

# WSM

---

WORKSHOP MANUAL

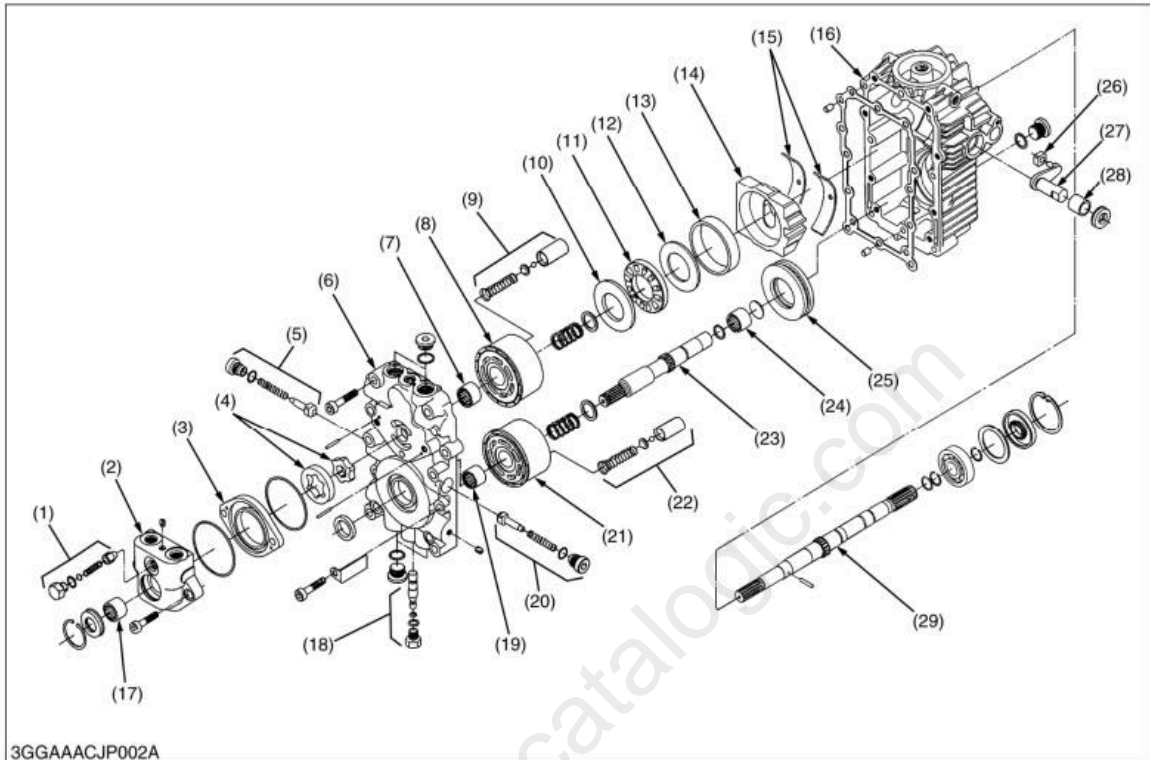
G2160, G2160-R48S, G2460G

---

**Кубота**

## 2. HYDROSTATIC TRANSMISSION

### [1] STRUCTURE



3GGAAACJP002A

- |                           |                            |                             |                          |
|---------------------------|----------------------------|-----------------------------|--------------------------|
| (1) Charge Relief Valve   | (9) Piston Assembly        | (17) Needle Bearing         | (25) Thrust Ball Bearing |
| (2) Charge Pump Housing   | (10) Thrust Plate          | (18) By-pass Valve          | (26) Slot Guide          |
| (3) Charge Pump Spacer    | (11) Thrust Roller Bearing | (19) Needle Bearing         | (27) Trunnion Arm        |
| (4) Gerotor               | (12) Thrust Washer         | (20) Check Valve            | (28) Journal Bearing     |
| (5) Check Valve           | (13) Bearing Guide         | (21) Cylinder Block (Motor) | (29) Pump Shaft          |
| (6) Center Section        | (14) Swashplate            | (22) Piston Assembly        |                          |
| (7) Needle Bearing        | (15) Cradle Bearing        | (23) Motor Shaft            |                          |
| (8) Cylinder Block (Pump) | (16) Housing               | (24) Needle Bearing         |                          |

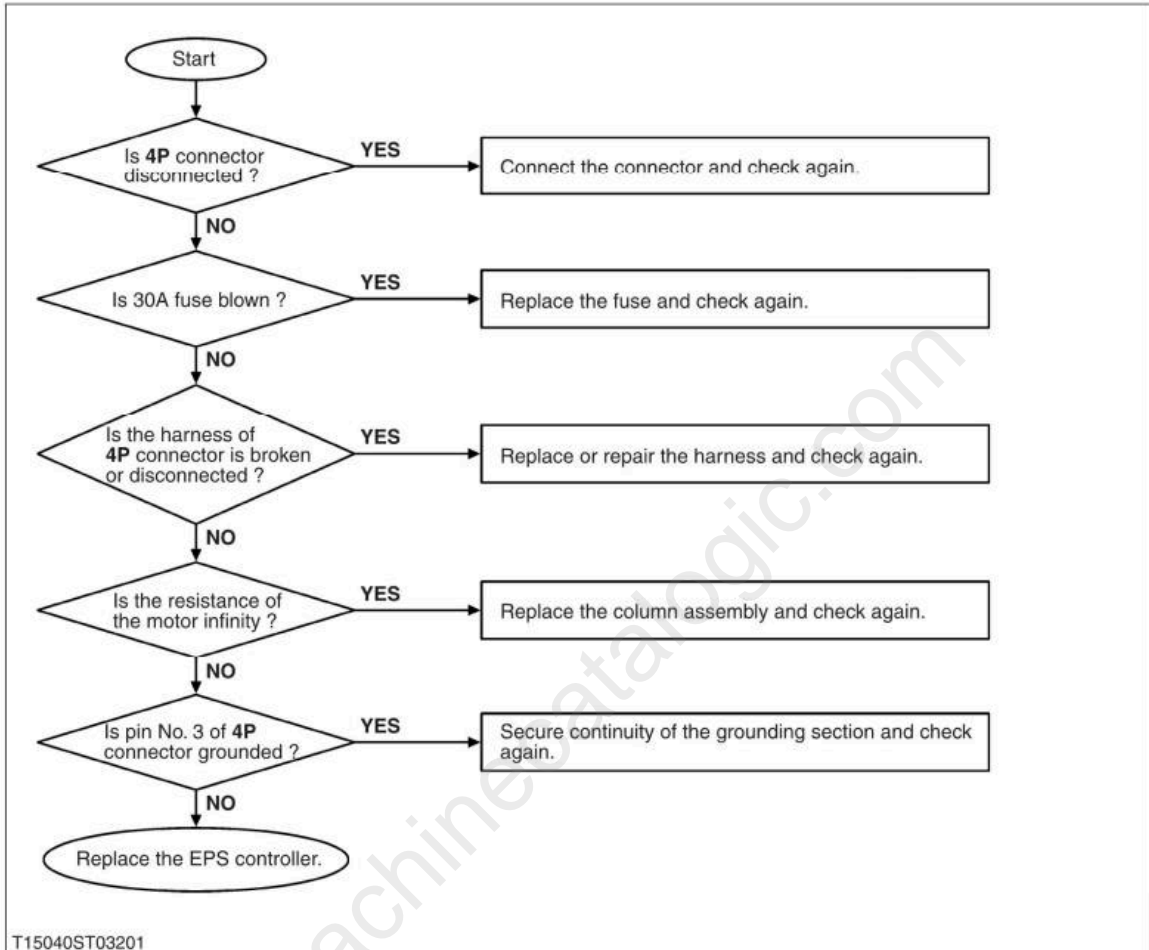
The hydrostatic transmission consists of a variable displacement piston pump and a fixed displacement piston motor.

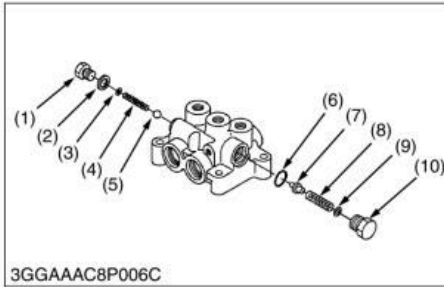
A fan is used to cool the hydrostatic transmission, eliminating the need for an oil cooler.

Convenient single lever control permits simple operation of the machine, starting, stopping, increasing or decreasing speeds, changing direction of travel, and even going up or down hills.

As for operation of the hydrostatic transmission, refer to Workshop Manual for G1700 · G1800 · G1900 · G2000 (Code No.9Y021-10834).

W1013294

**[2] TROUBLESHOOTING BASED ON ERROR CODE****(1) Error code 02****[EPS System Troubleshooting Procedure]**



### Relief Valve

1. Remove the bolt (1).
2. Remove the shims (3), washer with rubber (2), spring (4) and steel ball (5).
3. Remove the plug (10).
4. Remove the shims (9), O-ring (6), spring (8) and poppet (7).

#### (When reassembling)

- Take care not to damage the O-rings.
- Install the relief valve, noting the number of shims.

#### ■ IMPORTANT

- After reassembling the relief valve, be sure to adjust its setting pressure. (See page 6-S3.)

- |                        |            |
|------------------------|------------|
| (1) Bolt               | (6) O-ring |
| (2) Washer with Rubber | (7) Poppet |
| (3) Shims              | (8) Spring |
| (4) Spring             | (9) Shims  |
| (5) Steel Ball         | (10) Plug  |

W1013734

Symptom	Probable Cause	Solution	Reference Page
<b>Either Black or Dark Gray Exhaust Gas Is Observed</b>	<ul style="list-style-type: none"> <li>• Overload</li> <li>• Low grade fuel used</li> <li>• Fuel filter clogged</li> <li>• Air cleaner clogged</li> </ul>	<p>Lessen load. Use specified fuel. Replace fuel filter. Clean or replace air cleaner element.</p>	<p>– PG-2 PG-7, 10 G-22</p>
<b>Deficient Output</b>	<ul style="list-style-type: none"> <li>• Incorrect ignition timing</li> <li>• Engine's moving parts seem to be seized.</li> <li>• Improper intake or exhaust valve sealing</li> <li>• Improper valve clearance</li> <li>• Compression leak from cylinder</li> <li>• Spark plug defective</li> <li>• Excessive carbon in engine</li> </ul>	<p>Adjust ignition timing. Repair or replace engine's moving parts. Repair valve seat. Adjust valve clearance. Replace head gasket and tighten cylinder head screw and spark plug, or check cylinder and piston ring. Adjust spark plug gap or replace spark plug. Remove carbon. Clean or replace air element</p>	<p>P8-S3 – 1-S34 P1-S18 1-S27 1-S28 P1-S20 PG-8 PG-8 G-22</p>
<b>Excessive Lubricant Oil Consumption</b>	<ul style="list-style-type: none"> <li>• Oil ring worn or stuck</li> <li>• Piston ring groove worn</li> <li>• Valve stem and guide worn</li> <li>• Crankshaft bearing, and crank pin bearing worn</li> </ul>	<p>Replace oil ring. Replace the piston. Replace valve stem and guide. Replace crankshaft bearing and crank pin bearing.</p>	<p>1-S28 1-S27 1-S22 1-S36</p>
<b>Water Mixed into Lubricating Oil</b>	<ul style="list-style-type: none"> <li>• Head gasket defective</li> <li>• Cylinder block or cylinder head flawed</li> </ul>	<p>Replace head gasket. Replace cylinder block or cylinder head.</p>	<p>1-S31 P1-S17 1-S31 1-S45</p>
<b>Low Oil Pressure</b>	<ul style="list-style-type: none"> <li>• Engine oil insufficient</li> <li>• Oil strainer clogged</li> <li>• Oil filter cartridge clogged</li> <li>• Relief valve stuck with dirt</li> <li>• Relief valve spring weaken or broken</li> <li>• Excessive oil clearance of crankshaft bearing</li> <li>• Excessive oil clearance of rocker arm boss</li> <li>• Oil passage clogged</li> <li>• Different type of oil</li> <li>• Oil pump defective</li> </ul>	<p>Replenish engine oil. Clean oil strainer. Replace oil filter cartridge. Clean relief valve. Replace relief valve spring. Replace crankshaft, main bearings or metals. Replace rocker arms, rocker arm brackets or rocker arm shaft. Clean oil passage. Use specified type of oil. Repair or replace oil pump.</p>	<p>PG-2, 4 1-S26 PG-6 – – 1-S30 1-S21 – PG-2 P1-S25 1-S46</p>

W1012330

# Full Version Available

Kubota G2160 Lawn Tractor Workshop Manual

This is a short preview. The complete manual contains all chapters, wiring diagrams, torque specifications and full service procedures.

**VIEW THE FULL MANUAL**

<https://machinecatalogic.com/kubota-g2160-lawn-tractor-workshop-manual/>