# SHOP MANUAL

KOMATSU®

# WA430-5

| Machine model | Serial number |
|---|---|
| **WA430-5** | **60001 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.

- WA380-5 mounts the SAA6D114E-2 engine.
  For details of the engine, see the 114 Series Engine Shop Manual.


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Subtotal Data

- After calculating weight, the following data are stored as a set:
  - Kind of object materials
  - Each load weight
  - Total number of loading times
  - Total load weight

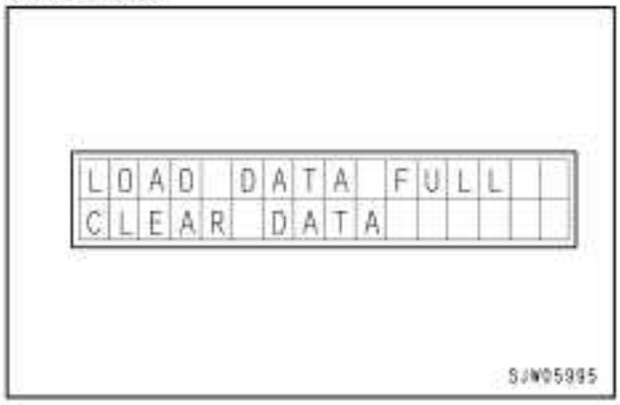
  Memory capacity: More than 500 loading times

Automatic sub-total Function

1) When a printer (OP) is connected
   When a weight is calculated at the 501st time, the data will be stored in the RAM 15 seconds later, and at the same time, data up to 500 times will be printed out. After being printed out, the sub-total data will be cleared. After the 500th data is stored, the following messages will be displayed on the character display: "LOAD DATA FULL" and "CLEAR DATA" But the measurement can be continued.

2) When a printer (OP) is not connected
   When a weight is calculated at the 501st time, the data will be stored in the RAM 15 seconds later, and at the same time, weight data of each bucket load up to 500 times will be cleared. After the 500th data is stored, the following messages will be displayed on the character display: "LOAD DATA FULL." , "CLEAR DATA". But the measurement can be continued.

Display on the Character Display after the 500th Data is Stored.





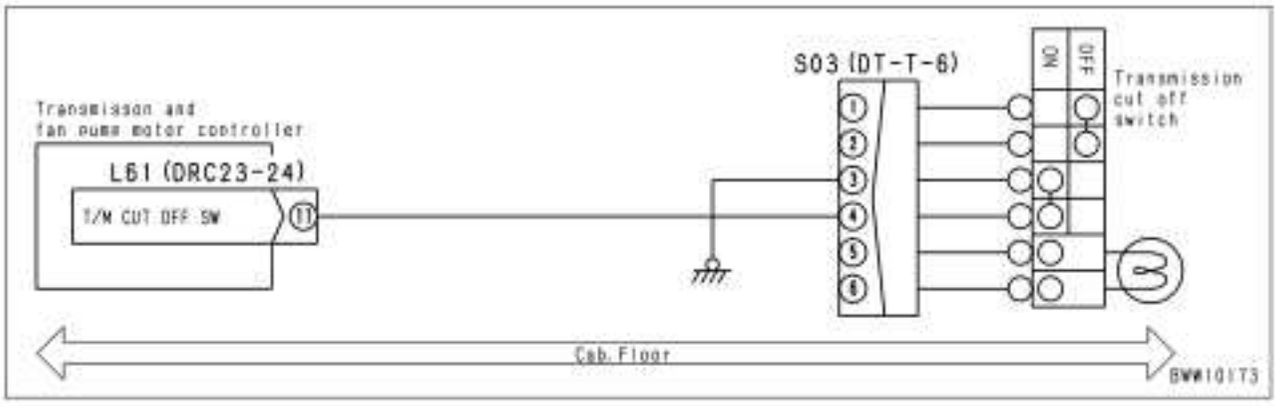

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# TROUBLESHOOTING CODE [TM-6]

| Troubleshooting code | Error Code | Controller Code | Trouble | Transmission cut-off switch system discontinuity or ground fault |
|---|---|---|---|---|
| TM-6 | — | (TM) | | |
| Description of Trouble | • Due to discontinuity or ground fault of the transmission cut-off switch system, the transmission cut-off mode cannot be enabled (Failure associated with discontinuity).<br>• Or the transmission cut-off mode cannot be cancelled (Failure associated with ground fault). | | | |
| Controller Reaction | • No reaction. | | | |
| Effect on Machine | • The transmission cut-off mode cannot be enabled or cancelled. | | | |
| Related Information | • Can be checked with the monitoring function (Code: 40905, D-IN-2). | | | |

| | Causes | | Standard Values in Normal State and Remarks on Troubleshooting | | | |
|---|---|---|---|---|---|---|
| Possible Causes and Standard Values | 1 | Defective transmission cut-off switch | 1) Turn starting switch OFF.<br>2) Disconnect connector S03.<br>3) Connect T-adapter. | | | |
| | | | Between S03 (Male) (4) - (3) | Transmission cut-off switch = ON | Resistance | 1 Ω or below |
| | | | | Transmission cut-off switch = OFF | Resistance | 1 MΩ or above |
| | 2 | Wiring harness discontinuity (Disconnection or defective contact) | 1) Turn starting switch OFF.<br>2) Disconnect connectors L61 and S03.<br>3) Connect T-adapter. | | | |
| | | | Wiring harness between L61 (Female) (11) - S03 (Female) (4) | | Resistance | 1 Ω or below |
| | | | Between S03 (Female) (3) - body | | Resistance | 1 Ω or below |
| | 3 | Hot short-circuiting between harnesses (Contacting 24-V harness)<br>★ In this case, fuse A-2 blows out when the switch is operated. | 1) Turn starting switch OFF.<br>2) Disconnect connectors L61 and S03.<br>3) Connect T-adapter.<br>4) Turn starting switch ON. | | | |
| | | | Between L61 (Female) (11)/S03 (Female) (4) - body | | Voltage | 1 V or below |
| | 4 | Wiring harness ground fault | 1) Turn starting switch OFF.<br>2) Disconnect connectors L61 and S03.<br>3) Connect T-adapter. | | | |
| | | | Between L61 (Female) (11)/S03 (Female) (4) - body | | Resistance | 1 MΩ or above |
| | 5 | Defective transmission and fan pump motor controller | 1) Turn starting switch OFF.<br>2) Disconnect connector L61.<br>3) Connect T-adapter.<br>4) Turn starting switch ON. | | | |
| | | | Between L61 (11) - body | Transmission cut-off switch = ON | Voltage | 1 V or below |
| | | | | Transmission cut-off switch = OFF | Voltage | 20 - 30 V |

**Related circuit diagram**






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# TROUBLESHOOTING CODE: [E-1-a]

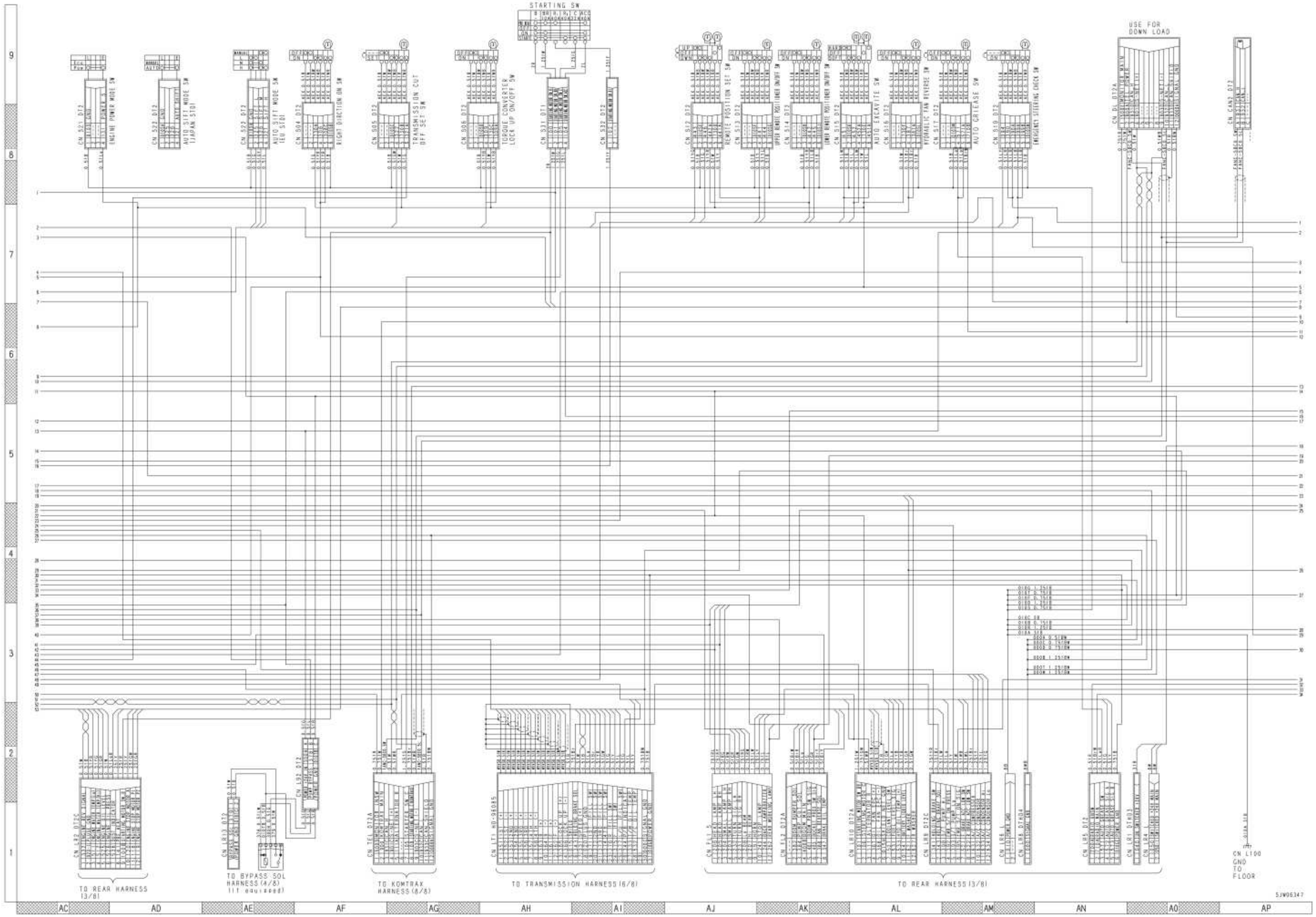
| Troubleshooting Code | Error Code | Controller Code | Trouble | The engine does not start. (Starting system) |
|---|---|---|---|---|
| E-1-a) | — | — | | |
| Description of Trouble | The starting motor system is defective, and the engine does not start. | | | |
| Controller Reaction | — | | | |
| Effect on Machine | The starting motor system is defective, and the engine does not start. | | | |
| Related Information | Check that the fuses A-2 and B-2 are not blown. (If they are blown, check if the related harness is short-circuited with the ground.). | | | |

| | Causes | | Standard Value in Normal State and Remarks on Troubleshooting | | |
|---|---|---|---|---|---|
| Possible Causes and Standard Values | 1 | Defective battery | | Specific gravity | 1.26 and above |
| | | | | Voltage | 25 V and above |
| | 2 | Disconnection between battery relay body and related harness | 1) Starting switch ON. | | |
| | | | Among battery relay terminals R13, R01, R04 and machine body. | Voltage | 20 - 30 V |
| | | | 1) Starting switch OFF.<br>2) Disconnect the connector S31 and the terminal R13.<br>3) Insert a T-adapter. | | |
| | | | Harness among S31 (female) (2), battery relay and the terminal R13.<br>★ Measure continuity from S31 (female) (2) in the diode range. | Continuity | Yes |
| | | | 1) Starting switch ON. | | |
| | | | Between battery (+) terminal and (-) terminal. | Voltage | 20 - 30 V |
| | | | 1) Starting switch OFF. 2) Disconnect the (-) terminal of the battery relay. | | |
| | | | Harness between battery relay (-) terminal and machine body. | Resistance | 1 Ω and below |
| | 3 | Disconnection between n starting motor and related harness | 1) Starting switch OFF. 2) Disconnect the connector E01.<br>3) Insert a T-adapter. 4) Starting switch "Start." | | |
| | | | Between E01 (1) and machine body. | Voltage | 20 - 30 V |
| | | | 1) Starting switch ON. | | |
| | | | Between starting motor B terminal and machine body | Voltage | 20 - 30 V |
| | 4 | Defective alternator (regulator) | 1) Starting switch OFF. 2) Disconnect the connector E01.<br>3) Insert a T-adapter. 4) Starting switch ON. | | |
| | | | Between E01 (2) and machine body | Voltage | 1 V and below |
| | 5 | Disconnection between starting switch and related harness | 1) Starting switch OFF. 2) Disconnect the connector E01.<br>3) Insert a T-adapter. 4) Starting switch ON. | | |
| | | | Among S31 (1), (2), (3) and machine body (Starting switch "Start" between (3) and machine body) | Voltage | 20 - 30 V |
| | | | 1) Starting switch OFF.<br>2) Disconnect the starting switch terminals B, BR and C. | | |
| | | | Between starting switch terminal B and BR | Resistance | 1 Ω and below |
| | | | Between starting switch terminal B and C | Resistance | 1 Ω and below |
| | | | 1) Stating switch OFF. 2) Disconnect the connectors S31, FS3 and L116.<br>3) Connect a T-adapter. | | |
| | | | Harness between S31 (female) (1) and FS3 (female) (1) | Resistance | 1 Ω and below |
| | | | Harness between S31 (female) (1) and L116 (female) (3) | Resistance | 1 Ω and below |



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# ELECTRICAL CIRCUIT DIAGRAM 2/8 (3/4)







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