Service News Vol.65

Daily Management of Miura BWMS Automatic Control Valves

If automatic control valves of ballast water management system (Miura BWMS) do not operate properly, "Valve abnormal" alarm is issued. Until the alarm is cancelled, operation cannot be resumed, which may affect cargo handling.

In this issue, we will introduce the main causes of "Valve abnormal" alarm and their preventive measures.

No.	Failure	Estimated factor	Preventive measure	
	Valve and limit switch levers sticking	Rusting and salt crystal adhesion on sliding parts due to seawater adhesion		
1			 Remove rust and foreign matter. Wipe away moisture and humidity regularly. 	
		Adhesion between valve body and seat ring due to long period of non-use	 Conduct operation test every two weeks. 	
2	Solenoid valve malfunction	 Inflow of drain and foreign matter from solenoid valve air line Discharge drain inside regula before Miura BWMS start up. Install mist separator if drain volume is large. *1 		
3	Valve open/close time error	Misalignment of speed controller setting over time	•Check valve open/close time every six months and adjust if there is an error *2	
		Speed controller		

*1 For more information on mist separator installation, please contact our sales office.

*2 Refer to the following manual for adjusting the valve open/close time. "Procedure for adjusting valve open/close time"



The following parts are recommended to be stocked as spare parts in case of malfunction.

- ·Solenoid valve
- ·Speed controller (two types)
- Limit switch



Scan the QR code or click on the following URL for information about our service network.

https://www.miuraz.co.jp/en/marine/service/network.html

If you have any questions, please contact the nearest MIURA office. Email address: hakuyo_mka@miuraz.co.jp



Procedure for adjusting valve open/close time

- 1. Shut down your ballast water management system and make sure that the ballast pump is stopped.
- 2. Press manual operation button of each automatic control valve's solenoid valve to open and close the automatic control valve.



 Measure the valve open/close operation time.
 If it is out of the standard, change air discharge rate with the speed controller and adjust it to be within the standard.

valve operation time ontena-	<valve criteria<="" operation="" th="" time=""></valve>
------------------------------	---

Model	HK, HK-A		HK-AC, HK-C, HK-R	
Valve number	Fully closed to fully open	Fully open to fully closed	Fully closed to fully open	Fully open to fully closed
V1: Bypass valve	5 to 7 sec	5 to 7 sec	4 to 6 sec	25 to 30 sec
V2: Filter inlet valve	20 to 30 sec	6 to 8 sec	20 to 30 sec	6 to 8 sec
V3: Filter outlet valve	5 to 7 sec	6 to 8 sec	5 to 7 sec	6 to 8 sec
V4: Deballast valve	4 to 6 sec	25 to 30 sec	5 to 7 sec	5 to 7 sec

