Shop Manual

VA100VI-8E0 WHEEL LOADER Model: Serial number:

WA100M-8E0

H11840 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 Loader WA100M-8E0 is equipped with the engine SAA4D94LE-3. •

© 2023 KOMATSU All Rights Reserved Printed in Europe 2023-05



00 INDEX AND FOREWORD

ABBREVIATION LIST	0-2
FOREWORD, SAFETY, BASIC INFORMATION	0-8
PRECAUTIONS TO PREVENT FIRE0-	-21
ACTIONS IF FIRE OCCURS	-23
PRECAUTIONS FOR DISPOSING OF WASTE MATERIALS0-	-24
ACTIONS TAKEN TO MEET EXHAUST GAS REGULATIONS0-	-25
PRECAUTIONS FOR DEF	-26
STORE AdBlue/DEF	-28
PRECAUTIONS FOR HANDLING HYDRAULIC EQUIPMENT0-	-29
PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF PIPINGS	-32
PRECAUTIONS FOR HANDLING ELECTRICAL EQUIPMENT 0- HANDLING WIRING HARNESSES AND CONNECTORS 0- MAIN CAUSES OF FAILURE IN WIRING HARNESS 0- PRECAUTIONS FOR HANDLING FUEL SYSTEM EQUIPMENT 0- PRECAUTIONS FOR HANDLING INTAKE SYSTEM EQUIPMENT 0- PRACTICAL USE OF KOMTRAX 0- PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF CONNECTORS 0- PRECAUTIONS FOR TROUBLESHOOTING ELECTRICAL CIRCUITS 0- METHOD FOR DISCONNECTING AND CONNECTING DEUTSCH CONNECTOR 0- METHOD FOR DISCONNECTING AND CONNECTING SLIDE LOCK TYPE CONNECTOR 0- METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PULL 0- METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PUSH 0- METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PUSH 0- METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PUSH 0- METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PUSH 0-	-43 -43 -46 -47 -48 -50 -54 -55 -56 -57 -58 -60
HOW TO READ ELECTRICAL WIRE CODE0-	
EXPLANATION OF TERMS FOR MAINTENANCE STANDARD0-	
STANDARD TIGHTENING TORQUE TABLE0-	
CONVERSION TABLE	-75

ABBREVIATION LIST

- This list of abbreviations includes the abbreviations used in the text of the shop manual for parts, components, and functions whose meaning is not immediately clear. The spelling is given in full with an outline of the meaning.
- Abbreviations that are used in general society may not be included.
- Special abbreviations which appear infrequently are noted in the text.
- This list of abbreviations consists of two parts. The first part is a list of the abbreviations used in the text of the manual, and the second part is a list of the abbreviations used in the circuit diagrams.

List of abbreviations used in the text

Abbrevia- tion	Actual word spelled out	Purpose of use (major ap- plicable machine (*1), or component/system)	Explanation
ABS	Antilock Brake System	Travel and brake (HD, HM)	This is a function that releases the brake when the tires skid (tires are not rotated). This function applies the brake again when the tires rotate.
AISS	Automatic Idling Setting System	Engine	This is a function that automatically sets the idle speed.
AJSS	Advanced Joystick Steering System	Steering (WA)	This is a function that performs the steering opera- tions with a lever instead of using a steering wheel. This function performs gear shifting and changing forward and reverse direction.
ARAC	Automatic Retarder Ac- celerator Control	Travel and brake (HD, HM)	This is a function that automatically operates the retarder with a constant braking force when letting go of the accelerator pedal on the downhill.
ARSC	Automatic Retarder Speed Control	Travel and brake (HD, HM)	This is a function that automatically operates the retarder to ensure that the machine speed does not accelerate above the speed set by the opera- tor when letting go of the accelerator pedal on the downhill.
ASR	Automatic Spin Regula- tor	Travel and brake (HD, HM)	This is a function that drives both wheels automati- cally using the optimum braking force when the tire on one side spins on the soft ground sur- faces.
ATT	Attachment	Work equipment	A function or component that can be added to the standard specification.
BCV	Brake cooling oil control valve	BRAKE (HD)	This is a valve that bypasses a part of the brake cooling oil to reduce the load applied to the hydraulic pump when the retarder is not being used.
CAN	Controller Area Network	Communication and elec- tronic control	This is one of communication standards that are used in the network on the machine.
CDR	Crankcase Depression Regulator	Engine	This is a regulator valve that is installed to CCV ven- tilator. It is written as CDR valve and is not used independently.
CLSS	Closed-center Load Sensing System	Hydraulic system	This is a system that can actuate multiple actuators simultaneously regardless of the load (provides better combined operation than OLSS).

Abbrevia- tion	Actual word spelled out	Purpose of use (major applicable machine (*1), or component/system)	Explanation
CRI	Common Rail Injection	Engine	This is a function that maintains optimum fuel injection amount and fuel injection timing. This is performed the engine controller which elec- tronically controls supply pump, common rail, and injector.
ECM	Electronic Control Module	Electronic control system	This is an electronic control device that send the command to actuators using the signals from the sensors on the machine so that the optimum actuation is performed. (Same as
ECMV	Electronic Control Modulation Valve	Transmission (D, HD, WA, etc)	This is a proportional electromagnetic valve that decreases the transmission shock by grad- ually increasing oil pressure for engaging
ECSS	Electronically Con- trolled Suspension System	Travel (WA)	This is a device that ensures smooth high- speed travel by absorbing vibration of machine during travel with hydraulic spring effect of
ECU	Electronic Control Unit	Electronic control system	This is an electronic control device that send the command to actuators using the signals from the sensors on the machine so that the optimum actuation is performed. (Same as
EGR	Exhaust Gas Recircu- lation	Engine	This is a function that recirculates a part of exhaust gas to combustion chamber, so that it reduces combustion temperature, and reduces emission of NOx.
EMMS	Equipment Manage- ment Monitoring Sys- tem	Machine monitor	This is a function with which operator can check information from each sensor on the machine (filter, oil replacement interval, mal- functions on machine, failure code, and failure
EPC	Electromagnetic Pro- portional Control	Hydraulic system	Electromagnetic proportional control This is a mechanism with which actuators operate in proportion to the current.
FOPS	Falling Object Protec- tive Structure	Cab and canopy	This structure protects the operator's head from falling objects. (Falling object protective struc- ture) This performance is standardized as ISO 3449.
F-N-R	Forward-Neutral-Re- verse	Operation	Forward - Neutral - Reverse
GPS	Global Positioning Sys- tem	Communication (KOMTRAX, KOMTRAX Plus)	This system uses satellites to determine the current location on the earth.
GNSS	Global Navigation Sat- ellite System	Communication (KOMTRAX, KOMTRAX Plus)	This is a general term for system uses satellites such as GPS, GALILEO, etc.
HSS	Hydrostatic Steering System	Steering (D Series)	This is a function that enables the machine to turn without steering clutch by controlling a dif- ference in travel speed of right and left tracks with a combination of hydraulic motor and
HST	Hydro Static Transmis- sion	Transmission (D, WA)	Hydraulic transmission system that uses a combination of hydraulic pump and hydraulic motor without using gears for stepless gear

It's a preview. You can download the full file by clicking the link below.

https://shopservicemanual.com/

Service Manuals from 2\$