SEBM022104

SHOP MANUAL

KOMATSU®

GD705A-4

MACHINE MODEL **GD705A-4**

SERIAL NUMBER **23001 and up**

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require.
  Materials and specifications are subject to change without notice.
- GD705A-4 mounts the S6D125-1 engine.
  For details of the engine, see the 6D125 Series Engine Shop Manual.

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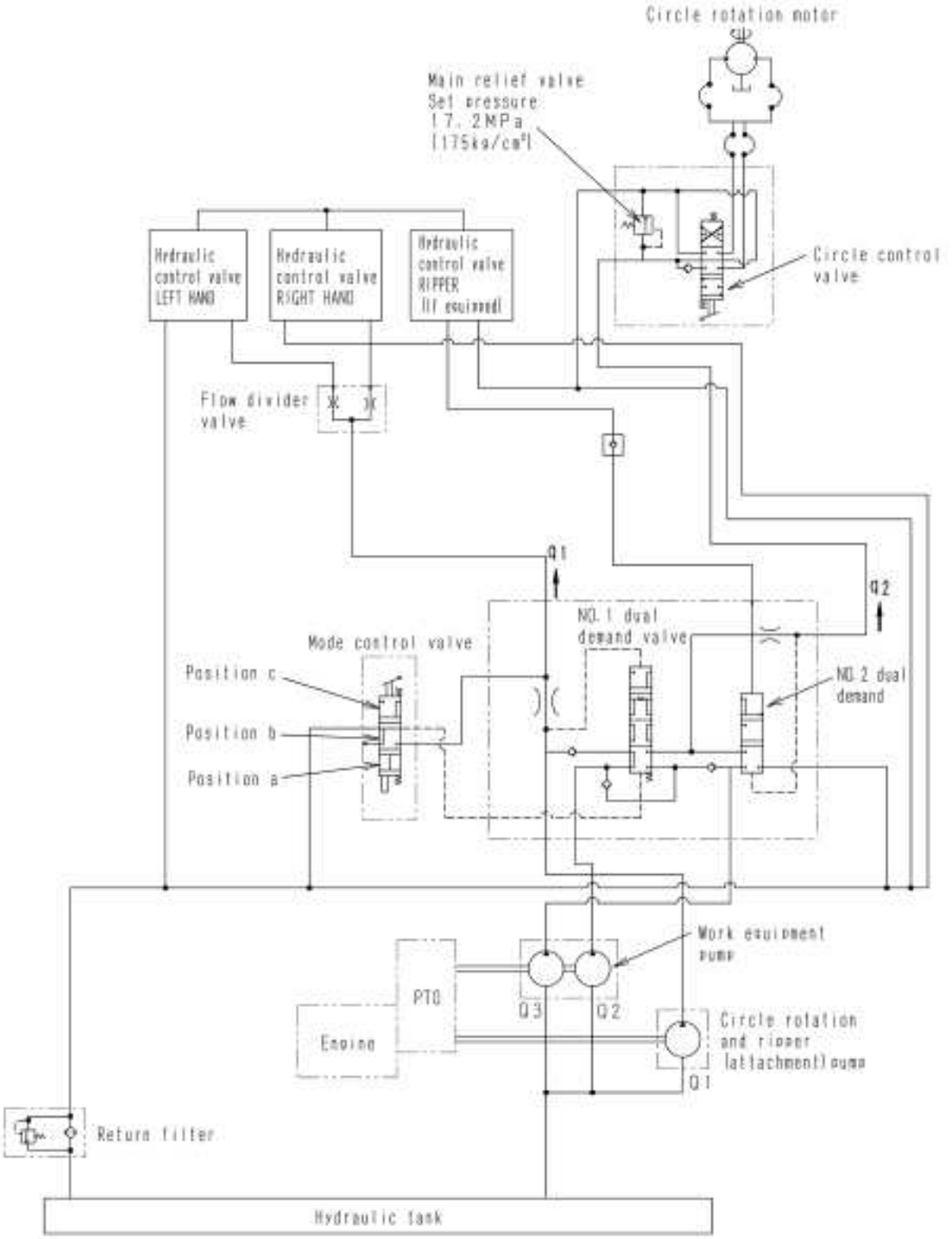
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SYSTEM HYDRAULIC CIRCUIT



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Machine model					GD705A-4
Category	Item			Test condition	Standard value
Work equipment	Stroke	Work equipment control lever	Blade lift left, right	Engine stopped, stroke at the tip of the lever	40 ± 10 mm
			Blade side shift	Engine stopped, stroke at the tip of the lever	40 ± 10 mm
			Drawbar shift	Engine stopped, stroke at the tip of the lever	40 ± 10 mm
			Circle rotation	Engine stopped, stroke at the tip of the lever	45 ± 10 mm
			Power tilt	Engine stopped, stroke at the tip of the lever	45 ± 10 mm
	Operating force	Work equipment control lever		Maximum value until just before stroke end	Max. 49 N (Max. 5 kg)
	Performance	1. Blade 1-1. Blade lifting speed (rising)		Oil temperature: 40 ± 5°C When engine at rated rotation, the speed of lifting or lowering the blade with the lower edge of the blade 50 - 150 mm above ground.	210 ± 8.4 mm/s
		1-2. Blade lifting speed (lowering)			140 ± 5.6 mm/s
		1-3. Speed of cross-feed by circle move - left		When engine at rated rotation and the height of the lower edge of the blade 100 mm, speed of left and right side shifting by a level circle movement of 200 mm under standard position.	120 ± 4.8 mm/s
		1-4. Speed of cross-feed by circle movement - right			180 ± 7.2 mm/s
		1-5. Speed of side shift in rotation to circle - left		When engine at rated rotation and the height of the lower edge of the blade 100 mm, speed of the left and right side shifting in rotation to a circle of a level distance of 200 mm under standard position.	140 ± 5.6 mm/s
		1-6. Speed of side shift in rotation to circle - right			220 ± 8.8 mm/s
		1-7. Turning speed by circle rotation		Angle speed with engine at rated rotation speed	14.5 ± 0.87 degrees/s
		1-8. Hydraulic drift of blade (hanging down)		Amount of lowering of cylinder when the blade is suspended symmetrically perpendicular to the machine	Max. 10 mm / 10 min
		1-9. Hydraulic drift of machine (support by blade)		Amount of cylinder sinking when the lower edge of the blade is in contact with the ground and the front wheels floating.	Max. 20 mm / 10 min

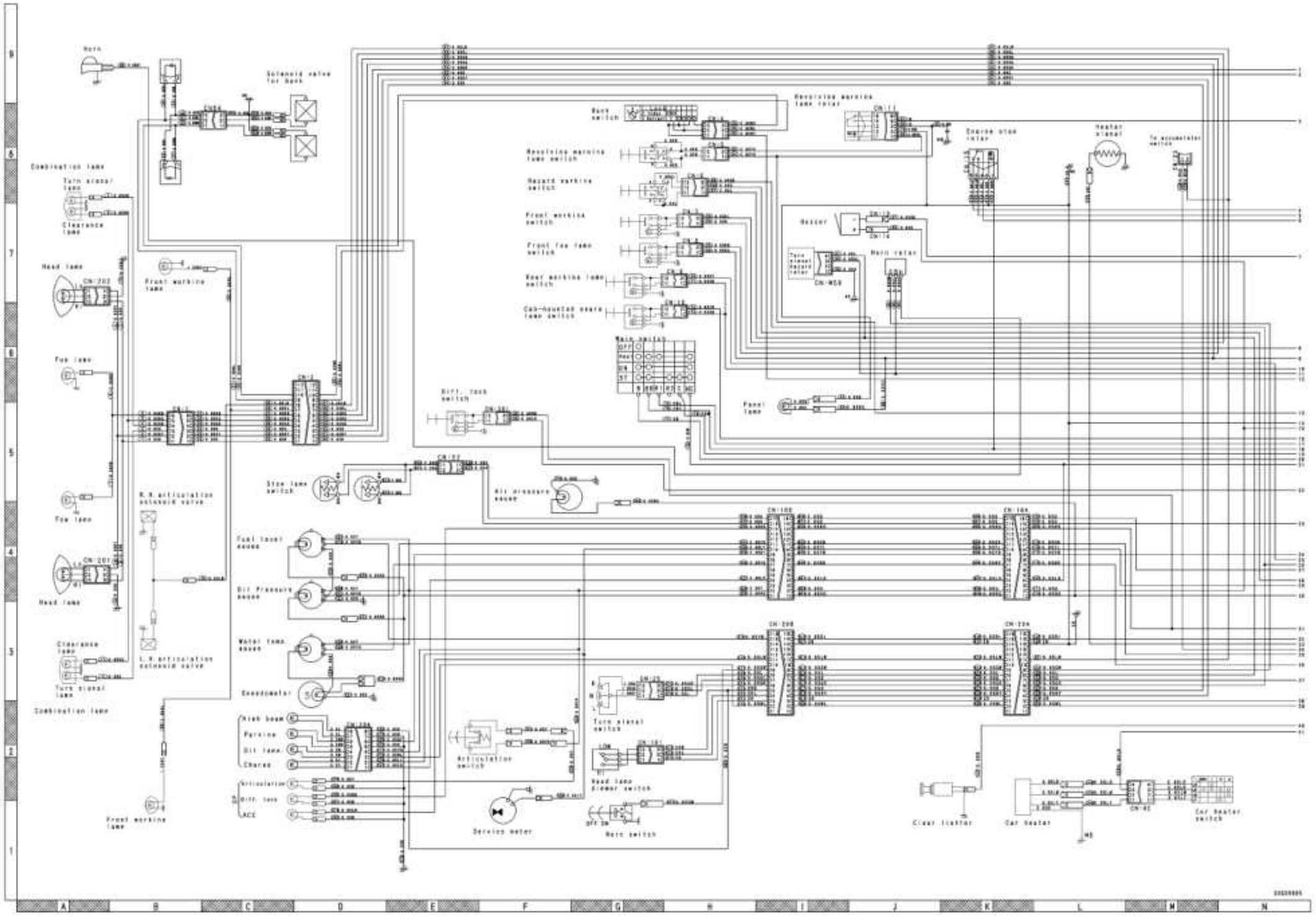
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CHECKS BEFORE TROUBLESHOOTING

	Item	Judgement value	Action
Lubricating oil, coolant	1. Check fuel level, type of fuel	—	Add fuel
	2. Check for impurities in fuel	—	Clean, drain
	3. Check hydraulic oil level	—	Add oil
	4. Check hydraulic oil strainer	—	Clean, drain
	5. Check engine oil level (oil pan oil level)	—	Add oil
	6. Check coolant level	—	Add water
	7. Check dust indicator for clogging	—	Clean or replace
	8. Check hydraulic filter	—	Replace
Electrical equipment	1. Check for looseness, corrosion of battery terminal, wiring	—	Tighten or replace
	2. Check for looseness, corrosion of alternator terminal, wiring	—	Tighten or replace
	3. Check for looseness, corrosion of starting motor terminal, wiring	—	Tighten or replace
Hydraulic, mechanical equipment	1. Check for abnormal noise, smell	—	Repair
	2. Check for oil leakage	—	Repair
	3. Carry out air bleeding	—	Bleed air
Electrics, electrical equipment	1. Check battery voltage (engine stopped)	20 – 30V	Replace
	2. Check battery electrolyte level	—	Add or replace
	3. Check for discolored, burnt, exposed wiring	—	Replace
	4. Check for missing wiring clamps, hanging wiring	—	Repair
	5. Check for water leaking on wiring (be particularly careful attention to water leaking on connectors or terminals)	—	Disconnect connector and dry
	6. Check for blown, corroded fuses	—	Replace
	7. Check alternator voltage (engine running at 1/2 throttle or above)	After running for several minutes : 27.5 – 29.5V	Replace
	8. Check operating sound of battery relay (when switch is turned ON/OFF)	—	Replace

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ELECTRICAL CIRCUIT DIAGRAM (1/2)



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