I'm not a robot

Komatsu WA500-1 WA500-3 WA500-6 Wheel Loader Service Manual1793 Pages in .pdf format790 MB File in .zip format for super fast downloads!This factory Komatsu Service Manual Download will give you complete step-by-step information on repair, servicing, and preventative maintenance for your Komatsu. The Komatsu Service Manual is highly detailed with photos and illustrations to help guide you through every repair and troubleshooting procedure. This repair manual contains all you need to know to keep your Komatsu working right and is the only service repair manual you will need. It will help you understand, care for, and lower the repair and maintenance cost for your Komatsu.This Komatsu WA500 WA 500 Wheel Loader service manual is the same service manual used by professional Komatsu technicians. All pages are printable, so run off what you need & take it with you into the garage or workshop. Save money $$ by doing your own repairs! These Komatsu Manuals make it easy for any skill level with these very easy to follow, step-by-step instructions! Instant download means no shipping cost or waiting for a CD to arrive in the mail…you will receive this Komatsu Repair Manual immediately via instant download on completion of payment via our secure payment processor. We accept all major credit/debit cards/paypal. Download COMPLETE Service & Repair Manual for KOMATSU WA500-1 WHEEL LOADER. It covers every single detail on your KOMATSU WA500-1 WHEEL LOADER. This manual is very useful in the treatment and repair. This manual came with fully index. By having a reliable repair manual you not only save money but get to experience DIY repair your own vehicle. Even the most novice mechanic can easily follow the step-by-step guides which are made simple by the illustrations and drawings. KOMATSU WA500-1 WHEEL LOADER service manual & repair manual can easily help you with any repairs that you may need to do. Many people are scared to touch their machine because it seems difficult. This is only true when you do not have the resources and tools available for when that time comes! This manual will easily pay for itself on the first oil change, spark plug change, or air filter change that you perform! The manual includes pictures and easy to follow directions on what tools are needed and how the repair is performed. Just imagine how much you can save by doing simple repairs yourself. You can save anywhere from hundreds if not thousands of dollars in repair bills by using this KOMATSU WA500-1 WHEEL LOADER repair manual & service manual. Many people buy this manual just to have it around for when the inevitable happens. Sooner or later, maintenance will need to be performed. Be prepared for it when it happens by simply purchasing this service manual for later use! See below for a list of items that most of our manuals cover. Some manuals actually cover more items that are not even listed! Models Covers: WA500-1 Serial 10001 and up Engine Power train Steering system Brake and air system Work equipment system Electric and electronic system Others SM-KOMATSU WA500-1 WHEEL LOADER Repair Manual KOMATSU WA500-1 WHEEL LOADER repair manual & service manual is in pdf format so it will work with computers including WIN, MAC etc.You can Easily view, Navigate, print, Zoom in/out as per your requirements. If you have any questions or concerns, don't hesitate to get in touch : manualonline668@gmail.com We will respond and take care of it. Your Satisfaction is very important to us. Important Notifications: Please click the "Free Purchase" to download a few sample pages and then through the sample pages to BUY the complete manual. Thank you so much. General Engine Power Train Steering System Brake and Air System Work Equipment System Electric and Electronic System Others 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 chapters for each main group of components; these chapters are further divided into the following sections. 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 AND ADJUSTING 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. Page 1 NOTICE Komatsu has had the operating and maintenance in- structions translated into all the languages of the mem- ber states in the European Union. Should you wish to have a version of the operating instructions in another language, please don't hesitate to ask at your local... Foreword 1. Foreword WA500-6H – VEAM430100... If you sell the machine, be sure to give this manual to the new owners together with the machine. KOMATSU delivers machines that comply with all applicable regulations and standards of the country to which it has been shipped. If this machine has been purchased in... Make sure when installing the antenna that this is installed correctly with good earth connection between antenna and vehicle mass Also observe KOMATSU and manufacturer's installation instruc- tions for wiring, installation and maximum permitted power con- sumption. WA500-6H – VEAM430100... When standing up from the operator's seat, always place the work equipment lock lever in the LOCK position. If you accidentally touch the control levers when they are not locked, this may cause a serious injury or death. WA500-6H – VEAM430100... Continuing improvements in the design of this machine can lead to changes in detail which may not be reflected in this man- ual. Consult KOMATSU or your KOMATSU distributor for the latest available information of your machine or for questions regarding information in this manual. Driving in forward direction, the loader can load or dig material using its attachments intended for loading operations (i.e. bucket). This KOMATSU machine is designed to be used mainly for the following work: Digging work Smoothing... Front Bucket Right Left Rear GK032003 In this manual, the directions of the machine (front, rear, left, right) are determined according to the view from the operator's seat in the direction of travel (front) of the machine. WA500-6H – VEAM430100... The hatched areas (B) show the areas where the view is blocked when mirrors or other aids to visibility are installed as standard. Please be fully aware that there are places that cannot be seen when operating the machine. GK050002 WA500-6H – VEAM430100... Foreword 1.4 Necessary information Necessary information When requesting service or ordering replacement parts, please inform your KOMATSU distributor of the following items. 1.4.1 Product Identification Number (PIN)/Machine serial no. plate and position On the center right of the front frame. This plate is located on the right of front axle and on the left of rear axle. GK032007 1.4.5 Transmission serial no. plate This plate is located in travel direction front, above the transmission output. GK032008 1-10 WA500-6H – VEAM430100... The service meter is displayed on the character display at the bottom center of the machine monitor. GK050027 1.4.8 Table to enter serial no. and distributor Machine serial No. Engine serial No. Product identification number (PIN) Distributor name Address Service Personnel Phone/Fax 1-11 WA500-6H – VEAM430100... Precautions with tires .....2-40 1-12 WA500-6H – VEAM430100... Page 15 Operations and checks before starting engine.....3-106 1-13 WA500-6H – VEAM430100... Page 16 Unloading .....3-162 1-14 WA500-6H – VEAM430100... Page 17 Grease ..... . 4-8 Carrying out KOWA (KOMATSU Oil Wear Analysis) .....4-8 Storing oil and fuel . Page 18 KOMATSU genuine oil ..... Page 19 Limit values for slopes .....5-7 1-17 WA500-6H – VEAM430100... Page 20 Notes .....8-1 1-18 WA500-6H – VEAM430100... Overall length, bucket on ground 9,537 Wheel base 3,780 Bucket width 3,430 These values refer to machines with Width over tyres 3,150 29.5 R25 L3 Gauge 2,400 Ground clearance *) Machine without additional counterweight Overall height 3,804 1-19 WA500-6H – VEAM430100... 1.7 CE-Conforming equipment Foreword CE-Conforming equipment 1.7.1 CE-Conforming equipment CE-Conforming equipment – Load Hydraulic Volume Weight Type Part No. Capacity pressure m³ 425-71-H2800 9,540 2,695 Bucket WA500-6H 425-71-H2810 9,540 2,873 425-71-H2820 10,080 3,012 GK032012 1-20 WA500-6H – VEAM430100... (valid in Germany) The dimension Sh (smallest tyre radius) must be added to the dimension D2. The figure G (in kg) represents the maximum load (equipment and operating load) which may act upon this point. GK032013 1-21 WA500-6H – VEAM430100... Page 24 1.7 CE-Conforming equipment Foreword d1=d2 GK032014 1-22 WA500-6H – VEAM430100... Page 25 Bucket connection dimension, bolt (3) for tilt rod Vision line Bucket connection dimension d1 - d2, horizontally displaced Bolts Distance: bucket bottom edge - boom bolt hole Tyres 29.5 R25 L3 Distance: centre of bolt - centre of fastening screw Bucket 425-71-H2810 1-23 WA500-6H – VEAM430100... Page 26 1.7 CE-Conforming equipment Foreword 1-24 WA500-6H – VEAM430100... Safety 2. Safety WARNING Please read and make sure that you fully understand the precautions described in this manual and the safety labels on the machine. When operating or servicing the machine, always follow these precautions strictly. WA500-6H – VEAM430100... For details of the part numbers, see this manual or check on the actual part, and order the new part from your KOMATSU distributor. There are also other labels in addition to the safety labels. Han- dle these labels in the same way. Safety 2.1 Safety labels 2.1.2 Presentation of safety labels GK050308 GK032020 GK032018 GK032021 GK032022 GK032019 GK03202 GK032026 GK032024 GK032025 GK032023 GK032029 GK032028 GK032030 WA500-6H – VEAM430100... Page 30 2.1 Safety labels Safety GK050308 GK032020 GK032018 GK032021 GK032022 GK032019 GK032024 GK032025 GK032023 GK032029 GK032028 GK032030 WA500-6H – VEAM430100... Page 31 Sign indicates to prevere severe injury or death Honk to alert people nearby. Be sure no one is on or near machine. Use spotter if view is obstructed. Use KOMATSU oil only (421-93-H1390) Do not enter (421-93-H1320) Sign indicates a crush hazard between the articulating parts of the vehicle. Always wear a hard hat and safety shoes. If the nature of the work requires it, wear safety glasses, mask, gloves, ear plugs, and safety belt when operating or maintaining the GK032031 machine. Check that all protective equipment functions properly before using it. WA500-6H – VEAM430100... Page 33 If inspection and maintenance is carried out when the machine is still dirty with mud or oil, there is a hazard that you will slip and fall, or that dirt or mud will get into your eyes. Always keep the machine clean. GK032034 WA500-6H – VEAM430100... Page 34 If the control lever is touched by accident, there is danger that the machine may suddenly move and cause serious personal injury. When leaving the machine, lock all parts, and always takes GK050006 the key with you and leave it in the specified place. GK050007 WA500-6H – VEAM430100... Page 35 38° from the line to the front. If the angle of articulation GK050010 is small, it is a long distance to the step in the center of the front frame, and this creates a dangerous situation. WA500-6H – VEAM430100... Page 36 Even when the oil has cooled down, loosen the plug slowly to relieve the internal pressure before removing the plug. GK032043 2-10 WA500-6H – VEAM430100... Page 37 Short circuits in the electrical system can cause fire. Always keep electric wiring connections clean and securely tightened. Check the wiring every day for looseness or damage. Tighten any loose connectors or wiring clamps. Repair or replace any damaged wiring. 2-11 WA500-6H – VEAM430100... Page 38 The ROPS can only provide maximum protection, if the driver wears the safety belt correctly. For this reason, the safety belt is to be worn when the machine is in operation. 2-12 WA500-6H – VEAM430100... Page 39 Unauthorized modification If this machine is modified without permission from KOMATSU, there is danger that problems may occur with safety and that this may lead to serious personal injury. Modifications may have an adverse effect on items such as machine strength and visibility. Page 40 If the machine should come too close or touch the electric cable, to prevent electric shock, the operator should not leave the operator's compartment until it has been confirmed that the electricity has been shut off. Also, do not let anyone come close to the machine. 2-14 WA500-6H – VEAM430100... Page 41 If it is necessary to start the engine or run the machine inside a building or underground, where the ventilation is poor, take steps to remove the exhaust gas and bring in ample fresh air. GK032048 2-15 WA500-6H – VEAM430100... Page 42 Always observe the rules and regulations for the work site and environmental standards. This machine does not use asbestos, but there is a danger that imitation parts may contain asbestos, so always use genuine KOMATSU parts. 2-16 WA500-6H – VEAM430100... Adjust the mirrors so that the rear of the machine can be seen clearly from the operator's seat. See "Adjusting mirrors (3-105)". Check that there are no persons or obstacles above, below, or in the area around the machine. 2-17 WA500-6H – VEAM430100... Page 44 Before charging or starting the engine with a different power source, melt the battery electrolyte and check that there is no leakage of electrolyte before starting. 2-18 WA500-6H – VEAM430100... Take special care not to hit other machines or people when turning or swinging the machine. Always be sure to carry out the above precautions even when the machine is equipped with mirrors. GK032053 2-19 WA500-6H – VEAM430100... Page 46 This may cause the tires to burst. If a tire bursts, it produces an extremely large destruc- tive force, and this may cause serious injury or accident. If you are going to travel continuously, please consult your KOMATSU distributor. 2-20 WA500-6H – VEAM430100... Page 47 When traveling up or down hills with a loaded bucket, always travel with the bucket facing uphill. If the machine travels with the bucket facing downhill, there is danger that the machine may tip over. 2-21 WA500-6H – VEAM430100... Page 48 When the engine is not running, you can lower the work unit by means of the lift arm control lever. 1. Turn the key in ignition switch (1) to ON. 2. Then slowly press the lift arm control lever (2) forward to the "LOWER" position. GK050014 2-22 WA500-6H – VEAM430100... Page 49 To prevent accidents caused by hitting other objects, always operate the machine at a speed which is safe for operation, particular in confined spaces, indoors, and in places where there are other machines. GK032063 2-23 WA500-6H – VEAM430100... Page 50 Reduce the speed and use the engine as a brake while applying the foot brake intermittently (depress the brake intermittently several times). If nessecary, lower the bucket to the ground to stop the machine. 2-24 WA500-6H – VEAM430100... Page 51 GK050006 Adhere to all regulations on parking vehicles and securing building sites GK050015 If it is necessary to park the machine on a slope, set blocks under the wheels to prevent the machine from moving. GK032065 2-25 WA500-6H – VEAM430100... Transportation The machine can be divided into parts for transportation, so when transportating the machine, please contact your KOMATSU distributor to have the work carried out. Loading and unloading When loading or unloading the machine, mistaken operation may bring the hazard of the machine tipping over or falling, so particular care is necessary. Page 53 Lock the frame with the safety bar to prevent the machine from articulating. Fit chains to the front frame and the rear frame to hold the machine securely in position. For details of the shipping procedure, see "Transportation procedure (3-159)". 2-27 WA500-6H – VEAM430100... Flammable hydrogen gas is generated when the battery is charged, so remove the battery from the chassis, take it to a well-ventilated place, and remove the battery caps before charging it. Tighten the battery caps securely. Install the battery securely to the determined place. 2-28 WA500-6H – VEAM430100... Page 55 When connecting a normal machine to a problem machine with booster cables, always use a normal machine with the same battery voltage as the problem machine. For details of the starting procedure when using booster cables, see "Starting engine with booster cable (3-181)". 2-29 WA500-6H – VEAM430100... GK032072 Move the machine slowly and be sure not to apply any sud- den load on the wire rope. Connect a wire rope to the part indicated with the arrow in the diagram at right. GK050016 2-30 WA500-6H – VEAM430100... Appoint leader when working with others When repairing the machine or when removing and installing the work equipment, appoint a leader and follow his instructions dur- ing the operation. When working with others, misunderstandings between workers can lead to serious accidents. 2-31 WA500-6H – VEAM430100... Page 58 OFF position. GK050017 Free Lock GK050006 Set parking brake switch (3) to the ON position, then put blocks under the front and the rear of the tires. GK050015 GK050018 2-32 WA500-6H – VEAM430100... Page 59 (2) to the ON position to prevent the machine from moving. Do not touch any control levers. If any control lever must be Lock operated, give a signal to the other workers to warn them to move to a safe place. GK050006 GK050015 2-33 WA500-6H – VEAM430100... Page 60 GK032078 Do not hit or roll the accumulator, or subject it to any impact. When disposing of the accumulator, the gas must be released. Please contact your KOMATSU distributor to have this work performed. Personnel Only authorized personnel can service and repair the machine. Page 61 Switch off the engine. With the engine switched off, lower the boom slowly until it rests on the supporting prop. Lock Set the control lever to "NEUTRAL" and secure it with the work equipment lock lever (2) (locked). GK050006 2-35 WA500-6H – VEAM430100... Page 62 Removing battery terminal When repairing the electrical system or when carrying out elec- trical welding, remove the negative (-) terminal of the battery to prevent the flow of current. 2-36 WA500-6H – VEAM430100... Page 63 Do not remove the E.C.S.S. piping or components. If it is neces sary to remove them, please ask your KOMATSU distributor to carry out the removal operation. Precautions for high-pressure fuel High pressure is generated inside the engine fuel piping when the engine is running. Page 64 Never touch the injector terminal or the inside of the engine controller. If it is necessary to touch the injector terminal or the inside of the engine controller, please contact your KOMATSU distributor. GK043102 2-38... Page 65 Replace or repair safety-critical parts if any defect is found, even when they have not reached the time specified interval. Replace all hoses every 2 years at the latest. The shelf life of the hose should not exceed 2 years. 2-39 WA500-6H – VEAM430100... To maintain safety, always do as follows. Maintenance, disassembly, repair, and assembly of the tires and rims requires special equipment and special technology, so always ask your KOMATSU distributor to carry out these operations. GK032084 Inflate tyres up to the defined pressure. If the tyre pressure is too low, the tyres may heat up and burst. Operation 3. Operation WARNING Please read and make sure that you understand the SAFETY section before reading this section. WA500-6H – VEAM430100... (8) Turn signal lamp (2) Tilt lever (9) Head lamp (3) Front wheel (10) Lift cylinder (4) Bucket cylinder (11) Lift arm (5) Front working lamp (12) Rear working lamp (6) ROPS cab (13) Rear combination lamp (7) Rear wheel WA500-6H – VEAM430100... (12) Parking brake switch (25) Right brake pedal (13) Lamp switch (26) Steering tilt lock lever (13) Turn signal lever (27) Left brake pedal (13) Dimmer switch (28) Work equipment lock lever (*) E.C.S.S.: Electrically Controlled Suspension System WA500-6H – VEAM430100... Page 70 (4) Character display item selector switch (5) E.C.S.S. switch (*) (Option) (6) Parking brake switch (7) Front working lamp switch (8) Rear working lamp switch (9) Beacon lamp switch (Option) (10) Auto-greasing switch (*) E.C.S.S.: Electrically Controlled Suspension System WA500-6H – VEAM430100... Page 71 (8) RPM set idling up-down selector switch (9) Starting switch (10) Cooling fan reverse rotation switch (11) Semi auto digging switch (12) Directional selector ON/OFF switch (13) Torque converter lock-up switch (Option) (14) Engine power mode selector switch WA500-6H – VEAM430100... Page 72 3.1 General view Operation Overhead portion GK050025 Right overhead portion Rear of operator's seat (1) Cassette stereo with AM/FM radio (Option) (4) Emergency parking brake cancel switch (2) Air conditioner control panel (3) Rear heated wire glass switch WA500-6H – VEAM430100... Page 73 (19) Load meter (Option) (41) Hydraulic oil temperature gauge (20) Output mode pilot lamp (power mode) (42) Fuel level caution lamp (21) Preheating pilot lamp (43) Fuel gauge (22) Semi auto digging pilot lamp (*) E.C.S.S.: Electrically Controlled Suspension System WA500-6H – VEAM430100... The indicator gauges and meters are actuated after the above system check is completed. The character display shows "KOMATSU WA500" for 3 seconds. If the lamps do not light up, there is probably a failure or discon- nection, so contact your KOMATSU distributor for inspection. In addition, if the travel speed overruns, "OVERRUN PROTECT" is displayed on the character display. REMARK The alarm buzzer sounds in a 0.25 second cycle. (0.2 sec. "ON" -> 0.05 sec. "OFF") (The ON and OFF cycles have a different length) WA500-6H – VEAM430100... This display portion (1) lights up if any emergency stop item, caution item, or mistaken operation of any switch or lever occurs. At the same time, the alarm buzzer sounds. Check the content of the display and carry out the specified action for the item. GK050027 3-10 WA500-6H – VEAM430100... Information regarding the failure of the machine or maintenance is displayed on the character display when the starting switch is at the ON position, check the display to confirm that there is no abnormality before starting to travel. 3-11 WA500-6H – VEAM430100... If action code E03 is displayed, stop the machine immediately and check the failure code. For details, see "Failure code dis- play (3-14)". Inform your KOMATSU distributor of the failure code and ask for repairs. If there is a failure on the machine, or it is necessary to change... Page 79 Operation 3.2 Explanation of components E03: When this code is displayed, stop the machine immedi- ately, check the failure code, and contact your KOMATSU dis- E 0 3 tributor for repairs. C H E C K R I G H T... Page 80 If an action code is displayed on the character display, check the failure code according to the failure code display method given below. When contacting your KOMATSU distributor to request repairs, please inform your distributor of the failure code. Method of displaying failure code 1. Page 81 Fuel filter 1000 FUEL FILTER Transmission oil 1000 TRANSM OIL Corrosion resistor 1000 CORR-RESISTER Hydraulic tank breather element 2000 HYD BREATHER Hydraulic filter 2000 HYD FILT Hydraulic oil 2000 HYD OIL Axle oil 2000 AXLE OIL 3-15 WA500-6H – VEAM430100... Page 82 1 0 0 0 r When the machine monitor meter displays the engine speed, this display shows the travel speed. For details, see "Method of switching travel speed/engine speed display/non display (3-45)". 3-16 WA500-6H – VEAM430100... GK050026 (1) Brake oil pressure caution lamp (2) Engine oil pressure caution lamp (3) Battery charge circuit caution lamp (4) Steering oil pressure caution lamp 3-17 WA500-6H – VEAM430100... Page 84 At the same time, "E03 CHECK RIGHT NOW" is displayed on the character display, so stop the machine immediately, then stop the engine and carry out inspection. 3-18 WA500-6H – VEAM430100... Page 85 At the same time, "E03 CHECK RIGHT NOW" is displayed on the character display, so stop the machine immediately, then stop the engine and carry out inspection. 3-19 WA500-6H – VEAM430100... (1) Axle oil temperature caution lamp (2) Torque converter oil temperature caution lamp (3) Engine coolant temperature caution lamp (4) Hydraulic oil temperature caution lamp (5) Fuel level caution lamp (6) Modulation clutch temperature caution lamp 3-20 WA500-6H – VEAM430100... Page 87 The central warning lamp lights up and "E02 TC OVERHEAT" is displayed on the character display, so stop the machine and run the engine under no load at a mid-range speed until the lamp goes out. 3-21 WA500-6H – VEAM430100... Page 88 If it lights up, check and add fuel as soon as possible. For details, see "Check fuel level, add fuel (3-98)". REMARK Even if the caution lamp lights up, action code "E02" is not dis- GK050044 played on the character display. 3-22 WA500-6H – VEAM430100... Page 89 Operation 3.2 Explanation of components 6. Modulation clutch temperature caution lamp This lamp (6) is not active. GK050029 3-23 WA500-6H – VEAM430100... (2) Engine oil level caution lamp (3) Battery electrolyte level caution lamp (Option) (4) Maintenance caution lamp (5) Air cleaner clogging caution lamp (6) Transmission oil filter clogging caution lamp (7) Fuel filter water detection caution lamp 3-24 WA500-6H – VEAM430100... Page 91 If the battery electrolyte level becomes too low, the battery elec- trolyte level caution lamp will light up. At the same time, "E01 BATTERY LEV LOW" is displayed, so check the level of the battery electrolyte and add distilled water. 3-25 WA500-6H – VEAM430100... Page 92 At the same time, "E01 AIR FILTER" is displayed, so stop the engine, and clean or replace the element. REMARK It is possible to check the condition of clogging of the air cleaner with the dust indicator installed at the side of the air cleaner. GK050031 3-26 WA500-6H – VEAM430100... Page 93 If the engine is stopped or the torque converter oil temperature is low, the transmission oil filter clogging caution lamp does not light up. 7. Fuel filter water detection caution lamp This lamp is not active. GK050032 3-27 WA500-6H – VEAM430100... (13) Turn signal pilot lamp (14) Head lamp high beam pilot lamp (15) Directional selector pilot lamp (16) E.C.S.S. pilot lamp (*) (17) Economy operation display lamp (18) Semi auto digging pilot lamp (*) E.C.S.S.: Electrically Controlled Suspension System 3-28 WA500-6H – VEAM430100... Page 95 Return the switch to its original position or stop the engine and operate the switch. 3. Emergency steering pilot lamp (Green) This lamp (3) lights up during travel operations if the steering pressure drops and the emergency steering pump is actuated. GK032096 3-29 WA500-6H – VEAM430100... Page 96 7. Joystick pilot lamp (Option) This lamp (7) lights up when the joystick ON/OFF switch is at the ON position and the joystick console is tilted to the front. For details, see "Joystick steering system (6-32)". GK050034 3-30 WA500-6H – VEAM430100... Page 97 This lamp (11) lights up when the shift hold is actuated. When the hold switch is pressed, the pilot lamp lights up. When the switch is pressed again, the pilot lamp goes out. For detail, see "Hold switch (3-57)". GK043116 3-31 WA500-6H – VEAM430100... Page 98 It shows that it is possible to switch the direction of travel between FORWARD and REVERSE with the directional switch at the side of the lift arm control lever. For details, see "Changing direction (3-117)". GK043114 3-32 WA500-6H – VEAM430100... Page 99 18. Semi auto digging pilot lamp This lamp (18) shows that the semi auto digging function has been actuated. When the semi auto digging selector switch is set to ROCK mode or LOOSE mode, the pilot lamp lights up. GK050040 3-33 WA500-6H – VEAM430100... 3.2 Explanation of components Operation Meter display portion GK050026 (1) Torque converter oil temperature gauge (2) Engine cooling water temperature gauge (3) Hydraulic temperature gauge (4) Fuel gauge (5) Load meter (Option) (6) Speedometer 3-34 WA500-6H – VEAM430100... Page 101 When the amount of remaining fuel goes below 53 liters (14.0 US gal) (range A), the caution lamp inside the fuel gauge lights up. GK050044 If it lights up, check the fuel level and add fuel. 3-35 WA500-6H – VEAM430100... Page 102 For details, see "Handling load meter (6-2)". GK050045 6. Speedometer This display (6) shows the travel speed or engine speed. For details of the method of switching the display, see "Method of switching travel speed/engine speed display (3-44)". GK050045 3-36 WA500-6H – VEAM430100... Load meter function menu 1 9 . 0 L O A D M E T E R < > ' „ 0 3 : 0 9 Character display mode selector switch Character display item selector switch 3-37 WA500-6H – VEAM430100... Page 104 F I L T < > right. ' „ 1 0 0 0 h : The replacement interval is shown on the bottom line at the left and the number of times of replacement is shown on the right. 3-38 WA500-6H – VEAM430100... Page 105 7. When resetting the replacement time for another item, carry out the procedure from Step 4. After completing the resetting operation, press the („) portion of the character display mode selector switch twice or turn the starting switch OFF. 3-39 WA500-6H – VEAM430100... Page 106 („) portion of the character display mode selector switch. The screen returns to the previous screen. 6. After completing the operation, press the („) portion of the character display mode selector switch twice or turn the starting switch OFF. 3-40 WA500-6H – VEAM430100... Page 107 To abort the operation, set the cursor on "NO", then press the („) portion of the character display mode selector switch. 6. After completing the operation, press the („) portion of the character display mode selector switch twice or turn the starting switch OFF. 3-41 WA500-6H – VEAM430100... Page 108 The brightness is set and the screen returns to the previous screen. 7. After completing the operation, press the („) portion of the character display mode selector switch twice or turn the starting switch OFF. 3-42 WA500-6H – VEAM430100... Page 109 0 3 : 0 9 dard screen. 8. If the wrong number is input or the input operation is to be aborted, press the („) portion of the character display mode selector switch. The screen returns to the previous screen. 3-43 WA500-6H – VEAM430100... Page 110 / m i n 3. Press the (') portion of the character display mode selector switch. < > E N G < > The display changes and returns to the service meter dis- „ E N T play. 3-44 WA500-6H – VEAM430100... Page 111 O F F - O N screen returns to the service meter display. k m / h < > ' „ O F F - O N 3-45 WA500-6H – VEAM430100... (18) Kickdown switch (9) Horn button (19) Hold switch (10) Hazard lamp switch (20) Load meter subtotal switch (Option) (11) Parking brake switch (35) Auto-greasing switch (12) Front working lamp switch (*) E.C.S.S.: Electrically Controlled Suspension System 3-46 WA500-6H – VEAM430100... Page 113 (26) Remote positioner bucket angle set switch (35) Auto-greasing switch (see page 3-46) (27) RPM set ON-OFF switch (36) Emergency parking brake cancel switch (28) RPM set idle up-down selector switch (37) Room lamp switch (29) Cooling fan reverse rotation switch 3-47 WA500-6H – VEAM430100... Page 114 When lever (C) of this switch (2) is turned, the rear wiper will move. Lever C Position (a): Washer liquid is sprayed out Position (b): OFF Position (c): Wiper is operated GK032134 Position (d): Washer liquid is sprayed out, wiper is operated 3-48 WA500-6H – VEAM430100... Page 115 Each time the switch is pressed, it changes A -> B -> C -> D -> E -> A -> · · · Position (b): Use this position when switching between Addition mode and Subtraction mode. 3-49 WA500-6H – VEAM430100... Page 116 Press here to go on to the next screen, or to move the cursor forward, or to increase the number when entering numerals Position (' „ 0 0 3 0 0 . 0 6-11 WA500-6H – VEAM430100... (2) and the number of loads is displayed on load meter display portion (3). REMARK GK050276 A, B, C, D, E (all lamps light up) displays the load, regardless of material category A, B, C, D, E. GK050283 6-12 WA500-6H – VEAM430100... 1 9 . 0 and clock display. 0 3 : 0 9 The display for the number of loads has a maximum of 500. Even if the actual number of loads has exceeded 500, the display remains at 500. 6-13 WA500-6H – VEAM430100... No other display is given on the load meter. 5. If you want to start measurement again, carry out Steps 1 and 2, then press the character display mode selector switch (') to select the "LOAD METER" menu. GK050280 6-14 WA500-6H – VEAM430100... "MATERIAL" changes from A -> B -> C -> D -> E -> A. Set to the desired display. NOTE It is possible to switch the display for the category of material on both the addition mode and subtraction mode. GK050276 6-15 WA500-6H – VEAM430100... (>) or (' „ 6-16 WA500-6H – VEAM430100... Page 369 ' „ the bottom line. E M P T Y B U C K E T 9. If the calibration with empty bucket cannot be completed cor- rectly, carry out the procedure from Step 6 again. 6-17 WA500-6H – VEAM430100... (>) or (' „ 6-18 WA500-6H – VEAM430100... Page 371 When the weight is input, the buzzer sounds and the charac- ter display returns to the normal service meter and clock dis- 1 9 . 0 play. 0 3 : 0 9 6-19 WA500-6H – VEAM430100... 4. Press character display mode selector switch (') , press character display item selector switch (E N T 6-20 WA500-6H – VEAM430100... The display shows the bucket load as 5.1t, and the total load display shows 5.1. GK050272 GK050285 When 15 seconds have passed since the start of the mea- surement, the bucket load display goes out and returns to 0.0t. The total load display shows 5.1. GK050286 6-21 WA500-6H – VEAM430100... Page 374 0.0t. The total load display shows 10.0. Repeat Step 3 for the third and following loads. The total load display shows the total amount that has been loaded. GK050306 6-22 WA500-6H – VEAM430100... Page 375 If the load meter sub-total switch is kept pressed for more than 2 seconds, the data are not printed out, but the data are reset. GK050277 6-23 WA500-6H – VEAM430100... 5.1t, and the total load display will show 1.8. To cancel the mistaken second load data, press the load meter can- cel switch. The measurement is cancelled and the total load dis- play returns to 6.9. GK050059 6-24 WA500-6H – VEAM430100... Page 377 6. After loading, lower the bucket to the travel posture, then raise the lift arm and measure the remaining load in the bucket. If we take the remaining load in the bucket as 3.5t, the target load becomes 0.5. GK050294 6-25 WA500-6H – VEAM430100... Page 378 9. When resetting the total load in order to carry out the next loading cycle, press the load meter sub-total switch. This completes the first loading operation. In this case, the load remaining in the bucket becomes the target load for the second cycle. GK050059 GK050296 6-26 WA500-6H – VEAM430100... Page 379 REMARK If the load remaining in the bucket is not used, dump the load and press the load meter cancel switch. The target load returns to the initial value of 12.0. GK050059 GK050288 6-27 WA500-6H – VEAM430100... C mode: The data for A mode are printed out together with addition of the maintenance items and time remaining to maintenance. The printouts shown below are examples of the load meter print- outs for the WA600-6. 6-28 WA500-6H – VEAM430100... (>) or (' „ 6-29 WA500-6H – VEAM430100... Page 382 6. When the system is set to C mode, the data are printed out when the setting is made and the print mode returns to A or GK050059 7. To print out in A or B mode, press the load meter sub-total switch. The data are printed out. GK050059 6-30 WA500-6H – VEAM430100... Page 383 Attachments, Options 6.1 Handling load meter REMARK If you make a mistake in the setting, press the(„) portion of the character display mode selector switch. The display will return to the previous display. GK050280 6-31 WA500-6H – VEAM430100... (2) Shift down switch (8) Console tilt lever (3) FNR switch (9) Console fore-and-aft adjustment lever (4) Joystick steering lever (10) Joystick pilot lamp (5) Joystick ON/OFF switch (11) Armrest adjustment lever (6) HI/LOW selector switch 6-32 WA500-6H – VEAM430100... Page 385 (N): Neutral GK043185 5. Joystick on/off switch When this switch (5) is turned ON, the joystick steering is switched ON. Position (a): ON (possible to steer with joystick) Position (b): OFF (impossible to steer with joystick) GK050298 6-33 WA500-6H – VEAM430100... Page 386 Joystick steering system is not actuated (system is turned OFF) GK050300 9. Console fore-and-aft adjustment lever Use this lever (9) when sliding the whole joystick console to the front or rear. For details, see "Adjustment of joystick console (6-39)". GK050302 6-34 WA500-6H – VEAM430100... Page 387 11. Armrest adjustment lever Pull this lever (11) to adjust the height of the armrest within range (a) of 26 mm (1.0 in). GK050303 It is possible to adjust the angle within range (b) of approx. 7°. GK050304 6-35 WA500-6H – VEAM430100... *: Does not shift up above speed range of gearshift lever. 6-36 WA500-6H – VEAM430100... In addition, it is also suitable for short cycle loading operations because the upper part of the operator's body is sup- ported by the steering wheel when frequently switching between FORWARD and REVERSE. 6-37 WA500-6H – VEAM430100... The power is turned OFF and the joystick steering system is made inactive. 2. When starting operations, turn joystick ON/OFF switch (1) to the ON position. The power is turned ON and the joystick steering system is made active. GK050302 6-38 WA500-6H – VEAM430100... Adjust the seat before starting operations for the day or when changing operators. When adjusting the seat, put your back against the backrest and adjust to a position where the brake pedal can be fully depressed. For details of seat adjustment, see "Seat adjustment (3-103)". 6-39 WA500-6H – VEAM430100... Since both steering system and transmission are set in the respective neutral positions, turn off the joystick ON/OFF switch, then drive the machine with the steering wheel and the directional lever. 6-40 WA500-6H – VEAM430100... If the joystick is not at the N position, the joystick pilot lamp flashes, the central warning lamp lights up, and the alarm buzzer sounds. In this condition, the engine will not start, so set the joystick to the N position. 6-41 WA500-6H – VEAM430100... Page 394 GK050301 lights up, and the alarm buzzer sounds. In this condition, the machine will travel in the direction set by the directional lever, so set the directional lever to N. 6-42 WA500-6H – VEAM430100... Page 395 8. To change the speed range, use shift up switch (1) or shift down switch (2) on the joystick. GK050301 9. Press part (b) of the joystick ON/OFF switch to turn it OFF. The joystick operation is then canceled. GK050298 6-43 WA500-6H – VEAM430100... KOMTRAX equipment or to carry out action to stop communica- tions. If you do not obey the above precautions, neither KOMATSU nor your KOMATSU distributor can take any responsibility for any problem that is caused or for any loss that results. This may cause failure or fire on the KOMTRAX equipment or the machine itself. (Your KOMATSU distributor will carry out removal and installation of KOMTRAX.) Do not allow cables or cords to become caught; do not dam- age or pull cables or cords by force. If the mixer blades are turning inside the grease container, the lubrication system is OK. If the mixer blades are not turning, no automatic lubrication is taking place. To eliminate the malfunction, contact your KOMATSU dealer. GK050311 6.4.2 Display and control unit The display and control unit is protected by a transparent plastic cover against splashing water and mechanical damage. (PS) 6. Fault message (FAULT) Pushbuttons 1. Turn on display Display values and parameters Set values and parameters 2. Change between programming and display mode Confirm values (SET) 3. Activatev intermediate lubrication Clear fault message (DK) 6-47 WA500-6H – VEAM430100... 6.4 Central lubrication system Attachments, Options 6.4.3 Changing the lubrication interval times The settings when shipping from factory are as follows: Greasing interval: after 0.5 hour Greasing time: 9 minutes. 6-48 WA500-6H – VEAM430100... Page 401 Index 7. Index WA500-6H – VEAM430100... Page 402 CE-Conforming equipment ....1-20 Fuel filter ..... . 4-71 WA500-6H – VEAM430100... Page 403 Stopping .....3-119 KOWA (KOMATSU Oil Wear Analysis) .4-5 Technical data . Page 404 Emergency lowering system ....2-22 Breaking-in machine ....3-110 WA500-6H – VEAM430100... Page 405 Switch panel, front .....3-4 Transmission auto shift/manual shift selector switch 3- Switch panel, right .....3-5 WA500-6H – VEAM430100... Page 406 Work equipment lock lever ....2-8, 3-70 Work equipment, operation ....3-123 WA500-6H – VEAM430100... Notes 8. Notes WA500-6H – VEAM430100... Page 408 Notes WA500-6H – VEAM430100... Page 409 Notes WA500-6H – VEAM430100... Page 410 Notes WA500-6H – VEAM430100... Page 411 Notes WA500-6H – VEAM430100... Page 412 Notes WA500-6H – VEAM430100...