CEAM008703

Operation & Maintenance Manual

KOMATSU®

PC270LC-7L

HYDRAULIC EXCAVATOR

SERIAL NUMBERS PC270LC-7L A86001 and up

ENGINE 6D102E-2

March 2016

MidWestTech | Komatsu PC270LC-7L Hydraulic Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

INTRODUCTION

FOREWORD 0-2
SAFETY INFORMATION 0-3
Signal Words 0-3
Other Signal Words 0-3
INTRODUCTION 0-4
DIRECTIONS OF MACHINE 0-4
PRODUCT INFORMATION 0-5
Machine Serial Number Plate And Its Location 0-5
Engine Serial Number Plate And Its Location 0-5
Service Meter Location 0-6
Your Machine Serial Numbers And Distributor 0-6
TABLE OF CONTENTS 0-7

SAFETY

SAFETY LABELS 1-2
Position For Attaching Safety Labels 1-2
Safety Labels 1-3
SAFETY INFORMATION 1-9
Safety Rules 1-9
If Abnormalities Are Found 1-9
Working Wear And Personal Protective Items 1-9
Fire Extinguisher And First Aid Kit 1-9
Safety Equipment 1-9
Keep Machine Clean 1-10
Keep Operator's Compartment Clean 1-10
Leaving Operator's Seat With Lock 1-10
Handrails And Steps 1-11
Mounting And Dismounting 1-11
No Persons On Attachments 1-11
Burn Prevention 1-12
Hot Coolant 1-12
Hot Oil 1-12
Fire Prevention And Explosion Prevention 1-12
Fire Caused By Fuel Or Oil 1-12
Fire Caused By Accumulation Of Flammable Material. 1-13
Fire Coming From Electric Wiring 1-13
Fire Coming From Hydraulic Line 1-13
Explosion Caused By Lighting Equipment 1-13
Action If Fire Occurs 1-13
Windshield Washer Fluid 1-13
Falling Objects, Flying Objects And Intruding Objects Prevention 1-13
Attachment Installation 1-14
Attachment Combinations 1-14
Cab Widow Glass 1-14

MidWestTech | Komatsu PC270LC-7L Hydraulic Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

Unauthorized Modifications 1-14
Safety At Jobsite 1-14
Working On Loose Ground 1-15
Distance To High Voltage Cables 1-15
Ensure Good Visibility 1-16
Ventilation For Enclosed Area 1-16
Signalman's Signal And Signs 1-16
Emergency Exit From Operator's Cab 1-16
Asbestos Dust Hazard Prevention 1-16
SAFE MACHINE OPERATION 1-17
Starting Engine 1-17
Checks Before Starting Engine 1-17
Safety Rules For Starting Engine 1-17
Starting Engine In Cold Weather 1-17
OPERATION 1-18
Checks After Starting Engine, Before Operation 1-18
Safety Rules For Changing Machine Directions 1-18
Safety Rules For Traveling 1-19
Traveling On Slopes 1-19
Operations On Slopes 1-20
Prohibited Operations 1-21
Operations On Snow 1-22
Parking Machine 1-23
Transportation 1-24
Loading And Unloading 1-24
Shipping The Machine 1-25
Battery 1-26
Battery Hazard Prevention 1-26
Starting Engine With Booster Cables 1-27
Towing 1-28
Safety Rules For Towing 1-28
Lifting Objects With Bucket 1-29
Lifting Work Using Bucket With Hook 1-29
Safety Rules For Lifting Objects 1-29
SAFETY MAINTENANCE INFORMATION 1-30
Warning Tag 1-30
Keep Work Place Clean And Tidy 1-30
Appoint Leader When Working With Others 1-30
Stop Engine Before Carrying Out Maintenance 1-31
Two Workers For Maintenance When Engine Is Running 1-32
Proper Tools 1-32
Accumulator 1-33
Personnel 1-34
Attachments 1-34
Noise 1-34
When Using Hammer 1-34
Welding 1-35
Removing Battery Terminals 1-35
Adjusting Track Tension 1-35

MidWestTech | Komatsu PC270LC-7L Hydraulic Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

Do Not Disassemble Recoil Springs 1-35
Safety Rules For High-pressure Oil 1-35
Safety Handling High-pressure Hoses 1-36
Waste Materials 1-36
Air Conditioner Maintenance 1-36
Compressed Air 1-36
Periodic Replacement Of Safety Critical Parts. 1-36

OPERATION

GENERAL VIEW 2-2
General View Of Machine 2-2
General View Controls And Gauges 2-3
EXPLANATION OF COMPONENTS 2-4
Machine Monitor 2-4
Basic Operation Of Machine Monitor 2-5
If There Is Abnormality When Starting Engine 2-5
If Any Abnormality Occurs During Operation 2-6
Basic Check Items 2-7
Radiator Coolant Level Monitor 2-7
Engine Oil Level Monitor 2-8
Maintenance Interval Monitor 2-8
Caution Items 2-9
Charge Monitor 2-9
Fuel Level Monitor 2-10
Air Cleaner Clogging Monitor 2-10
Engine Coolant Temperature Monitor 2-10
Hydraulic Oil Temperature Monitor 2-10
Emergency Stop Items 2-11
Engine Coolant Temperature Monitor 2-11
Hydraulic Oil Temperature Monitor 2-12
Engine Oil Pressure Monitor 2-12
Meter Display Portion 2-13
Pilot Display 2-13
Gauges and Meters 2-15
Monitor Switches 2-17
Working Mode Selector Switch (Basic Switch) 2-18
Auto-deceleration Switch 2-19
Travel Speed Selector Switch 2-20
Wiper Switch 2-21
Window Washer Switch 2-21
Maintenance Switch 2-22
Select Switch 2-24
Back Switch 2-25
Up Switch, Down Switch 2-25
Input Confirmation Switch 2-25
Liquid Crystal Monitor Adjustment Switch 2-26
Switches 2-28
Starting Switch 2-28

MidWestTech | Komatsu PC270LC-7L Hydraulic Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

Work Equipment Control Lever

(with auto-deceleration device)

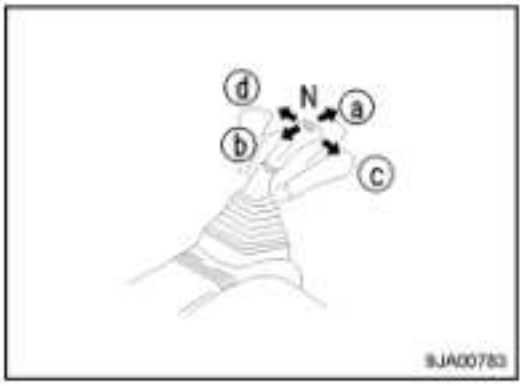
This Left work equipment control lever (3) is used to operate the arm and upper structure.

Arm operation / Swing operation

(a) Arm OUT
(b) Arm IN

(c) Swing to right
(d) Swing to left

N (Neutral):The upper structure and arm are held in position and do not move.



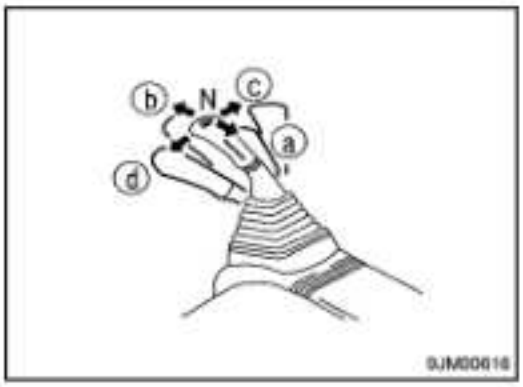
This Right work equipment control lever (4) is used to operate the boom and bucket.

Boom operation / Bucket operation

(a) RAISE
(b) LOWER

(c) DUMP
(d) CURL

N (Neutral):The boom and bucket are held in position and do not move.



Remark

The engine speed for all control levers (travel, work equipment, attachment) is changed as follows by the auto-deceleration mechanism.

When the travel lever and work equipment control levers are at the neutral position, even if the fuel control dial is above midrange speed, the engine speed will go down to a midrange speed. If one of these levers is operated, the engine speed will rise to the speed set by the fuel control dial.

If all the control levers are at the neutral position, the engine speed goes down approximately 100 rpm, then after approximately 4 seconds, the engine speed goes down to the deceleration speed (approximately 1400 rpm).

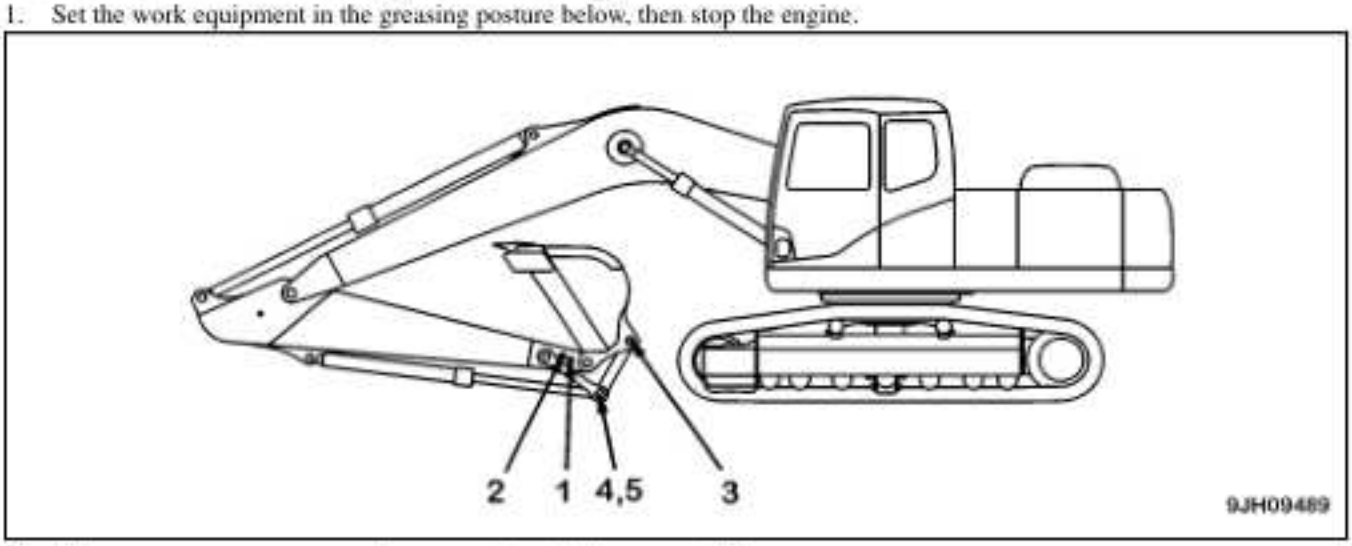
MidWestTech | Komatsu PC270LC-7L Hydraulic Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

Every 100 Hours Maintenance

Lubricating

Bucket With 100 Hour Greasing Interval Bushing

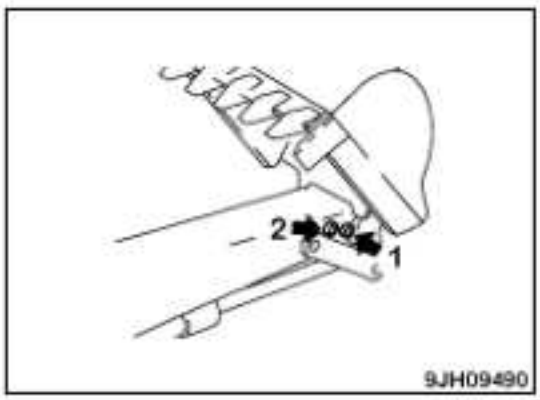
1. Set the work equipment in the greasing posture below, then stop the engine.



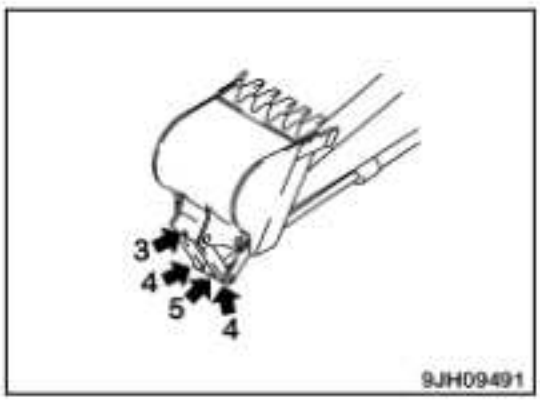
2. Using a grease pump, pump in grease through the grease fittings shown.
3. After greasing, wipe off any old grease that was pushed out.

Locations

1. Arm - Bucket coupling pin (1 place).
2. Arm - Link coupling pin (1 place).



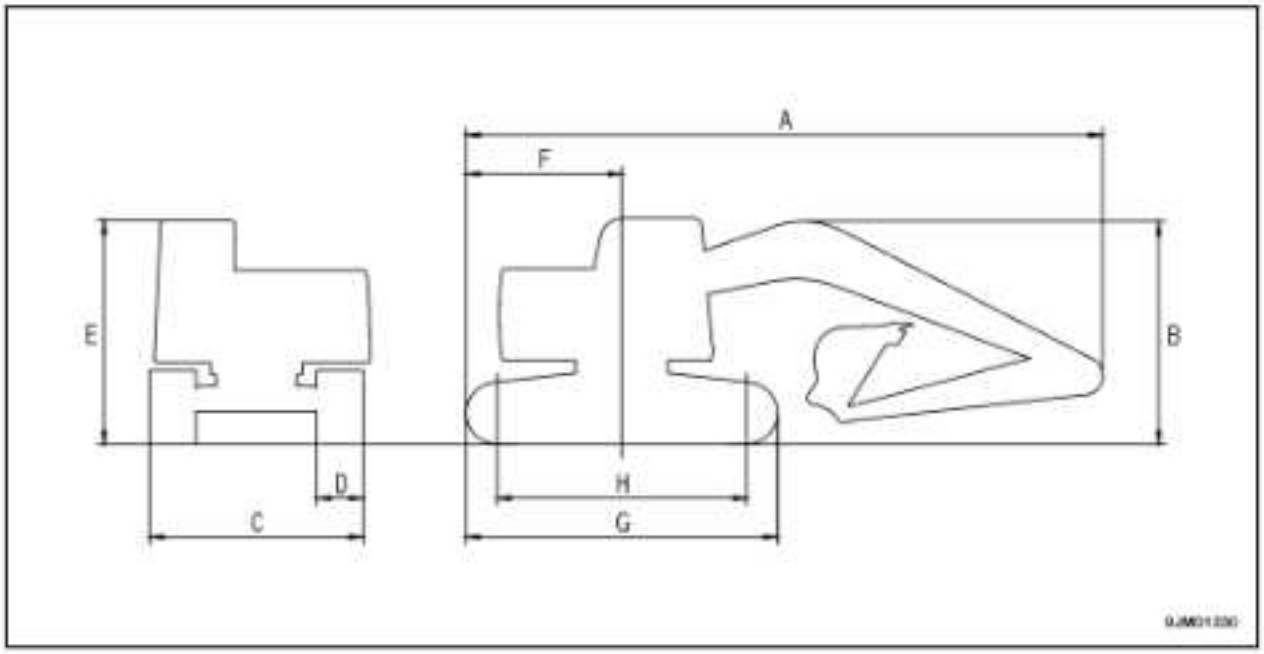
3. Bucket-Link coupling pin (1 place).
4. Link coupling pin (2 places).
5. Bucket cylinder rod end (1 place).



MidWestTech | Komatsu PC270LC-7L Hydraulic Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >

SPECIFICATIONS

	Item	Unit	PC270LC-7L
	Operating weight	kg (lb)	28,500 (62,830)
	Bucket capacity	m3 (yd^3)	1.3 (1.63)
	Name of engine		KOMATSU SAA6D102E-2 diesel engine
	Engine horsepower	kW (HP)/rpm	134 (178)/2050
A	Overall length	mm (ft in)	9,790 (32' 1")
B	Overall height	mm (ft in)	3,210 (10' 6")
C	Overall width	mm (ft in)	3,290 (10' 9")
D	Track width	mm (ft in)	700 (2' 2")
E	Height of cab	mm (ft in)	3,100 (10' 2")
F	Radius of upper structure	mm (ft in)	2,940 (9' 8")
G	Length of track	mm (ft in)	4,955 (15' 3")
H	Tumbler center distance	mm (ft in)	4,030 (13' 3")
	Min. ground clearance	mm (ft in)	498 (1' 8")
	Travel speed (Low/Medium/High)	km/h (mph)	3.0/4.1/5.5 (1.9/2.5/3.4)
	Swing speed	rpm	10.5



MidWestTech | Komatsu PC270LC-7L Hydraulic Excavator Operation & Maintenance Manua... Order the manual at mid-west-tech.com >