Ship type service

◆ **Joint development of ship type**

Ship type is jointly developed in conjunction with the shipyard and designer. By making use of CCS advantage in information and technology, based on comprehensive information such as route, port and channel and by means of advanced technical rules, technical economic analysis, structural and performance calculation analysis, effective technical solutions are provided in order to jointly develop top quality ship type.

◆ **Optimization and upgrading of ship type**

Reliable structural optimization and upgrading solutions are provided by means of scientifically reasonable quantitative and qualitative analysis and research based on current characteristics of ship type, so as to provide strong support for ship type upgrading, making the ship safer, more environmentally friendly, more economical and more efficient.

◆ **Approval of ship type**

Compliance evaluation is carried out on ship types provided by shipyards and designers in accordance with agreed rules and conventions, and ship type approval certificate is issued to lay the foundation for ship type promotion and plan approval in the future.

◆ **Technical training of clients**

Based on the needs of the clients, CCS can provide comprehensive and customized technical training service related to rules, software and technical solutions.



CCS PERFORMANCES AND SERVICES ON LIVESTOCK CARRIER

CHINA CLASSIFICATION SOCIETY
中国船级社

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APR, 2023

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CHINA CLASSIFICATION SOCIETY
中国船级社

Overview

By sticking to the policy of "building first-class international classification society with own characteristics and with technology as the foundation and credibility as the cornerstone", CCS makes continuous improvements in the area of the dedicated livestock carriers through advanced technology and quality service.

With rich and mature plan approval and survey technologies, CCS devotes its technologies and experience to the ship building industry and offers all-round services to clients in terms of design, manufacturing, maintenance and survey. Based on in-depth research in special arrangement and special equipment of the livestock carrier, CCS has further enhanced its service capability in ship type service and offered clients with all-round and efficient technical services.

By committing to the mission of "safety, environmental protection and creating value for clients and society" and based on over 90 offices established across the globe, CCS provides the ship owner with 7X 24 hours of survey and technical support services. Relying on its highly efficient service system structure, CCS continuously provides comprehensive support for conducting survey activities, safeguarding ship safety and emergency response to accidents. CCS has continuously achieved outstanding performance in three main MoUs and witnessed healthy and steady increase of its fleet size.

Characteristics of ship type

Livestock carrier is the ship designed and constructed specially for the carriage of livestock such as cattle, sheep, etc., mainly engaged in the transportation of export trade of livestock from the countries with well-developed livestock industry to the countries with a large demand for fresh meat.

Livestock carrier is a kind of ship with typical high-technology and high added-value. Compared with the routine ships, livestock carrier has higher superstructure and more tiers of decks where pens are provided and the livestock service systems, including animal fodder, fresh water, ventilation, lighting and animal manure disposal are installed to ensure a safe and convenient environment during the process of transportation.

Typical characters of classification and class notations

★ CSA, Livestock Carrier, PSPC(B), In-Water Survey,
★ CSM, AUT-0, SCM, GPR, BWMP, BWMS, FTP,

Performance

Livestock carriers classed with CCS include the 6400 m2 carriers of M.V. "CHANG SHUN", M.V. "CHANG HE" and etc. CCS has accomplished the design approval of a new type of 5400m2 river-sea livestock carrier which is suitable to both river and sea transportation, and subsequently ships of such series will be classed with CCS.



Livestock Carrier of M.V. "CHANG SHUN"

Key technologies

1) Structural safety and arrangement

◎ Evaluation of longitudinal strength with multi-deck structure
◎ Requirements for arrangement of pillars, pens and passageway

2) Special requirements:

◎ Requirements for plan approval, survey and certification by AMSA
◎ Effect of grain and fodder holds on stability
◎ Requirements for equipment of ventilation, lighting, water supply, feeding, drainage, rinsing and etc.

3) SOx & NOx emission and control solutions

4) Ship's vibration and noise assessment

5) Ship's energy efficiency service: providing technical services, such as ship's resistance reduction technology (including profile optimization), efficient propulsion system, energy-saving device, control of lightweight, optimization of machinery and electrical equipment and system, optimal trim, new energy utilization technology, energy efficiency online intelligent management system and etc.