WSM

WORKSHOP MANUAL

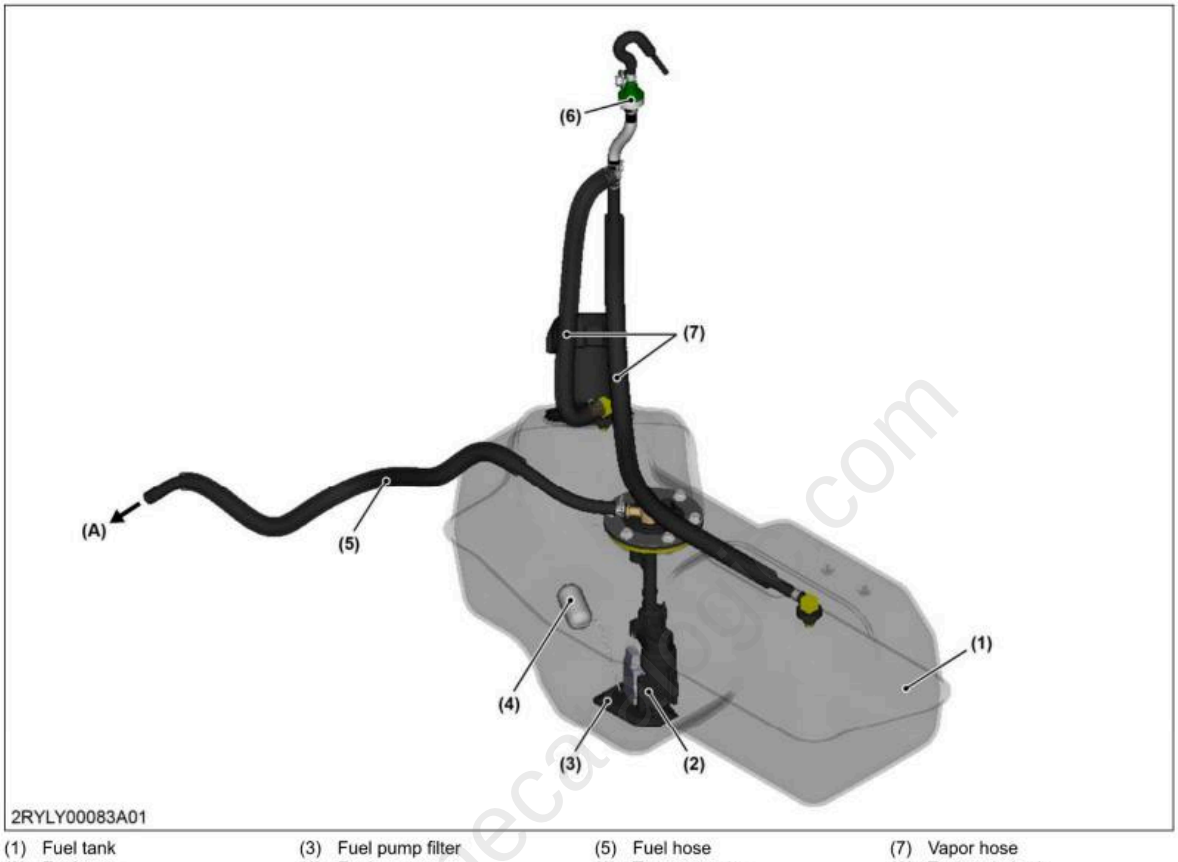
UTILITY VEHICLE

RTV520

Kubota

KiSC issued 04, 2021 A

4.4 Structure of fuel system



(1) Fuel tank
(2) Fuel pump
(3) Fuel pump filter
(4) Fuel gauge
(5) Fuel hose
(6) Two-way valve
(7) Vapor hose
(A) To throttle body

The fuel system components include the fuel tank (1), fuel pump (2), fuel pump filter (3), fuel gauge (4), fuel hose (5), two-way valve (6), and vapor hose (7).
Fuel is pumped from the fuel tank by the fuel pump. The fuel first passes through a fuel filter to filter out any impurities. From the fuel pump the fuel then passes through the fuel hose to the fuel pipe. The fuel pipe allows the single fuel hose to feed the fuel injector. Fuel is then passed through the fuel hose, through the injector, and into the cylinder head.

MECHANISM

1. Outline of a transaxle

An overview of the transaxle is shown

5. TRANSAXLE

Item	N·m	kgf·m	lbf·ft
Engine bracket mounting bolt	17.6 to 20.6	1.80 to 2.10	13.0 to 15.1
Engine and transaxle docking nut	17.6 to 20.6	1.80 to 2.10	13.0 to 15.1
Bolt	18 to 21	1.9 to 2.1	14 to 15
Flange bolt	18 to 21	1.9 to 2.1	14 to 15
Piston case	70 to 80	7.2 to 8.1	52 to 59
Motor case bolts	18 to 21	1.9 to 2.1	14 to 15
Pump case mounting bolt	18 to 21	1.9 to 2.1	14 to 15
Regulator assembly socket head bolt	5.2 to 6.3	0.53 to 0.64	3.9 to 4.6
Socket head bolt	25 to 29	2.6 to 2.9	19 to 21
Charge pump cover mounting bolt.	18 to 21	1.9 to 2.1	14 to 15
Charge relief valve plug	59 to 78	6.1 to 7.9	44 to 57
GPF 1/2 plug	59 to 78	6.1 to 7.9	44 to 57
Bypass plug	29 to 39	3.0 to 3.9	22 to 28
DT output case assembly mounting bolt	18 to 21	1.9 to 2.1	14 to 15
Stopper bolt	22 to 26	2.3 to 2.6	17 to 19
DT cable stay bolt	18 to 21	1.9 to 2.1	14 to 15
Brake disk coated bolt	23.5 to 27.4	2.40 to 2.79	17.4 to 20.2
Rear axle bolt	18 to 21	1.9 to 2.1	14 to 15
Rear axle shaft slotted nut	147.1	15.00	108.5
Safety switch	22.6	2.30	16.7
Transmission case cover bolt	18 to 21	1.9 to 2.1	14 to 15
54T gear mounting screw	37.5 to 42.5	3.83 to 4.33	27.7 to 31.3
Negative battery cable	1 to 2	0.1 to 0.2	0.8 to 1
Positive battery cable	1 to 2	0.1 to 0.2	0.8 to 1
Ground cable bolt	23.5 to 27.4	2.40 to 2.79	17.4 to 20.2
Ignition coil plate bolts	7.8 to 8.8	0.80 to 0.89	5.8 to 6.4

RELATED PAGE
1. General use screws, bolts and nuts on page 2-3
2. Stud bolts on page 2-4

(When reassembling)

- Apply liquid gasket (Three Bond or equivalent) to the joint face of the front case 1 and the front case 2.
- Use the same number of shims as before disassembling.

Thickness of shim (RH) (Case side)	Service specification	0.50 mm 0.020 in.
Thickness of shim (LH) (Case side)	Service specification	0.60 mm 0.024 in.
Thickness of shim (Bevel pinion shaft side)	Service specification	1.0 mm 0.039 in.

- Replace the oil seal with new one.
- Apply lithium soluble grease to entire circumference of the seal lip.
- Tighten to the specified tightening torque.

Tightening torque	Front case 1 to front case 2 bolt	17.6 to 20.6 N·m 1.80 to 2.10 kgf·m 13.0 to 15.1 lbf·ft
	Front diff protector bolt	48.05 to 55.90 N·m 4.900 to 5.700 kgf·m 35.44 to 41.22 lbf·ft

5.2.9 Disassembling front differential side gear and differential pinion

1. Put paint marks on the 10T differential pinion (5) and the 14T differential side gear (3).

(1) 35T Bevel gear
(2) Shim
(3) 14T Differential side gear
(4) Shim
(5) 10T Differential pinion
(6) Bearing
(7) Differential case
(8) Pinion shaft
(9) Spring pin

2. Tap out the spring pin (9).
3. Remove the pinion shaft (8).
4. Remove the 10T differential pinion (5), the 14T differential side gear (3), aligning the paint marks.

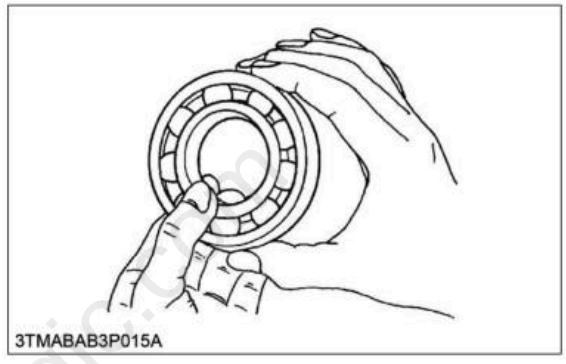
(When reassembling)

- Install the differential pinion and differential side gear while aligning the paint marks.

Thickness of shim (differential pinion)	Service specification	3.5 mm 0.14 in.
Thickness of shim (differential side gear)	Service specification	1.0 mm 0.039 in.

6. Servicing

6.1 Checking bearing



1. Hold the inner race of the roller or ball bearing.
2. Push and pull the outer race in all directions to check for wear and roughness.
3. Apply transmission fluid to the bearing, and hold the inner race.
4. Turn the outer race to check rotation.
5. If damage is found, replace bearing.
6. Invert the needle rollers of the needle bearing and check for any damage and wear.
7. If damage is found, replace bearing.

6.2 Checking backlash between differential pinion and differential side gear

Tools required

- Solder
- Outside micrometer

Full Version Available

Kubota RTV520 Utility Vehicle Workshop Manual

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