

CERTIFICATE OF COMPLIANCE

Subsystem

Holder: Kardan Shargh Co., Mashhad, Iran

Subsystem: Electronic Control Unit

Basis of Certification: IEC 61511:2016

Certification Include(s):

- ☒ Management of functional safety
- ☒ Safety requirements specification
- ☒ Hardware requirements
- ☒ Reliability requirements
- ☒ Logic requirements
- ☒ User documentation
- ☒ Factory acceptance testing

Functional Safety Data:

Safety Instrumented Functions: See table on next page

Certification Results:

Risknowlogy certifies that the above Subsystem meets the requirements of the Basis of Certification for the selected assessment(s). The Risknowlogy report 2173.263.5 and safety manual are an integral part of this certificate.

Certificate Number: 2173.263.6

Issue Date: 2017-01-04

Expiry Date: After modification of Subsystem

Certifier:

dr.ir. Michel Houtermans



SIF #	Description	SIL
1	Common fault and ESD PB gives Total ESD	3
2	Low low level in oil reservoir gives Total ESD	3
3	Low low pressure in flow line closes SSSV/SSV and stops SSSV/SSV motors	3
4	High high pressure in flow line closes SSSV/SSV and stops SSSV/SSV motors	3
5	Low low pressure in SSSV header line closes SSSV/SSV and stops SSSV/SSV motors	3
6	High high pressure in SSSV header line stops SSSV motors	3
7	Low low pressure in SSV header line Closes SSV and stops SSV motors	3
8	High high pressure in SSV header line stops SSV motors	3
9	Low low pressure in HIPPS header line Stops HIPPS motors	3
10	High high pressure in HIPPS header line Stops HIPPS motors	3
11	High pressure in HIPPS header line Stops HIPPS motors	3
12	High high pressure in CIP01 stops CIP01 motors	3
13	Low low level in storage tank of CIP01 stops CIP01 motors	3
14	HIPPS Trip Signal stops all CIPs 01 to 05 motors	3
15	High high pressure in CIP02 stops CIP02 motors	3
16	Low low level in storage tank of CIP02 stops CIP02 motors	3
17	High high pressure in CIP03 stops CIP03 motors	3
18	Low low level in storage tank of CIP03 stops CIP03 motors	3
19	High high pressure in CIP04 stops CIP04 motors	3
20	Low low level in storage tank of CIP04 stops CIP04 motors	3
21	High high pressure in CIP05 stops CIP05 motors	3
22	Low lowlevel in storage tank of CIP05 stops CIP05motors	3
23	Low pressure in Logic Line gives Total ESD	3