NIPPON KAIJI KYOKAI

CERTIFICATE OF APPROVAL FOR FIRMS ENGAGED IN MAINTENANCE, THOROUGH EXAMINATION, OPERATIONAL TESTING, OVERHAUL AND REPAIR OF LIFEBOATS, RESCUE BOATS, FAST RESCUE BOATS, LAUNCHING APPLIANCES AND RELEASE GEAR

Certificate No. : **24TZ185**
Approval No. : **14LA024**

THIS IS TO CERTIFY that

Solas Marine Services Co.LLC

Plot # 598-504, Dubai Investment Park-1, P.O.Box: 25445, Dubai, UAE

is approved as a firm engaged in the servicing and maintenance of lifeboats, launching appliances, on-load release gear and automatic release hooks under the Society's Rules for Approval of Manufacturers and Service Suppliers incorporating IACS UR Z17, as amended.
This certificate is valid until **3 April 2029** subject to periodical assessment.

Issued at Tokyo on 12 April 2024.

See the conditions on the reverse.

NIPPON KAIJI KYOKAI

(M. Inoue)
General Manager of Survey Department

ClassNK

This is to certify that the firm has been periodically or occasionally assessed in accordance with the regulations of Chapter 2, Part 1 of the Rules for Approval of Manufacturers and Service Suppliers.

Due Range of Periodical Assessment: *between 4 April 2026 and 3 April 2027*

Periodical Assessment	*Date*	_____
	Signature	_____
		Surveyor to NIPPON KAIJI KYOKAI
Occasional Assessment	*Date*	_____
	Signature	_____
		Surveyor to NIPPON KAIJI KYOKAI

Conditions for Approval:

1. This Certificate is valid subject to validity of certificate for personnel issued for each make and type of the equipment listed in the attachment.
2. This service supplier has been approved to service the equipment listed in the attachment in accordance with MSC. 402(96).
3. The service has been properly conducted and reported in accordance with the requirements of the Rules and the relevant Regulations.
4. Where there is any alteration to the service approved by this certificate, the Firm should notify immediately to the Society.

Attachment to
Certificate Number 24TZ185

Make	Type
Fassmer-Marland Ltd.	**Davit Launched Totally Enclosed Lifeboat** - DRAGON 26C, 26T, 32C, 32T, 38C, 38C-M, 38T - GMR 6.5, -T6.5, 7.4, -T7.4 - HH57C, 57T, 65C, 65T, 70C, 70T - CLR-C5.9, T5.9 **Freefall Lifeboat** - GAR 6.7, -T6.7, 7.4, -T7.4 - CFL-C49(E), T49(E), C66(E), T66(E), C72(E), T72(E), C77(E), T77(E), C83(E), T83(E) **Rigid Rescue Boat** - RR4.2/RR4.2-M - RRH4.2 - RR4.2 ID **Fast Rigid Rescue Boat** - FRR6.1ID, 6.2ID **Onload Release Gear** - Duplex 2.5, 2.5E, 25E2, 5.0, 5.0E, 50E2 - HH43 **Pivot Davit** - FPD-D60, D68, DH68 - SRH70 **Freefall Davit** - FFH49, 49D, 66, 66D, 72, 77, 83 **Freefall Ramp** - FLR49, 66, 72 **Rescue Boat Crane** - FSAR 14/3.5HS, 4.0/3.5HS, 21/4.0HS, 25 - FSARR 14/3.5HS, 21/4.0HS, 22/4.0HS - FMAH 22KN **Winch for Pivot Davit** - DEW 15-24, 15-35, 15-44 - D52L/D52R - DW34S/DW34Z - MW50/MW50C for Davit FPD-D60 **Winch for Freefall Davit** - FW35 **Winch for Rescue Boat Crane** - DEW 150, 450 - RZ25
Hai Hong Boat Making Co., Ltd. (Guangzhou)	**Davit Launched Totally Enclosed Lifeboat** - HH57C, 57T, 65C, 65T, 70C, 70T (Hai Hong type) **On Load Release Gear** - HH43 (Hai Hong type)

T-ISS B.V.	**Hook** - T-ISS PX-01, PX-02, PX-03
Dong Woo Machinery & Engineering Co., ltd.	**Hinged Gravity Boat Davit and Freefall Davit Rescuedavit and Life Raft Davit** - DWS series, LRDS series, RBDS series
HLB (ex, Hyundai Lifeboats) Co., Ltd.	**Lifeboat & Rescue Boat** - Series of HD, HT, HDL, HLB, HDF, HDFL, HDFN, HDR, HDFR **Release Mechanism** - Series of THP, Titan, Talon, Talon II
BADA Heavy Industries (ex, D.R.M) Co., Ltd.	**Davit** - Series of DRM, DRBD, BDH, BDTD, BDHP, BDTW, BDRW, BDM, BFOD, HDL, BHR, FF, HDFL, HDF, BDF, BDFD, BDR, BDH, BDA, BDFA, BDL, BDR, BLR, BHI **Winch** - Series of DRM, DRBW, HLDF, BAW, BDF, BDFD, HDFL, HDF, BHI, BLR, BLW, BMW, BRW, BWL, BWR, FHW **Release Mechanism** - Series of BDR, BHA, BHR
Oriental Precision & Engineering Co., Ltd.	**Hinged Gravity Type Davit & Winch** - Davit: HGD series, HGK series, SHS series, RTD series, DHA series, DMA series - Winch: BWE series, SWE series, WL series **Free Fall Davit & Winch** - FD series, WL series **Rescue/Liferaft Davit & Winch** - RD series, RDW series
d-i davit international-hische GmbH	**Crane for Freefall Boat** - C-F series, C-L series **Crane for Boat Handling** - C-S series **Free-fall Davit** - D-F series (Free-fall only), D-TF series, D-FH/FG series **Roller Track Davit** - D-RT series (Roller Track Davit only) **Fixed Offshore Davit** - D-FO series **Normal Pivot Davit** - D-NP series, excl.D-NP. MP and D-NP. SP series **Boat Davit** - D-BC series, D-BR series **Rescue Boat Davit** - D-CL series, D-CR series, D-NPS. SP series, D-SR series, D-NPS. MP series, D-RTT series **Raft Handling Davit** - D-RC series, D-RB series

	Rescue Boat Hook - RH series, OLH series **Liferaft Hook** - OLRH series **Fast Rescueboat Davit** - D-CRm. FR series, D-CRm. MOR series, D-CRm. R. FR series, D-NPS. FR series **Lifeboat Davit** - D-NP. MP series, D-NP. SP series, D-WP series, D-FP series, D-ND series **Lifeboat or Rescueboat Davit** - D-TT series
	Other hook* (Liferaft hook and Liferaft/rescue boat hook) HS series manufactured by Sezamor ARH and CAR series manufactured by Palfinger PX series manufactured by T-ISS * Only valid in combination with an equipment of d-i davit
Global Davit GmbH	**Launching and recovery appliances for single point suspended life-saving crafts** Type Code: X1X2X3.x4.x5.x6 where X1=F/L/R, X2=g/h/m, X3=p/s/t, x4-x6(options)=L/R/S **Launching and recovery appliances for double point suspended life-saving crafts** Type Code: X1xx2XX3.x4 where X1=G, xx2=sp/lp, XX3=FP/FL/MP/TT, x4=h **Winches for launching and recovery of life saving appliance** Type Code: X1NN1X2 where X1=W, NN1=output torque in kNm, X2=HC/L/R/M/E **Release gears for liferaft and/or rescue boat handling:** HRN.12, HRN.28, HRL.26
Hatecke GmbH	**(Fast) Rescue Boat** - RB AB, RB AB Duplex, RB AB FH, RB IB, RB/FRB AB FH, IB, RB/FRB IB DUPLEX **Launching Appliances** - FFA, FFA LP, FFB, Gsp.FLH, Gsp.O, GspFP, W07, W10, W26 **Lifeboat** - GFF, GFF-T, GSAR, GSL, GSL-T **Release Gear** - Duplex 2.6, 3.0, 3.5, 4.3/4.6, 6.0 - GFF-R-10/11/8 - RAFTI 2.5 - Simplex2.0 Off-Load/2.0 to/2.0 i/3.0/4.3/6.0
Hoei Senpaku Co., Ltd.	**Lifeboats/Rescue Boats** - HS650, HS650F, HS520, HS520F, SO, SM, FO, FM

IKNOW Machinery Co., Ltd. (ex. Tsuji Heavy Ind.)	**Davit** - Series of H, T, TC **Winch** - Series of EB, TC, OAP
Japan Marine United Corporation Yokohama Shipyard, Craft Group	**Gravity & Free Fall Life Boat** - Series of GF, GT, GTR, GTC, S, G, MU-FN, MU-FF **Gravity & Free Fall Davit** - Series of MUL, MUF **Winch** - Series of MUW **Rescue Boat** - Series of MU-GJ **Rescue Davit** - Series of MUR **Others** - JY series of Jiangsu Jiaoyan with JMU nameplate with JG shop inspection approval certificate
NARWHAL BOATS SL	**Rescue Boat** - SV-400, SV-420, SV-480, SV-750 **Fast Rescue Boat** - FRB-700
MANABE ZOKI CO., LTD.	**Boat Davit & Winch** - 5000R/L, 7800R/L
Jiangsu Jiaoyan Marine Equipment Co., Ltd. (ex. Jiangyin Xinjiang F.R.P. Co., Ltd.)	**Free Fall Lifeboat** - JY-FN-4.9, JY-FF-4.9, JY-FN-5.8, JY-FF-5.8, JYM-FN-6.65, JYM-FF-6.65, JY-FN-6.8, JY-FF-6.8, JY-FN-7.5, JY-FF-7.5, JY-FN-8.5, JY-FF-8.5, JY-FN, FF-9.5 **Rescue Boat** - GJ4.2, GJ4.25, GJ4.5, GJ5.0, GJ5.25, GJ6.0B-1, GJ6.10, GJ7.50, GJ8.0Q-2, GJ8.5Q-2 **Totally Enclosed Lifeboat** - JY-QFP/N-5.0, JY-QFP/N-5.25, JY-QFP/N-5.6, JY-QFP/N-6.0A, JY-QFP/N-6.50, JY-QFP/N-7.0, JY-QFP/N-7.5, JY-QFP/N-7.50A, JY-QFP/N-8.00, JY-QFP/N-8.50, JY-QFP/N-8.50X, JY-QFP/N-9.35, JY-QFP/N-10.90A **Hook** - JX and JXN Series **Gravity Luffing Arm Type Davit** - JYL52, JYL55, JYL65, JYL68, JYL85, JYL105, JYL135 **Launching Appliance** - JYF55, JYF75, JYF75-B, JYF90 **Platform Davit** - JYP65, JYP85, JYP105, JYP135 **Single Arm Davit** - JYR21, JYR21S-A, JYRC21, JYR14, JYRH14, JYRH21, JYR26, JYR30, JYR23

	Electric Boat Winch - FW45, JYW42, JYW50, JYW70, JYW100, JYWP70, JYWP100, JYWP135, JYW35, JYRZ21
Mansei Inc.	**Davits** - Series of EBD-, EM-, ABD-, AH-, AT-, AV-, EH-, ET-, EV-, M-, CM-, D-FH., DE-FH., MFE-, MFH-, SR-, SRE-, R-, S-, RD-, EHR- **Winches** - Series of EBW-, ABW-, AW-, EW-, MW-, CMW-, 06., FW-, SW-, RMW-, MLW-, ERW- **Release Hooks** - Series of RH-
Miura Machine Co., Ltd.	**Davits** - Series of SP, MVD, GRA, SAR **Winches** - Series of BH, BE, BA
SEKIGAHARA SEISAKUSHO LTD.	**Davit** - SH, SFB, SHS, STS, SSS, SFS, SFA, SFC, SFD, SJS, SJR
Shigi Shipbuilding Co., Ltd.	**Lifeboat** - SZ-49BR/TR, SZ-53BR/TR, SZ-65BRS/TRS, SZ-73BRS/TRS, SZ-80BRS/TRS, GARS series, FEL59/66/66T **Rescue Boat** - OPEN type, VOX46/46S/46M **On-load and Off-load Release Gear Type** - SZK-5, SZK-5M, SZ-45RT, SZ-45R/T, SZ-45RS, SRS-37, SRS-37M, SZK-25, SZK-25M, SZK-30, SZK-30M, SZK-36M, SZK-7, SZK-8, WP39
JIANGYINSHI BEIHAI LSA CO., LTD.	**Boat** - Series of SC, JYB **Hook** - Series of JYBHK **Davit** - Series of SM, SAC, SA, FA, LB, LA, BHGH, PD, FRH, EHRD, SRH, BHGP, RB, HB, HDC, ESAD **Winch** - Series of D, DW, HW, JYBW, FFW
West Marine Equipment Pte Ltd / Zhenjiang West Marine Equipment Co., Ltd	**Single Arm Davit** - WME-SAD14/23/30 **A-frame Davit Semi Hydraulic System** - WME-LR30 **A-frame Davit Fully Hydraulic System** - WME-LRH35/75 **Conventional Davit** - WME-MGD185 **Boat Raft Davit** - WME-HTD30

Sangsangin Industry Co., ltd. (ex. Dongnam Marine Crane Co., ltd. and Dongnam Enterprise)	**Davit/Launching Appliances** - Hinged Gravity Type (DHG57-FM, HGW-40-FM, DHG-70-FM, HGW-52-FM, HGW-50-FM, DHG-73-FM, HGW-61DM, DHGD-11-E2E7) - Single Arm Type (DLRD, DRLD, DSAD, PV combined, DCHH, DPR, DNR, DRBD, DSAC, BSNKJ) - Freefall Type (FF, HDF) - DSAM11-E2M0
Qingdao Beihai Boatbuilding Co., Ltd. (Ex. Boatbuilding Branch Qingdao Beihai Shipbuilding Heavy Industry Co., Ltd)	**Totally Enclosed Lifeboat** - BH-5, 5A, 5S, 5SA, E500, E585, 6, 6A, 6S, E670, 7A, 7B, 8, 9, 10 **Freefall Lifeboat** - BH-F6.0, F7.0A, F7.8, F8.1, F5.8, F6.8, F660, F670, F750, F900/A **Rescue Boat** - BH-R4, R4S, R4SA, R5S **Gravity Pivot Davit** - BD-PV50, PV60, PV60S, PV85, PV125 **Freefall Launching Davit** - BD-FF55, 55A, 55R, FF80, 80A, 80R, 80B, FF65/66/67, FF85 **Single Arm Davit** - BD-SA14, 14A, 14B, SA21, 21A, SA23, SA30, 30A, SA33, SH23 **Winch** - BW-H(L/R)31S, 50, 63, 75, L(L/R)75, 125, SC14, 21, 30 **Gravity Lifeboat Release Mechanism** - BG-3, 3L, BG-7, BH-HOOK3, HOOK5, FS5, FS7 **Freefall Lifeboat Release Mechanism** - BG-3F, 3.5F, 4F, 4.5F, 4.5FL, 5F, 6F **Rescue Boat Release Mechanism** - BG-2R, 15KNXS, 25KNXS, 35KNXS
Wuxi Hai Hong Boat Making Co., Ltd.	**Totally Enclosed Life/Rescue Boat** - HH50C/HH50T, HH53C/HH53T, HH57C/HH57T, HH65C/HH65T, HH65CS/HH65TS, HH70C/HH70T, HH75CS/HH75TS, HH75C, HH80CS/HH80TS, HH85C/HH85T **Freefall Lifeboat** - HH59FC/HH59FF, HH76FC/HH76FF **Rescue Boat** - GJ4.5B/GJ4.5B1 **High Speed Rescue Boat** - GJ618A/GJ618B **Open Type Lifeboat** - BJ-7.0 **Release Gear** - HH76/HH43/HH30/HH20
Fassmer Service GmbH & Co. KG.	**Davit Launched Totally Enclosed Lifeboat** - GMR 5.9/6.5/7.4/8.3 - TGMR 5.9/6.5/7.4/8.3

	- CLR-C 5.9/6.4/6.8/7.2/7.6/8.1/8.5 - CLR-T 5.9/6.4/6.8/7.2/7.6/8.1/8.5 - CL-C 8.9/9.4/9.8/10.2/10.7/11.1/11.5/11.9/12.4/12.8/13.2 - CL-T 8.9/9.4/9.8/10.2/10.7/11.1/11.5/11.9/12.4/12.8/13.2 - CLX (R)8.5/10.0/11.7/12.8 **Freefall Lifeboat** - CFL 4.9/-T4.9 - GAR 6.0/-T 6.0/6.8/-T 6.8/6.7/-T 6.7/7.4/-T 7.4/8.1/ -T 8.1/7.7/-T 7.7/8.5/-T 8.5 - CFL-C66/72/77/83 - CFL-T66/72/77/83 **Partially Enclosed Lifeboats** - CL-P 5.9/6.4/6.8/7.2/7.6/8.1/8.5/8.9/9.4/9.8/10.2/10.7/ 11.1/11.5/11.9/12.4/12.8/13.2 - SEL 8.15/8.8/9.6/10.5/10.55/11.80/12.5/-R 8.15/15.75/ -T 10.75 **Partially enclosed Lifeboats – Tenderboats** - TL Limo 1100 - SEL-T 11.0/11.7/12.3/14.0/14.7/15.75 - PLL 1099 - PLT-EVO 170 **Partially Enclosed Lifeboats, Tenderboat and Rescue Boat** - SEL-RT 7.7/7.5/8.5 **Partially Enclosed Life-and Crew Tenderboats** - SEL 11.0 (-T) **Partially Enclosed Life-/Rescue-/Work-/Tender-Boats** - SEL-R 7.4/8.5 **Rigid Rescueboat** - RR 4.2/4.2-M/4.5 ID **Rescueboat** - RIR 625 ID **Fast Rigid Rescueboat** - FR (I)R6.1/6.1ID - FRR 6.2 ID/6.5 ID-SF/6.6 ID/7.0 ID-SF/7.0 - FRIR 6.25 **NAVY RHIB** - SFB 10.1 **Freefall Lifeboat Release Mechanism** - FFRU 6.6 **Offload Rescue Boat Hook** - FOH 27/30/70 **On Load Release Gear** - Duplex 25E2/2.5E/50E2/5.0E/60E2/6.6E/10E/140E2/14E/ 17E/180E2/230E2/23E - 2.5T, 5.0T, 10T, 14T, 17T, 23T **Fassmer Hydraulic Davit** - FHD 80/100/120/130/150/170/172/280/450

	Hinged Davit - FHDY 100 **Freefall Davit** - FFH 45/65/49/50/60/66/70/72/75/77/80/83/85/90 **Pivot davit** - FPD 55/60/100/80/120/150/170 - FFD D60 **Freefall Ramp** - FLR49/66/8005/8006/8007 **Multi Pivot Davit** - FMPD 100/130/150/160 **Outrigger Davit** - FOD 100/120/130/150/170/190/40R/50/55/80/ LBC 300/SAR 40/-R22/-R23/-R25/-R40/TC 450 **Rescue Boat Davit** - FOSV 71, FSAH 22 **Rescue Boat Crane** - FSAH 22, 28, 32 - FSAR 12/3.5, 14/2.9, 14/3.5, 21/4.0, 21/4.5, 22/4.5, 28, 40 **Rescue Boat/Liferaft Crane** - FSARR 14/3.5, 21/3.8, 21/4.0, 21/4.3, 22/4.0 **FRC Crane** - PRHE 30 **Fassmer Winch** - DEW 40/85/2000 **Fassmer Winch/Rescue Boat Crane** - DEW 8/150 - FWD 40 RB **Fassmer Freefall Winch** - FFWH
Zhenjiang DH Marine Equipment Co., Ltd.	**Davits** - FFH, HSD, LPLG, LE, MSD, PR, PRH, SGL **Winches** - DW, WME
Zhejiang Hengxin Ship Equipment Co., Ltd.	**Lifeboat** - BCC, BCF, BCFC, BCFF **Rescue Boat** - GJ, FRH, RH **Release Mechanism** - HK **Davit** - FH, SA, HDC, LFR, LR, HE, PD, SRH, LB, KN **Winch** - DZB, D, DW

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