SEN00114-15

# Shop Manual

WHEEL LOADER **WA380-6**

SERIAL NUMBERS 65001 and up

ecot3

KOMATSU®

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# Table of contents

00 Index and foreword
Index SEN00123-15
Composition of shop manual ..... 2
Table of contents ..... 4
Foreword and general information SEN00124-04
Safety notice ..... 2
How to read the shop manual ..... 7
Explanation of terms for maintenance standard ..... 9
Handling of electric equipment and hydraulic component ..... 11
Handling of connectors newly used for engines ..... 20
How to read electric wire code ..... 23
Precautions when carrying out operation ..... 26
Method of disassembling and connecting push-pull type coupler ..... 29
Standard tightening torque table ..... 32
Conversion table ..... 36

01 Specification
Specification and technical data SEN00125-03
Specification dimension drawing ..... 3
Specifications ..... 4
Weight table ..... 8
Table of fuel, coolant and lubricants ..... 10

10 Structure, function and maintenance standard
Engine and cooling system SEN01028-03
Engine mount and transmission mount ..... 2
Cooling system ..... 3
Cooling fan pump ..... 4
Cooling fan motor ..... 12
Power train SEN01029-02
Power train ..... 3
Power train system diagram ..... 4
Drive shaft ..... 6
Power train piping diagram ..... 7
Torque converter ..... 8
Transmission ..... 16
Flow control valve ..... 33
Valve assembly ..... 34
ECMV ..... 35
Main relief valve and torque converter relief valve ..... 42
Axle ..... 44
Differential ..... 46
Limited slip differential ..... 51
Final drive ..... 58
Steering system SEN01030-03
Steering piping diagram ..... 3
Steering column ..... 4
Steering pump ..... 5
Steering valve ..... 17
Orbit-roll valve ..... 32
Stop valve ..... 40
Steering relief valve ..... 41
Steering cylinder ..... 42
Emergency steering motor ..... 44
Emergency steering pump ..... 45



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Joystick steering lever linkage ..... 46
Steering electric lever ..... 47
Joystick EPC valve ..... 48
Brake system SEN01031-04
Brake piping diagram ..... 2
Charge valve ..... 3
Brake valve ..... 10
Accumulator (for brake) ..... 15
Brake ..... 16
Parking brake control ..... 21
Parking brake ..... 22
Parking brake solenoid valve ..... 24
Emergency parking brake release valve ..... 26
Undercarriage and frame SEN01032-01
Axle mount and center hinge pin ..... 2
Tires ..... 6
Hydraulic system, Part 1 SEN01033-04
Hydraulic piping diagram ..... 2
Work equipment control lever linkage ..... 5
Hydraulic tank ..... 8
Power train pump ..... 10
Work equipment pump ..... 11
Work equipment control valve ..... 22
CLSS ..... 36
Each function and operation of each valve ..... 40
Hydraulic system, Part 2 SEN01034-02
PPC valve ..... 2
Stabilizer valve ..... 8
Accumulator (for PPC circuit) ..... 14
Accumulator (for ECSS) ..... 15
Work equipment PPC cut-off solenoid valve ..... 16
Work equipment SEN01035-02
Work equipment linkage ..... 2
Bucket ..... 4
Bucket positioner and boom kick-out ..... 5
Work equipment cylinder ..... 11
Cab and its attachments SEN01036-04
Cab ..... 3
Air conditioner ..... 4
Electrical system, Part 1 SEN01037-02
Machine monitor system ..... 2
Machine monitor ..... 6
Electrical system, Part 2 SEN01038-03
Electrical system (Transmission controller system) ..... 2
Transmission controller ..... 48
Electrical system (Work equipment controller system) ..... 50
Work equipment controller ..... 56
Electrical system, Part 3 SEN01039-03
Electric transmission control ..... 4
Kickdown switch and hold switch ..... 8
Load meter cancel switch and load meter subtotal switch ..... 8
Multi-function knob ..... 9
Joystick steering knob ..... 10
KOMTRAX terminal system ..... 12
Engine starting circuit ..... 14
Engine stopping circuit ..... 16
Preheating circuit ..... 17




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Engine power mode selector circuit ..... 18
Engine output derating function ..... 19
Automatic warm-up function ..... 19
Parking brake circuit ..... 20
Sensor ..... 22

20 Standard value table
Standard service value table SEN01244-01
Standard service value table for engine ..... 2
Standard service value table for chassis ..... 3

30 Testing and adjusting
Testing and adjusting, Part 1 SEN01245-02
Tools for testing, adjusting, and troubleshooting ..... 3
Testing engine speed ..... 10
Testing exhaust gas color ..... 12
Adjusting valve clearance ..... 14
Testing compression pressure ..... 16
Testing blow-by pressure ..... 19
Testing engine oil pressure ..... 20
Testing intake air (boost) pressure ..... 21
Handling fuel system equipment ..... 22
Releasing residual pressure in fuel system ..... 22
Testing fuel pressure ..... 23
Testing fuel delivery, return and leak amount ..... 25
Bleeding air from fuel circuit ..... 28
Testing leakage in fuel system ..... 29
Handling reduced cylinder mode operation ..... 30
Handling no-injection cranking operation ..... 30
Handling controller voltage circuit ..... 31
Testing and adjusting air conditioner compressor belt tension ..... 32
Replacing alternator belt ..... 33
Adjusting transmission speed sensor ..... 34
Testing directional lever ..... 35
Testing and adjusting power train oil pressure ..... 36
Procedure for flushing torque converter and transmission hydraulic circuit ..... 51
Method of moving machine when transmission valve is broken ..... 52
Testing and adjusting steering stop valve ..... 54
Testing and adjusting steering wheel ..... 56
Testing and adjusting steering oil pressure ..... 58
Bleeding air from steering circuit ..... 61
Testing and adjusting, Part 2 SEN01246-03
Testing hydraulic drive fan ..... 3
Bleeding air from hydraulic drive fan circuit ..... 5
Testing brake pedal ..... 7
Testing brake performance ..... 8
Testing and adjusting accumulator charge pressure ..... 9
Testing wheel brake oil pressure ..... 10
Testing wear of wheel brake disc ..... 12
Bleeding air from wheel brake circuit ..... 13
Releasing residual pressure in brake accumulator circuit ..... 14
Testing parking brake performance ..... 15
Testing parking brake oil pressure ..... 16
Testing wear of parking brake disc ..... 18
Method of releasing parking brake manually ..... 19
Testing and adjusting work equipment control lever ..... 20
Testing and adjusting work equipment PPC oil pressure ..... 21



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| Testing and adjusting item | Symbol | | Part No. | Part Name | Q'ty | Remarks |
|---|---|---|---|---|---|---|
| Method of moving machine when transmission valve is broken | L | | 794-423-1190 | Plug | 1 | 20 × 1.5 mm |
| Testing and adjusting steering wheel | M | | 79A-264-0021 | Push-pull scale | 1 | 0 – 294 N {0 – 30 kg} |
| Testing and adjusting steering oil pressure | N | 1 | 799-101-5002 | Hydraulic tester | 1 | Pressure gauge:2.5, 6.0, 40, 60 MPa {25, 60, 400, 600 kg/cm²} |
| | | | 790-261-1204 | Digital hydraulic tester | 1 | Pressure gauge: 60 MPa {600 kg/cm²} |
| | | 2 | 799-101-5220 | Nipple | 1 | 10 × 1.25 mm |
| | | | 07002-11023 | O-ring | 1 | |
| | | 3 | 799-401-2701 | Differential pressure gauge | 1 | |
| | | 4 | 799-401-3200 | Adapter | 1 | Size 03 |
| Testing hydraulic drive fan | P | 1 | 799-205-1100 | Tachometer kit | 1 | Digital indication: 6 – 99999.9 rpm |
| | | 2 | 799-101-5002 | Hydraulic tester | 1 | Pressure gauge:2.5, 6.0, 40, 60 MPa {25, 60, 400, 600 kg/cm²} |
| | | | 790-261-1204 | Digital hydraulic tester | 1 | Pressure gauge: 58.8 MPa {600 kg/cm²} |
| Bleeding air from hydraulic drive fan circuit | Q | 1 | 799-101-5002 | Hydraulic tester | 1 | Pressure gauge:2.5, 6.0, 40, 60 MPa {25, 60, 400, 600 kg/cm²} |
| | | | 790-261-1204 | Digital hydraulic tester | 1 | Pressure gauge: 60 MPa {600 kg/cm²} |
| | | 2 | 790-261-1130 | Coupling | 1 | |
| Testing and adjusting accumulator charge pressure | R | | 799-101-5002 | Hydraulic tester | 1 | Pressure gauge:2.5, 6.0, 40, 60 MPa {25, 60, 400, 600 kg/cm²} |
| | | | 790-261-1204 | Digital hydraulic tester | 1 | Pressure gauge: 60 MPa {600 kg/cm²} |
| Testing wheel brake oil pressure | S | 1 | 793-605-1001 | Brake test kit | 1 | |
| | | 2 | 790-101-1430 | Coupler | 1 | |
| | | 3 | 790-101-1102 | Pump | 1 | |
| | | 4 | 790-301-1720 | Adapter | 1 | 20 × 1.5 mm → R1/8 |
| | | 5 | 799-101-5160 | Nipple | 1 | |
| | | 6 | 799-401-2220 | Hose | 1 | Length: 5 m |
| | | 7 | 790-261-1130 | Coupling | 1 | |
| Testing wear of wheel brake disc | T | | Commercially available | Vernier calipers | 1 | |
| Testing parking brake oil pressure | U | 1 | 799-101-5002 | Hydraulic tester | 1 | Pressure gauge:2.5, 6.0, 40, 60 MPa {25, 60, 400, 600 kg/cm²} |
| | | | 790-261-1204 | Digital hydraulic tester | 1 | Pressure gauge: 60 MPa {600 kg/cm²} |
| | | 2 | 799-101-5220 | Nipple | 1 | 10 × 1.25 mm |
| | | | 07002-11023 | O-ring | 1 | |
| Testing wear of parking brake disc | V | | Commercially available | Vernier calipers | 1 | |
| Testing and adjusting work equipment control lever | W | 1 | 79A-264-0021 | Push-pull scale | 1 | |
| | | 2 | Commercially available | Scale | 1 | |
| Testing and adjusting work equipment PPC oil pressure | X | 1 | 799-101-5002 | Analog hydraulic tester | 1 | Pressure gauge:2.5, 6.0, 40, 60 MPa {25, 60, 400, 600 kg/cm²} |
| | | | 790-261-1204 | Digital hydraulic tester | 1 | Pressure gauge: 60 MPa {600 kg/cm²} |
| | | 2 | 799-101-5220 | Nipple | 1 | 10 × 1.25 mm |
| | | | 07002-11023 | O-ring | 1 | |



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# Failure code [CA332] (Injector #4 open/short error)

| Action code | Failure code | Trouble | Injector #4 open/short error (Engine controller system) |
|---|---|---|---|
| E03 | CA332 | | |
| Contents of trouble | • There is disconnection or short circuit in drive circuit of injector No. 4. | | |
| Action of controller | • Turns the centralized warning lamp and alarm buzzer ON. | | |
| Problem that appears on machine | • There is irregular combustion or hunting.<br>• Engine output drops. | | |
| Related information | • Method of reproducing failure code: Start engine | | |

| | Causes | | Standard value in normal state/Remarks on troubleshooting | | | |
|---|---|---|---|---|---|---|
| Possible causes and standard value in normal state | 1 | Defective injector No. 4 | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | | |
| | | | C10 (male) | Resistance | | |
| | | | Between (1) and (2) | Max. 2 Ω | | |
| | | | Between (2) and chassis ground | Min. 100 kΩ | | |
| | 2 | Disconnection in wiring harness (Disconnection or defective contact in connector) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | | |
| | | | Wiring harness between EC1 (female) (56) – C10 (female) (2) | Resistance | Max. 2 Ω | |
| | | | Wiring harness between EC1 (female) (58) – C10 (female) (1) | Resistance | Max. 2 Ω | |
| | 3 | Ground fault in wiring harness (Contact with ground circuit) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | | |
| | | | Wiring harness between EC1 (female) (56) – C10 (female) (2) and chassis ground | Resistance | Min. 100 kΩ | |
| | 4 | Short circuit in wiring harness (with another wiring harness) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | | |
| | | | Wiring harness among all pins between EC1 (female) (56) – EC1 (female) (With all connectors of wiring harness disconnected) | Resistance | Min. 100 kΩ | |
| | | | Wiring harness among all pins between EC1 (female) (58) – EC1 (female) (With all connectors of wiring harness disconnected) | Resistance | Min. 100 kΩ | |
| | 5 | Defective wiring harness connector | Connecting parts among injector No. 4, engine wiring harness, and engine controller are suspected. Inspect them directly.<br>• Loose connector, broken lock, broken seal<br>• Corrosive, bent, broken, forced-in, or extended pin<br>• Humidity in connector, entry of dirt or dust, poor insulation | | | |
| | 6 | Defective other cylinder injector or harness | If other failure codes are indicated simultaneously, carry out troubleshooting for them. | | | |
| | 7 | Defective engine controller | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | | |
| | | | EC1 (female) | Resistance | | |
| | | | Between (56) and (58) | Max. 2 Ω | | |
| | | | Between (56) and chassis ground | Min. 100 kΩ | | |



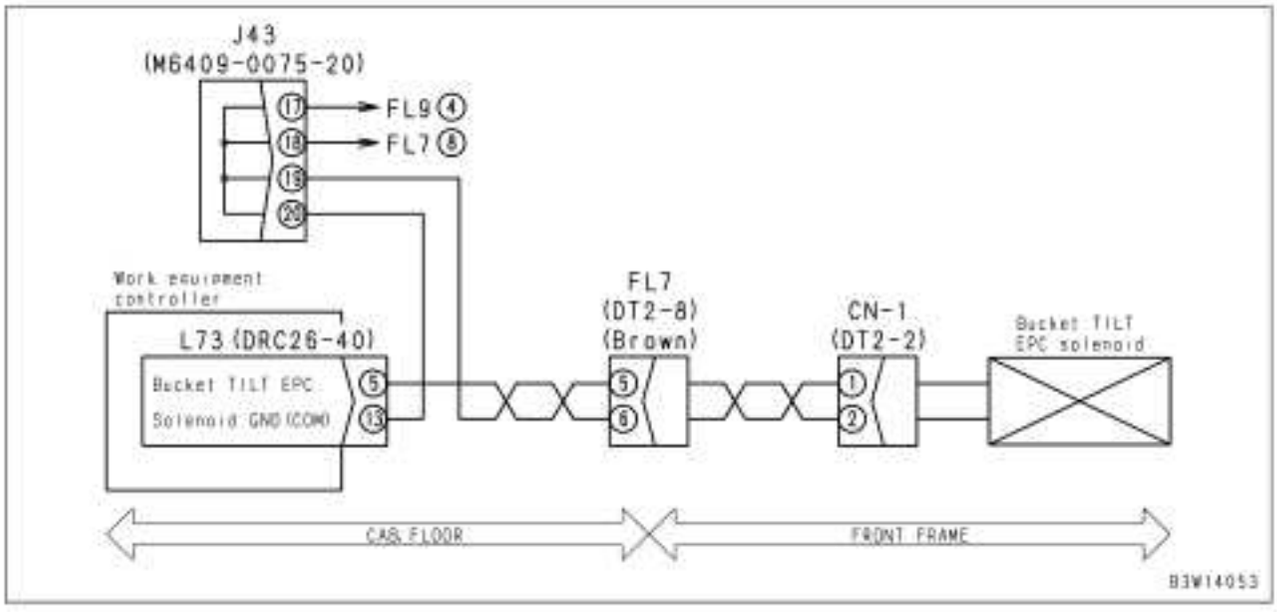
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# Failure code [DW4RKA] (Bucket tilt EPC solenoid: Disconnection)

| Action code | Failure code | Trouble | Bucket tilt EPC solenoid: Disconnection (Work equipment controller system) |
|---|---|---|---|
| E03 | DW4RKA | | |
| Contents of trouble | • Since the bucket tilt EPC solenoid output signal output signal system is disconnected, no current flows when the bucket tilt EPC solenoid output is ON. | | |
| Action of controller | • Turns the centralized warning lamp and alarm buzzer ON.<br>• Even if cause of failure disappears, system does not reset itself until starting switch is turned OFF. | | |
| Problem that appears on machine | • Bucket does not tilt. | | |
| Related information | • The output state (current value) to the bucket tilt EPC solenoid can be checked with the monitoring function (Code: 41902, TILT EPC DIR).<br>• Method of reproducing failure code: Start engine and tilt the bucket. | | |

| | Causes | | Standard value in normal state/Remarks on troubleshooting | | |
|---|---|---|---|---|---|
| Possible causes and standard value in normal state | 1 | Defective bucket tilt EPC solenoid (Internal disconnection) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | |
| | | | CN-1 (male) | Resistance | |
| | | | Between (1) and (2) | 5 – 15 Ω | |
| | 2 | Disconnection in wiring harness (Disconnection in wiring harness or defective contact) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | |
| | | | Wiring harness between L73 (female) (5) – CN-1 (female) (1) | Resistance | Max. 1 Ω |
| | | | Wiring harness between L73 (female) (13) – CN-1 (female) (2) | Resistance | Max. 1 Ω |
| | 3 | Defective work equipment controller | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | |
| | | | L73 (female) | Resistance | |
| | | | Between (5) and (13) | 5 – 15 Ω | |

**Circuit diagram related to bucket tilt EPC solenoid**



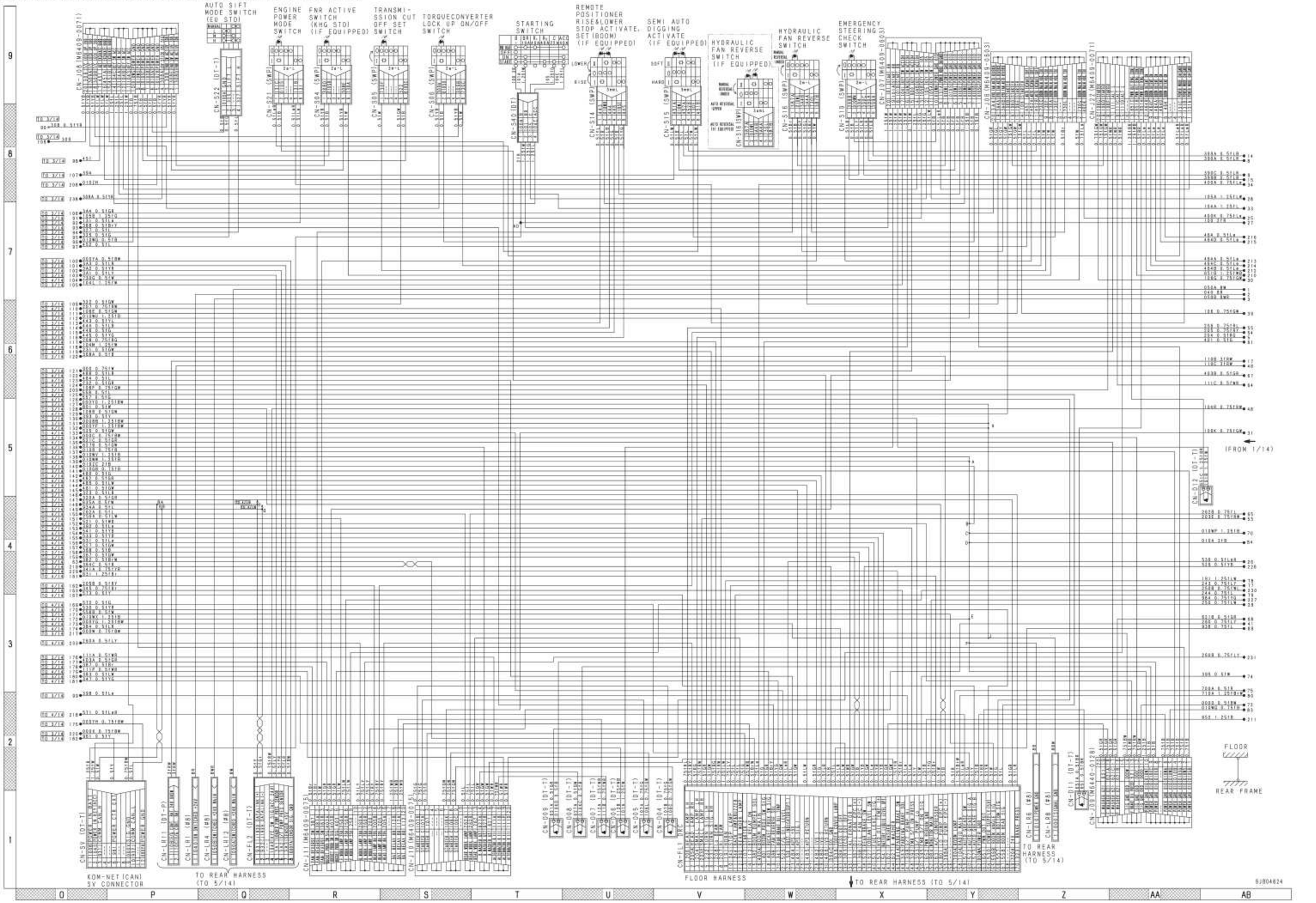



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## Electrical circuit diagram (2/14)

**Common to WA380-6, WA430-6, WA470-6 and WA480-6**

★ This figure covers the equipment and devices that are unavailable as optional items in some areas.






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