WSM

WORKSHOP MANUAL
TRACTOR

M8560,M9960

Kubota

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MECHANISM

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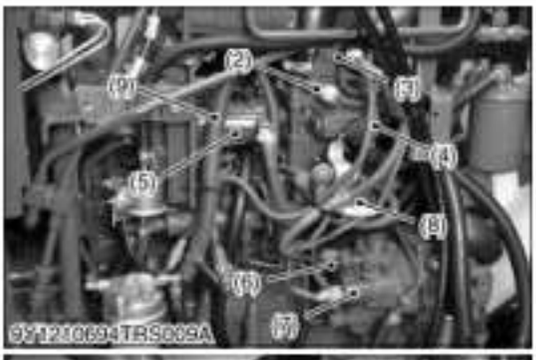
1. TROUBLESHOOTING

This troubleshooting shows only mechanical failures. The failures related to the common rail system (CRS), and DPF, refer to the diagnosis manual (DM) for common rail system engine (9Y120-01740).

Symptom	Probable Cause	Solution	Reference Page
The engine does not start	No fuel	Fill up the fuel	–
	Air in the fuel system	Bleed the air	–
	Water in the fuel system	Change the fuel and repair or replace the fuel system	G-31
	The fuel pump is defective	Replace	–
	The fuel hose is clogged	Clean or replace	G-31
	The fuel filter is clogged	Replace	G-36
	The viscosity of fuel at low temperature is too high	Replace the specified fuel	G-13
	The cetane number of fuel is low	Replace the specified fuel	G-13
	Fuel leakage because of loose injection pipe retaining nut	Tighten the retaining nut	1-S35
	The injector is clogged	Replace	1-S35
	The supply pump is defective	Replace	1-S46
	Seizure of the crankshaft, camshaft, piston or bearing	Repair or replace	–
	Compression leakage from the cylinder	Replace the head gasket Tighten the cylinder head screw	1-S43
	Incorrect valve timing	Examine the timing gear	1-S50
	Piston ring and cylinder are worn out	Replace	1-S53
	Incorrect valve clearance	Adjust valve clearance	1-S12
The starter does not operate	Discharged battery	Charge or replace	–
	Starter is defective	Repair or replace	8-S18
	The key switch is defective	Replace	–
	The connection of the wires is incorrect	Examine or correct	–

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Fuel Hose and Wire Harness for R.H. Side

1. Disconnect the wire harness (9) from the heater relay (1), the intake air temperature sensor (2), the intake air pressure sensor (3), the intake air heater (4), the EGR DC motor (5), the fuel temperature sensor (6), the SCV (7), the rail pressure sensor (8) and the connector (10).
2. Disconnect the fuel hose (11) and the fuel return hose (12).

(1) Heater Relay
(2) Intake Air Temperature Sensor
(3) Intake Air Pressure Sensor
(4) Intake Air Heater
(5) EGR DC Motor
(6) Fuel Temperature Sensor
(7) SCV
(8) Rail Pressure Sensor
(9) Wire Harness
(10) Connector (Injector)
(11) Fuel Hose
(12) Fuel Return Hose

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POSITION AND DRAFT CONTROL LINKAGE

Item		Factory Specification	Allowable Limit
Position Control Rod (ROPS)	Length	154 to 156 mm 6.07 to 6.14 in.	–
Draft Control Rod (ROPS)	Length	143 to 145 mm 5.63 to 5.70 in.	–
Position Control Rod (CABIN)	Length	184 to 186 mm 7.25 to 7.32 in.	–
Draft Control Rod (CABIN)	Length	178 to 180 mm 7.01 to 7.08 in.	–
Position Control	Floating Range	10 to 30 mm 0.40 to 1.1 in.	–
Uppermost Position of Lift Arm	Floating Range	5 to 8 mm 0.2 to 0.3 in.	–
Draft Lever Free Range	Floating Range	Less than 25 mm 0.98 in.	–
Draft Floating Range Check	Floating Range	More than 15 mm 0.59 in.	–
Position and Draft Control Lever	Operating Force	20 to 39 N 2.0 to 4.0 kgf 4.4 to 8.8 lbf	–

AUXILIARY CONTROL VALVE LINKAGE

Item		Factory Specification	Allowable Limit
Clearance between Wire End and Valve Lever Pin (ROPS)	Length	0 to 3.0 mm 0 to 0.12 in.	–
Clearance between Wire End and Valve Lever Pin (CABIN)	Length	0 to 5.0 mm 0 to 0.19 in.	–

OIL COOLER RELIEF VALVE (ROPS MODEL)

Item		Factory Specification	Allowable Limit
Oil Cooler Relief Valve	Operating Pressure	4.5 to 4.9 MPa 45 to 50 kgf/cm^2 640 to 710 psi	–

OIL COOLER CHECK VALVE (CABIN MODEL)

Item		Factory Specification	Allowable Limit
Oil Cooler Check Valve	Operating Pressure	Approx. 0.8 MPa 8 kgf/cm^2 100 psi	–

CONTROL VALVE

Item		Factory Specification	Allowable Limit
Spool Joint	Length	22.5 to 23.0 mm 0.886 to 0.905 in.	–

LIFT ARM AND TOP LINK BRACKET

Item		Factory Specification	Allowable Limit
Bushing	Press-fit Location	11.0 mm 0.433 in.	–

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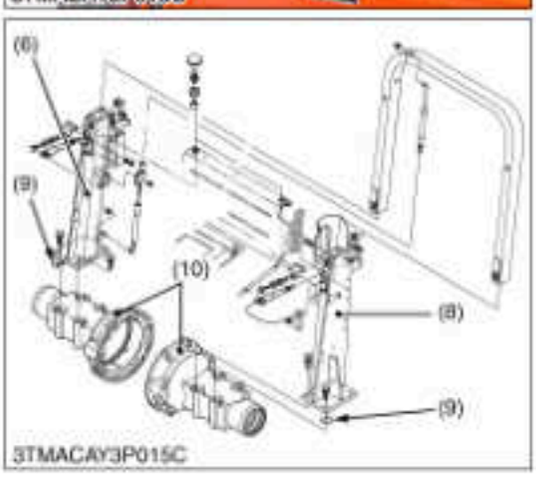
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Fender, ROPS Under, Seat, 4WD Lever Grip and Hydraulic Lowering Speed Rod (Low Profile Model)

1. Remove the fuel filling port (1) fixing screw.
2. Remove the harness cover (2) and disconnect the **4P** connector (3) and **1P** connector (4) and remove the wire harness from ROPS under.
3. Remove the both fenders (1).
4. Remove the screw (7) for both sides then take out the ROPS under L.H. (8) and R.H. (6).
5. Remove the seat (11) and the 4WD lever grip.
6. Disconnect the hydraulic lowering speed rod (12).

(When reassembling)

- Be sure to assemble the fender to the original height.
- If the adjusting shim (9) uses between the ROPS under and rear axle case, assemble the shim to the original position.
- Be sure to check the ROPS slides smoothly, after assembling. If ROPS does not slide smoothly, adjust with shim (9).

Tightening torque	ROPS under frame mounting screw (M16, 9T)	260 to 304 N·m 26.5 to 31.0 kgf·m 192 to 224 lbf·ft



(1) Fuel Filling Port
(2) Harness Cover
(3) **4P** Connector
(4) **1P** Connector
(5) Fender
(6) ROPS Under R.H.
(7) Screw
(8) ROPS Under L.H.
(9) Shim
(10) Rear Axle Case
(11) Seat
(12) Hydraulic Lowering Speed Rod

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Fender (R.H.) and ROPS Under (R.H.)

1. Remove the cover (1) and then disconnect **3P** connector for PTO clutch control switch.
2. Loosen the retaining nut (2).
3. Remove the pin (3) and then disconnect the auxiliary control valve wire (4).
4. Remove the auxiliary control valve wire cover (5).
5. Remove the screws (6) and then the fender (R.H.) (7).
6. Disconnect the **4P** connector and two **1P** connectors for combination lamp (9) and hazard lamp (8).
7. Remove the screw (11) and then remove the ROPS under (10).

(When reassembling)

- Tighten the screw (6) with the cushion rubber.
- Be sure to connect the connectors.
- Be sure to reroute the OPC buzzer harness.

■ **NOTE**

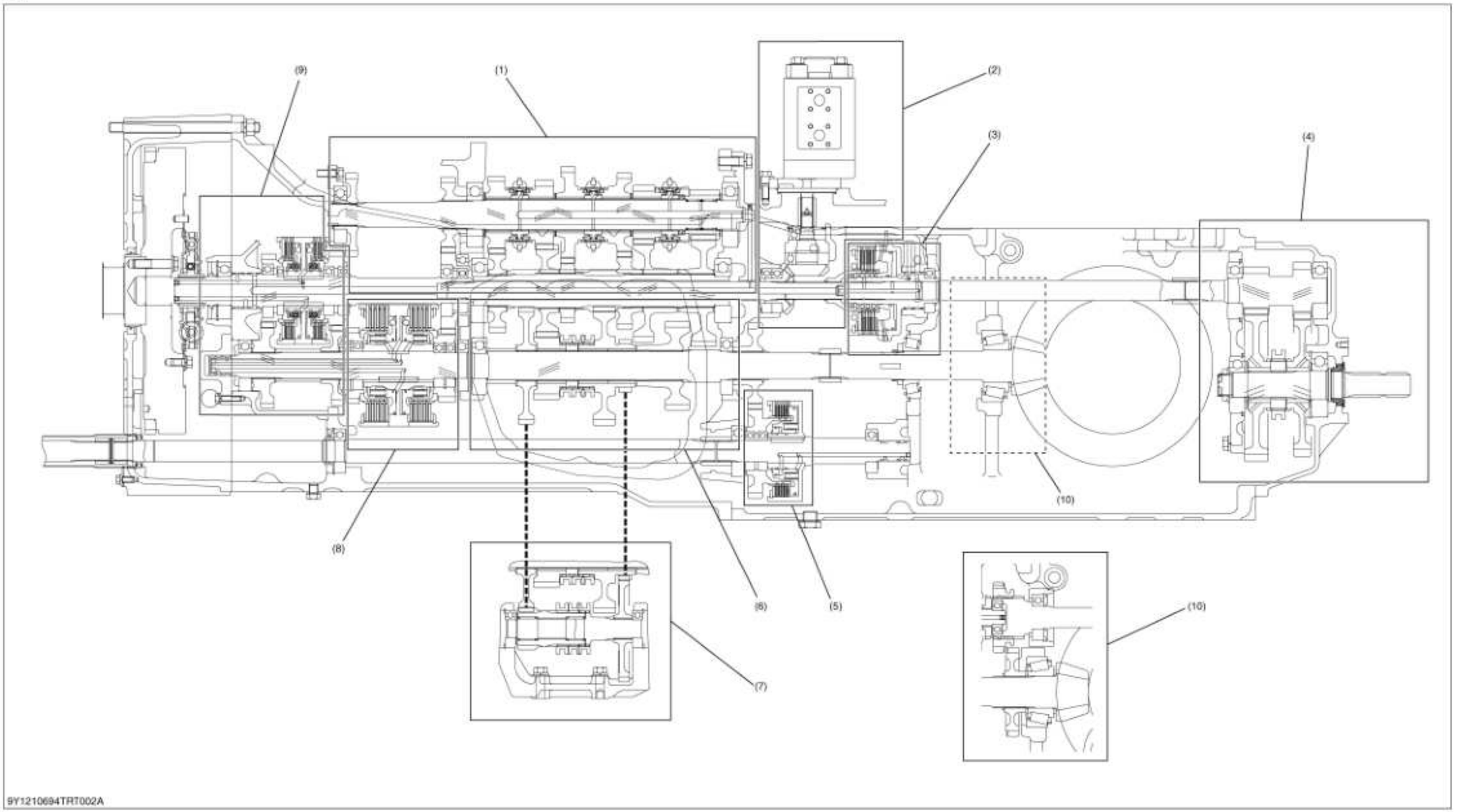
- **After assembling, check the auxiliary control system (see page 7-S17).**

(1) Cover (Auxiliary Control Valve Lever and PTO Switch)
(2) Retaining Nut
(3) Pin
(4) Wire (Auxiliary Control Valve)
(5) Auxiliary Wire Cover
(6) Fender (R.H.) Mounting Screw
(7) Fender (R.H.)
(8) Hazard Lamp (for North America)
(9) Combination Lamp
(10) ROPS Under (R.H.)
(11) Screw

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[2] F36/R36 SPEED TRANSMISSION MODEL



(1) Main Gear Shift Section
(2) Hydraulic Pump Drive Section
(3) PTO Clutch Section
(4) PTO Gear Section (540/540E min^{-1} (rpm))
(5) Four Wheel Drive Section
(6) Range Gear Shift Section
(7) Creep Gear Section (Cassette Type)
(8) Hydraulic Shuttle Section
(9) Dual Speed Selection
(10) Live PTO-Ground PTO (ITA Model)

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