

# Shop Manual

ENGINE

**125E -7 SERIES**

**KOMATSU**



---

# 00 INDEX AND FOREWORD

---

# INDEX

|  |        |
|--|--------|
| 00 INDEX AND FOREWORD .....  | 00-1   |
| ABBREVIATION LIST .....  | 00-4   |
| FOREWORD, SAFETY, BASIC INFORMATION .....                                  | 00-10  |
| HOW TO READ THE ENGINE SHOP MANUAL .....                                   | 00-10  |
| SAFETY NOTICE FOR OPERATION.....   | 00-12  |
| PRECAUTIONS TO PREVENT FIRE.....   | 00-20  |
| ACTIONS IF FIRE OCCURS .....   | 00-22  |
| PRECAUTIONS FOR DISPOSING OF WASTE MATERIALS .....                         | 00-23  |
| ACTIONS TAKEN TO MEET EXHAUST GAS REGULATIONS.....                         | 00-24  |
| PRECAUTIONS FOR DEF.....   | 00-25  |
| STORE AdBlue/DEF .....   | 00-26  |
| PRECAUTIONS FOR HANDLING HYDRAULIC EQUIPMENT .....                         | 00-27  |
| PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF PIPINGS.....               | 00-30  |
| PRECAUTIONS FOR HANDLING ELECTRICAL EQUIPMENT.....                         | 00-37  |
| PRECAUTIONS FOR HANDLING FUEL SYSTEM EQUIPMENT .....                       | 00-39  |
| PRECAUTIONS FOR HANDLING INTAKE SYSTEM EQUIPMENT .....                     | 00-40  |
| DISCONNECT AND CONNECT PUSH-PULL TYPE COUPLER .....                        | 00-41  |
| PRECAUTIONS FOR DISCONNECTION AND CONNECTION OF CONNECTORS .....           | 00-45  |
| METHOD FOR DISCONNECTING AND CONNECTING DEUTSCH CONNECTOR .....            | 00-49  |
| METHOD FOR DISCONNECTING AND CONNECTING SLIDE LOCK TYPE CONNECTOR .....    | 00-50  |
| METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PULL ...    | 00-52  |
| METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH LOCK TO PUSH ..     | 00-53  |
| METHOD FOR DISCONNECTING AND CONNECTING CONNECTOR WITH HOUSING TO ROTATE . | 00-55  |
| HOW TO READ ELECTRICAL WIRE CODE .....                                     | 00-56  |
| EXPLANATION OF TERMS FOR MAINTENANCE STANDARD.....                         | 00-60  |
| STANDARD TIGHTENING TORQUE TABLE.....                                      | 00-63  |
| CONVERSION TABLE .....   | 00-70  |
| 01 SPECIFICATIONS .....  | 01-1   |
| CONTENTS .....   | 01-2   |
| ABBREVIATION LIST .....  | 01-3   |
| SPECIFICATIONS .....   | 01-9   |
| OUTLINE OF EXHAUST GAS REGULATION.....                                     | 01-9   |
| LIST OF APPLICABLE MACHINES: 125E-7.....                                   | 01-12  |
| SPECIFICATIONS .....   | 01-13  |
| ENGINE GENERAL VIEW .....  | 01-19  |
| WEIGHT TABLE .....   | 01-43  |
| ENGINE PERFORMANCE CURVE .....   | 01-46  |
| 10 STRUCTURE AND FUNCTION .....  | 10-1   |
| CONTENTS .....   | 10-2   |
| ABBREVIATION LIST .....  | 10-4   |
| UREA SCR SYSTEM.....   | 10-10  |
| LAYOUT DRAWING OF UREA SCR SYSTEM .....                                    | 10-10  |
| UREA SCR SYSTEM DIAGRAM .....  | 10-15  |
| FUNCTION OF UREA SCR SYSTEM.....   | 10-16  |
| COMPONENT PARTS OF UREA SCR SYSTEM.....                                    | 10-33  |
| ENGINE SYSTEM .....  | 10-42  |
| LAYOUT OF ENGINE COMPONENTS .....  | 10-42  |
| INTAKE AND EXHAUST SYSTEM PARTS .....                                      | 10-44  |
| ENGINE MAIN BODY PARTS.....  | 10-49  |
| TURBOCHARGER SYSTEM.....   | 10-66  |
| LUBRICATION SYSTEM.....  | 10-90  |
| FUEL SYSTEM.....   | 10-98  |
| COOLING SYSTEM.....  | 10-119 |
| ELECTRICAL SYSTEM .....  | 10-124 |
| COMPONENT PARTS OF ELECTRICAL SYSTEM .....                                 | 10-124 |

|  |        |
|--|--------|
| SENSOR.....  | 10-145 |
| 20 STANDARD VALUE TABLE .....  | 20-1   |
| CONTENTS .....   | 20-2   |
| ABBREVIATION LIST .....  | 20-3   |
| STANDARD VALUE TABLE FOR ENGINE .....  | 20-9   |
| STANDARD VALUE TABLE FOR ENGINE: SAA6D125E-7 (D85EX-18, D85EXI-18, D85PX-18, D85PXI-18).....                   | 20-9   |
| STANDARD VALUE TABLE FOR ENGINE: SAA6D125E-7 (HM300-5, HM300-5E0).....   | 20-11  |
| STANDARD VALUE TABLE FOR ENGINE: SAA6D125E-7 (PC490LC-11, PC490LCI-11).....                                    | 20-13  |
| STANDARD VALUE TABLE FOR ENGINE: SAA6D125E-7 (WA470-8) .....   | 20-15  |
| STANDARD VALUE TABLE FOR ENGINE: SAA6D125E-7 (WA475-10) .....  | 20-17  |
| STANDARD VALUE TABLE FOR ENGINE: SAA6D125E-7 (WA480-8) .....   | 20-19  |
| RUNNING-IN STANDARD AND PERFORMANCE TEST STANDARD .....  | 20-21  |
| RUNNING-IN STANDARD AND PERFORMANCE TEST STANDARD: SAA6D125E-7 (D85EX-18, D85EXI-18, D85PX-18, D85PXI-18)..... | 20-21  |
| RUNNING-IN STANDARD AND PERFORMANCE TEST STANDARD: SAA6D125E-7 (HM300-5, HM300-5E0).....                       | 20-23  |
| RUNNING-IN STANDARD AND PERFORMANCE TEST STANDARD: SAA6D125E-7 (PC490LC-11, PC490LCI-11).....                  | 20-25  |
| RUNNING-IN STANDARD AND PERFORMANCE TEST STANDARD: SAA6D125E-7 (WA470-8) .....                                 | 20-27  |
| ENGINE OPERATION STANDARD FOR BREAK IN PERIOD AND PERFORMANCE TEST STANDARD: SAA6D125E-7 (WA475-10).....       | 20-29  |
| RUNNING-IN STANDARD AND PERFORMANCE TEST STANDARD: SAA6D125E-7 (WA480-8) .....                                 | 20-31  |
| 50 DISASSEMBLY AND ASSEMBLY.....   | 50-1   |
| CONTENTS .....   | 50-2   |
| ABBREVIATION LIST .....  | 50-3   |
| RELATED INFORMATION ON DISASSEMBLY AND ASSEMBLY .....  | 50-9   |
| HOW TO READ THIS MANUAL.....   | 50-9   |
| COATING MATERIALS LIST.....  | 50-11  |
| SPECIAL TOOLS LIST .....   | 50-15  |
| SKETCHES OF SPECIAL TOOLS.....   | 50-17  |
| ENGINE SYSTEM .....  | 50-20  |
| DISASSEMBLE AND ASSEMBLE ENGINE GENERALLY.....   | 50-20  |
| REMOVE AND INSTALL SUPPLY PUMP ASSEMBLY .....  | 50-123 |
| REMOVE AND INSTALL ENGINE FRONT OIL SEAL .....   | 50-132 |
| REMOVE AND INSTALL ENGINE REAR OIL SEAL.....   | 50-135 |
| 60 MAINTENANCE STANDARD.....   | 60-1   |
| CONTENTS .....   | 60-2   |
| ABBREVIATION LIST .....  | 60-3   |
| ENGINE SYSTEM .....  | 60-9   |
| INTAKE AND EXHAUST SYSTEM PARTS.....   | 60-9   |
| ENGINE MAIN BODY PARTS.....  | 60-10  |
| LUBRICATION SYSTEM.....  | 60-33  |
| COOLING SYSTEM.....  | 60-36  |
| INDEX.....   | 1      |

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

<https://shopservicemanual.com/>

Service Manuals from 2\$