



Design Appraisal Document

Lloyd's Register Asia
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Date
10 October 2019

Please quote the document number on all future communications

GENERAL COMPONENT APPROVAL JOKWANG, CONTROL VALVES

Valid until 09 October 2024

1. The Documents listed below have been examined for compliance with the piping design and system arrangement requirements of Lloyd's Register's Rules and Regulations for the Classification of Ships (July 2019) - Part 5, Chapters 10 ~ 13, and are assigned an appraisal status as indicated subject to satisfactory resolution of the following, and this approval is valid for **five** years or until some relevant change in the Rules/Regulations, whichever is sooner.

	Comments	Status
1.1	Materials for Class I & II piping systems are to be produced at a works approved by LR with LR's material certificate. However, the manufacturer's test certificate will be accepted in lieu of LR's material certificate where the maximum conditions are less than shown in Table 12.1.2 of the Rules.	AQS
1.2	Materials for Class III piping systems are to be manufactured and tested in accordance with the requirements of acceptable national specifications.	AQS
1.3	Even in case of damage in spring, it shall be constructed so that the valve disc and the like may not come off to the outside.	AQS
1.4	The pressure-temperature ratings of ferrous materials are to be verified by attending surveyor.	AQS
1.5	The valves are to be hydraulically tested to 1.5 times the maximum working pressure and functions are to be demonstrated to the attending surveyors' satisfaction.	AQS
1.6	The valves, which mounted on the pressure vessels (air reservoir, boiler & heat exchanger, etc.) are to be hydraulically tested to twice the approved design pressure.	AQS
1.7	The safety valve popping test is to be to the attending surveyor's satisfaction.	AQS
1.8	It is understood that the applicable fluid of "Gases" on your specification means non-flammable and non-toxic gases such as air, N ₂ as widely used in marine services, and cryogenic liquids such as LNG or LPG are not included.	AQS

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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- 1.9 It is understood that the applicable fluid of "Liquid" on your specification means fresh or sea water and flammable liquid as widely used in marine services. AQS
- 1.10 The remaining requirements of 5.12.6.1 of the Rules are to be complied with as far as applicable. AQS
- 1.11 The materials of bonnet shall be basically the same as that of body. Clarification is requested for High Life Type Safety Valve (DWG No.: JKS-1272002_Rev.6). AQP



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Appendix

1. The documents listed below have been examined.

Document No.	Rev.	Title	Status	Date
JKS-A1321005	4	Full Bore Type Safety Relief Valve (JSV-FF21)	AQ	10-Oct-2019
JKS-A1321006	6	Full Bore Type Safety Relief Valve (JSV-FF21)	AQ	10-Oct-2019
JKS-A1321019	4	Full Bore Type Safety Relief Valve (JSV-FF21)	AQ	10-Oct-2019
JKS-1272002	6	High Lift Type Safety Valve (JSV-HT41)	AQ	10-Oct-2019

Appraisal Status Key

AQ	Approved subject to the matters raised that require resolution - and provided the arrangements are to the surveyor's satisfaction
AQP	Details to be submitted by the client to the plan approval office for approval/re-approval
AQS	Details to be submitted by the client to the local surveyor's Office responsible for surveying the building and the arrangements verified in accordance with the Rule/Regulations requirements by the surveyor.

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