SEAM039401T

Operation & Maintenance Manual

KOMATSU®

PC228US-3

PC228USLC-3

HYDRAULIC EXCAVATOR

SERIAL NUMBERS PC228US-3 -20001 and up
PC228USLC-3

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CONTENTS

FOREWORD

FOREWORD 1-2

SAFETY INFORMATION 1-5

INTRODUCTION 1-7
DIRECTIONS OF MACHINE 1-7

PRODUCT INFORMATION 1-8
MACHINE SERIAL NUMBER PLATE AND ITS LOCATION 1-8
ENGINE SERIAL NUMBER PLATE AND ITS LOCATION 1-8
SERVICE METER LOCATION 1-9
YOUR MACHINE SERIAL NUMBERS AND DISTRIBUTOR 1-9

CONTENTS 1-10

SAFETY

SAFETY INFORMATION 2-2

POSITION FOR ATTACHING SAFETY LABELS 2-4
POSITION FOR ATTACHING SAFETY LABELS 2-4
SAFETY LABELS 2-5

SAFETY INFORMATION 2-10

SAFETY MACHINE OPERATION 2-19
STARTING ENGINE 2-19
OPERATION 2-21
TRANSPORTATION 2-27
BATTERY 2-29
TOWING 2-31
LIFTING OBJECTS WITH BUCKET 2-32

SAFETY MAINTENANCE INFORMATION 2-33

OPERATION

GENERAL VIEW 3-2
GENERAL VIEW OF MACHINE 3-2
GENERAL VIEW CONTROLS AND GAUGES 3-3

EXPLANATION OF COMPONENTS 3-4
MACHINE MONITOR 3-4

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BASIC CHECK ITEMS ... 3-5
SWITCHES ... 3-17
CONTROL LEVERS, PEDALS ... 3-23
FRONT WINDOW ... 3-28
SLIDING DOOR ... 3-34
ASHTRAY ... 3-34
CONTROLLER (COMPUTER) ... 3-34
REAR UNDERVIEW MIRROR ... 3-35
HAMMER FOR EMERGENCY ESCAPE ... 3-35
CAP, COVER WITH LOCK ... 3-36
HOT AND COOL BOX ... 3-37
HANDLING AIR CONDITIONER ... 3-38
CAR RADIO ... 3-44
FUSE ... 3-49
FUSIBLELINK ... 3-50
TOOL BOX ... 3-51
GREASE GUN HOLDER ... 3-51
HANDLING ACCUMULATOR ... 3-52

MACHINE OPERATIONS AND CONTROLS ... 3-53
BEFORE STARTING ENGINE ... 3-53
STARTING ENGINE ... 3-67
AFTER STARTING ENGINE ... 3-71
IN COLD AREAS (AUTOMATIC WARMING-UP OPERATION) ... 3-74
STOPPING THE ENGINE ... 3-77
CHECK AFTER SHUT OFF ENGINE ... 3-77
MACHINE OPERATION ... 3-78
STEERING THE MACHINE ... 3-82
SWINGING ... 3-84
WORK EQUIPMENT CONTROLS AND OPERATIONS ... 3-85
OPERATING WORKING MODE ... 3-87
PROHIBITED OPERATIONS ... 3-88
GENERAL OPERATION INFORMATION ... 3-90
TRAVELING ON SLOPES ... 3-91
ESCAPE FROM MUD ... 3-93
RECOMMENDED APPLICATIONS ... 3-94
REPLACEMENT AND INVERSION OF BUCKET ... 3-96
PARKING MACHINE ... 3-99
CHECK AFTER FINISHING WORK ... 3-100
LOCKING ... 3-101
HANDLING ROAD LINER ... 3-102

TRANSPORTATION ... 3-105
TRANSPORTATION PROCEDURE ... 3-105
LOADING AND UNLOADING WITH TRAILER ... 3-106
LIFTING MACHINE ... 3-115

COLD WEATHER OPERATION ... 3-117

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COLD WEATHER OPERATION INFORMATION 3-117
AFTER DAILY WORK COMPLETION 3-119
AFTER COLD WEATHER SEASON 3-120

LONG TERM STORAGE 3-121
BEFORE STORAGE 3-121
DURING STORAGE 3-121
AFTER STORAGE 3-122

TROUBLESHOOTING 3-123
AFTER RUNNING OUT OF FUEL 3-123
PHENOMENA THAT ARE NOT FAILURES 3-123
TOWING THE MACHINE 3-124
LIGHTWEIGHT TOWING HOOK 3-124
PRECAUTIONS ON PARTICULAR JOBSITES 3-125
DISCHARGED BATTERY 3-126
OTHER TROUBLE 3-130

MAINTENANCE

MAINTENANCE INFORMATION 4-2

LUBRICANTS, COOLANT AND FILTERS 4-5
OUTLINE OF OIL, FUEL, COOLANT 4-5
ELECTRIC SYSTEM MAINTENANCE 4-7
HANDLING HYDRAULIC SYSTEM 4-7

WEAR PARTS LIST 4-9

USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE 4-10
PROPER SELECTION OF FUEL, COOLANT AND LUBRICANTS 4-10

TIGHTENING TORQUE SPECIFICATIONS 4-14
TIGHTENING TORQUE LIST 4-14

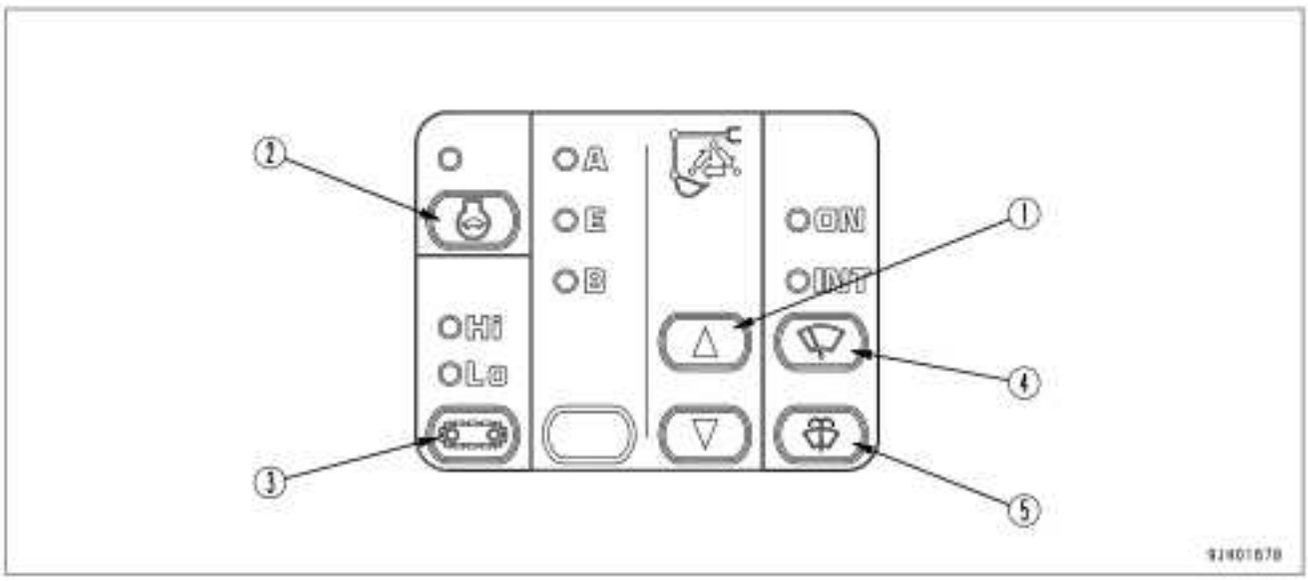
PERIODIC REPLACEMENT OF SAFETY CRITICAL PARTS 4-15
SAFETY CRITICAL PARTS 4-15

MAINTENANCE SCHEDULE 4-16
MAINTENANCE SCHEDULE CHART 4-16
MAINTENANCE INTERVAL FOR HYDRAULIC BREAKER 4-18

MAINTENANCE PROCEDURE 4-19
INITIAL 250 HOURS MAINTENANCE (ONLY AFTER THE FIRST 250 HOURS) 4-19
WHEN REQUIRED 4-20
CHECK BEFORE STARTING 4-43
EVERY 100 HOURS MAINTENANCE 4-44
EVERY 250 HOURS MAINTENANCE 4-46
EVERY 500 HOURS MAINTENANCE 4-53

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MONITOR SWITCHES



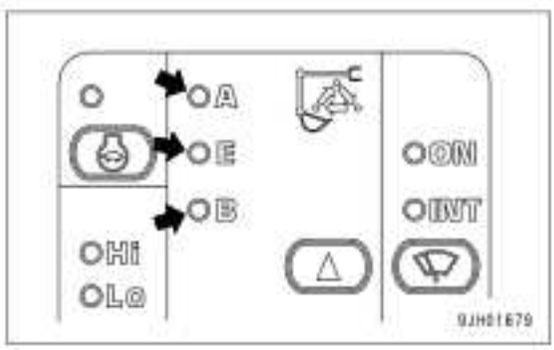
(1) Working mode selector switch (basic switch)
(2) Auto-deceleration switch (selection switch)
(3) Travel speed switch
(4) Wiper switch
(5) Window washer switch

WORKING MODE SELECTOR SWITCH (BASIC SWITCH)

This switch (1) is used to set the power and movement of the work equipment.

Operations can be carried out more easily by selecting the mode to match the type of operation.

A lights up: For heavy-load operations
E lights up: For operations with emphasis on fuel economy
B lights up: For breaker operations



- When starting the engine, the A mode is automatically set. Each time the switch is pressed, the next mode can be selected.
- When starting the engine, if it is desired to set the E or B mode automatically (default option setting), please contact your Komatsu distributor for adjustment.

NOTICE
When using the breaker, do not use A mode. There is danger that the breaker may be damaged.

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TIGHTENING TORQUE SPECIFICATIONS

TIGHTENING TORQUE LIST

⚠ CAUTION

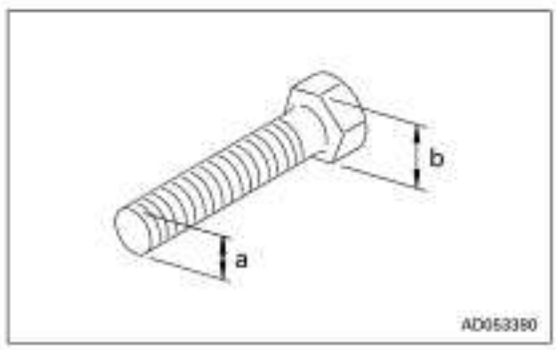
If nuts, bolts, or other parts are not tightened to the specified torque, it will cause looseness or damage to the tightened parts, and this will cause failure of the machine or problems with operation.
Always pay careful attention when tightening parts.

Unless otherwise specified, tighten the metric nuts and bolts to the torque shown in the table below.

The tightening torque is determined by the width across the flats of the nut and bolt.

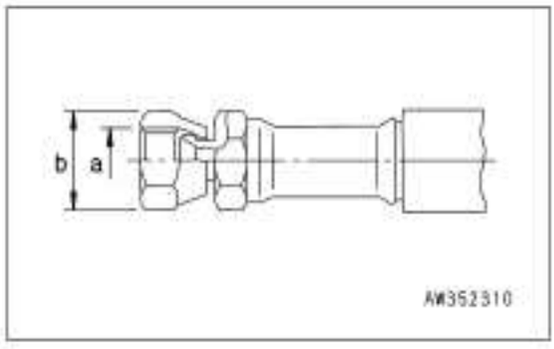
If it is necessary to replace any nut or bolt, always use a Komatsu genuine part of the same size as the part that was replaced.

Thread diameter a(mm)	Width across flat b(mm)	Tightening torque					
		Target value			Service limit		
		N·m	kgf·m	lbft	N·m	kgf·m	lbft
8	10	13.2	1.35	9.8	11.8 - 14.7	1.2 - 1.5	8.7 - 10.8
8	13	31	3.2	23.1	27 - 34	2.8 - 3.5	20.3 - 25.3
12	17	68	6.7	49.5	59 - 74	6.0 - 7.5	43.4 - 54.3
12	19	11	11.5	83.3	98 - 123	10.0 - 12.5	72.3 - 90.4
14	22	177	18	130.2	157 - 196	16.0 - 20.0	115.7 - 144.7
16	24	279	28.5	206.1	245 - 309	25.0 - 31.5	180.8 - 227.8
16	27	382	39	282.1	343 - 425	35.0 - 43.5	253.2 - 314.6
20	30	549	56	405.0	490 - 608	50.0 - 62.0	361.7 - 448.4
22	32	745	76	549.7	662 - 829	67.5 - 84.5	488.2 - 611.2
24	36	927	94.5	683.5	824 - 1033	84.0 - 105.0	607.6 - 759.5
27	41	1320	135.0	979.5	1180 - 1470	120.0 - 150.0	868.0 - 1085.0
30	46	1720	175.5	1268.8	1530 - 1910	155.0 - 195.0	1121.1 - 1410.4
33	50	2210	225.5	1627.4	1960 - 2450	200.0 - 250.0	1446.9 - 1808.3
36	55	2750	280.5	2025.2	2450 - 3040	250.0 - 310.0	1808.3 - 2242.2
39	60	3280	335.0	2423.1	2890 - 3630	295.0 - 370.0	2133.7 - 2676.2



Apply the following table for Hydraulic Hose.

Thread diameter a(mm)	Width across flat b(mm)	Tightening torque					
		Target value			Service limit		
		N·m	kgf·m	lbft	N·m	kgf·m	lbft
14	19	29.4	3.0	21.7	27.5 - 39.2	2.8 - 4.0	20.3 - 28.9
18	24	78.5	8.0	57.3	58.8 - 98.1	6.0 - 10.0	43.4 - 72.3
22	27	117.7	12.0	86.8	88.3 - 137.3	9.0 - 14.0	65.1 - 101.3
24	32	147.1	15.0	108.5	117.7 - 176.5	12.0 - 18.0	86.8 - 130.2
30	36	215.7	22.0	159.1	176.5 - 245.2	18.0 - 25.0	130.2 - 180.8
33	41	255.0	26.0	188.1	215.7 - 284.4	22.0 - 29.0	159.1 - 209.8



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EVERY 250 HOURS MAINTENANCE

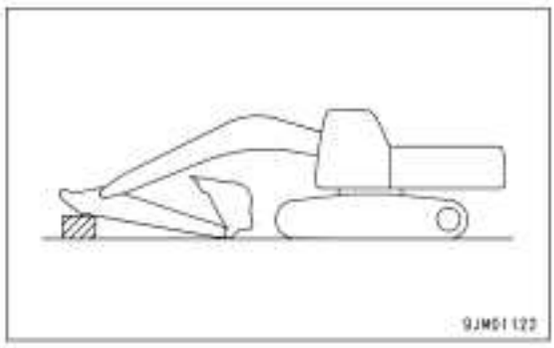
Maintenance for every 100 hours service should be carried out at the same time.

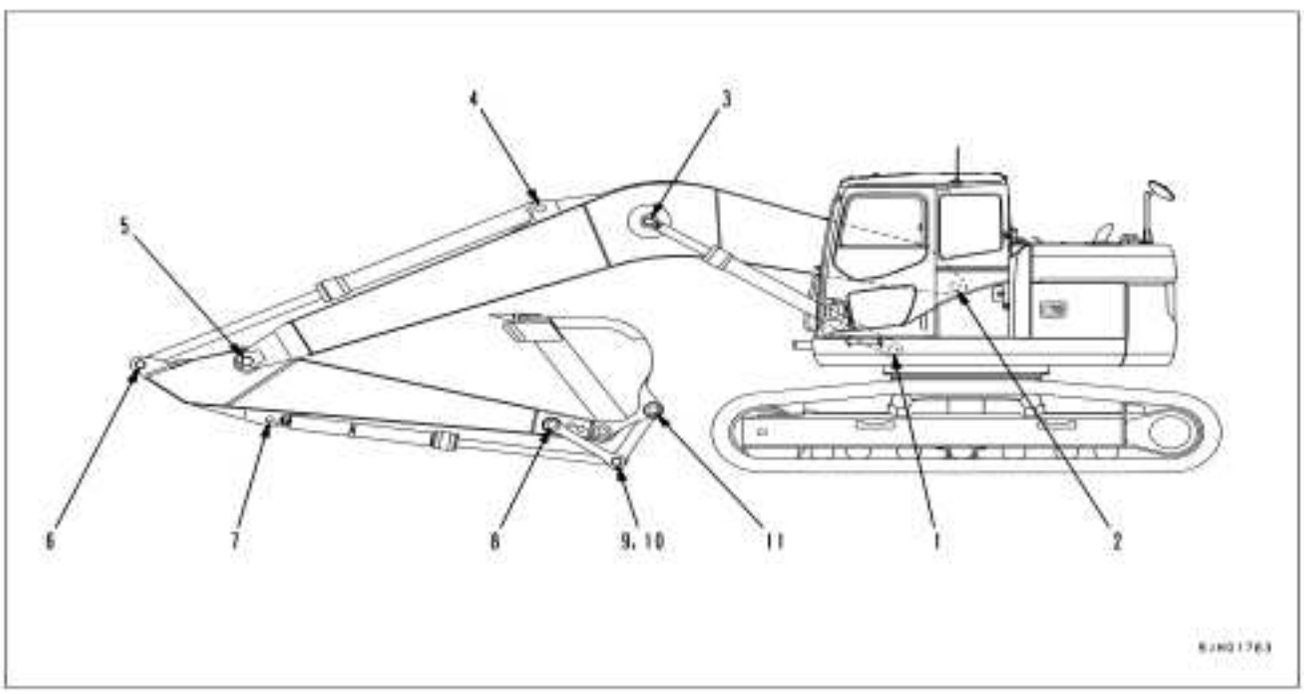
LUBRICATING

NOTICE

- **If any abnormal noise is generated from any greasing point, carry out greasing regardless of the greasing interval.**
- **Carry out greasing every 10 hours for the first 100 hours on a new machine.**
- **After the machine was subjected to jobs in the water, be sure to grease the wet pins.**

1. Set the work equipment in the greasing posture below, then lower the work equipment to the ground and stop the engine.
2. Using a grease pump, pump in grease through the grease fittings shown by arrows.
3. After greasing, wipe off any old grease that was pushed out.
4. After greasing, move the boom up and down several times and then grease the first boom foot pin at two places again.





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