CEBM007102

Shop Manual

KOMATSU®

WA470-6
WA480-6

WHEEL LOADER

SERIAL NUMBERS

WA470-6	A45001 to A45999
WA480-6	A47001 to A47999

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( )	50-900 5		❍	00-2-29	②	❍	00-34	②	❍	10-15	②
( )	50-900 6		❍	00-2-30	②	❍	00-35	②	❍	10-16	②
			❍	00-3	②	❍	00-36	②	❍	10-17	②
❍	00-1	②	❍	00-4	②	❍	00-37	②	❍	10-18	②
❍	00-2	②	❍	00-5	②	❍	00-38	②	❍	10-19	②
❍	00-2-1	②	❍	00-6	②				❍	10-20	②
❍	00-2-2	②	❍	00-7	②	❍	01-1	②	❍	10-21	②
❍	00-2-3	②	❍	00-8	②	❍	01-2	②	❍	10-22	②
❍	00-2-4	②	❍	00-9	②	❍	01-3	②	❍	10-23	②
❍	00-2-5	②	❍	00-10	②	❍	01-4	②	❍	10-24	②
❍	00-2-6	②	❍	00-11	②	❍	01-5	②	❍	10-25	②
❍	00-2-7	②	❍	00-12	②	❍	01-6	②	❍	10-26	②
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❍	10-62	②	❍	10-95	②	❍	10-128	②	❍	10-161	②
❍	10-63	②	❍	10-96	②	❍	10-129	②	❍	10-162	②
❍	10-64	②	❍	10-97	②	❍	10-130	②	❍	10-163	②
❍	10-65	②	❍	10-98	②	❍	10-131	②	❍	10-164	②
❍	10-66	②	❍	10-99	②	❍	10-132	②	❍	10-165	②
❍	10-67	②	❍	10-100	②	❍	10-133	②	❍	10-166	②
❍	10-68	②	❍	10-101	②	❍	10-134	②	❍	10-167	②
❍	10-69	②	❍	10-102	②	❍	10-135	②	❍	10-168	②
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❍	10-180	②	❍	10-213	②	❍	10-246	②	❍	10-279	②
❍	10-181	②	❍	10-214	②	❍	10-247	②	❍	10-280	②
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❍	10-186	②	❍	10-219	②	❍	10-252	②	❍	10-285	②
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❍	10-190	②	❍	10-223	②	❍	10-256	②	❍	10-289	②
❍	10-191	②	❍	10-224	②	❍	10-257	②	❍	10-290	②
❍	10-192	②	❍	10-225	②	❍	10-258	②	❍	10-291	②
❍	10-193	②	❍	10-226	②	❍	10-259	②	❍	10-292	②
❍	10-194	②	❍	10-227	②	❍	10-260	②	❍	10-293	②
❍	10-195	②	❍	10-228	②	❍	10-261	②	❍	10-294	②
❍	10-196	②	❍	10-229	②	❍	10-262	②	❍	10-295	②
❍	10-197	②	❍	10-230	②	❍	10-263	②	❍	10-296	②
❍	10-198	②	❍	10-231	②	❍	10-264	②	❍	10-297	②
❍	10-199	②	❍	10-232	②	❍	10-265	②	❍	10-298	②
❍	10-200	②	❍	10-233	②	❍	10-266	②	❍	10-299	②
❍	10-201	②	❍	10-234	②	❍	10-267	②	❍	10-300	②
❍	10-202	②	❍	10-235	②	❍	10-268	②	❍	10-301	②

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WEIGHT TABLE

WARNING! This weight table is prepared for your reference when handling or transporting components.

Unit: kg (lb)

Machine model	WA470-6	WA480-6
Serial No.	A45001 to A45999	A47001 to A47999
Engine (excluding coolant and oil)	1,280 (2822)	1,280 (2822)
Cooling assembly (excluding coolant and oil) • Radiator (1 piece) • Aftercooler • Oil cooler	147 (324) 20 (44) 26 (57.3) 14 (30.8)	147 (324) 20 (44) 26 (57.3) 14 (30.8)
Torque converter oil cooler	25 (55)	25 (55)
Cooling fan pump	25 (55)	25 (55)
Cooling fan motor	14 (30.8)	14 (30.8)
Transmission (including torque converter) <Without lockup clutch> <With lockup clutch>	 1,148 (2531) 1,193 (2630)	 1,148 (2531) 1,193 (2630)
Center driver shaft	40 (88.2)	40 (88.2)
Front drive shaft	33 (72.7)	33 (72.7)
Rear drive shaft	20 (44)	22 (44)
Front axle <With conventional differential> <With limited slip differential>	 1,238 (2729) 1,250 (2756)	 1,283 (2828.5) 1,295 (2855)
Rear axle <With conventional differential> <With limited slip differential>	 1,168 (2575) 1,180 (2601)	 1,280 (2822) 1,340 (2854)
Axle pivot (rear axle)	144 (317.5)	144 (317.5)
Wheel <22.00-25WTB (1 piece)>	 251 (553)	 251 (553)
Tire <26.5-25-16PR (1 piece)> <26.5-25-20PR (1 piece)>	 404 (890.6) —	 — 421 (928)
Power train pump	20 (44)	20 (44)
Work equipment pump	103 (227)	103 (227)
Steering pump	40 (88.2)	40 (88.2)
Work equipment control valve	108 (238)	108 (238)
Work equipment PPC valve	4 (8.8)	4 (8.8)
Brake valve	7 (15.4)	7 (15.4)
Steering valve	24 (53)	24 (53)
Emergency steering motor	13 (28.6)	13 (28.6)
Emergency steering pump	3 (6.6)	3 (6.6)
Steering cylinder assembly (1 piece)	37 (81.5)	37 (81.5)
Lift cylinder assembly (1 piece)	185 (407.8)	196 (432.1)
Bucket cylinder assembly	206 (454.1)	264 (528)
Front frame	1,852 (4083)	1,972 (4347.5)
Rear frame	1,735 (3825)	1,735 (3825)
Counterweight	1,925 (4243.9)	3,025 (6669)
Engine hood assembly • Hood body • • Side door (1 piece) • Hydraulic tank (excluding hydraulic oil)	466 (1027) 295 (650.3) 37 (81.5) 171 (377)	466 (1027) 295 (650.3) 37 (81.5) 171 (377)
Fuel tank (excluding fuel)	211 (465.2)	211 (465.2)

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Information Contained in Troubleshooting Table

Action code Monitor display	Failure code Monitor display	Trouble	Problem that appears on machine
Contents of trouble	State where the monitor panel or controller detects the trouble		
Action of controller	Action taken by machine monitor or controller to protect system or devices when engine controller detects trouble		
Problem that appears on machine	Problem that appears on machine as result of action taken by machine monitor or controller (shown above)		
Related information	Information related to detected trouble or troubleshooting		

	Cause		Standard value in normal state/Remarks on troubleshooting
Possible causes and standard value in normal state	1 2 3 4	Possible causes of trouble is assumed to be detected (The order number indicates a serial number, not a priority sequence.)	<Described contents> • Standard value in normal state to judge assumed cause (good or not) • Remarks required to judge whether the cause is good <Phenomenon of defective wiring harness> • Disconnection in wiring The connector connection is defective or the wiring harness is disconnected. • Grounding fault A harness not connected to ground (earth) circuit comes into contact with the ground (earth) circuit. • Hot short circuit A harness not connected to the power (24 V) circuit comes into contact with the power (24 V) circuit. • Short circuit A harnesses of an independent circuit abnormally comes into contact with one of another circuit. <Notes on troubleshooting> (1) Method of indicating connector number and handling T-branch For troubleshooting, insert or connect T-branch adapter as shown below unless especially specified. • When "male" or "female" is not indicated for a connector number, disconnect the connector, and insert the T-branch adapter in both the male and female. • When "male" and "female" is indicated for a connector number, disconnect the connector, and insert the T-branch adapter in only either the male or female. (2) Pin number description sequence and tester lead handling For troubleshooting, connect the plus (+) and minus (–) leads as shown below unless especially specified. • Connect the plus (+) lead to a pin or harness indicated in the front. • Connect the minus (–) lead to a pin or harness indicated in the rear.

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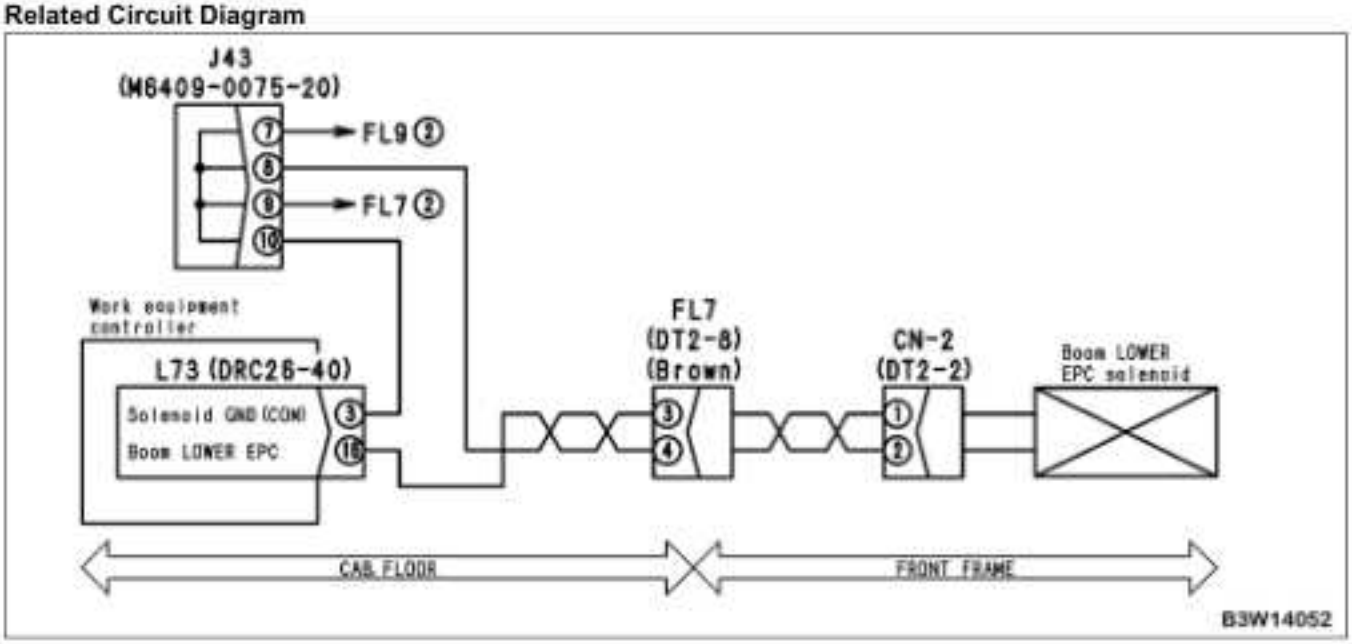
DW4QKA

Lift Arm Lower EPC Solenoid: Disconnection

Action code	Failure code	Trouble	Lift arm lower EPC solenoid: Disconnection (Work equipment controller system)
E03	DW4QKA		
Contents of trouble	• Since the lift arm lower EPC solenoid output signal system is disconnected, no current flows when the lift arm lower EPC solenoid output is ON.		
Action of controller	• Turns the centralized warning lamp and alarm buzzer ON. • Even if cause of failure disappears, system does not reset itself until starting switch is turned OFF once.		
Problem that appears on machine	• Lift arm does not lower.		
Related information	• The output state (current value) to the lift arm lower EPC solenoid can be checked with the monitoring function (Code: 41901, LOWER EPC DIR). • Method of reproducing failure code: Start engine and lower the lift arm.		

	Causes		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	1	Defective lift arm lower EPC solenoid (Internal disconnection)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			CN-2 (male)	Resistance	
			Between (1) and (2)	5 – 15 Ω	
	2	Disconnection in wiring harness (Disconnection in wiring harness or defective contact)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			Wiring harness between L73 (female) (16) – CN-2 (female) (1)	Resistance	Max. 1 Ω
			Wiring harness between L73 (female) (3) – CN-2 (female) (2)	Resistance	Max. 1 Ω
	3	Defective work equipment controller	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			L73 (female)	Resistance	
			Between (16) and (3)	5 – 15 Ω	

Related Circuit Diagram



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Electrical circuit diagram (2/10)

WA470-6, WA480-6

★ This figure covers the equipment and devices that are unavailable as optional items in some areas.



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