CEBM009500

Shop Manual

KOMATSU®

avance

PC300LL-6

LOGGING EXCAVATOR

SERIAL NUMBERS **PC300LL-6** **A84001** and UP

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GRADE 5 AND 8 NON-PHOSPHATE COATED HARDWARE

Recommended torque for all standard application nuts and bolts, provided; all thread surfaces are clean and lubricated with SAE-30 engine oil or joints are rigid, that is, no gaskets or compressible materials are used. When reusing nuts or bolts, use minimum torque values.

THREAD	GRADE 5	
	N·m	lbf ft
1/4NC	8	6
1/4NF	9	7
5/16NC	18	13
5/16NF	20	15
3/8NC	33	24
3/8NF	37	27
7/16NC	52	38
7/16NF	57	42
1/2NC	79	58
1/2NF	88	65
9/16NC	114	84
9/16NF	126	93
5/8NC	156	115
5/8NF	175	130
3/4NC	278	205
3/4NF	312	240
7/8NC	414	305
7/8NF	454	334
1NC	617	455
1NF	691	510
1-1/8NC	827	610
1-1/8NF	929	685
1-1/4NC	1166	860
1-1/4NF	1295	955
1-3/8NC	1532	1130
1-3/8NF	1749	1290
1-1/2NC	2034	1400
1-1/2NF	2291	1690
1-3/4NC	3213	2370
2NC	4813	3550

THREAD	GRADE 8	
	N·m	lbf ft
1/4NC	12	9
1/4NF	15	11
5/16NC	24	18
5/16NF	28	21
3/8NC	46	34
3/8NF	52	38
7/16NC	73	54
7/16NF	81	60
1/2NC	111	82
1/2NF	122	90
9/16NC	163	120
9/16NF	179	132
5/8NC	224	165
5/8NF	251	185
3/4NC	393	290
3/4NF	434	320
7/8NC	617	455
7/8NF	698	515
1NC	942	695
1NF	1064	785
1-1/8NC	1342	990
1-1/8NF	1505	1110
1-1/4NC	1898	1400
1-1/4NF	2102	1550
1-3/8NC	2481	1830
1-3/8NF	2827	2085
1-1/2NC	3295	2430
1-1/2NF	3701	2730
1-3/4NC	5166	3810
2NC	7810	5760

Multiply the standard torque by 0.65 when finished jam nuts are used, 0.7 when molykote, white lead or similar mixture are used as lubricants, 0.75 when parkerized bolts or nuts are used, 0.85 when cadmium plated bolts or nuts and zinc bolts with waxed zinc nuts are used or 0.9 when hardened surfaces are used under the nut or bolt head. The general torque must be used in all cases where special torques are not given. Values listed in this manual are lubricated (wet) threads; values should be increased 1/3 for non lubricated (dry) threads.

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GENERAL

This shop manual has been prepared as an aid to improve the quality of repairs by giving the serviceman an accurate understanding of the product and by showing him the correct way to perform repairs and make judgements. Make sure you understand the contents of this manual and use it to full effect at every opportunity.

This shop manual mainly contains the necessary technical information for operations performed in a service workshop. For ease of understanding, the manual is divided into the following sections. These sections are further divided into each main group of components.

GENERAL

This section lists the general machine dimensions, performance specifications, component weights, and fuel, coolant and lubricant specification charts.

STRUCTURE AND FUNCTION

This section explains the structure and function of each component. It serves not only to give an understanding of the structure, but also serves as reference material for troubleshooting.

TESTING, ADJUSTING AND TROUBLESHOOTING

This section explains checks to be made before and after performing repairs, as well as adjustments to be made at completion of the checks and repairs. Troubleshooting charts correlating "Problems" to "Causes" are also included in this section.

DISASSEMBLY AND ASSEMBLY

This section explains the order to be followed when removing, installing, disassembling or assembling each component, as well as precautions to be taken for these operations.

MAINTENANCE STANDARD

This section gives the judgement standards when inspecting disassembled parts.

NOTICE

The specifications contained in this shop manual are subject to change at any time and without any advance notice. Contact your distributor for the latest information.

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ELECTRIC WIRE CODE

In the wiring diagrams, various colors and symbols are employed to indicate the thickness of wires. This wire code table will help you understand WIRING DIAGRAMS.
Example: 05WB indicates a cable having a nominal number 05 and white coating with black stripe.

CLASSIFICATION BY THICKNESS

Nominal number	Copper wire			Cable O.D. (mm)	Current rating (A)	Applicable circuit
	Number of strands	Dia. Of strand (mm)	Cross section (mm)			
0.85	11	0.32	0.88	2.4	12	Starting, lighting, signal etc.
2	26	0.32	2.09	3.1	20	Lighting, signal etc.
5	65	0.32	5.23	4.6	37	Charging and signal
15	84	0.45	13.36	7.0	59	Starting (Glow plug)
40	85	0.80	42.73	11.4	135	Starting
60	127	0.80	63.84	13.6	178	Starting
100	217	0.80	109.1	17.6	230	Starting

CLASSIFICATION BY COLOR AND CODE

Priority	Circuits Classification		Charging	Ground	Starting	Lighting	Instrument	Signal	Other
1	Primary	Code	W	B	B	R	Y	G	L
		Color	White	Black	Black	Red	Yellow	Green	Blue
2	Auxiliary	Code	WR	—	BW	RW	YR	GW	LW
		Color	White & Red	—	Black & White	Red & White	Yellow & Red	Green & White	Blue & White
3		Code	WB	—	BY	RB	YB	GR	LR
		Color	White & Black	—	Black & Yellow	Red & Black	Yellow & Black	Green & Red	Blue & Red
4		Code	WL	—	BR	RY	YG	GY	LY
		Color	White & Blue	—	Black & Red	Red & Yellow	Yellow & Green	Green & Yellow	Blue & Yellow
5		Code	WG	—	—	RG	YL	GB	LB
		Color	White & Green	—	—	Red & Green	Yellow & Blue	Green & Black	Blue & Black
6		Code	—	—	—	RL	YW	GL	—
		Color	—	—	—	Red & Blue	Yellow & White	Green & Blue	—

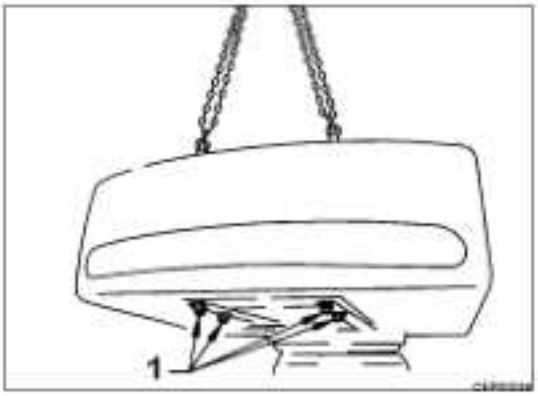
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COUNTERWEIGHT

REMOVAL

1. Set lifting chain hooks to lifting eyes of counterweight and remove slack.
2. Remove mounting bolts (1).
   ★ Check the location of the shims.
3. Lift off counterweight (2). #1

kg Counterweight: PC300LL ..... 8,182 kg



INSTALLATION

● Carry out installation in the reverse order of removal.

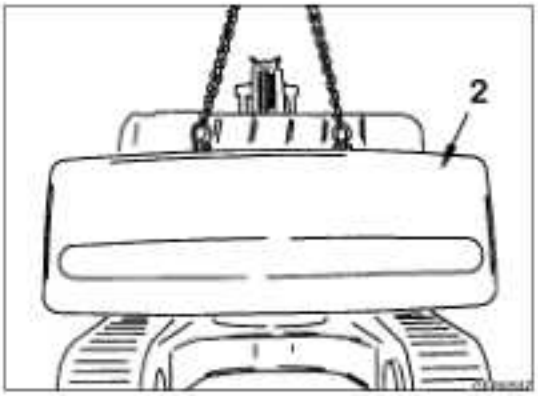
#1

★ Adjust the stepped difference [top and bottom clearance] from the bodywork with shims.

★ Install so that the clearance between the door and counterweight and the clearance between the revolving frame and the counterweight are a uniform 10 ± 5 mm.

Thread of mounting bolt: ..... Thread tightener (LT-2)

kg Mounting bolt: ..... 1,814 ± 98.1 Nm



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