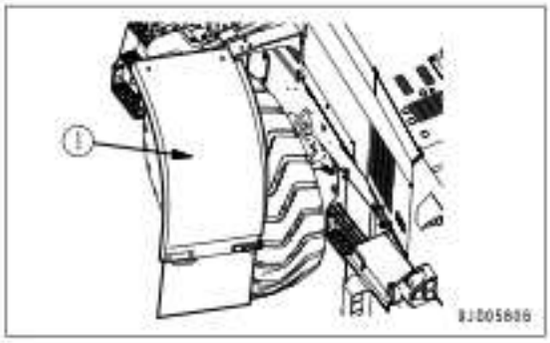


MidWestTech | Komatsu WA470-7 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

LUBRICATE REAR FULL FENDER HINGE (WA470-H562-242-K-00-A)

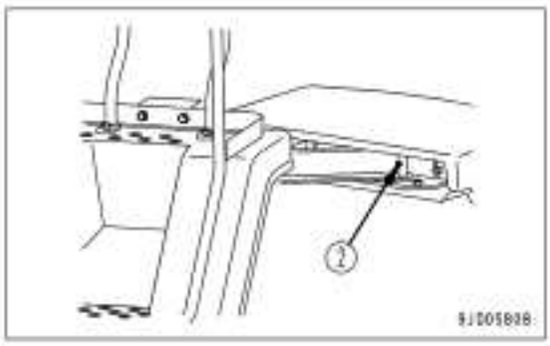
(If equipped)
If rear full fender is hardly opened or closed, lubricate the hinge portion.

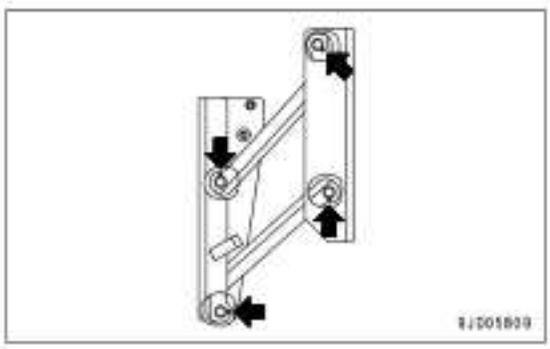
1. Open rear full fender (1).



2. By using a grease gun, grease through the grease fittings (2).

REMARK
There are 4 grease fittings per one hinge.





3. After greasing, repeat open and close several times for the grease to fit completely.

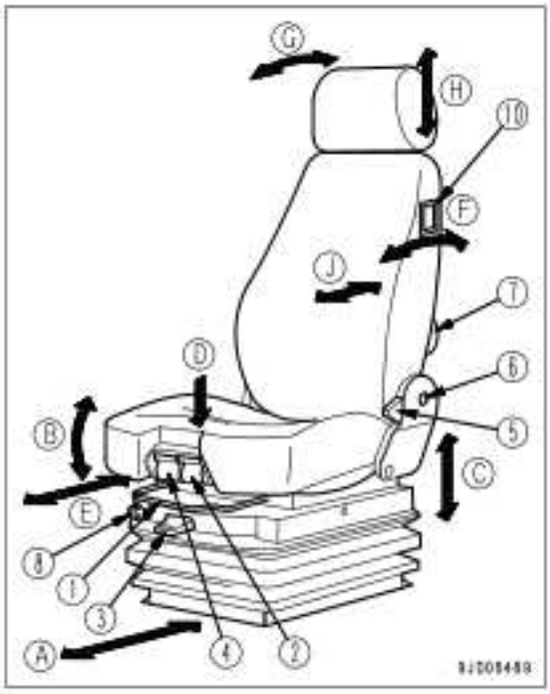
MidWestTech | Komatsu WA470-7 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

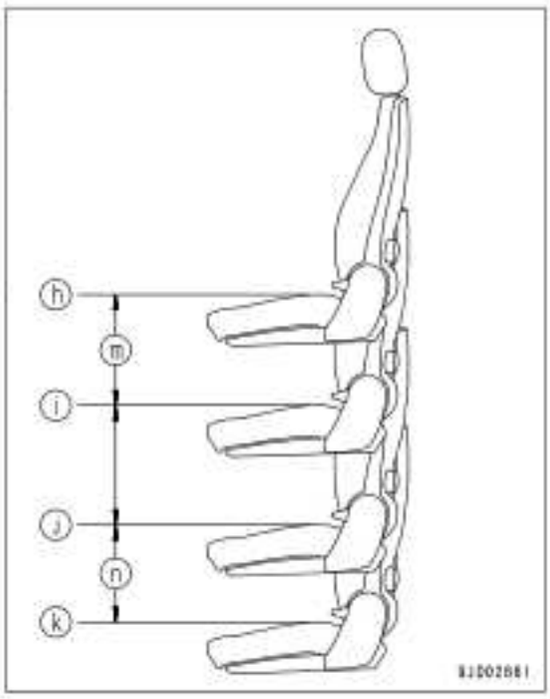
1. Operation of suspension damper lever
   Before adjusting for the weight, turn knob (9) toward inside (b) of the seat to reduce the damping force of the suspension damper. (After the weight and height adjustment are completed, adjust the damping force of the suspension damper to the desired level.)
2. Resetting of weight adjustment
   Push lever (3) down to the stroke end and lower the seat to the lowest position. (When the operator's seat is lowered to its lowest position (k), the current weight adjustment is reset.)
3. Setting of weight adjustment
   Release lever (3) after the seat is lowered to lowest position (k), and the air for weight adjustment is supplied automatically.
   Keep your body in the ordinary operating posture during adjustment (until automatic air supply is completed).

The stopped position after weight adjustment is lowest position (j) of the height adjustment range. When the weight adjustment is complete, adjust the seat height by following the "Adjustment of seat height".

REMARK

- At the initial adjustment or after a change of the operator, always reduce the damping force of the suspension damper before starting the adjustment referring to "Adjusting hardness of suspension damper". If the damping force of the suspension damper is not reduced before starting adjustment of the seat height, the seat may slide down. If the seat slides down, try the weight adjustment again after reducing the damping force of the suspension damper. After the weight and height adjustment are completed, adjust the damping force of the suspension damper to the desired level.
- If the lever is not pushed down sufficiently for resetting, air may not be supplied automatically. If air is not supplied, pull lever (3) up fully (until it clicks) and release it, and air is supplied automatically for weight adjustment.
- To ensure correct weight adjustment, keep your body in the ordinary operating posture during adjustment (until automatic air supply is completed). If you rise from the seat or try to change the load to the seat while air is supplied automatically, the air in the suspension may be released.





(h)	Highest position	(m)	Automatic lowering range
(i)	Height adjustment upper limit	(n)	Automatic rising range
(j)	Height adjustment lower limit		
(k)	Lowest position		

(D) Adjusting seat height
You can perform stepless adjustment of the seat height using pneumatic power.
When adjusting the seat height upward and downward, fully pull up lever (3) (until it clicks) and press down it respectively. Release the lever with the seat at the desired height.

MidWestTech | Komatsu WA470-7 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >