Shop Manual

VEBM270100

WA90-5
WA100M-5
WHEEL LOADER

MODEL:	SERIAL NUMBER:
WA90-5	50051 AND UP
WA100M-5	50051 AND UP

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local KOMATSU distributor for those items you may require. Materials and specifications are subject to change without notice.
- The Wheel Loaders WA90-5 and WA100M-5 are equipped with the engine S4D95LE-3
  For details of this engine see Bulletin No. 3666418-00 (Cummins)

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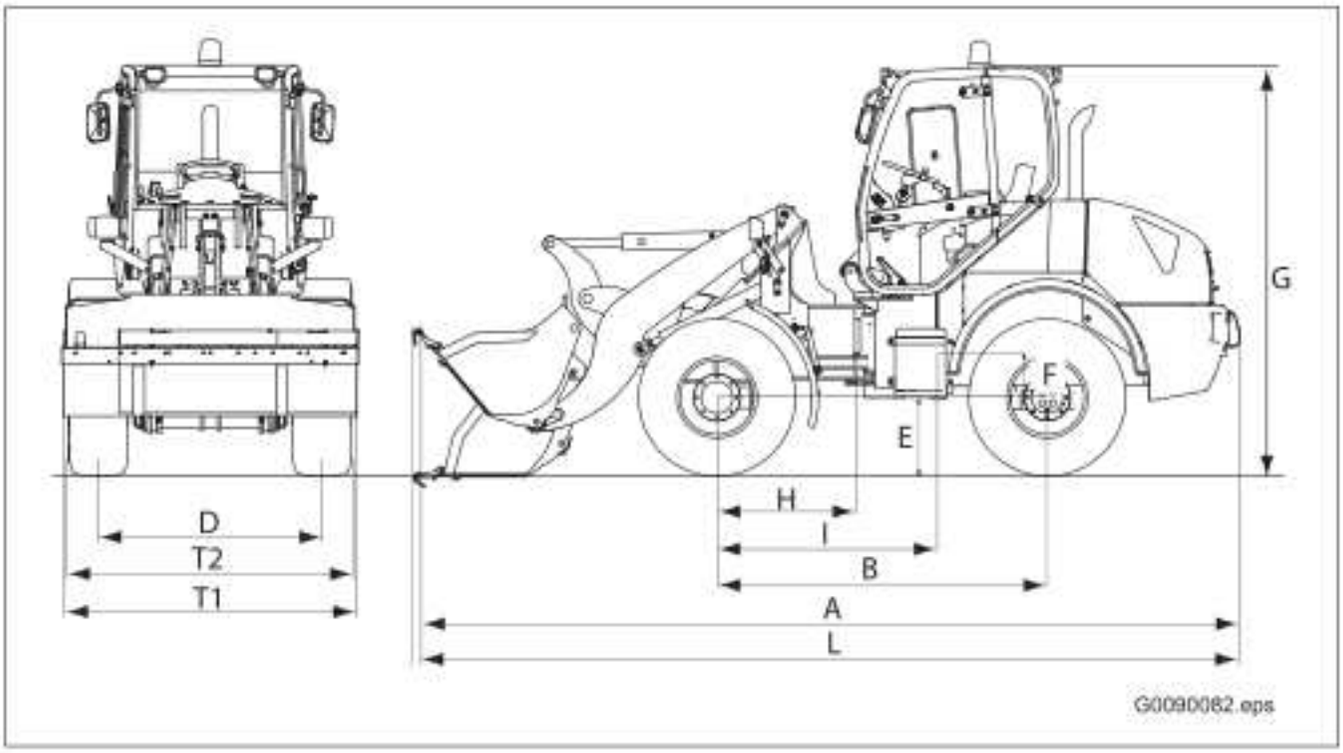
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Dimensions, weights and operating data WA100M-5



	Dimensions, weights and operating data			
	Bucket capacity to ISO 7546	m^3	1,2	
	Material density	t/m^3	1,8	
	Static tipping load, straight	kg	5530	
	Static tipping load, 40° angle	kg	4680	
	Working load without CTW	kg	2900	
	Working load with CTW	kg	3100	
	Breakout force, hydraulic	kN	66,1	
	Lifting capacity, hydraulic, on ground	kN	66,1	
	Operating weight	kg	6760	
	Turning radius over bucket	mm	4570	
L	Bucket length in transport position	mm	5715	with teeth 5645
A	Bucket length during planing	mm	5775	with teeth 5730
T1	Width with bucket	mm	2200	
T2	Width without bucket (above wheels)	mm	2090	
G	Height, including ROPS	mm	2850	
D	Track	mm	1635	405/70 R20 SPT9 tyres
B	Width over tyres	mm	2400	
H	Distance articulated steer. - front axle	mm	1200	
E	Ground clearance, axle /transfer gear ground clearance, drive shaft	mm mm	380 510	
F	Centre of gravity, height above axle centre	mm		CTW = additional counterweight

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Troubleshooting

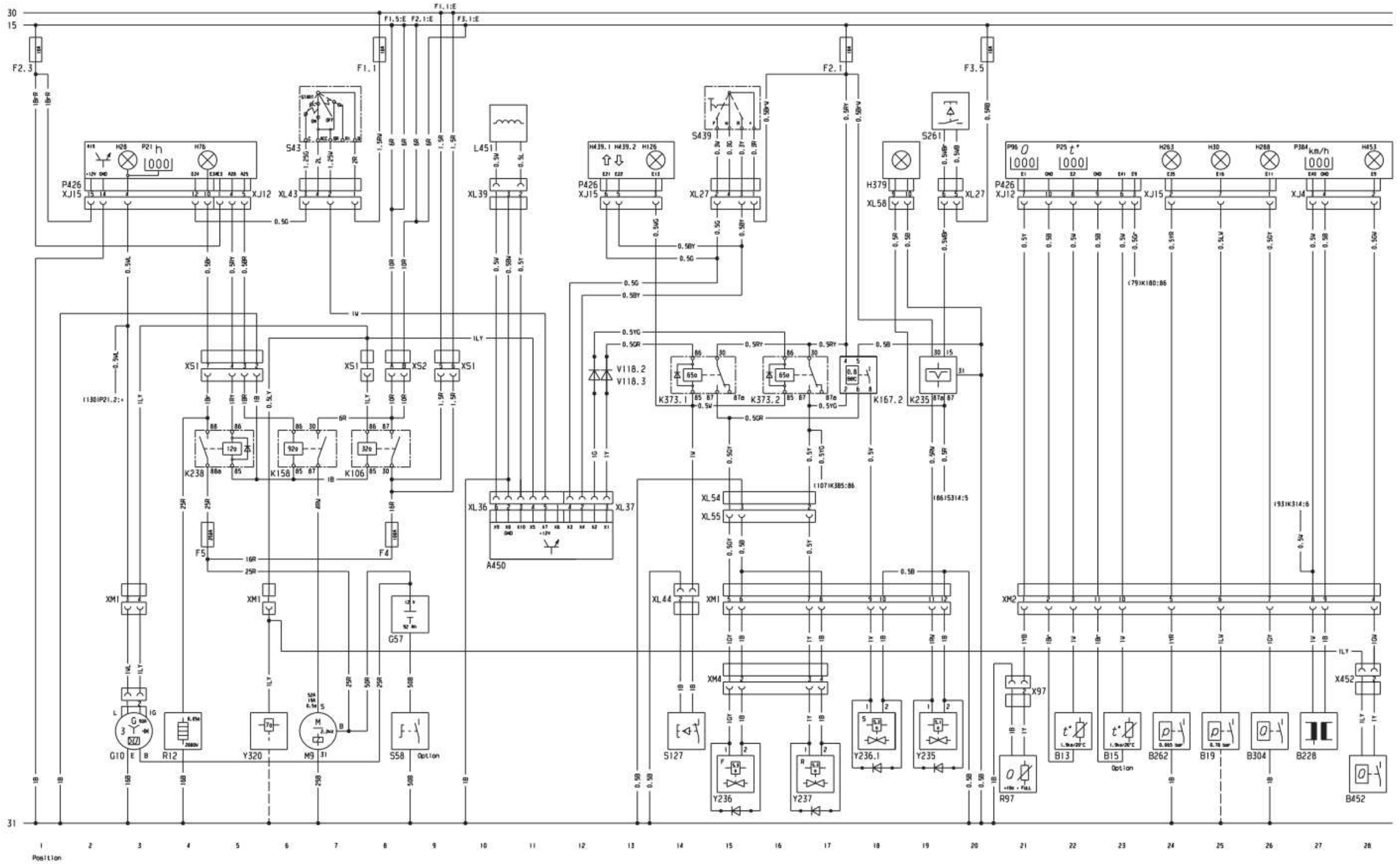
Checks prior to trouble shooting:

- Check belt tension
- Check condenser
- Check condenser blower, rotation direction right
- Compressor switches on and off
- Compressor clutch OK
- Function of air vents OK
- Coolant level OK (inspection glass)
- Condensation drain away
- Air temperature OK

Fault	Cause	Remedy
Low pressure too high High pressure too high	• System too full • Condenser is dirty or blocked • Blower faulty or wrong rotational direction	• Check filling level • Clean condenser or replace • Repair blower or replace
Low pressure too low High pressure too high	• Dryer blockes • Faulty expansion valve • Compressor faulty	• Replace dryer • Replace expansion valve • Replace compressor
Low and high pressure the same	• Compressor faulty	• Check drive belt - belt pulley - magnetic clutch, if all correct, proceed as for "Compressor does not switch on"
Low pressure too low High pressure normal	• Faulty expansion valve • Dirty or blockes vaporizer	• Replace expansion valve • Clean or replace vaporizer
Low pressure too low High pressure too low	• Expansion valve faulty • Not enough coolant • Insufficient cooling effect only for short time; water in system, expansion valve iced up as a result • Dryer or expansion valve partially blocked • Vaporizer iced up • Thermoswitch not working	• Replace expansion valve • Refill air conditioning system • Evacuate system, replace dryer • Replace dryer or expansion valve • Check the ON and OFF times of the compressor • Adjust or replace the thermoswitch
Compressor switches on and off at speed	• Loose contact in the electric system • Coolant pressure too high	• Check electrical system (air conditioner switch, thermostat) • Check air conditioning system pressure and refill if necessary

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Wiring diagram, Immobilizer



No.	Componente	Pos.	No.	Componente	Pos.	No.	Componente	Pos.	No.	Componente	Pos.	No.	Componente	Pos.	No.	Componente	Pos.
S43	Key Switch	6	P21	Service Meter	3	K106	Relay Battery	7	XL...	Connector Floor Frame Harness	-	H28	Control Lamp Alternator	3	B13	Sensor Cooling Watertemperat.	22
S58	Battery Main Switch	8	P25	Cauge Cooling Watertemperature	22	K158	Relay Startermotor	6	XM...	Connector Engine Harness	-	H30	Control Lamp Engine Oil Press.	25	B15	Sensor Hydraulic Oil Temperat.	23
S127	Switch Parking Brake	14	P96	Cauge Fuel Level	21	K167.2	Relay Timer 0.8 sec.	17	XF...	Connector Front Frame Harness	-	H76	Control Lamp Preheater Engine	4	B19	Sensor Engine Oil Pressure	25
			P384	Cauge Speed	27	K180	Relay Blower Engine Cooler	23	XJ...	Connector Main Monitor	-	H126	Control Lamp Parking Brake	14	B228	Sensor Speed	27
S261	Switch Driving Range	19	P426	Main Monitor	2	K235	Relay Driving Range	19	XS...	Connector Fuse	-	H263	Control Lamp Air Cleaner	24	B262	Sensor Air Cleaner	24
S439	Switch Drive Direction	14				K238	Relay Air Preheater Engine	4	F...	Fuse	-	H288	Control Lamp Brake Oil Level	26	B304	Sensor Brake Oil Level	26
			Y236.1	Magnet Valve Synchron	18	K314	Switch Frequency ALS	27	SS...	Joint Of Wires	-	H379	Control Lamp Driving Range	18	Y235	Magnet Valve Driving Range	19
G10	Alternator	3				K373.1	Relay Parking Brake Forward	14	-	-	-	H439.1	Control Lamp Forward	13	Y236	Magnet Valve Forward	15
G57	Battery	8	R12	Air Preheater Engine	4	K373.2	Relay Parking Brake Reverse	16	-	-	-	H439.2	Control Lamp Reverse	13	Y237	Magnet Valve Reverse	17
M9	Starter Motor	6	R97	Sensor Fuel Level	21	K385	Relay Backup Alarm	17	B452	Sensor Water-In-Fuel	28	H453	Control Lamp Water-In-Fuel	28	Y320	Magnet Engine Stop	5