WSM

WORKSHOP MANUAL

TRACTOR

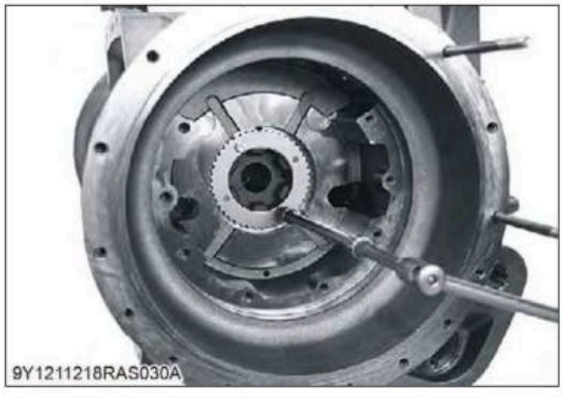
M7001

Kubota

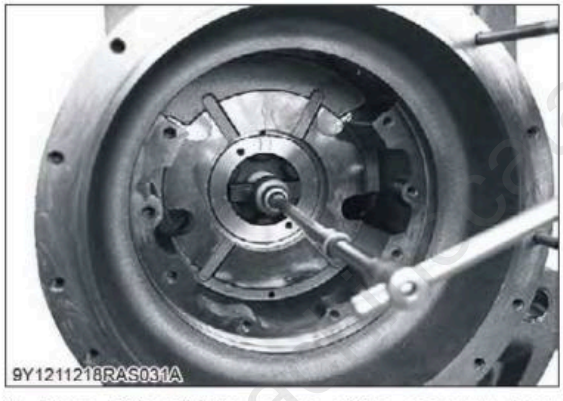
KiSC issued 09, 2020 A

2. Loosen hexagon screws. Remove locking plate.

CAUTION
- **Work step 2 and step 3 to be carried out on both sides.**



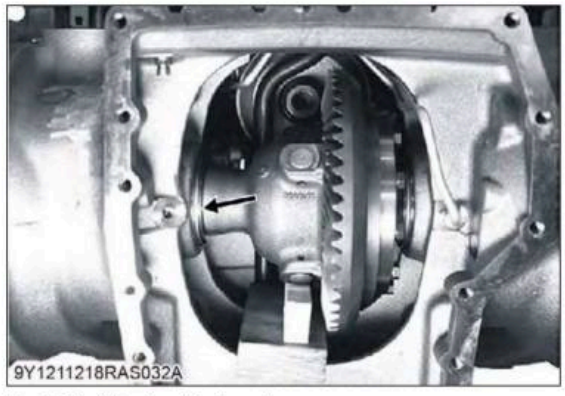
3. Loosen setting screw.
   (S) Socket wrench W710000371



4. Press differential by means of the assembly lever (S) to the left (see arrow). Then remove the left bearing outer ring and lift the differential out of the rear axle housing.

CAUTION
- **Support differential (see figure).**

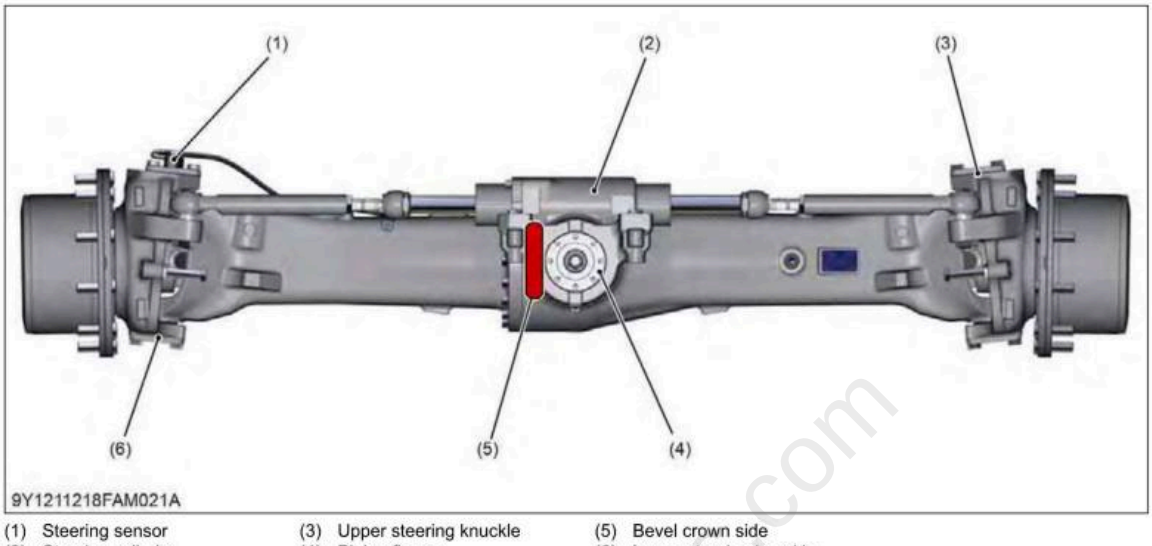
(S) Assembly lever W710000231



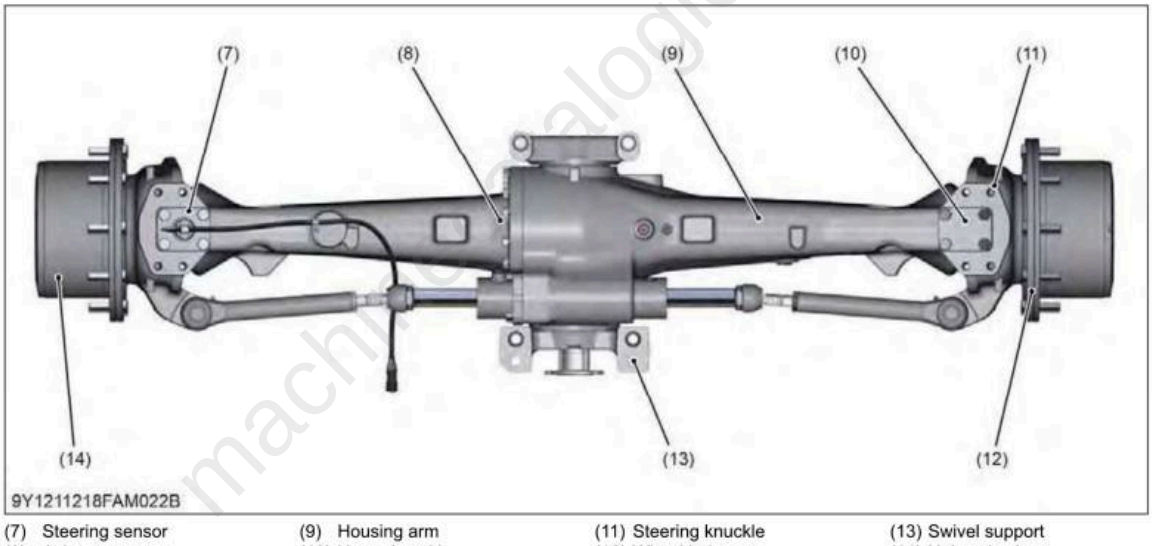
5. Pull off both roller bearings.

6. Fix the differential with the press. Loosen the bolted connection.

1.2 Structure of heavy duty front axle



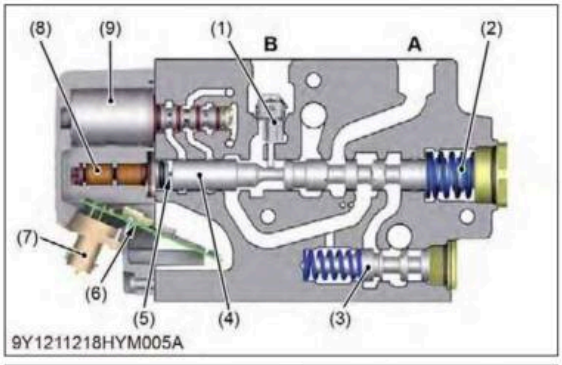
(1) Steering sensor
(2) Steering cylinder
(3) Upper steering knuckle
(4) Pinion flange
(5) Bevel crown side
(6) Lower steering knuckle

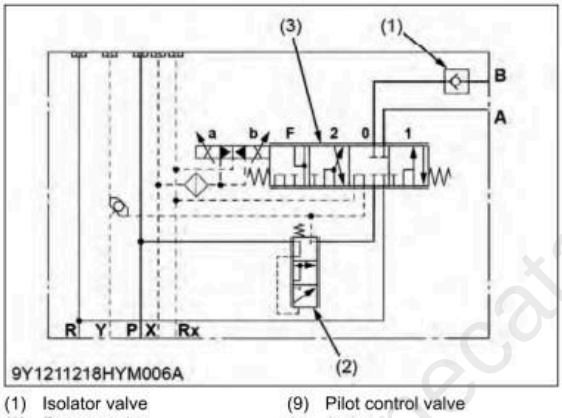


(7) Steering sensor
(8) Axle arm
(9) Housing arm
(10) Upper knuckle post
(11) Steering knuckle
(12) Wheel hub
(13) Swivel support
(14) Hub reduction

5.2 Premium model and premium KVT model

5.2.1 Function of SB23-EHS1

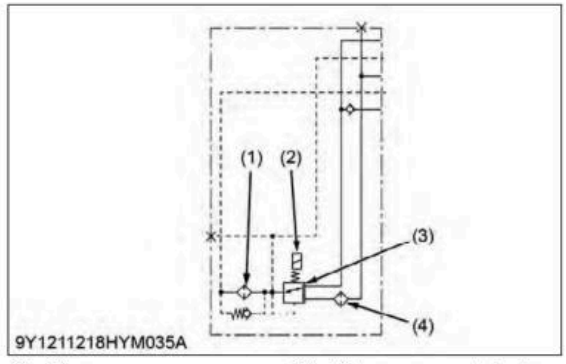




(1) Isolator valve
(2) Return spring
(3) Pressure compensator
(4) Control spool
(5) Actuating chamber
(6) Electronic unit
(7) CAN control
(8) Position transducer
(9) Pilot control valve
A: A port
B: B port
R: Tank port
Y: LS port
P: Pump port
X: Pilot oil supply port
Re: Pilot oil return port

This valve is a pilot operated, electro-hydraulically actuated directional valve with 4 switching positions (raise, neutral, lower and float). This valve has a load check valve in the outlet port B. These valves are also controlled by signal voltage from auxiliary control switch and K-monitor.
The direction valve is held in the neutral position by spring and the valve has no detents.
Individual pressure compensator (3) is activated when the actuator load increases to prevent the oil flow rate to the actuator from decreasing due to the actuator load increase. As a result, the operation speed of the actuator is kept.
The electronics are used for position control and communication with the CAN bus.

5.2.2 Function of pilot valve



(1) Filter
(2) Solenoid valve
(3) Pilot pressure control valve
(4) Filter

The pilot valve, on the left side end plate is used to supply oil under 1.8 MPa (1.8 kgf/cm^2, 260 psi) to auxiliary control valves. The solenoid valve (2) is supplied with 12 V to provide the pilot pressure. When the solenoid valve feed control valve lock is stopped, the auxiliary control valves cannot be activated.

3. If the reference value is not indicated, check the relating electric circuit.

DC motor voltage	Main switch at on	Terminal 1 – Chassis	Approx. 2 V
		Terminal 2 – Chassis	
Lift sensor voltage		Terminal 5 – Chassis	Approx. 5 V

4. Remove intake throttle valve and measure the voltage across the terminal 4 and chassis under the conditions shown in the table below.
5. If the reference value is not indicated, check the connection condition or renew the throttle valve.

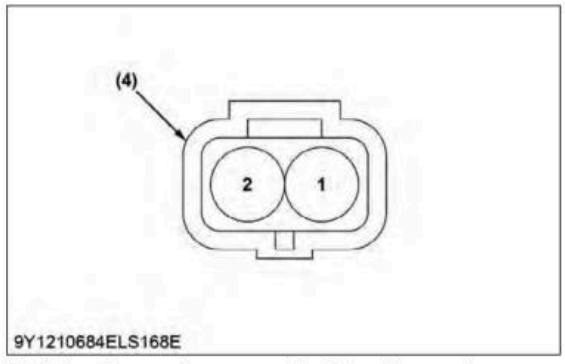
Lift sensor voltage	• Connector is connected • Main switch at on • Slowly turning from full open to full close	Terminal 4 – Chassis	0.4 to 4.4 V

4.20.13 Exhaust temperature sensor

■ NOTE

- **Since it is not possible to do unit checking for this sensor, judge the sensor damaged if the relating electric circuit is normal.**

4.20.13.1 Checking connector voltage of exhaust temperature sensor



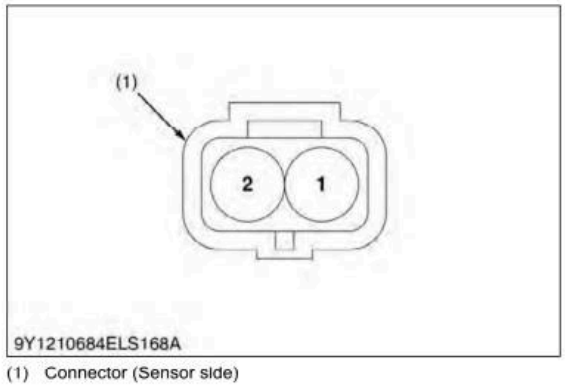
(1) Exhaust temperature sensor T0
(2) Exhaust temperature sensor T1
(3) Exhaust temperature sensor T2
(4) Connector (Harness side)

1. Disconnect the connector, and turn the main key switch to on position.
2. Measure the voltage with a voltmeter across the terminals shown in the table.
3. If the reference value is not indicated as shown in the table, check the relating electric circuit.

Item	Terminal	Color of wiring
Exhaust temperature sensor T0	Terminal 1	O
	Terminal 2	P
Exhaust temperature sensor T1	Terminal 1	W
	Terminal 2	O
Exhaust temperature sensor T2	Terminal 1	V
	Terminal 2	BR

Voltage	Main switch at on	Terminal 1 - Chassis	Approx. 5 V

4.20.13.2 Checking exhaust temperature sensor resistance (for reference)



(1) Connector (Sensor side)