WSM

WORKSHOP MANUAL
TRACTOR

BX1800,BX2200

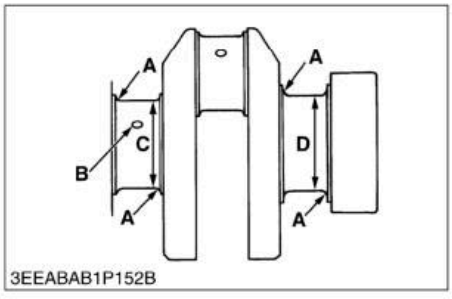
Kubota

KiSC issued 07, 2006 A

FUEL SYSTEM

Item		Factory Specification	Allowable Limit
Injection Pump	Injection Timing	0.35 to 0.38 rad. 20 to 22 ° before T.D.C.	–
Pump Element	Fuel Tightness	–	14.7 MPa 150 kgf/cm^2 2133 psi
Delivery Valve	Fuel Tightness	10 seconds or more for pressure falling from 14.7 to 13.7 MPa from 150 to 140 kgf/cm^2 from 2133 to 1990 psi	5 seconds for pressure falling from 14.7 to 13.7 MPa from 150 to 140 kgf/cm^2 from 2133 to 1990 psi
Fuel Injection Nozzle	Injection Pressure	13.71 to 14.71 MPa 140 to 150 kgf/cm^2 1990 to 2130 psi	–
Fuel Injection Nozzle Valve Seat	Valve Seat Tightness	When the pressure is 12.75 MPa (130 kgf/cm^2, 1849 psi), the valve seat must be fuel tightness.	–

W10139730



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Oil Clearance between Crankshaft Journal and Crankshaft Bearing 2 and Crankshaft Bearing 3 (Continued)

(Reference)

- Undersize crankshaft bearing 2 and 3

[D722]

Undersize	Bearing	Code Number	Marking
0.2 mm 0.008 in.	Crankshaft bearing 2 02	15694-23930	020 US
	Crankshaft bearing 3 02	15861-23860	020 US
0.4 mm 0.016 in.	Crankshaft bearing 2 04	15694-23940	040 US
	Crankshaft bearing 3 04	15861-23870	040 US

[D905]

Undersize	Bearing	Code Number	Marking
0.2 mm 0.008 in.	Crankshaft bearing 2 02	16241-23930	020 US
	Crankshaft bearing 3 02	16241-23860	020 US
0.4 mm 0.016 in.	Crankshaft bearing 2 04	16241-23940	040 US
	Crankshaft bearing 3 04	16241-23870	040 US

- Undersize dimensions of crankshaft journal

[D722]

Undersize / Dimension	0.2 mm 0.008 in.	0.4 mm 0.016 in.
A	1.8 to 2.2 mm radius 0.071 to 0.087 in. radius	1.8 to 2.2 mm radius 0.071 to 0.087 in. radius
B	3 mm dia. 0.12 in. dia.	3 mm dia. 0.12 in. dia.
C	39.734 to 39.750 mm 1.56433 to 1.56496 in.	39.534 to 39.550 mm 1.55646 to 1.55709 in.
D	43.734 to 43.750 mm 1.72181 to 1.72244 in.	43.534 to 43.550 mm 1.71394 to 1.71457 in.
The crankshaft journal must be fine-finished to higher than ∇∇∇∇		(0.8-S)

[D905]

Undersize / Dimension	0.2 mm 0.008 in.	0.4 mm 0.016 in.
A	2.3 to 2.7 mm radius 0.0906 to 0.1063 in. radius	2.3 to 2.7 mm radius 0.0906 to 0.1063 in. radius
B	1.0 to 1.5 mm radius 0.0394 to 0.0591 in. radius	1.0 to 1.5 mm radius 0.0394 to 0.0591 in. radius
C	47.734 to 47.750 mm 1.87929 to 1.87992 in.	47.534 to 47.550 mm 1.87141 to 1.87204 in.
D	51.721 to 51.740 mm 2.03626 to 2.03700 in.	51.521 to 51.540 mm 2.02838 to 2.02913 in.
The crankshaft journal must be fine-finished to higher than ∇∇∇∇		(0.8-S)

W1042542

SERVICING

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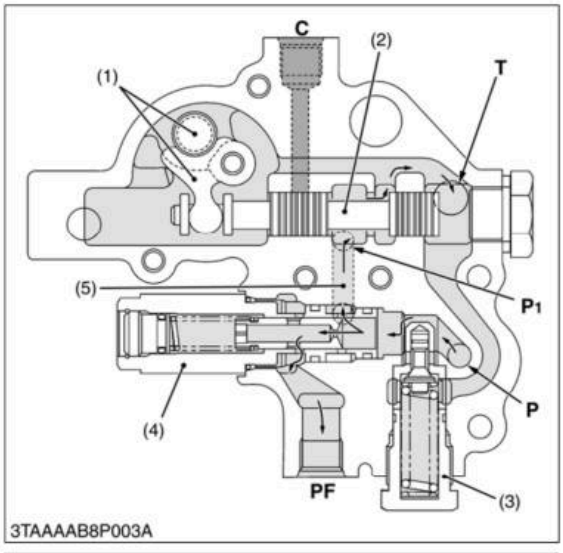
3. HYDRAULIC CONTROL VALVE



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Hydraulic control valve assembly is composed of control valve, flow priority valve (4) and relief valve (3). Oil from hydraulic pump is divided by flow priority valve (4) and forced into the control valve through passage (5) of hydraulic block type outlet. The spool (2) is moved by control arm (1) which is connected to hydraulic lever and oil from pump is changed flow direction by spool movement.

Neutral

Oil forced into the control valve through **P1** port and returns to the transmission case through **T** port.

Also, **C** port is closed by spool (2), oil in the hydraulic cylinder does not flow to the transmission case.

Thus, the implement remains at its fixed position.

(1) Control Arm
(2) Spool (for Control Valve)
(3) Relief Valve
(4) Flow Priority Valve
(5) Passage

P, P1 :Pump Port
C : Cylinder Port
T : Tank Port
PF : PF Port (to power steering circuit)

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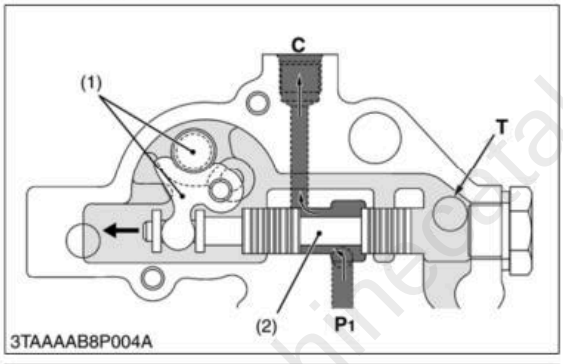

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Lift

When the control lever is set to the **"LIFT"** position, the spool (2) is moved to the left.

The oil forced into the control valve through **P1** port flows to **C** port.

The oil pushes and flow into the hydraulic cylinder through the **C** port to lift the implement.

(1) Control Arm
(2) Spool

P1 : Pump Port
C : Cylinder Port
T : Tank Port

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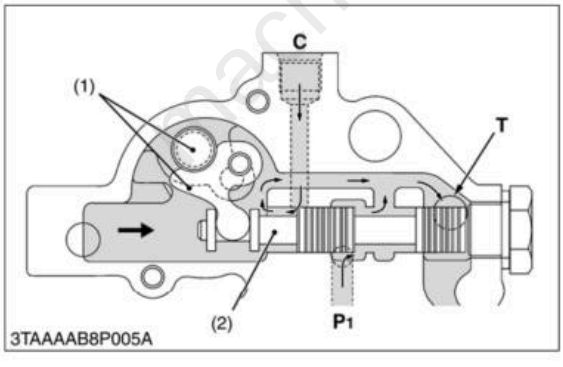

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Down

When the control lever is moved to **"Down"** position, the spool (2) is moved to the right.

Oil in the hydraulic cylinder is forced out to the transmission case through gap of spool and **T** port by the weight of the implement, causing the implement to lower.

Oil forced into the control valve through the **P1** port and returns to the transmission case through the **T** port.

(1) Control Arm
(2) Spool

P1 : Pump Port
C : Cylinder Port
T : Tank Port

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