SEBM016103

SHOP MANUAL

KOMATSU®

D375A-3

MACHINE MODEL **D375A-3**

SERIAL NUMBER **17501 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.

- D375A-3 mounts the SA6D170-2 engine.
  For details of the engine, see the 6D170-2 Series Engine Shop Manual.

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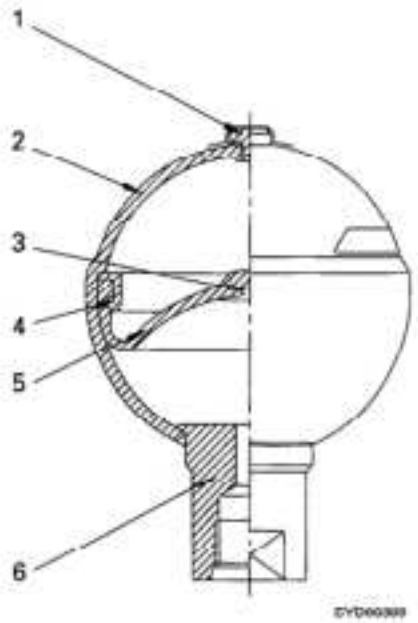
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ACCUMULATOR

FOR PPC VALVE



1. Gas plug
2. Shell
3. Poppet
4. Holder
5. Bladder
6. Oil port

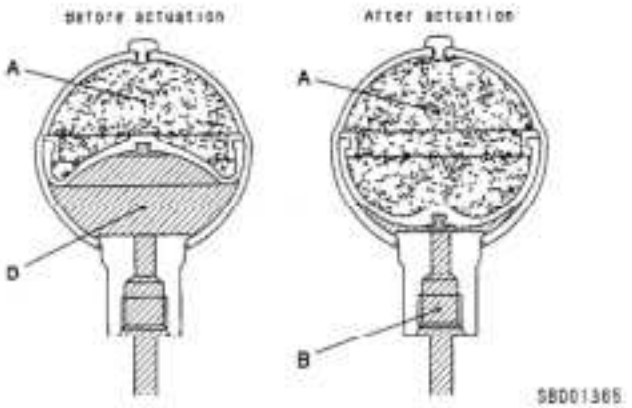
Specifications:
Type of gas: Nitrogen
Gas volume: 300 cc
Max. actuation pressure: 3.1 MPa {32 kg/cm²}
Min. actuation pressure: 1.2 MPa {12 kg/cm²}

Function

- The accumulator is installed between the PPC charge pump and the PPC valve. Even if the engine is started with the work equipment still raised, the pressure of the nitrogen gas compressed inside the accumulator sends the pilot pressure to the main control valve to actuate it and enable the work equipment to move down under its own weight.

Operation

- After the engine is stopped, when the PPC valve is at neutral, chamber **A** inside the bladder is compressed by the oil pressure in chamber **B**.
- When the PPC valve is operated, the oil pressure in chamber **B** goes below 2.9 MPa {30 kg/cm²}, and the pressure of the nitrogen gas in chamber **A** expands the bladder, so the oil in chamber **B** acts as the pilot pressure and actuates the main control valve.



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S-5 Engine does not rotate smoothly (hunting)

General causes why engine does not rotate smoothly

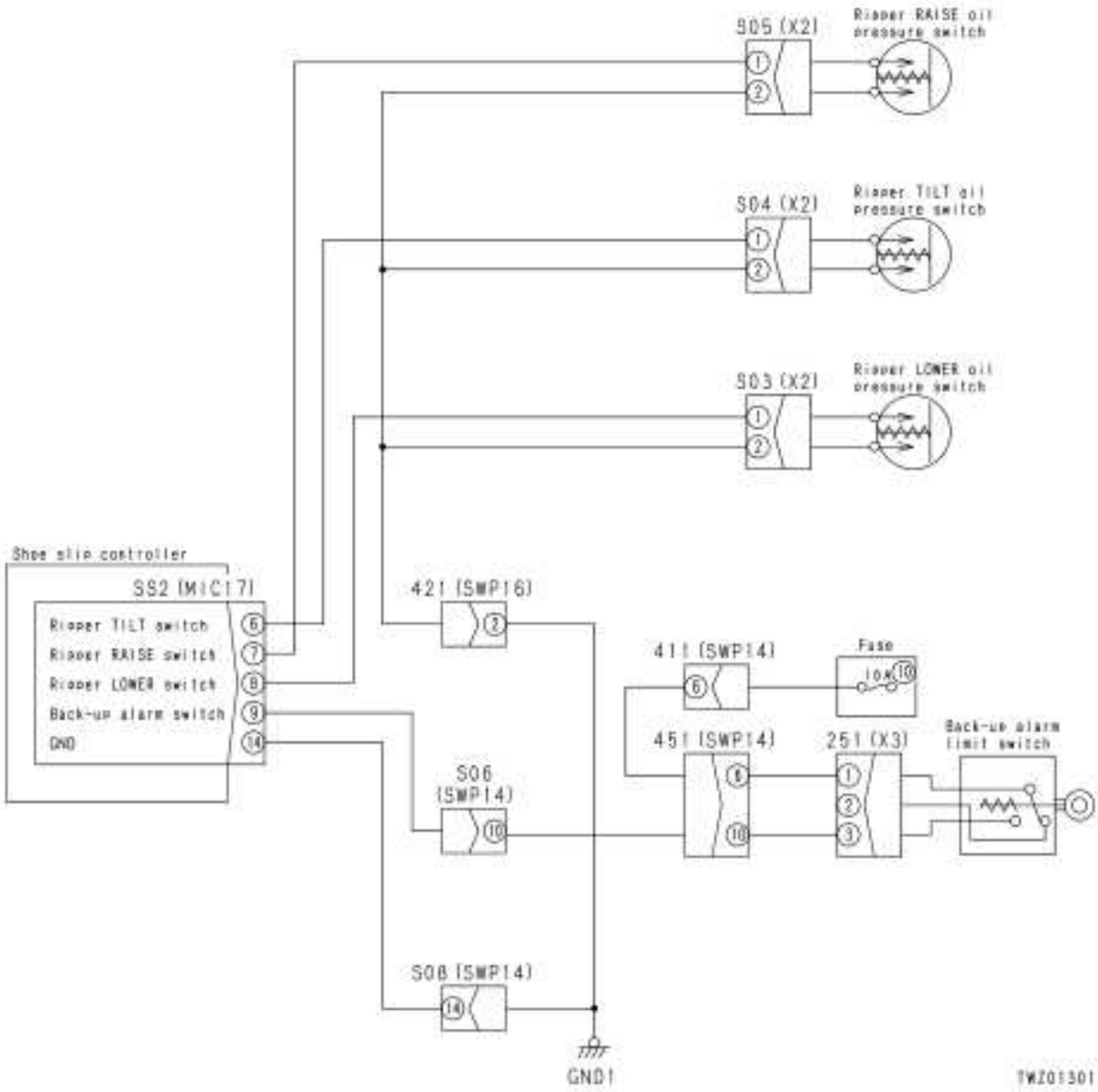
- Air in fuel system
- Defective governor mechanism

Legend
○: Possible causes (judging from Questions and check items)
◎: Most probable causes (judging from Questions and Check items)
△: Possible causes due to length of use (used for a long period)
●: Items to confirm the cause.

			Causes									
			Defective operation of governor	Defective adjustment of governor	Defective operation of control rack	Low idling speed is too low	Clogged feed pump strainer	Clogged fuel filter, strainer	Clogged, air in circuit between fuel tank and feed pump	Clogged, air in circuit between feed pump and nozzle	Clogged air breather hole in fuel tank cap
Questions	Confirm recent repair history										
	Degree of use of machine	Operated for long period					△	△			
	Condition of hunting	Occurs at a certain speed range	○	○	○	○					
		Occurs at low idling	○			◎	○	○	○	○	
		Occurs even when speed is raised	○	○	○						○
	Replacement of filters has not been carried out according to Operation Manual						◎	◎			
Check items	Rust, water are found when fuel tank is drained						○	○			
	Leakage from fuel piping								○	○	
	Mud is stuck to fuel tank cap										○
	When feed pump is operated, 1) No response, light, return is quick								○	○	
	2) No response, light, return is normal								○		
	Engine speed sometimes rises too far		○	○							
	Engine is sometimes difficult to stop		○		○						
	Seal on injection pump has come off			○		○					
Troubleshooting	When governor lever is moved it is found to be stiff		●		●						
	When injection pump is tested, governor is found to be improperly adjusted			●							
	When control rack is pushed, it is found to be heavy, or does not return				●						
	When feed pump strainer is inspected directly, it is found to be clogged						●				
	When fuel filter, strainer are inspected directly, they are found to be clogged							●			
	When fuel cap is inspected directly, it is found to be clogged										●
	Remedy		Adjust	Adjust	Adjust	Adjust	Clean	Clean	Correct	Correct	Clean

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ES-11. Related electrical circuit diagram



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ELECTRIC CIRCUIT DIAGRAM

CHASSIS ELECTRIC CIRCUIT DIAGRAM (2/2)

