SEN00809-04

Shop Manual

KOMATSU®

GALEO

WA450-6
WA480-6

(KA SPEC.)
WHEEL LOADER

SERIAL NUMBERS **WA450-6** **66001 and up**

WA480-6 **85001 and up**

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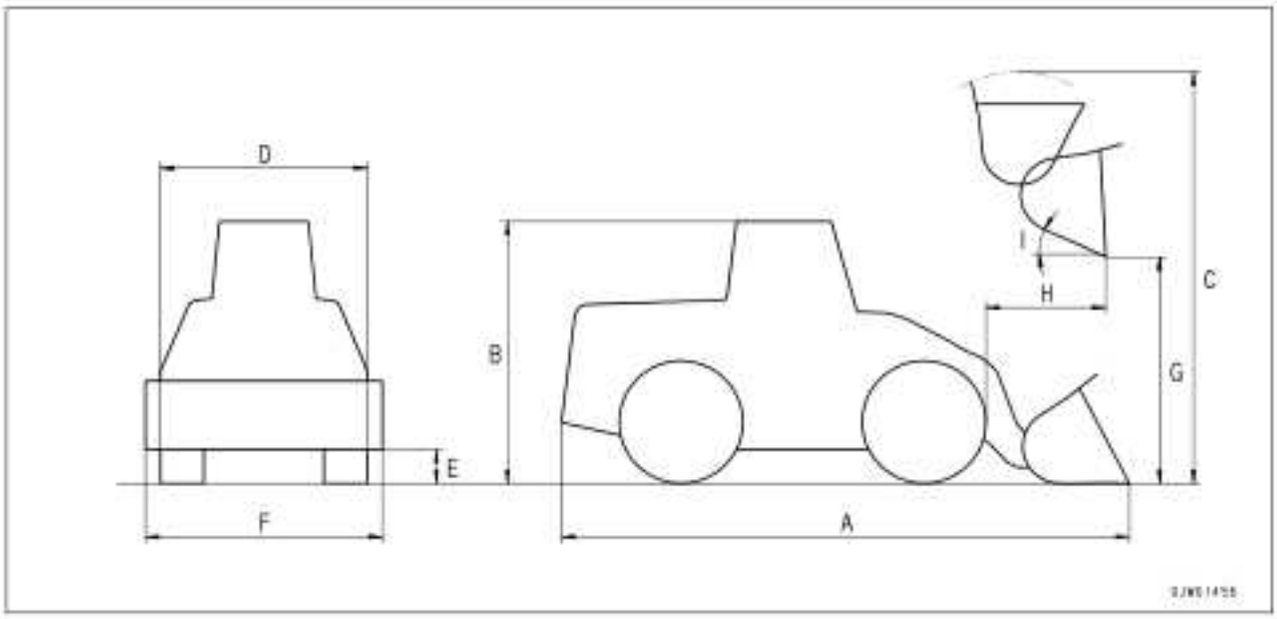
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Specification and technical data

Specification dimension drawing



	Check item		Unit	WA450-6 (In P-mode)	WA480-6 (In P-mode)
	Machine weight (With BOC)		kg	22,100	24,245
	Normal load		kN {kg}	65.9 {6,720}	76.7 {7,820}
	Bucket capacity (Heaped, with BOC)		m^3	4.2	4.6
	Engine model name		—	Komatsu SAA6D125E-5 Diesel engine	
	Engine rated output • Net [ISO 9249/SAE J1349] (*1) • Gross [SAE J1955] (*2)		kW {HP}/rpm	203 {272}/2,000 204 {273}/2,000	223 {299}/2,000 224 {300}/2,000
A	Overall length (with BOC)		mm	8,825	9,170
B	Overall height		mm	3,500	3,500
C	Overall height with bucket lifted up		mm	5,960	6,175
D	Overall width		mm	3,010	3,010
E	Minimum ground clearance		mm	525	525
F	Bucket width		mm	3,170	3,170
G	Dumping clearance	Bucket tip/BOC tip	mm	3,270/3,185	3,300/3,205
H	Dumping reach	Bucket tip/BOC tip	mm	1,190/1,235	1,370/1,410
I	Dumping angle		deg.	45	45
	Min. turning radius	Bucket tip/BOC tip	mm	7,610/7,640	7,670/7,700
		Center of outside tire	mm	6,630	6,630
	Tolerable drawbar pull load		kN{kg}	135 {13,720}	137 {13,930}
	Travel speed	1st (Forward/reverse)	km/h	6.3/6.7	6.3/6.6
		2nd (Forward/reverse)		12.1/12.8	12.2/12.9
		3rd (Forward/reverse)		21.7/23.0	21.7/22.9
		4th (Forward/reverse)		34.9/36.0	34.5/35.6

*1: Indicates the value at the minimum speed of cooling fan.
*2: Indicates the value of the engine alone (without cooling fan).

★ The engine rated output is indicated in the net value and gross value. Gross denotes the rated output measured of an independent engine. While, net denotes the value measured of an engine under the condition essentially the same as that when it is installed on machine.

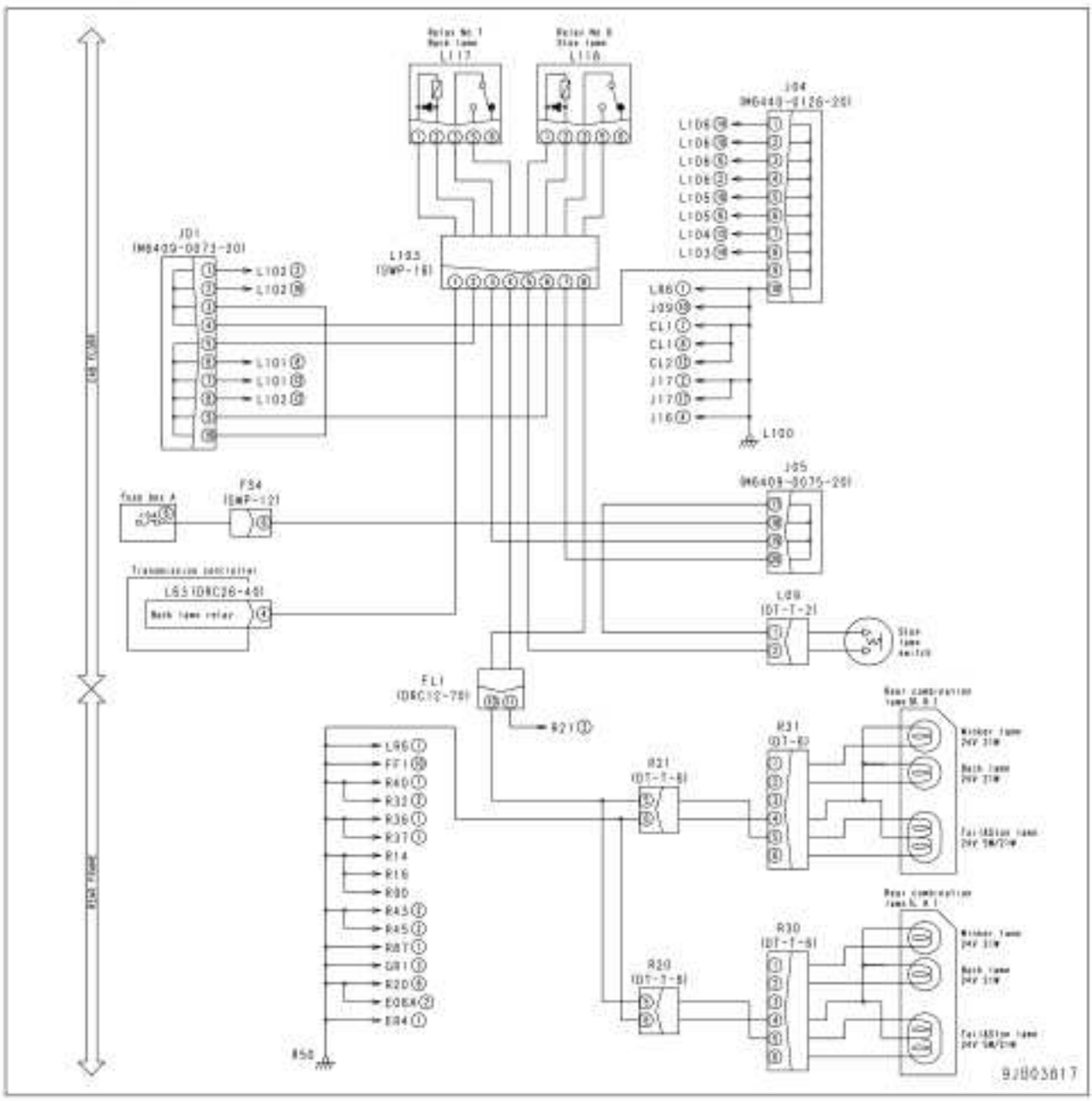
★ Following shows the rated output (net) at the maximum cooling fan speed.
WA450-6: 191 kW {256 HP}/2,000 rpm
WA480-6: 211 kW {283 HP}/2,000 rpm

★ BOC: Abbreviation for Bolt-On Cutting edge

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Possible causes and standard value in normal state	Causes		Standard value in normal state/Remarks on troubleshooting		
	7	Hot short in wiring harness (Contact with 24V circuit)	★ Prepare with starting switch OFF, then turn starting switch ON and carry out troubleshooting.		
			Wiring harness between L09 (female) (2) – L118 (female) (1) and chassis ground	Voltage	Max. 1 V
			Wiring harness between L118 (female) (5) – R30 (female) (5), – R31 (female) (5) and chassis ground	Voltage	Max. 1 V

Circuit diagram related to brake lamp



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S-6 Engine lacks output (or lacks power)

General causes why engine lacks output

- Insufficient intake of air
- Insufficient supply of fuel
- Fuel injection condition not normal
- Improper selection of fuel
- Overheating
  → See the troubleshooting for "S-14 Coolant temperature too high (Overheat)"
- Controller in derate control mode (Controlling injection capacity (output) due to an error in the electrical system)

			Cause																
			Clogged air cleaner element	Air leakage from air intake pipe	Seizure or interference of turbocharger	Defective contact of valve and valve seat	Improper valve clearance	Worn piston ring, cylinder liner	Clogged air breather hole in fuel tank cap	Leakage, clogging in fuel piping	Clogged fuel filter, strainer	Clogged feed pump gauze filter	Stuck or seized supply pump plunger	Clogged fuel injector, defective injection	Defective drive of injector (signal or solenoid)	Defective mounting of charge pressure sensor (air leak)	Defective charge pressure sensor or defective wiring harness	Defective fuel temperature sensor or defective wiring harness
Questions	Confirm recent repair history																		
	Degree of use of machine	Operated for long period	△			△		△			△	△							
	Power was lost	Suddenly		○											○	○	○		
		Gradually	○			○		○			○	○		○		○			
	Non-specified fuel is being used										○	○							
	Replacement of filters not carried out according to Operation & Maintenance Manual		○																
	Engine oil must be added more frequently					○	○	○											
Check items	Dust indicator is red (with indicator installed)		○																
	Clogged air breather hole in fuel tank cap								○										
	Leakage from fuel piping									○									
	Output reduces after a break																		○
	Color of exhaust gas	Black	○	○															
		Blue under light load			○														
	When exhaust manifold is touched immediately after starting engine, temperature of some cylinders is low													○					
	When engine is cranked, interfering noise is heard from around turbocharger			○															
	When engine is cranked, abnormal noise is heard from around cylinder head						○												
	High idle speed of engine is low														○				
	High idle speed under no load is normal, but speed suddenly drops when load is applied										○	○	○						
	Engine does not pick up smoothly, and combustion is irregular			○					○	○				○					
	There is hunting from engine (rotation is irregular)								○	○	○	○							
	Blow-by gas is excessive				○														
Troubleshooting	Inspect air cleaner directly		●																
	Inspect intake air piping directly			●															
	When boost pressure is measured, the oil pressure is low		●	●	●														
	When compression pressure is measured, the oil pressure is low					●		●											
	Inspect valve clearance directly						●												
	Inspect fuel filter, strainer directly										●								
	Inspect fuel feed pump gauze filter directly											●							
	Carry out troubleshoot by "Rail Press Very Low Error (*1)"												●						
	Speed of some cylinders does not change when operated in reduced cylinder mode													●	●				
	Check the mount of boost pressure sensor directly															●			
	Carry out troubleshoot by "Chg Air Press Sensor Error (*2)"																●		
	Carry out troubleshoot by "Fuel Temp Press Sensor Error (*3)"																		●
		Remedy	Clean	Correct	Replace	Replace	Adjust	Replace	Clean	Correct	Replace	Clean	Replace	Replace	Replace	Correct	Replace	Replace

*1: Troubleshooting by failure code (Display of code), Code [**CA559**], and Code [**CA2249**]
*2: Troubleshooting by failure code (Display of code), Code [**CA122**], and Code [**CA123**]
*3: Troubleshooting by failure code (Display of code), Code [**CA263**], and Code [**CA265**]

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Electrical diagrams and drawings

Electrical circuit diagram (1/2)

CAB AND FLOOR

FROM/TO OUTSIDE CAB DIAGRAM

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