WSM

WORKSHOP MANUAL
TRACTOR

L3560,L4060,L4760,
L5060,L5460,L6060

Kubota

KiSC issued 03, 2016 A

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1. TROUBLESHOOTING

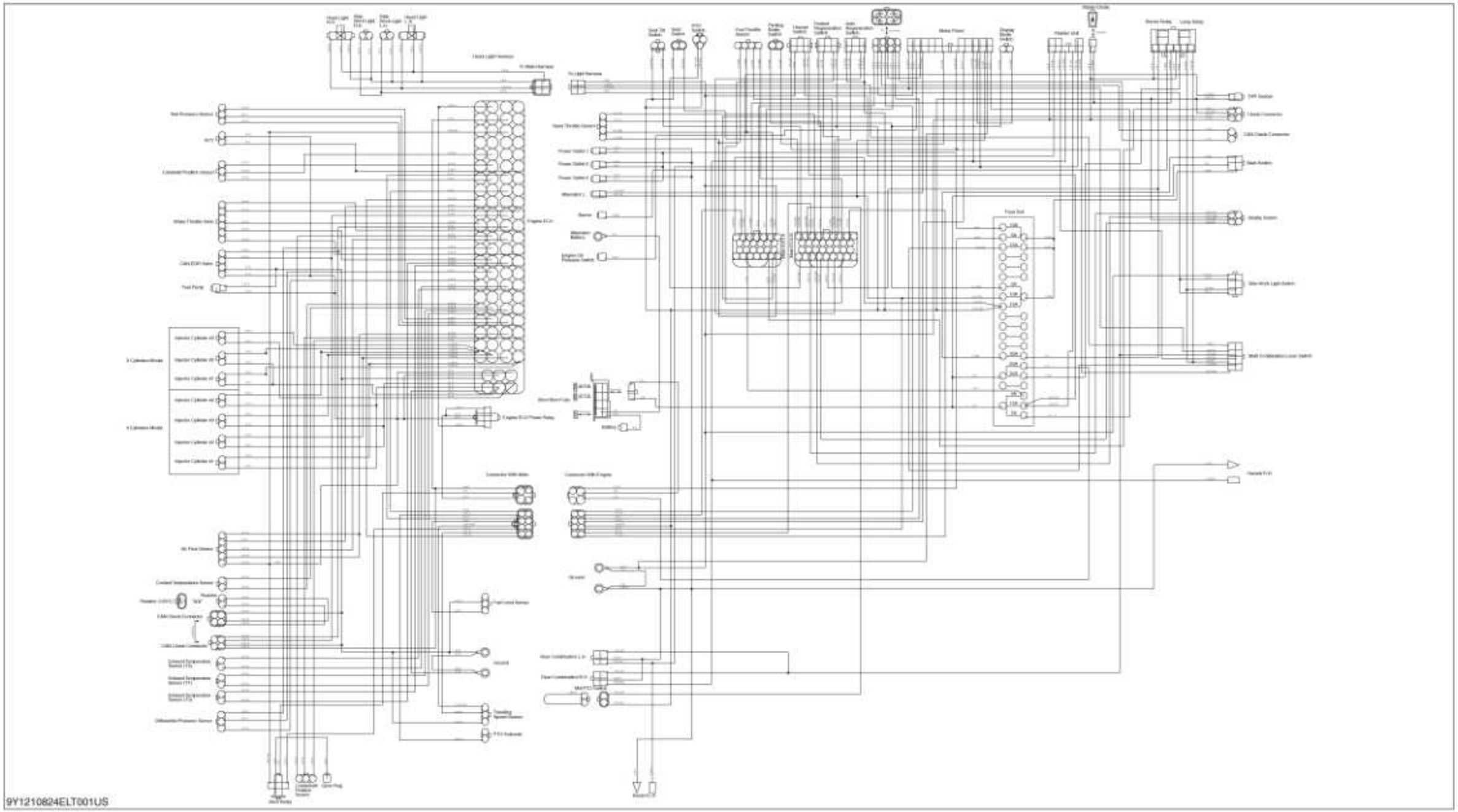
Symptom	Probable Cause	Solution	Reference Page
Front Wheels Wander to Right or Left	Tire pressure uneven	Adjust	G-73
	Improper toe-in adjustment (improper alignment)	Adjust	6-S5
	Clearance between front axle case boss and front axle bracket (front, rear) bushing excessive	Replace	6-S19
	Front axle rocking force too small	Adjust	6-S6
	Front wheel sway excessive	Replace	6-S5
	Tie-rod end loose	Tighten	6-S9
	Air sucked in power steering circuit	Bleed	7-S5
Front Wheels Can Not Be Driven	Propeller shaft broken	Replace	6-S9
	Front wheel drive gears in transmission broken	Replace	3-S75, 3-S94, 3-S119
	Front differential gear broken	Replace	6-S14
	Shift fork broken	Replace	–
	Coupling displaced	Reassemble	6-S9
Noise	Gear backlash excessive	Adjust or replace	6-S15
	Oil insufficient	Fill	G-9
	Bearings damaged or broken	Replace	–
	Gears damaged or broken	Replace	–
	Spiral bevel pinion shaft turn force improper	Adjust	6-S17

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1. WIRING DIAGRAM

[1] MANUAL TRANSMISSION (WITHOUT CCV HEATER)



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2. SERVICING SPECIFICATIONS

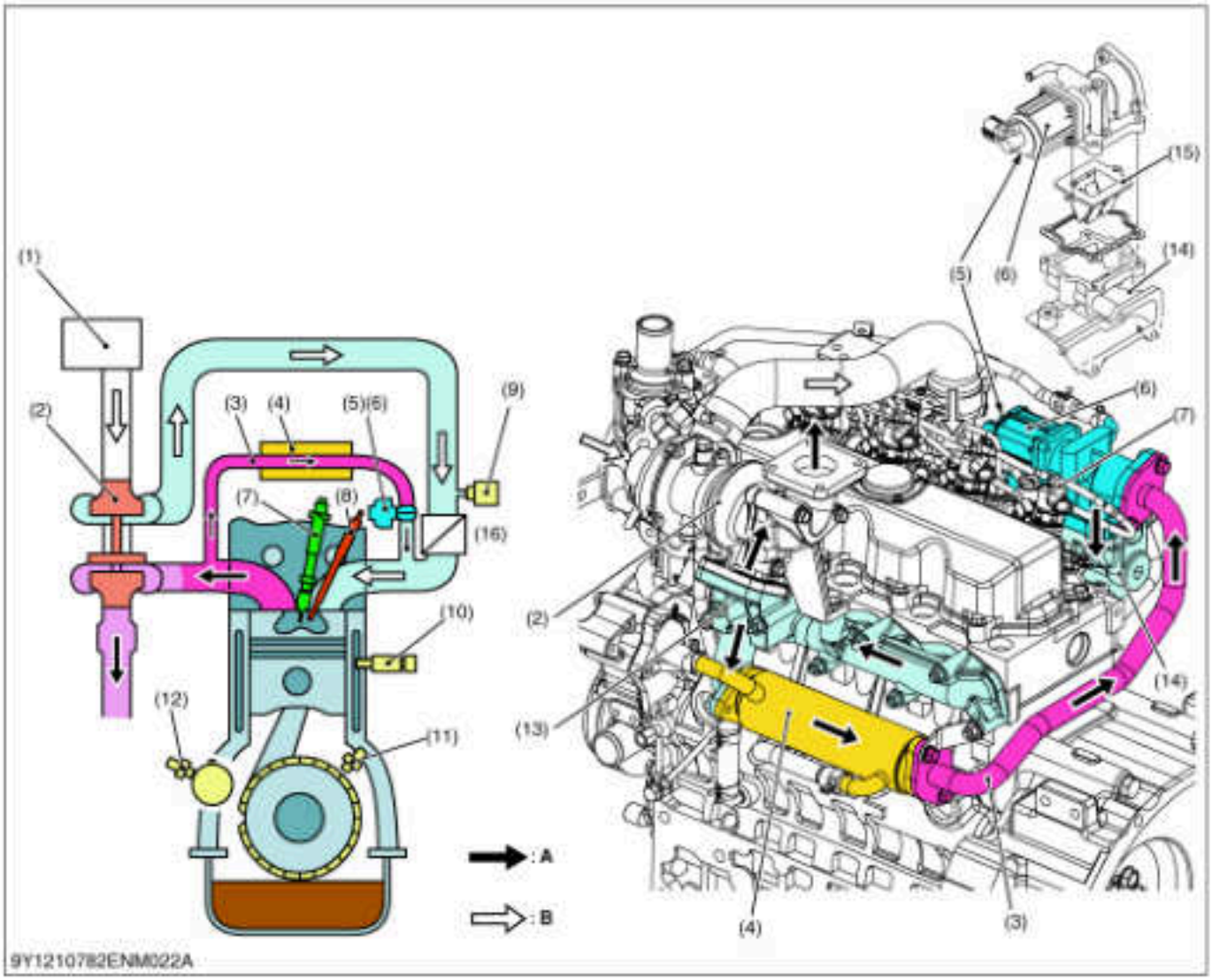
Item		Factory Specification	Allowable Limit
GST Proportional Reducing Valve	Resistance	Approx. 8 to 9 Ω	–
Shift Solenoid Valve	Resistance	Approx. 11 to 15 Ω	–
Glow Plug	Resistance	Approx. 0.8 Ω	–
Fuel Level Sensor			
• Float at Upper-most Position	Resistance	3.0 to 5.0 Ω	–
• Float at Lower-most Position	Resistance	107.5 to 112.5 Ω	–
Coolant Temperature Sensor			
• at −20 °C (−4 °F)	Resistance	13.54 to 16.63 kΩ	–
• at 20 °C (68 °F)	Resistance	2.28 to 2.63 kΩ	–
• at 80 °C (176 °F)	Resistance	0.30 to 0.33 kΩ	–
• at 100 °C (212 °F)	Resistance	0.1836 kΩ	–
• at 120 °C (248 °F)	Resistance	0.1108 kΩ	–
Starter			
• Commutator	O.D.	30.0 mm 1.18 in.	29.0 mm 1.14 in.
• Mica	Under Cut	0.50 to 0.80 mm 0.020 to 0.031 in.	0.20 mm 0.0079 in.
• Brush	Length	15.0 mm 0.591 in.	11.0 mm 0.433 in.
• Brush Holder and Holder Support	Resistance	Infinity	–
Alternator	No-load voltage	More than 14 V	–
• Stator	Resistance	Less than 1.0 Ω	– –
• Rotor	Resistance	2.9 Ω	12.8 mm 0.504 in.
• Slip Ring	O.D.	14.4 mm 0.567 in.	8.4 mm 0.331 in.
• Brush	Length	10.5 mm 0.413 in.	

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6. EGR SYSTEM

[1] OVERVIEW



(1) Air Cleaner
(2) Turbocharger
(3) EGR Pipe
(4) EGR Cooler
(5) EGR Lift Sensor
(6) EGR Valve Motor
(7) Injector
(8) Glow Plug
(9) Boost Sensor
(10) Coolant Temperature Sensor
(11) Crankshaft Position Sensor
(12) Camshaft Position Sensor
(13) Exhaust-manifold
(14) Intake-manifold
(15) Reed Valve
(16) Intake Throttle Valve

A: Exhaust Gas Flow
B: Intake Air Flow

The EGR (Exhaust Gas Recirculation) system is a device that captures a part of the exhaust gas and returns it to the intake side reducing the amount of oxygen entering the engine and lowers combustion temperature suppressing generation of nitrogen oxides (NOx).

The EGR being used on this engine is electronic and is made up of an EGR cooler (4), EGR lift sensor (5), EGR valve motor (6), and reed valve (15).

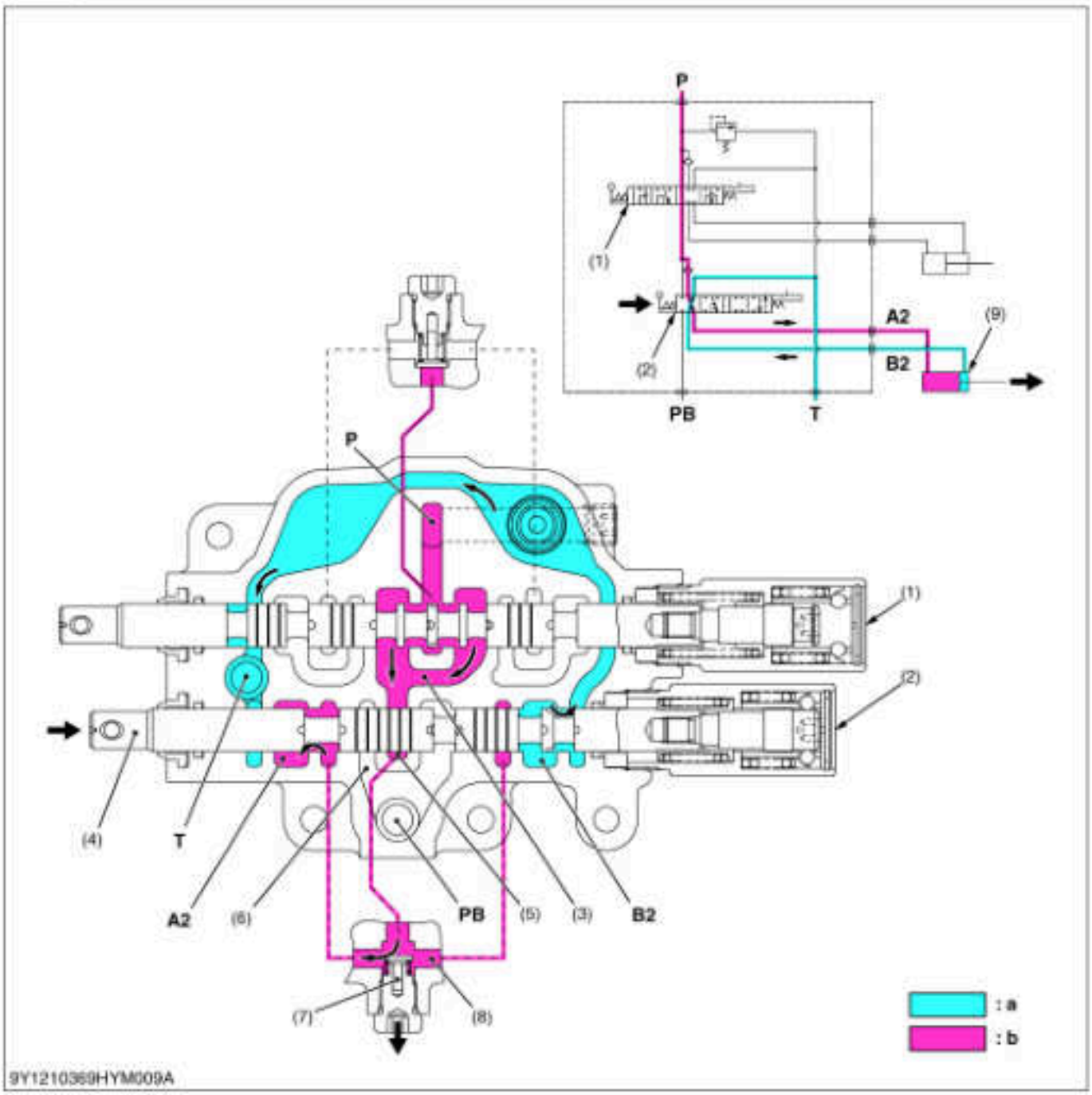
The exhaust gas that is returned to the intake side (hereafter EGR gas) is cooled in the EGR cooler (4), adjusted to a suitable flow by an EGR valve motor that is controlled by the engine ECU, and is sent to the intake manifold (14).

The reed valve prevents reverse flow of air from the air cleaner (1) to the EGR valve motor (6).

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Dump 2



(1) Boom Control Section
(2) Bucket Control Section
(3) **PB** Passage 1
(4) Spool
(5) Neutral Passage 2
(6) **PB** Passage 2
(7) Load Check Valve
(8) Passage 2
(9) Bucket Cylinder

P: Pump Port
T: Tank Port
PB: Power Beyond Port

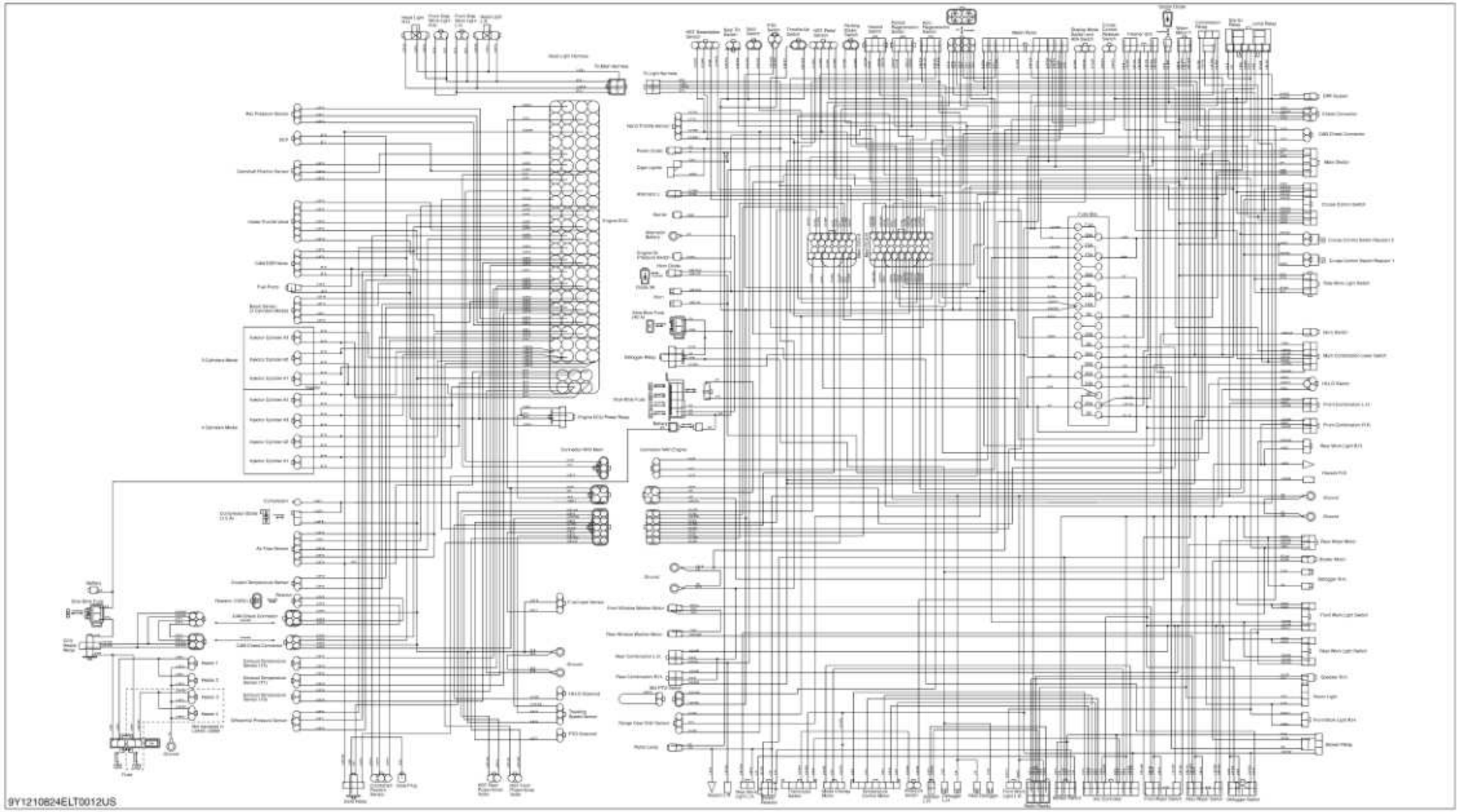
A2: A2 Port (To Bucket Cylinder)
B2: B2 Port (From Bucket Cylinder)
a: Low Pressure
b: High Pressure

1. When the hydraulic control lever is set to the **"DUMP 2"** position, the spool (4) of the bucket control section (2) moves to the right of the bucket control section (2) moves further to the right from the **"DUMP 1"** position, which forms oil passages between passage 2 (8) and **A2** port, and between **B2** port and **T** port.
2. The pressure-fed oil from the **P** port flows to the neutral passage 2 (5) through the boom control section (1) and **PB** passage 1 (3). As the oil passage from the neutral passage 2 (5) to the **PB** passage 2 (6) is closed by the spool (4), this oil opens the load check valve (7) and flows through the notched section of the spool (4) and **B2** port to extend the bucket cylinder (9).
3. Return oil from the bucket cylinder (9) flows to the transmission case through the **B2** port and **T** port.

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[8] HST CABIN TYPE (WITH CCV HEATER)



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