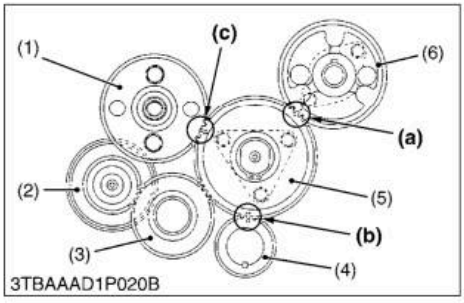
WSM

WORKSHOP MANUAL
TRACTOR

B3300SU-AUS

Kubota

KiSC issued 10, 2012 A



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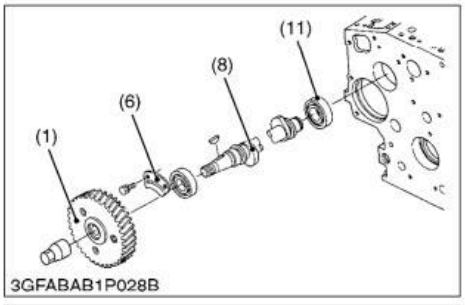

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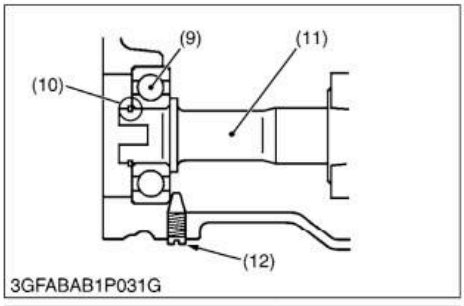

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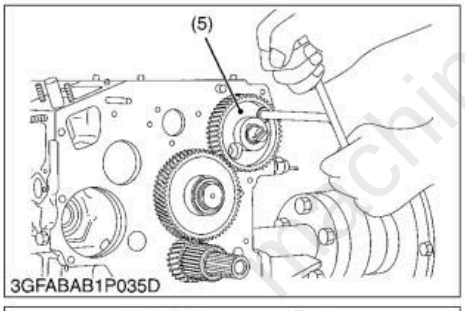

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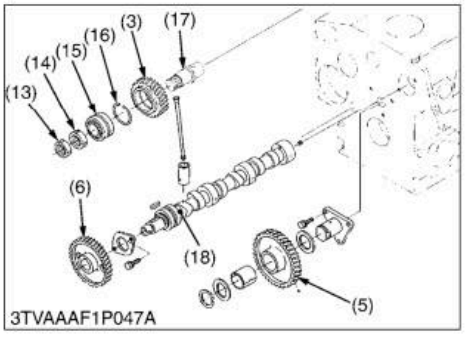

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Cam Gear and Idle Gear 1, 2

1. Remove the lock nut (13) and the bearing nut (14).
2. Remove the idle gear 2 (3) and the Idle gear 1 (5).
3. Remove the fuel camshaft stopper (7).
4. Draw out the fuel cam gear (1) with fuel camshaft (8).
5. Remove the camshaft stopper bolt.
6. Remove the cam gear (6) with camshaft (8).
7. Remove the cir-clip (10) from the governor shaft (11).
8. Remove the governor gear (2) with governor shaft (11).

(When reassembling)

- Apply engine oil thinly to the fuel camshaft before installation.
- Make sure to assemble the external snap ring of the governor shaft.
- Check the governor shaft for smooth rotation.

Tightening torque	Idle gear 2 lock nut	25 to 29 N·m 2.5 to 3.0 kgf·m 18 to 21 lbf·ft
	Idle gear 2 bearing nut	35 to 39 N·m 3.5 to 4.0 kgf·m 26 to 28 lbf·ft

■ **IMPORTANT**

- **When replacing the ball bearing (9) of governor shaft, securely fit the ball bearing (9) to the crankcase, apply an adhesive (Three Bond 1375N or equivalent) to the set screw (12), and fasten the screw until its tapered part contacts the circumferential end of the ball bearing.**

(1) Injection Pump Gear
(2) Governor Gear
(3) Idle Gear 2
(4) Crank Gear
(5) Idle Gear 1
(6) Cam Gear
(7) Fuel Camshaft Gear
(8) Fuel Camshaft
(9) Ball Bearing
(10) Cir-clip
(11) Governor Shaft
(12) Set Screw
(13) Lock Nut
(14) Bearing Nut
(15) Taper Roller Bearing
(16) Cir-clip
(17) Idle Gear Shaft
(18) Cam Shaft

(a) Alignment Mark: Idle Gear 1 and Cam Gear 1
(b) Alignment Mark: Idle Gear 1 and Crank Gear
(c) Alignment Mark: Idle Gear 1 and Fuel Cam Gear

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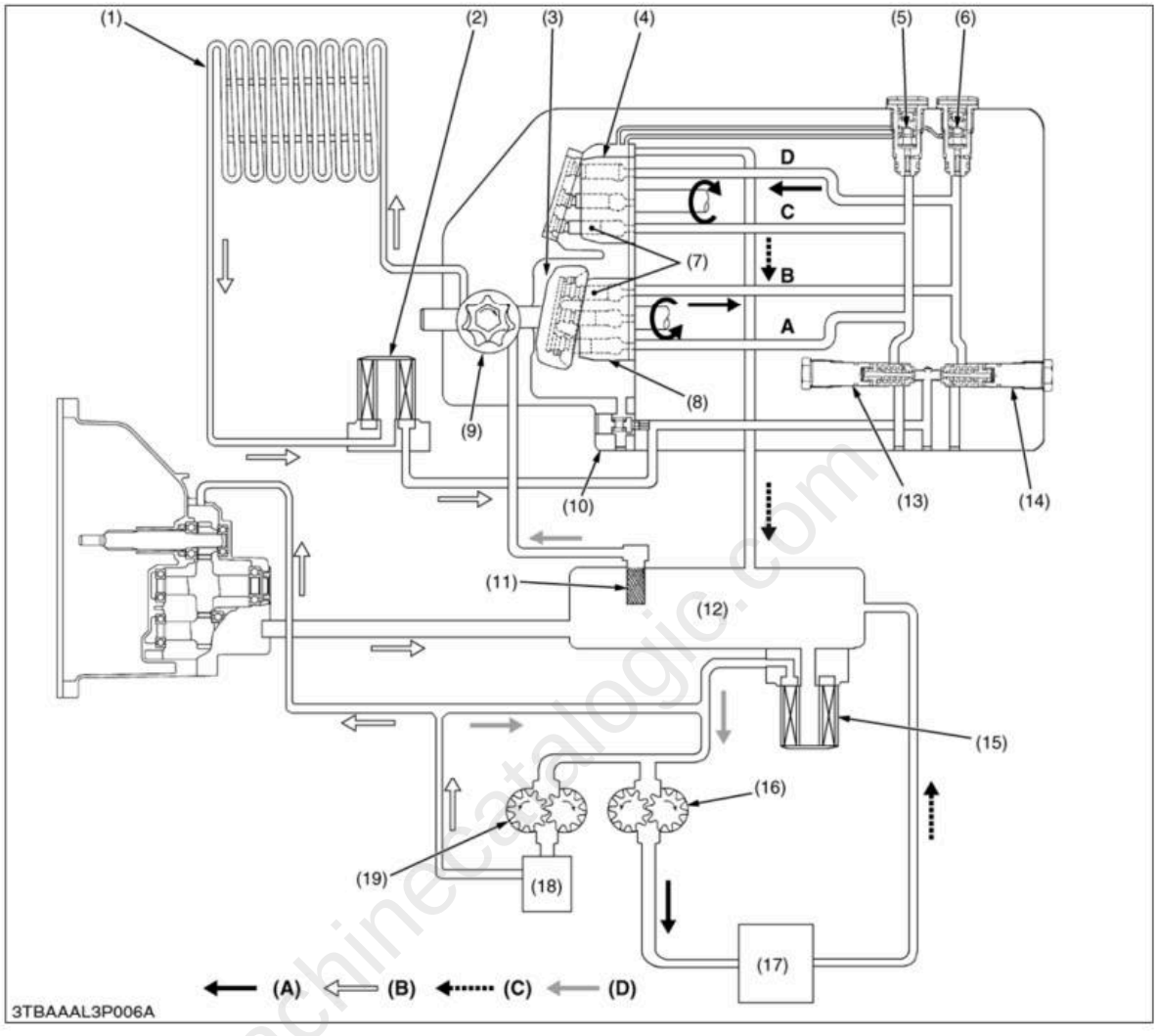
Reverse



(1) Oil Cooler
(2) Oil Filter Cartridge (for HST)
(3) Swashplate
(4) Cylinder Block (Motor)
(5) Neutral Valve (Forward)
(6) Neutral Valve (Reverse)
(7) Piston
(8) Cylinder Block (Pump)
(9) Charge Pump
(10) Charge Relief Valve
(11) Oil Strainer
(12) Oil Tank
(13) Check and High Pressure Relief Valve (Forward)
(14) Check and High Pressure Relief Valve (Reverse)
(15) Oil Filter Cartridge
(16) Hydraulic Pump (25.3 L/min, 6.68 U.S.gals/min, 5.57 Imp.gals/min)
(17) Hydraulic Control Valve
(18) Power Steering
(19) Hydraulic Pump (12.2 L/min, 3.22 U.S.gals/min, 2.68 Imp.gals/min)

(A) High Pressure Oil
(B) Low Pressure Oil
(C) Free Oil
(D) Suction Oil
A: A Port
B: B Port
C: C Port
D: D Port

When the speed control pedal is stepped on and in reverse, the variable swashplate is tilted as shown in figure above.

As the pump cylinder block rotates with the input shaft, oil is forced out of pump port **B** at high pressure. As pressure oil enters motor port **D**, the pistons, which align with port **D**, are pushed against the swashplate and slide down the inclined surface.

Then the output shaft rotates with the motor cylinder block. This drives the machine rearward and the angle of pump swashplate determines the output shaft speed.

As the motor cylinder block continues to rotate, oil is forced out of motor port **C** at low pressure and returns to the pump.

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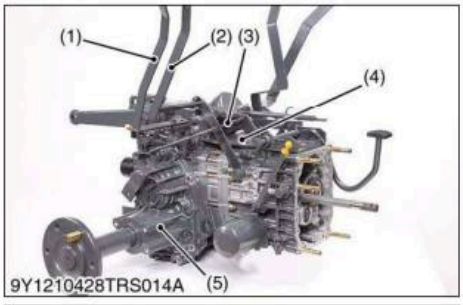

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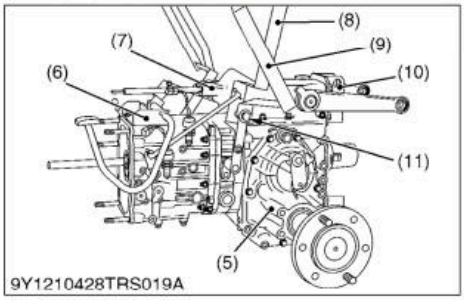

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Separating Hydraulic Cylinder Case, Rear Axle Cases and Others

1. Remove the differential lock rod (3).
2. Remove the front wheel drive lever (2) and hydraulic control lever (1).
3. Remove the external snap ring (11) and remove the PTO shift lever (8) and range gear shift lever (9).
4. Remove the differential lock pedal support (6).
5. Remove the top link bracket (10).
6. Remove the hydraulic cylinder case assembly (7) with connecting plate (4).
7. Remove the rear axle cases (5).

(When reassembling)

- Apply liquid gasket (Three Bond 1206D or equivalent) to joint face of the differential case to hydraulic cylinder case and rear axle cases.

Tightening torque	Differential lock pedal support mounting screw	18 to 20 N·m 1.8 to 2.1 kgf·m 13 to 15 lbf·ft
	Connecting plate mounting nut	40 to 44 N·m 4.0 to 4.5 kgf·m 29 to 32 lbf·ft
	Hydraulic cylinder case mounting nut	40 to 44 N·m 4.0 to 4.5 kgf·m 29 to 32 lbf·ft
	Rear axle case mounting screw	40 to 44 N·m 4.0 to 4.5 kgf·m 29 to 32 lbf·ft
	Top link bracket mounting screw	78 to 90 N·m 7.9 to 9.2 kgf·m 58 to 66 lbf·ft

(1) Hydraulic Control Lever
(2) Front Wheel Drive Lever
(3) Differential Lock Rod
(4) Connecting Plate
(5) Rear Axle Case
(6) Differential Lock Pedal Support
(7) Hydraulic Cylinder Case Assembly
(8) PTO Shift Lever
(9) Range Gear Shift Lever
(10) Top Link Bracket
(11) External Snap Ring

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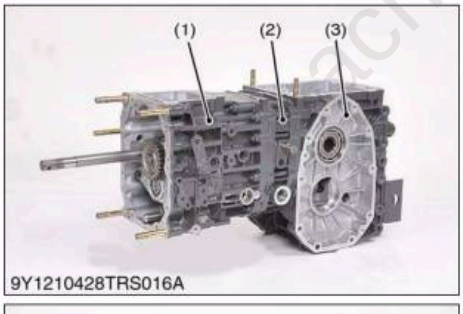

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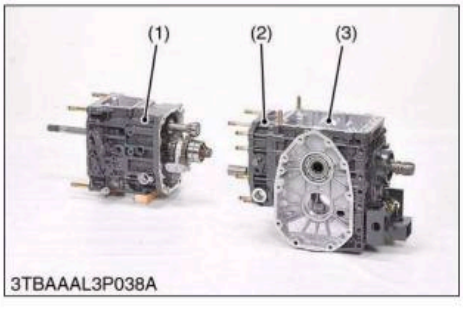

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Separating Transmission Case and Differential Case

1. Remove the transmission case mounting screws and nuts and separate the differential case (3) and transmission case (1).

(When reassembling)

- Apply liquid gasket (Three Bond 1206D or equivalent) to joint face of the transmission case to mid case and mid case to differential case.
- When reassembling the transmission case, remove the mid case from the differential case. Attach the transmission case, mid case and differential case after spreading the liquid gasket over their surfaces.

Tightening torque	Transmission case and differential case mounting nut	40 to 44 N·m 4.0 to 4.5 kgf·m 29 to 32 lbf·ft

(1) Transmission Case
(2) Mid Case
(3) Differential Case

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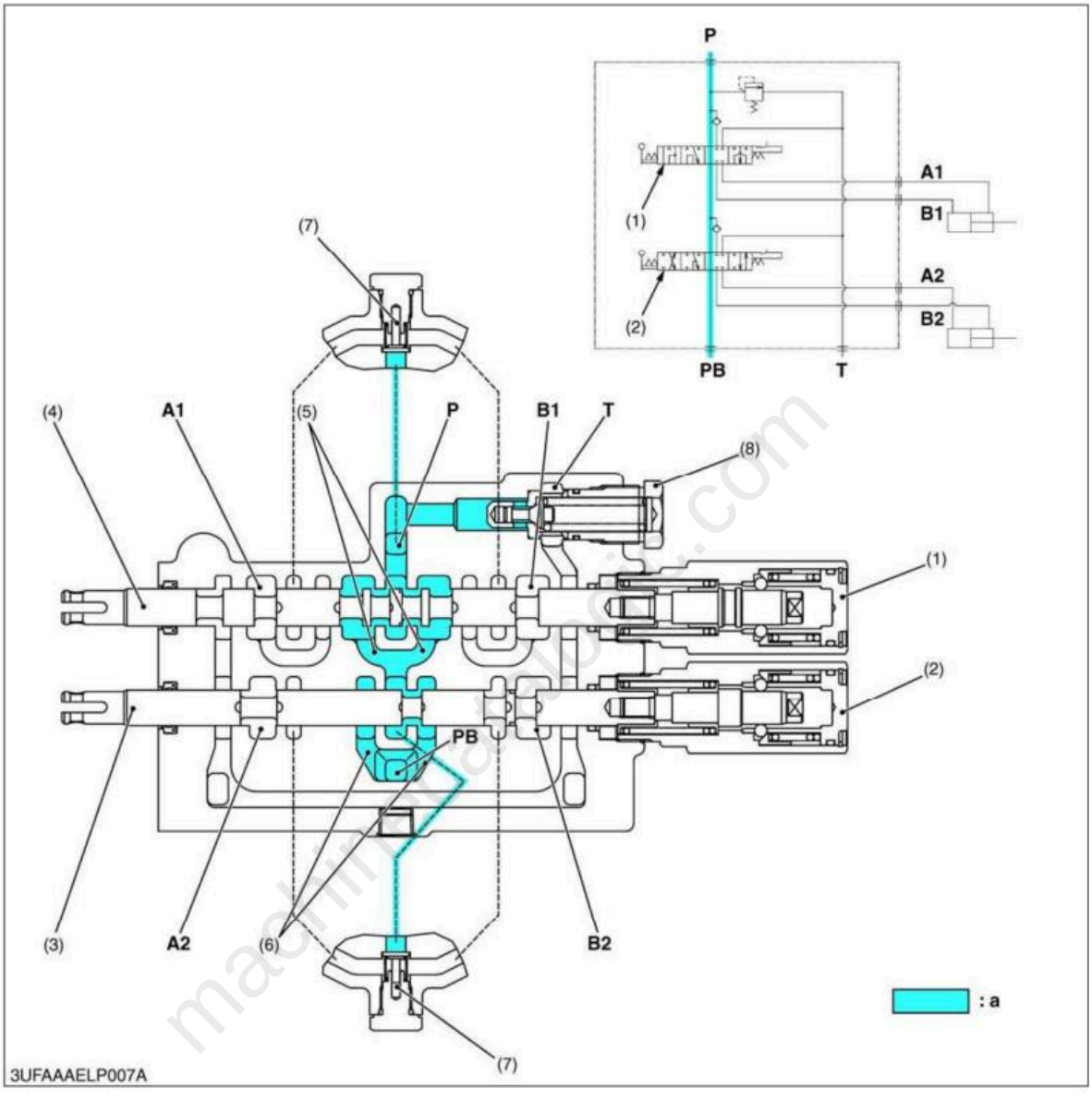
(2) Operation

Neutral



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

T: T Port
P: P Port
A1: A1 Port
A2: A2 Port
B1: B1 Port
B2: B2 Port
PB: PB Port

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