

Class-Society Type Approval — DNV, ABS, LR, BV, ClassNK

cBallast · IACS Common Structural Rules 2024 · Compliance guide

Classes covered

Society	Country	IACS founding	Fleet share
DNV	Norway	Yes	~22%
ABS	USA	Yes	~14%
Lloyd's Register	UK	Yes	~12%
Bureau Veritas	France	Yes	~11%
ClassNK	Japan	Yes	~19%
KR	South Korea	Yes	~8%
CCS	China	Yes	~11%
RINA	Italy	Yes	~2%
PRS	Poland	Yes	~1%

Type approval vs product approval vs unit certification

Type approval — certificate against manufacturer design (drawings, materials, tests) confirming TYPE meets class rules. Granted once per design revision, covers all units built to that design. Product approval / Product Design Assessment (ABS term) — same technical intent as type approval. Unit certificate (Form 3, PCoC) — per individual unit; confirms this specific serial built to type-approved design + passed witnessed FAT.

Common scopes

Equipment	Governing rules
BWMS	IMO MEPC.279(70) + USCG 46 CFR 162.060 + class annex
Engine components	IACS UR M53 + class engine chapter
Cargo pumps + inert gas	Class cargo-piping + IACS UR P
Electrical machinery	Class electrical chapter + IEC 60034

Marine automation (IAS)	Class automation chapter + IEC 60945 EMC
Refrigerated cargo	Class refrigeration chapter
Firefighting	SOLAS II-2 + FSS Code MSC.98(73)
Life-saving	SOLAS III + LSA Code MSC.81(70)
Bridge equipment	Class navigation + IMO SN.1/Circ.243

Application flow

Pre-application meeting -> documentation submission (drawings, wiring, materials, EMC test, FMEA, software life-cycle) -> prototype testing (vibration IEC 60068-2-6, shock 2-27, temp 2-1/-2, humidity 2-30, salt mist 2-52) -> certificate issuance (valid ~5 years, subject to change notification) -> renewal before expiry.

Buyer verification at goods-in

Each class society publishes an online type-approval register. Enter certificate number: confirm (a) still valid, (b) covers the specific part number, (c) issued by vessel classification society or IACS-recognised. If cert lists design revision (e.g. Rev 3.2), delivered nameplate must match — a Rev 4.0 part against a Rev 3.2 cert is not covered.

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