

WORKSHOP MANUAL
TRACTOR

B1700
B2100
B2400

Kubota

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TROUBLESHOOTING

Symptom	Probable Cause	Solution	Reference Page
Front Wheels Wander to Right or Left	• Tire pressure uneven	Adjust	G-35
	• Improper toe-in adjustment (improper alignment)	Adjust	6-S3
	• Clearance between front axle case boss and front axle bracket (front, rear) excessive	Replace	6-S11
	• Front axle rocking force too small	Adjust	6-S4
	• Front wheel sway excessive	Replace	6-S4
	• Tie-rod end loose	Tighten	6-S6
	• Air sucked in power steering circuit	Bleed	7-S10
Front Wheels Can Not Be Driven	• Front wheel driving gears in front axle gear case broken	Replace	6-S7
	• Universal joint broken	Replace	6-S5
	• Front wheel drive gears in transmission broken	Replace	–
	• Front differential gear broken	Replace	6-S9
	• Shift fork broken	Replace	–
	• Coupling displaced	Reassemble	6-S5
Noise	• Gear backlash excessive	Adjust or replace	6-S10 to S12
	• Oil insufficient	Replenish	G-18
	• Bearings damaged or broken	Replace	–
	• Gears damaged or broken	Replace	–
	• Spiral bevel pinion shaft turning force improper	Adjust	6-S11

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Symptom	Probable Cause	Solution	Reference Page
Hazard Light Does Not Light	• Fuse blown (10A) • Bulb blown • Wiring harness disconnected or improperly connected (between main switch **AC** terminal and hazard unit,between hazard unit and combination switch **B2** terminal, between combination switch **R** or **L** terminal and hazard lights) • Hazard unit defective • Combination switch defective	Replace Replace Repair or Replace Replace Replace	— — 9-S21 9-S22 9-S20
Hazard Indicator Lamp Does Not Light	• Bulb blown • Wiring harness disconnected or improperly connected (between combination switch **R** or **L** terminal and panel board)	Replace Repair or Replace	— 9-S21
Hazard Light Does Not Flicker	• Hazard unit defective	Replace	9-S22

EASY CHECKER

Oil Pressure Lamp Lights Up When Engine is Running	• Engine oil pressure too low • Engine oil insufficient • Oil pressure switch defective • Short circuit between oil pressure switch lead and chassis • Circuit in panel board defective	Repair engine Replenish Replace Repair Replace	— G-8 — 9-S24 9-S23
Oil Pressure Lamp Does Not Light When Main Switch is Turned ON and Engine is Not Running	• Bulb blown • Oil pressure switch defective • Wiring harness disconnected or improperly connected (between panel board and oil pressure switch) • Circuit in panel board defective	Replace Replace Repair or Replace Replace	— — 9-S24 9-S23

GAUGES

Symptom	Probable Cause	Solution	Reference Page
Fuel Gauge Does Not Function	• Fuel gauge defective • Fuel level sensor defective • Wiring harness disconnected or improperly connected (between panel board and fuel level sensor) • Circuit in panel board defective	Replace Replace Repair or Replace Replace	9-S26 9-S25 9-S25 —
Coolant Temperature Gauge Does Not Function	• Coolant temperature gauge defective • Coolant temperature sensor defective • Wiring harness disconnected or improperly connected (between panel board and coolant temperature sensor) • Circuit in panel board defective	Replace Replace Repair or Replace Replace	9-S26 9-S26 9-S26 —

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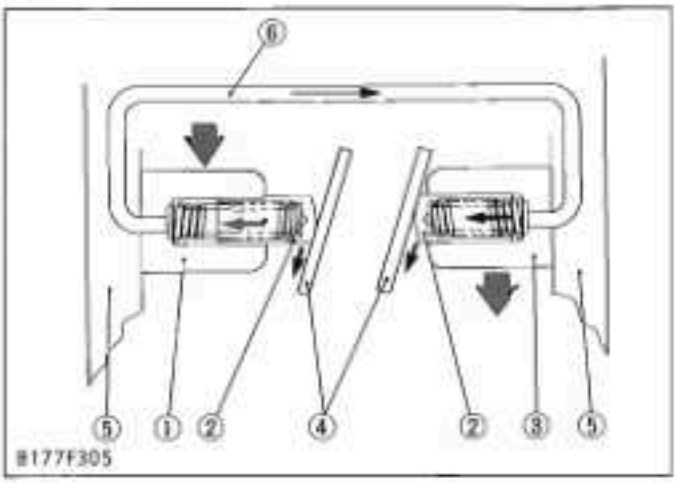
SPECIFICATIONS [HST type, 4WD, Bi-speed Turn]

Model			B1700 HSDB	B2100 HSDB	B2400 HSDB
PTO power			9.7 kW (13.0 HP)*	12.0 kW (16.0 HP)*	13.4 kW (18.0 HP)*
Engine	Maker		KUBOTA		
	Model		D905-D10	D1005-D10	D1105-D10
	Type		Indirect injection, Vertical, water-cooled, 4-cycle diesel		
	Number of cylinders		3		
	Bore and stroke		72 x 73.6 mm (2.83 x 2.90 in.)	76 x 73.6 mm (2.99 x 2.90 in.)	78 x 78.4 mm (3.07 x 3.09 in.)
	Total displacement		898 cm³ (54.8 cu.in.)	1001 cm³ (61.1 cu.in.)	1123 cm³ (68.5 cu.in.)
	Engine gross power		12.7 kW (17.0 HP)	15.7 kW (21.0 HP)	17.9 kW (24.0 HP)
	Rated revolution		43.3 r/s (2600 rpm)		
	Maximum torque		51 N-m (38 ft-lbs)	59 N-m (44 ft-lbs)	67 N-m (50 ft-lbs)
	Battery		12V, RC : 71 min, CCA : 390 A (12V, RC : 79 min, CCA : 433A)		
	Starting system		Electric starting with cell starter 12V, 1.0 kW		
	Lubricating system		Forced lubrication by trochoidal pump		
	Cooling system		Pressurized radiator, forced circulation with water pump		
	Fuel		Diesel fuel No.2-D [above-10°C (14°F)], Diesel fuel No. 1 [below-10°C (14°F)]		
Capacities	Fuel tank		24 ℓ (6.3 U.S.gals, 5.3 Imp.gal)		
	Engine crankcase (with filter)		3.0 ℓ (3.2 U.S.qts, 2.6 Imp.qts)		
	Engine coolant		3.4 ℓ (3.6 U.S.qts, 2.6 Imp.qts)		
	Transmission case		12.0 ℓ (3.17 U.S.gals, 12.4 Imp.gals)		
	Front axle case		4.5 ℓ (4.8 U.S.qts, 4.0 Imp.qts)		
Dimensions	Overall length (without 3P)		2280 mm (89.8 in.)	2300 mm (90.6 in.)	2330 mm (91.7 in.)
	Overall width (min. tread)		989 mm (38.9 in.)	1077 mm (42.4 in.)	1175 mm (46.3 in.)
	Overall height (with ROPS)		1915 mm (75.4 in.)	1940 mm (76.4 in.)	1965 mm (77.4 in.)
	Overall height (top of seat)		1293 mm (50.9 in.)	1318 mm (51.9 in.)	1343 mm (52.9 in.)
	Wheelbase		1500 mm (59.0 in.)		
	Min. ground clearance		270 mm (10.6 in.)	270 mm (10.6 in.)	285 mm (11.2 in.)
	Treads	Front	855 mm (33.7 in.)	855 mm (33.7 in.)	855 mm (33.7 in.)
		Rear	778 to 948 mm (30.6 to 37.3 in.)	836 to 1006 mm (32.9 to 39.6 in.)	890 to 1064 mm (35.0 to 41.9 in.)
Weight (with ROPS)			645 kg (1422 lbs)	657 kg (1449 lbs)	672 kg (1482 lbs)
Clutch			Dry single plate		
Traveling system	Tires	Front	6-12	6-12	7-12
		Rear	8.3-16	9.5-16	11.2-16
	Steering		Integral type power steering		
	Transmission		Main-hydrostatic transmission, High-Low gear shift (2 forward, 2 reverse)		
	Brake		Wet disk type		
	Min. turning radius (with brake)		2.1 m (6.9 feet)		
Hydraulic system	Hydraulic control system		Position Control		
	Pump capacity		22 ℓ/min (5.8 gals/min)		
	Three point hitch		SAE Category I		
	Max. lift force	At lift points	580 kg (1280 lbs)		
		24 in. behind lift points	460 kg (1015 lbs)		
PTO shaft	Rear-PTO		SAE 1-3/8, 6 splines		
	Revolution		540 rpm at 2600 engine rpm		
	Mid-PTO		USA No. 5 (KUBOTA 10-tooth) involute spline		
	Revolution		2537 rpm at 2600 engine rpm		

Note: * Manufacture's estimate the company reserves the right to change the specifications without notice.

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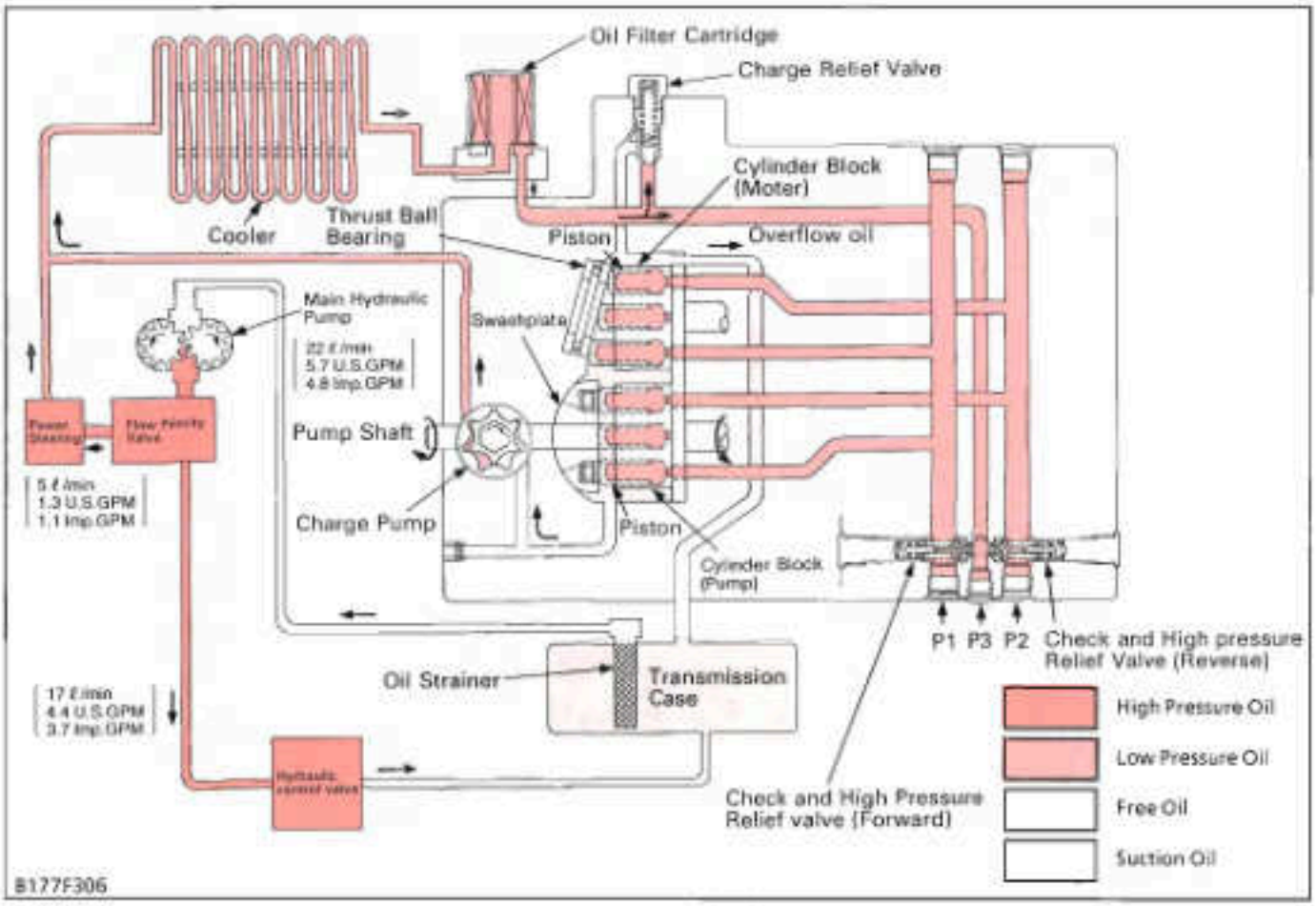
(2)-2. Pump and Motor



Pump and motor cylinder, each containing pistons, are connected by lines. Cylinders and lines are filled with oil. Pistons ride against swashplates located in pump and motor. In the pump, as the cylinder rotates, pistons move across the sloping face of swashplate and slide in or out of their cylinder bores. The oil, forced out by the pump pistons, causes the motor pistons to slide out of their cylinder bores. In the motor, sliding out of the cylinder and moving across the sloping face of swashplate, the pistons rotate the cylinder.

(1) Cylinder Block (Pump)
(2) Piston
(3) Cylinder Block (Motor)
(4) Swashplate
(5) Center Section
(6) Connecting

(2)-3. Oil Flow and Valves



P1 : Port for checking high pressure (forward) P2 : Port for checking high pressure (reverse) P3 : Port for checking charge pressure

The pump and motor are joined in a closed hydraulic loop and most of oil circulates within the main oil circuit. A little oil lubricates and oozes out from the clearance between the moving parts of the case. Then oil in the main oil circuit of the HST needs to be supplied a want.

The combined oil flow from the power steering circuit and HST charge pump are flows into the HST for charging.

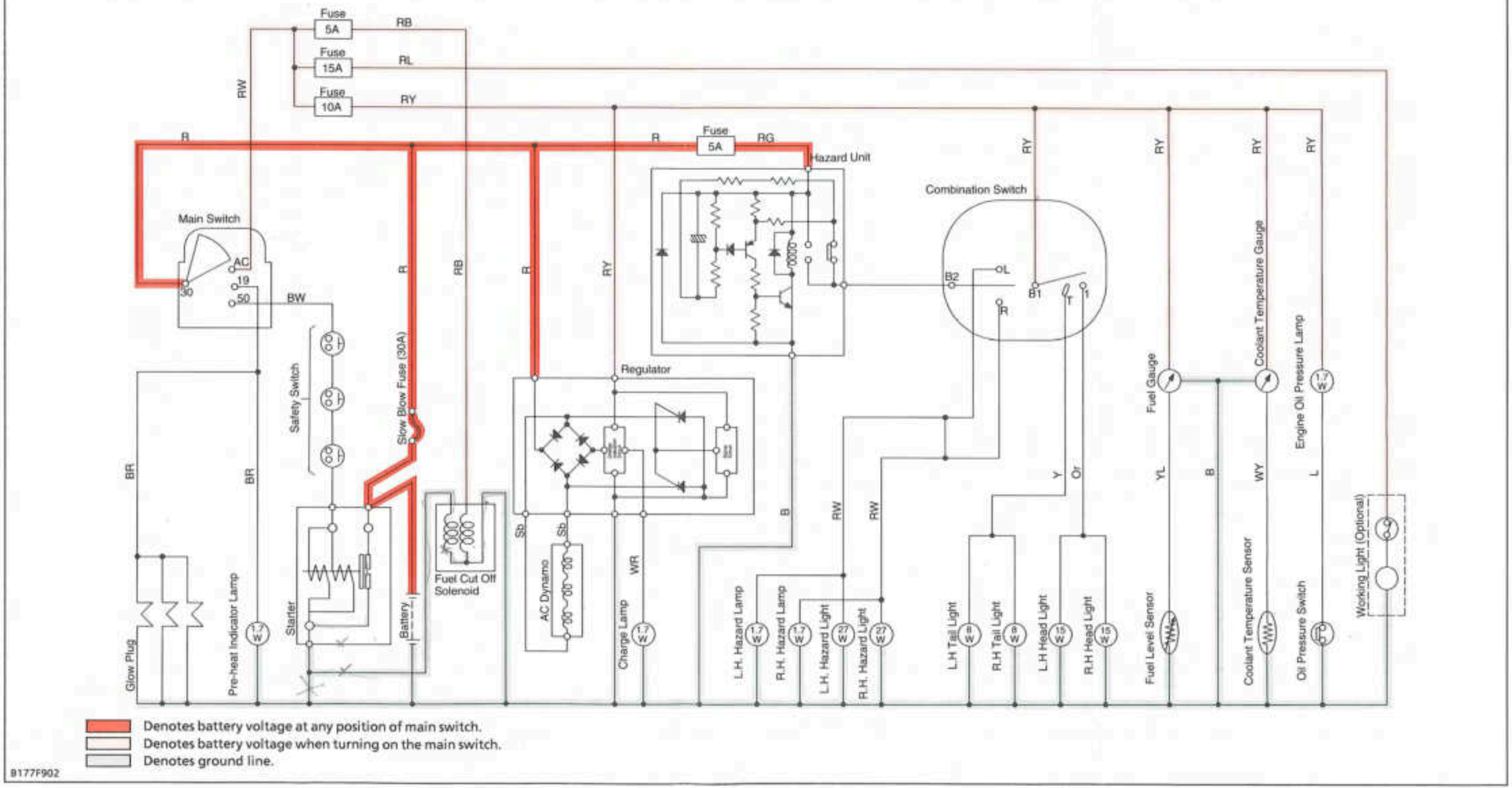
The charge oil aids smooth operation of piston pump and motor. The charge oil passes through the oil cooler and transmission oil filter to charge relief valve port. The rest of oil passes through the charge relief valve into the HST housing. Oil from the hydraulic cylinder and overflow oil from HST housing return to the transmission case.

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■ With AC Dynamo

• **Color of Wiring**

W ---------- White	Y ---------- Yellow	Or ---------- Orange	RB ---------- Red / Black	RG ---------- Red / Green	BR ---------- Black / Red	GB ---------- Green / Black
R ---------- Red	B ---------- Black	WR ---------- White / Red	RW ---------- Red / White	RY ---------- Red / Yellow	BY ---------- Black / Yellow	Sb ---------- Sky Blue
L ---------- Blue	G ---------- Green	WY ---------- White / Yellow	RL ---------- Red / Blue	BW ---------- Black / White	GW ---------- Green / White	YL ---------- Yellow / Blue



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