INDIAN REGISTER OF SHIPPING

HANDBOOK OF NOTATIONS

Rules and Regulations for the Construction and Classification of Steel Ships

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IRCLASS
Indian Register of Shipping

Introduction

1. This handbook has been prepared to give general information about the various types of Class Notations, symbols etc. to describe vessels under Classification, which are commonly used by the Indian Register of Shipping (IRS) and are indicated on the Class Certificate.

2. In general, a ship may be assigned a combination of distinguishing marks, characters of classification, ship type notations, cargo notations, special features notations, service restriction notations, descriptions and class notations for hull and machinery.

3. The handbook covers notations that are included in the *Rules and Regulations for Construction and Classification of Steel Ships*. The notations/ symbols are provided in a tabular format with a brief description against each serial (Table 1). Further, the requirements/ Chapters that need to be complied with for assigning a particular symbol / notation are also indicated in brief. Typical examples of assigned notations for different type of ships are given at the end of Table 1.

4. Greater details about the symbols, characters of Class and notations may be obtained in Part 1 Chapter 1 and other relevant Chapters of the *Rules and Regulations for Construction and Classification of Steel Ships*.

5. The latest version of the Rules, Classification Notes and Guidelines published by IRS are available on the website www.irclass.org. Users may note that the online version of the Rules along with associated Rule Change Notices are to be referred for the current applicable requirements for assignment of a particular notation. Whereas all efforts are taken to provide the correct information in this handbook; in the event of any discrepancy between the Rules, Classification Notes, Guidelines and the material provided in the handbook; the online version of the Rules and other documents would be considered as the authentic version.

6. The handbook is expected to serve as a useful guide to stakeholders in matters related to Classification, especially with respect to symbols, characters of class and notations.

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The Notations in Table 1 are grouped into categories and arranged as follows:

Table 1 : Table of Characters of Class and Class Notations		
Abbreviation	**Expanded Form**	**Significance**
1. Characters of Class		
卐	SWASTIKA	This distinguishing mark inserted before a Character of Class is assigned to new vessels where the hull and its appendages, equipment and the machinery as appropriate, are constructed under special survey of IRS in compliance with the Rules to the satisfaction of IRS
卐		The distinguishing mark inserted before a Character of Class (SUL, SU (-), SU, IY as appropriate), is assigned to vessels admitted in to IRS Class during the course of construction and surveyed by an IACS Society.
卐		The distinguishing mark inserted before a Character of Class (SUL, SU (-), SU, IY as appropriate), is assigned to vessels admitted into IRS Class at the time of delivery of the vessel and constructed under the survey of an IACS Society.
SUL	SARVOUTAM LANGER	Denotes vessels which are classed with Indian Register of Shipping where the hull and its appendages and equipment (i.e. anchors, chain cables, hawsers) meet the Rule requirements.
SU (-)	SARVOUTAM (-)	Denotes vessels which are classed with IRS where the hull and its appendages meet the rule requirements but when the equipment of ship is not supplied or maintained as per the relevant Rules but is considered by IRS to be acceptable for particular service
SU	SARVOUTAM	Denotes vessels which are classed with IRS where the hull and its appendages meet the rule requirements but where for reason of their particular purpose or service normal equipment may be unnecessary
IY	INDIAN YANTRA	Denotes that for self-propelled seagoing vessels, the machinery installation complies with the applicable requirements of Indian Register of Shipping
[ ]		When a Class Notation is enclosed within brackets, it indicates that applicable arrangements exist on board but the notation has been temporarily suspended
2. Class Notations – Hull		
a) Service Restriction Notations		
Sheltered Water Service		Service in sheltered water adjacent to sand banks, reefs, breakwaters or other coastal features, and in sheltered water between islands
Restricted Water Service		Service in sheltered waters and also for short distances (generally less than 15 nautical miles) beyond sheltered waters in 'reasonable weather'
Specified Coastal Service		Service along a coast, during the course of which the vessel does not go more than 20 nautical miles from the nearest land and may cross gulfs or similar features recognised by the local Administration as a part of the coastal service. The geographical limits will form part of the Class Notation, e.g. "Indian Coastal Service"

Abbreviation	Expanded Form	Significance
Specified Route Service		Service between two or more points or other geographical features which will form part of the Class Notation
Specified Operating Area Service		Service within one or more geographical area(s) which will form part of the Class Notation
Certain examples of above service restriction notations are as follows : "FOR OPERATION WITHIN ___ PORT LIMITS" "FOR OPERATION WITHIN _____ [AREA]" "FOR OPERATION IN MAX. WATER DEPTH OF____[m]" "FOR OPERATION IN MAX. WAVE HEIGHT OF ___ [m]" "FOR OPERATION IN MAX. WIND SPEED OF ___ [Knots]" "FOR OPERATION BETWEEN ___ AND ___" "FOR TOWAGE IN SEA CONDITIONS UPTO [SEASTATE___] /[BEAUFORT___] " "FOR OPERATION IN FAIR WEATHER CONDITIONS ONLY" "FOR DREDGING WITHIN ____NAUTICAL MILES FROM THE COAST" "FOR OPERATON OUTSIDE EMISSION CONTROL AREAS" "FOR OPERATION IN THE ENVIRONMENT NOT EXCEEDING….."		
b) Ice Class Notations		
HAT(B)	HIMA ATITIVRA (B)	Denotes that the ship is strengthened for first year ice conditions in Northern Baltic in winter or areas of similar ice with condition equivalent to unbroken level ice with a maximum thickness of 1.0 metre
HT(B)	HIMA TIVRA (B)	Denotes that the ship is strengthened for first year ice conditions in Northern Baltic in winter or areas of similar ice with condition equivalent to unbroken level ice with a maximum thickness of 0.8 metre
HM(B)	HIMA MADHYAM (B)	Denotes that the ship is strengthened for first year ice conditions in Northern Baltic in winter or areas of similar ice with condition equivalent to unbroken level ice with a maximum thickness of 0.6 metre
Ha(B)	HIMA ALPA (B)	Denotes that the ship is strengthened for first year ice conditions in Northern Baltic in winter or areas of similar ice with condition equivalent to unbroken level ice with a maximum thickness of 0.4 metre
Ha	HIMA ALPA	Denotes that the ship is strengthened for light first year ice conditions in areas other than Northern Baltic
POLAR	-	Denotes that the ship is designed and constructed in accordance with the requirements of Part 5, Chapter 36 of the Rules. Ice strength requirements for polar operations are covered in Part 5 Chapter 32 of the Rules and the appropriate notations ('PC 1' to 'PC 7') would also be assigned, based on compliance with the relevant ice class requirements of that Chapter.
PC1	Polar Class 1	Denotes that the ship is strengthened for year-round operation in all polar waters according to Part 5, Chapter 32 of the Rules.
PC2	Polar Class 2	Denotes that the ship is strengthened for year-round operation in moderate multi-year ice conditions according to Part 5, Chapter 32 of the Rules.

Abbreviation	Expanded Form	Significance
PC3	Polar Class 3	Denotes that the ship is strengthened for year-round operation in second-year ice which may include multi-year ice inclusions according to Part 5, Chapter 32 of the Rules.
PC4	Polar Class 4	Denotes that the ship is strengthened for year-round operation in thick first-year ice which may include old ice inclusions according to Part 5, Chapter 32 of the Rules.
PC5	Polar Class 5	Denotes that the ship is strengthened for year-round operation in medium first-year ice which may include old ice inclusions according to Part 5, Chapter 32 of the Rules.
PC6	Polar Class 6	Denotes that the ship is strengthened for summer / autumn operation in medium first-year ice which may include old ice inclusions according to Part 5, Chapter 32 of the Rules.
PC7	Polar Class 7	Denotes that the ship is strengthened for summer / autumn operation in thin first-year ice which may include old ice inclusions according to Part 5, Chapter 32 of the Rules.
ICEBREAKER	-	Ships which are assigned a Polar Class notation and complying with the relevant specific requirements of Part 5 Chapter 32 may be given the additional notation “Icebreaker”. “Icebreaker” refers to any ship having an operational profile that includes escort or ice management functions, having powering and dimensions that allow it to undertake aggressive operations in ice-covered waters.
c) Stability Related Notations		
STS	SAMATARANA STHIRATVA	Denotes that the ship complies with the requirements for survival capability (floatability in damaged condition) in accordance with Chapter 3 of IMO Resolution MSC 235(82)
Load Comp (1)	LOADING COMPUTER (1)	Denotes that the ship is equipped with a loading computer capable of ascertaining and comparing with the permissible limits, the hull girder loads in still water in any loading condition as required by Part 3, Chapter 5 and Part 5, as applicable, of the Rules
Load Comp (2)	LOADING COMPUTER (2)	Denotes that in addition to the requirements for Load Comp (1) mentioned above, the ship's loading computer is capable of performing intact stability calculations for any loading condition to verify compliance with the applicable requirements indicated in Part 3, Chapter 4 of the Rules
Load Comp (3)	LOADING COMPUTER (3)	Denotes that in addition to the requirements for Load Comp (2) mentioned above, the ship's loading computer is capable of performing the stability calculations in damaged condition
Load Comp (4)	LOADING COMPUTER (4)	Denotes that in addition to the requirement for Load Comp (2) mentioned above, the ship's loading computer is capable of performing both stability and strength calculations in damaged condition
d) Special Features, Arrangements and Equipment Notations		
CM	CONSTRUCTION MONITORING	This additional class notation will be assigned to ships, whose quality of construction is closely monitored by IRS in accordance with the relevant requirements of Part 3, Chapter 17.
"Strengthened for heavy cargoes"		This will be entered in the Register of Ships where the scantlings and arrangements have been approved for heavier cargo loadings in any hold filled up to the top of the hatch coaming with cargo at a stowage rate of ≤ 1 [m^3/tonne], when the draught in way of the hold is 80 per cent of the maximum permissible draught or more

Abbreviation	Expanded Form	Significance
"Hold(s) ...(to be specified)..... may be empty"		This will be entered in the Register of Ships when in association with the carriage of heavy cargoes, specified holds are permitted to be empty with the ship in the fully loaded condition
Deck Strengthened for _____ [t/m^2] From Frame____ To Frame____ **Deck Strengthened for _____ [t/m^2]**		This notation may be assigned for vessels with additional strengthening of specified deck indicating the load in tonnes / m^2 and the extent of strengthening by specifying frame nos. The latter notation may be used in cases, where the entire deck is strengthened for heavy cargoes / some other specific reason.
For Occasional Carriage of Dry Bulk Cargo		This notation will be assigned to ships which occasionally carry dry cargoes in bulk, in compliance with relevant requirements of IMO Res. MSC 277(85).
CLS	CONTAINER LASHING SOFTWARE	This additional notation will be assigned to Container Ships provided with IRS approved container lashing software in accordance with Part 5, Chapter 5 of the Rules.
Equipped for Carriage of Containers		This additional notation may be assigned to vessels which are equipped for carriage of containers. In addition to other aspects, these ships are to have as a minimum, an approved container stowage plan describing the arrangement of containers in hold, on deck and on hatch covers (as applicable) keeping in view the gross weight of containers and maximum design weight of container stacks; approved container lashing arrangements; drawings of load bearing structures, cell guides, where provided and associated structural reinforcements.
For Crane Operation with Spuds in the Environment Not Exceeding [_____].		This additional notation may be assigned to a barge / pontoon having spuds that may be temporarily installed with a crane, which can conduct crane operations in various sea conditions. The limiting operating parameters of sea conditions will from a part of the barge / pontoon - crane combination documentation.
Owner's Additional Thickness of ……[mm] In/ For…….		This notation is normally assigned when an additional corrosion margin is given to the scantlings based on Owner's requirements. The notation may also indicate the extent to which the additional margin is given as a continuation of the notation. For e.g. "Owner's additional thickness of 1mm for hull envelope 0.5L amidships".
HELDK		This will be entered in the Register Of Ships for vessels with erected platforms or landing area designed for helicopter landings in accordance with applicable requirements of Part 5, Chapter 27 of the Rules
ETA	EMERGENCY TOWING ARRANGEMENT	Denotes that the ship is equipped with emergency towing arrangements in accordance with the requirements given in Part.5, Chapters 2, 3 or 4 of the Rules
SPM	SINGLE POINT MOORING	Denotes that the vessel is fitted with standard arrangements for single point mooring as per Part 5, Chapter 28 of the Rules
CSR	This additional notation will be assigned to i) single side skin and double side skin bulk carriers having a length L of 90 m or above ii) double hull oil tankers having length L of 150 m or above. This additional notation will be assigned to such vessels complying with the requirements in the Rules for Bulk Carriers and Oil Tankers.	
DOUBLE HULL	When bulk carriers, oil tankers, oil or ore carriers and oil or bulk carriers are of double hull construction, in the entire cargo area (See Ch.2, Sec.1), the main class notations described above will be appended by notation 'DOUBLE HULL'	

Abbreviation	Expanded Form	Significance
DOUBLE SIDE SKIN	This additional notation will be assigned to bulk carriers of double side skin construction built in accordance with the applicable requirements of Part 5, Chapter 1 of the Rules.	
DWA	This notation will be assigned to ships complying with the requirements of Part 3, Chapter 14, Section 8 for anchoring in deep and unsheltered waters.	
e) Survey Related Notations		
ESP		Vessel complies with requirements of enhanced survey programme. ESP notation is assigned to vessels to which the ESP Code is applicable such as Bulk Carriers, BC-A, BC-B, BC-C, Ore Carriers, Oil Tankers, Ore or Oil Carriers, Oil or Bulk Carriers, Asphalt Carriers with integral tanks. It is also assigned to Chemical Tankers.
INWATER SURVEY		Denotes that the examination of the ship's bottom and related items may be carried out while the ship is afloat in accordance with the applicable requirements indicated in Part 1, Chapter 2..
EDD (X)		Denotes that the vessel complies with the requirements of the IRS Classification Note “Extended Dry-Docking Scheme”, and is fit for service with an extended interval of ‘X’ years between successive dry-dockings.
REMOTE SURVEY		This additional class notation will be assigned to ships which are in compliance with the relevant requirements of Pt. 1, Ch. 2, Sec. 24 for remote surveys
f) Notations for Special Analysis of Hull		
SFA ( )	SPECTRAL FATIGUE ANALYSIS (NUMBER OF YEARS)	The additional class notation SFA ( ) will be assigned to vessels where the design fatigue life has been assessed in accordance with the *‘Guidelines on Spectral Fatigue Analysis of Ship Structures’*. The figures in parentheses would indicate the number of years for which the design fatigue life has been assessed.
3. Class Notations - Machinery		
CCS	CENTRALIZED CONTROL STATION	Denotes that the propulsion and auxiliary machinery can be controlled and monitored with continuous supervision from a Centralized Control Station as detailed in Part 4, Chapter 7 of the Rules. It also denotes that the control engineering equipment has been arranged, installed and tested in accordance with Rules.
SYJ	SWACHALIT YANTRIK JAHAZ	Denotes that the ship can be operated with the machinery spaces unattended in accordance with the applicable requirements of Part 5, Chapter 22 of the Rules
HY	HIMIKAR YANTRA	Denotes that the refrigerated cargo installation of a ship complies with the applicable requirements of Part 5, Chapter 23 of the Rules
HY*	HIMIKAR YANTRA*	Denotes that the refrigerated cargo installation is capable of cooling down fruit in general or a catch of fish and complies with the applicable requirements of Part 5, Chapter 23 of the Rules
HY(LGC)	HIMIKAR YANTRA (LGC)	Denotes that the re-liquefaction or refrigeration installation fitted on a classed liquefied gas carrier for cargo temperature and pressure control complies with the applicable requirements of Part 5, Chapter 4 of the Rules

Abbreviation	Expanded Form	Significance
NV	NIPRABHAV VASHPA	This notation is assigned to ships classed with Indian Register of Shipping intended for (i) carriage of oil in bulk or (ii) carriage of liquid chemicals in bulk. It denotes that the cargo spaces can be inerted by means of an inert gas system which has been approved, installed and tested in accordance with the relevant Rules
AGNI 1	AGNI SHAMAK	Denotes that the ship is equipped for early stage fire fighting and rescue operations close to structures including means for self protection of the vessel
AGNI 2		Denotes that the ship is equipped for continuous fighting of large fires and for cooling of structures on fire including means for self protection of the vessel
AGNI 3		Denotes that the ship is equipped for continuous fighting of large fires and for cooling of structures on fire and of greater capacity than for "AGNI 2"
DP (0)	DYNAMIC POSITIONING (0)	Denotes that the ship is fitted with automatic controls for position keeping and/or heading without joystick system back-up as per Part 5, Chapter 24 of the Rules.
DP (1)	DYNAMIC POSITIONING (1)	Denotes that the ship is fitted with automatic controls for position keeping and/or heading, an independent joystick system back-up and a position reference back-up as per Part 5, Chapter 24 of the Rules
DP (2)	DYNAMIC POSITIONING (2)	Denotes that the ship is fitted with automatic controls of position keeping and/or heading with automatic standby controls and redundancy in design and equipment as required by Part 5, Chapter 24 of the Rules
DP (3)	DYNAMIC POSITIONING (3)	Denotes that the ship is fitted with automatic controls for position keeping and/or heading with automatic standby controls, redundancy in design and equipment and physical separation of components in different compartments as per Part 5, Chapter 24 of the Rules
PM	POSITION MOORING	The additional class notation 'PM' will be assigned to barges/ pontoons equipped with position mooring systems in accordance with Part 5, Chapter 11 of the Rules.
BD	Bridge Design	The additional class notation 'BD' will be assigned to ships which comply with the requirements of ergonomic bridge design and layout in accordance with Part 5, Chapter 31 of the Rules
BDS	Bridge Design and Systems	The additional class notation 'BDS' will be assigned to ships which comply with the requirements of ergonomic bridge design and layout, navigation equipment and related systems in accordance with Part 5, Chapter 31 of the Rules
IBS	Integrated Bridge System	The additional class notation 'IBS' will be assigned to ships fitted with an Integrated Bridge System in accordance with the requirements given in Part 5, Chapter 31 of the Rules. Integrated Bridge System allows simplified and centralized bridge operation of the main functions of navigation, manoeuvring and communication, as well as monitoring from the bridge of other functions such as: - Passage execution - Communication system - Monitoring of the machinery installation - Pollution monitoring - Monitoring of HVAC for passenger ships - Safety and security.

Abbreviation	Expanded Form	Significance
DSV	DIVING SUPPORT VESSEL	Denotes that the ship has diving support capability and is equipped with diving systems in accordance with the requirements of Part 5, Chapter 26 of the Rules.
DIV-SURF	DIVING SYSTEMS-SURFACE	The additional notation DIV-SURF will be assigned to surface diving systems in accordance with Part 5, Chapter 26 of the Rules.
DIV-SAT	DIVING SYSTEMS-SATURATION	The additional notation DIV-SAT will be assigned to saturation diving systems in accordance with Part 5, Chapter 26 of the Rules.
PMS	PLANNED MAINTENANCE SYSTEM	Denotes that the machinery is subject to a system of planned maintenance and surveys in accordance with Part 1, Chapter 2, Section 14 of the Rules
PMS-CM	PLANNED MAINTENANCE SYSTEM – CONDITION MONITORING	Denotes that the machinery is subject to condition monitoring as part of the planned maintenance system and surveys in accordance with Part 1, Chapter 2, Section 21 of the Rules
PMS-CBM	PLANNED MAINTENANCE SYSTEM – CONDITION BASED MAINTENANCE	Denotes that the machinery is subject to condition based maintenance as part of the planned maintenance system and surveys in accordance with Part 1, Chapter 2, Section 21 of the Rules
TCM	TAILSHAFT CONDITION MONITORING	Denotes that the tail shaft condition is regularly monitored based on service records, oil and fresh water sample analysis, as applicable, in accordance with the survey requirements of Part 1, Chapter 2 and arrangements are provided for this purpose in accordance with Part 4, Chapter 4 of the Rules.
FT		This notation will be assigned to ships fitted with fuel oil treatment system and equipment complying with the relevant requirements of IRS Classification Note “Fuel Oil Treatment System”.
BATTERY PROP	BATTERY PROPULSION	The additional notation BATTERY PROP will be assigned to vessels where the battery systems are used for propulsion and are in accordance with the *‘Guidelines on Battery Powered Vessels’*.
LFPF	LOW FLASH POINT FUEL	This additional class notation will be assigned to a vessel, which is designed and constructed primarily for using low flash point fuel, in accordance with the applicable requirements of Part 5, Chapter 35 of the Rules. The following additional qualifiers may be assigned to the vessel depending upon the type of fuel or engine being used : (NG) – Natural Gas (EG) – Ethane (LPG) – Liquefied Petroleum Gas (ML) – Methanol (EL) - Ethanol (AM) - Ammonia (SFE) – Single Fuel Engines (DFE) – Dual Fuel Engines

Abbreviation	Expanded Form	Significance
LFPF BUNKERING VESSEL ([fuel name]). **LFPF BUNKERING BARGE ([fuel name])**		This additional class notation will be assigned to a vessel, which is designed and constructed in accordance with the applicable requirement of Part 5, Chapter 14, and primarily intended for carrying low flash point fuel to transfer to ships using such fuel. 'LFPF BUNKERING BARGE ([fuel name])' will be assigned to non-self- propelled vessels. The following qualifiers may be assigned to the vessel carrying LNG bunker and equipped with additional features complying with the relevant requirements in Section 2 of the Chapter: **RE** - where the vessel is designed to receive LNG from a gas fueled vessel whose LNG fuel tanks have to be emptied. **ICD** - where the vessel is designed for initial cooling down of the gas fueled vessel's LNG fuel tank. **IGS** - where the vessel is designed to supply inert gas and dry air, to ensure gas freeing and aeration, to a gas fueled vessel complying with Pt.5, Ch.35, 6.10.4. **VR** - where the vessel is designed to recover and manage the boil-off gas generated during the bunkering operation.
FC (Main) **FC (Auxiliary)**	Fuel Cell (Main) Fuel Cell (Auxiliary)	Vessels provided with fuel cell installations for propulsive power and auxiliary purposes in accordance with IRS Guidelines on Vessels with Fuel Cell Power Installations (Provisional), may be assigned additional class notation FC (Main) and FC (Auxiliary) respectively. A qualifier indicating the fuel (e.g. methanol, ethanol, hydrogen, etc) used in the fuel cell will be added to the notation, e.g: FC (Main) – Hydrogen.
RV(LNG)	REGASSIFICATION VESSEL (LIQUIEFIED NATURAL GAS)	This notation will be assigned to LNG Carriers fitted with regasification systems, complying with the requirements of Part 5, Chapter 38 of the Rules. These ships are also to comply with the applicable requirements of Part 5, Chapter 4 for liquefied gas carriers.
HVSCS	HIGH VOLTAGE SHORE CONNECTION SYSTEMS	The additional class notation HVSCS would be assigned to vessels designed to be powered with shore power alone at port/ berth in accordance with the *'Guidelines on High Voltage Shore Connection Systems'* (applicable to voltages > 1 kV).

4. Class Notations - Environment		
a) Pollution Prevention Notations		
VCS1 **VCS2** **VCS1-B** **VCS2-B**	VAPOUR CONTROL SYSTEM	The additional notation VCS1 will be assigned to oil tankers, combination carriers (ore or oil/oil or bulk) and chemical tankers equipped with vapour control system complying with the requirements of Part 5, Chapter 29 of the Rules, except those given in 3.2.2 and Section 4 of that Chapter. The additional notation VCS2 will be assigned to oil tankers, combination carriers (ore or oil/oil or bulk and chemical tankers equipped with vapour control system meeting the requirements of USCG's regulations CFR46 Part 39 and those in Part 5, Chapter 29 of the Rules, except Section 4 of that Chapter. Vessels complying with requirements of Section 4 "Vapour Balancing" of Part 5, Chapter 29, in addition to other requirements in that Chapter will be eligible to be assigned class notation 'VCS1-B' or 'VCS2-B', as relevant and applicable.
CLEAN SEA		The additional class notation CLEAN-SEA is assigned to ships provided with construction and procedural means to prevent pollution of sea. This is achieved by complying with the applicable requirements of Annexes I, II, III, IV, V of MARPOL Convention, as well as additional requirements related to prevention of sea pollution as follows: • Prevention of accidental pollution by locating fuel and lub.oil tanks above the double bottom and away from side shell. • Prevention of operational pollution by means of bilge water separation and filtering, holding tanks for treated sewage and grey water • Prevention of transfer of harmful organisms and pathogens in the ballast water • Prevention of pollution by tributyltin by means of TBT free antifouling paints • Prevention of pollution by solid garbage (resulting from the compacting device and incinerators) by means of proper storage of such waste The requirements for the assignment of this notation are given in Part 5, Chapter 30 of Rules.
CLEAN AIR		The additional class notation CLEAN-AIR is assigned to ships provided with construction and procedural means to prevent pollution of the air. This is achieved by complying with the applicable requirements of Annex VI of MARPOL convention as well as following additional requirements related to emissions to the air: • Prevention of air pollution by exhaust gas (NOx, SOx, etc.) by means of low emission engines • Use of low sulphur content fuels and incinerators • Use of refrigerants and fixed fire fighting means with zero ozone depleting potential and low global warming potential • Control of release of refrigerants to the atmosphere by means of leak detection and evacuation systems • Recovery of vapours emitted from cargo systems of ships carrying dangerous liquid cargoes in bulk

		Note 1 : For ships with the service notation of oil tanker, oil or bulk carrier, ore or oil carrier, chemical tanker or liquefied gas carrier, the assignment of the notation VCS1 or VCS2 is a pre-requisite for assigning the notation CLEAN-AIR. The requirements for the assignment of this notation are given in Part 5, Chapter 30 of Rules.
EP	Environmental Protection	The additional class notation EP is assigned to ships provided with equipment and procedural means to prevent pollution of the sea and of air. This is achieved by complying with the requirements of Annexes I to VI of MARPOL Convention and additional requirements relevant to ship's liquid, solid and gas releases as detailed in Part 5, Chapter 30 of Rules. Additionally the vessel should have developed an Environmental Management Plan considering the IMO requirements for recycling. Note 1 : For ships with the service notation of oil tanker, oil or bulk carrier, ore or oil carrier, chemical tanker or liquefied gas carrier, the assignment of the notation VCS1 or VCS2 is a prerequisite for assigning the notation Environment Protection – EP. The requirements for the assignment of this notation are given in Part 5, Chapter 30 of Rules.
BFM	Biofouling Management	Ships complying with the requirements in IRS '*Guidelines on Biofouling Management*' will be assigned additional class notation BFM.
INVENTORY OF HAZARDOUS MATERIAL		This additional notation may be assigned for vessels where the inventory of hazardous materials (IHM) is developed according to IMO Resolution A.962 (23) (as amended) – IMO Guidelines on Ship Recycling and is available on-board. The inventory is a document facilitating the application of these Guidelines providing information with regard to materials known to be potentially hazardous utilized in the construction of the ship its equipment and systems. This is to accompany the ship throughout its operating life. The IHM document is a pre-requisite for ships assigned EP notation. However, the IHM document may also be provided for ships not assigned EP notation. Guidelines for development of the inventory of hazardous materials may be referred in MEPC Res. 269 (68), as amended.
b) **Ballast Water Convention Related**		
BWE ( )	BALLAST WATER EXCHANGE	The additional class notation BWE is assigned to ships complying with the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, the relevant IMO Guidelines, and performing ballast water exchange in accordance with Part 5, Chapter 37 of the Rules.
BWT	BALLAST WATER TREATMENT	The additional class notation BWT is assigned to ships fitted with an IMO Member State approved ballast water treatment system complying with the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, the relevant IMO Guidelines and Part 5, Chapter 37 of the Rules.

5. Ship Type Notations

Abbreviation	Expanded Form	Significance
BULK CARRIER		This notation will be assigned to ships designed primarily for the carriage of dry cargo in bulk and built in accordance with the applicable requirements of Part 5, Chapter 1 of the Rules for carriage of cargoes of density of at least 0.8 t/m^3
	SELF UNLOADER	This notation will be assigned to Bulk carriers with single deck, double bottom, hopper side tanks and topside tanks and with single or double side skin construction in cargo length area and intended to carry and self-unload dry cargoes in bulk.
BULK CARRIER(BC-XII)		This notation will be assigned to Bulk carriers which are in accordance with the definition of SOLAS Ch XII and its construction features not being as per the definition of SOLAS Ch IX, Reg 1.6. (i.e. not fitted with hopper and topside tanks)
ORE CARRIER		This notation will be assigned to ships specially designed primarily to carry ore and built in accordance with applicable requirements of Part 5, Chapter 1 of the Rules
OIL TANKER		This notation will be assigned to tankers intended primarily to carry oil in bulk and built in accordance with applicable requirements of Part 5, Chapter 2 of the Rules. Where the scantlings and arrangements have been approved for the carriage of oil having a flash point of 60°C or above (closed cup test) or other liquid cargoes in bulk, the class notation will be suitably modified to show the nature of the cargo
	FOR CARRIAGE OF……(to be specified)	This additional class notation will be assigned to oil tankers intended to carry specified items from the list of cargoes in Appendix B of Part 5, Chapter 2.
	FOR CARRIAGE OF LIQUID HAVING F.P. EXCEEDING 60°C	This additional class notation will be assigned to oil tankers intended to carry unheated cargoes having F.P exceeding 60°C and cargoes heated to a temperature below and not within 15°C of their flashpoint.
	ASPHALT CARRIER (INTEGRAL TANK, MAX. CARGO TEMP ≤ XXX℃), ESP	This additional notation will be assigned to oil tankers intended primarily to carry asphalt/ bitumen in integral cargo tanks in accordance with the applicable requirements of Part 5, Chapter 2 of the Rules. Such vessels will also be assigned notation ESP.
	ASPHALT CARRIER (INDEPENDENT TANKS, MAX. CARGO TEMP ≤ XXX℃),	This additional notation will be assigned to oil tankers intended primarily to carry asphalt/ bitumen in independent cargo tanks in accordance with the applicable requirements of Part 5, Chapter 2 of the Rules. Structural analysis for such vessels is to be carried out in accordance with the requirements of '*Guidelines on Structural Assessment of Ships carrying Asphalt in Independent Cargo Tanks'*
	SHUTTLE TANKER	This notation will be assigned to an oil tanker which is equipped with dynamic positioning (in accordance with the applicable requirements of Part 5, Chapter 24) and specialized cargo handling equipment making it capable of loading crude oil at offshore installations (in accordance with Part 5, Chapter 29).

Abbreviation	Expanded Form	Significance
ORE OR OIL CARRIER **OIL OR BULK CARRIER**		These notations will be assigned to combination carriers specially designed primarily to carry dry bulk cargoes (bulk carriers and ore carriers) and alternatively, oil in bulk, in accordance with Part 5, Chapter 2, Section 12 of the Rules. In such ships, simultaneous carriage of dry bulk cargo and oil is prohibited.
CHEMICAL TANKER		This notation will be assigned to ships specially designed primarily to carry chemicals in bulk and built in accordance with applicable requirements of Part 5, Chapter 3 of the Rules
	Type 1	Ship type notation assigned to that type of chemical tankers intended to transport products listed in Part 5, Chapter 3, Section 17 of the Rules, with very severe environmental and safety hazards which require maximum preventive measures to preclude an escape of such cargo.
	Type 2	Ship type notation assigned to that type of chemical tankers intended to transport products listed in Part 5, Chapter 3, Section 17 of the Rules, with appreciably severe environmental and safety hazards which require significant preventive measures to preclude an escape of such cargo.
	Type 3	Ship type notation assigned to that type of chemical tankers intended to transport products listed in Part 5, Chapter 3, Section 17 of the Rules, with sufficiently severe environmental and safety hazards which require a moderate degree of containment to increase survival capability in a damaged condition.
	Independent Tank	This additional notation will be assigned to chemical tankers having independent tanks in compliance with Part 5, Chapter 3 of the Rules.
	SG	This additional notation will be assigned to chemical tankers, where the maximum permissible specific gravity (SG) for which the scantlings have been approved is greater than 1.025. For e.g. "**SG 2.0**"
	PV	This additional notation will be assigned to chemical tankers, where the maximum permissible positive pressure/ vacuum relief valve setting for which the scantlings have been approved is greater than 0.21 bar. For e.g. "**PV + 0.4 bar gauge**".
	CR ( )	This additional notation will be assigned to chemical tankers, where the tanks are constructed of corrosion resistant materials. For e.g. stainless steel **CR (S.Stl)**, or lined with corrosion resistant linings, e.g. rubber lining **CR (r.l)**
	TC	This additional notation will be assigned to chemical tankers, where temperature control systems are incorporated in compliance with Part 5, Chapter 3, Section 7 of the Rules. If refrigerated machinery is provided for temperature control, then the notation would be "TC HY(BC)".

Abbreviation	Expanded Form	Significance
LIQUEFIED GAS CARRIER		This notation will be assigned to ships specially designed for the carriage of liquefied petroleum, natural or other gases and built in accordance with applicable requirements of Part 5, Chapter 4 of the Rules.
	1G	This additional notation will be assigned to that type of gas carrier intended to transport the products indicated in Part 5, Chapter 4, Section 19 of the Rules, that require maximum preventive measures to preclude their escape.
	2G	This additional notation will be assigned to that type of gas carrier intended to transport the products indicated in Part 5, Chapter 4, Section 19 of the Rules, which require significant preventive measures to preclude their escape.
	2PG	This additional notation will be assigned to that type of gas carrier of 150 [m] in length or less, intended to transport the products indicated in Part 5, Chapter 4, Section 19 of the Rules, which require significant preventive measures to preclude their escape, and where the products are carried in Type C independent tanks designed for a MARVS of at least 7.0 bar gauge and a cargo containment system design temperature of -55^{o}C or above. Note: A ship of above description, which is over 150 [m] in length, is considered as a Type 2G ship and would be assigned notation accordingly.
	3G	This additional notation will be assigned to that type of gas carrier intended to transport the products indicated in Part 5, Chapter 4, Section 19 of the Rules, which require moderate preventive measures to preclude their escape.
	Name(s) of gas(es)	This notation would be assigned to indicate the gases being carried in a gas carrier in accordance with the requirements of Part 5 Chapter 4 of the Rules. For e.g. 'Ethane', etc.
	Maximum vapour pressure (at sea and in harbour)	This additional notation would be assigned to indicate the maximum vapour pressure of the cargo being carried in the gas carrier at sea and in harbour. The vapour pressure is to be indicated in Pa (Pascals).
	Minimum and (where necessary) maximum cargo temperature (^{o}C)	This additional notation would be assigned to indicate the minimum and where necessary, maximum temperature of the cargo being carried in the gas carrier.
	Design ambient temperatures (^{o}C)	This additional notation would be assigned to gas carriers to denote that the ship is suitable for continuous service in high and/or low temperature climatic conditions.
CONTAINER SHIP		This notation will be assigned to vessels built for the exclusive carriage of containers in holds and on deck in accordance with the applicable requirements of Part 5, Chapter 5 of the Rules
PASSENGER SHIP		This notation will be assigned to vessels intended for carrying more than 12 passengers and built in accordance with Part 5, Chapter 6 of the Rules
FERRY		This notation will be assigned to vessels intended for carriage of passengers and/or vehicles on regular scheduled service and built in accordance with Part 5, Chapter 6 of the Rules

Abbreviation	Expanded Form	Significance
Ro-Ro FERRY **TRAIN FERRY**		This notation will be assigned to ferries intended for carriage of passengers, vehicles and cargo in pallet form or in containers and loaded/unloaded by wheeled vehicles and built in accordance with Part 5, Chapter 6 of the Rules
TUG		This notation will be assigned to all ships built in accordance with applicable requirements of Part 5, Chapter 7 of the Rules
	ESCORT **(Fs, Fb, V)**	This additional notation will be assigned to tugs (Part 5, Chapter 7) mainly intended for escort services such as for steering, braking and assisting in the maneuvering of escorted ships. The values of design maximum steering force (Fs), design maximum braking force (Fb), and design maximum escort speed (V), are to be supplemented to the class notation.
OFFSHORE SUPPORT VESSEL **MULTIPURPOSE OFFSHORE SUPPORT VESSEL**		This notation will be assigned to all ships built in accordance with applicable requirements of Part 5, Chapter 8 of the Rules. Vessels intended for several roles/services related to offshore support will be assigned notation MULTIPURPOSE OFFSHORE SUPPORT VESSEL
	SUPPLY	This additional notation will be assigned to Offshore Support Vessels engaged in the transport of stores, materials, equipment and/or personnel to, from and between offshore installations. This notation is not applicable to Crew boats.
	SUPPLY-PLUS	This additional notation will be assigned to Offshore Support Vessels designed for operating in North Sea, engaged in the transport of stores, materials, equipment and/or personnel to, from and between offshore installations. This notation is not applicable to Crew boats.
	STS	This additional notation will be assigned to Offshore Support Vessels complying with the requirements for Survival Capability (Floatability in damaged condition) of Ch.3 of the IMO Resolution MSC 235(82).
	LHNS	This additional notation will be assigned to Offshore Support Vessels complying with the requirements of Pt.5, Ch.8, Sec. 2.8, intended to carry limited amounts of hazardous and noxious liquid substances in bulk.
	OCC	This additional notation will be assigned to Offshore Support Vessels complying with Pt. 5, Ch.8, Sec. 2.8; and intended to transport, handle hazardous and noxious liquid substances in bulk in compliance with the OSV Chemical Code (IMO Resolution A.1122 (30)).
	AH	This additional notation will be assigned to Offshore Support Vessels equipped for anchor handling operations and complying with the requirements of Pt.5, Ch.8, Sec.3.
	TOW	This additional notation will be assigned to Offshore Support Vessels equipped for towing operations and complying with the requirements of Pt.5, Ch.7
	SSR	This additional notation will be assigned to Offshore Support Vessels equipped to carry out rescue and standby services for offshore installations and complying with the requirements of Pt.5, Ch.8, Sec.4.
	AGNI 1 **AGNI 2** **AGNI 3**	These additional notations will be assigned to Offshore Support Vessels equipped for firefighting operations and complying with the relevant requirements of Pt.5, Ch.25.
	DSV	This additional notation will be assigned to Offshore Support Vessels equipped for providing diving support operations and complying with the relevant requirements of Pt.5, Ch.26

Abbreviation	Expanded Form	Significance
	WSV	This additional notation will be assigned to Offshore Support Vessels equipped for performing well stimulation operations and complying with the relevant requirements of Pt.5, Ch.33
	OIL RECOVERY	This additional notation will be assigned to Offshore Support Vessels equipped to recover oil spills from sea at a safe distance, handle, store and transport the recovered oil, and complying with the relevant requirements of Pt.5, Ch.34
	WFSV	This additional notation will be assigned to Offshore Support Vessels equipped to serve and support wind farm service activities and complying with the requirements of Pt. 5, Ch. 8, Sec. 5.
	WFSV – HSC	This additional notation will be assigned to wind farm service vessels which comply with the requirements applicable to high speed crafts, as given in the *Rules and Regulations for Construction and Classification of High Speed Crafts and Light Crafts,* in addition to the requirements of Pt. 5, Ch. 8, Sec. 5.
	WTV	This additional notation will be assigned to Offshore Support Vessels equipped for performing well testing operations and complying with the relevant requirements of Pt.5, Ch.41
STERN TRAWLER		This notation will be assigned to ships built in accordance with applicable requirements of Part 5, Chapter 9 of the Rules and engaged in stern trawling
TRAWLER		This notation will be assigned to ships built in accordance with applicable requirements of Part 5, Chapter 9 of the Rules and engaged in side trawling
FISHING VESSEL		This notation will be assigned to ships built in accordance with applicable requirements of Part 5, Chapter 9 of the Rules and not equipped with trawling gear
DREDGER, HOPPER DREDGER, RECLAMATION CRAFT, HOPPER BARGE, SPLIT HOPPER BARGE		These notations will be assigned to self propelled or non self propelled vessels engaged in dredging or reclamation operation in accordance with applicable requirements of Part 5, Chapter 10 of the Rules
BARGE **MANNED BARGE**		This notation will be assigned to non self- propelled, manned or unmanned ships carrying dry cargo in cargo holds and built in accordance with applicable requirements of Part 5, Chapter 11 of the Rules. For special purpose vessels, the Notation will be suitably modified, e.g. Shipborne Barge Barges which are intended to be manned at sea, whether on a voyage or on-site offshore by crew and/ or special personnel and/ or industrial personnel; will be assigned notation "**MANNED BARGE**". In addition, such barges are to comply with the applicable requirements of Part 5, Chapter 11, Section 4 of the Rules.
OIL BARGE		This notation will be assigned to non self- propelled, manned or unmanned ships intended to carry oil in bulk and built in accordance with the applicable requirements of Part 5, Chapters 2 & 11 of the Rules. Where the scantlings and arrangements have been approved by IRS for the carriage of oil having a flash point of 60°C or above (closed cup test), or for other liquid cargoes in bulk, the class notation affixed to the Character will be suitably modified to show the nature of the cargo (e.g. water barge, molasses barge, etc.)

Abbreviation	Expanded Form	Significance
PONTOON **MANNED PONTOON**		This notation will be assigned to non self- propelled, manned or unmanned ships designed specifically for the carriage of non-perishable cargo or equipment on deck and built in accordance with the applicable requirements of Part 5, Chapter 11 of the Rules. For special purpose vessels, the Notation will be suitably modified, e.g. Crane Pontoon. Pontoons, which are intended to be manned at sea, whether on a voyage or on-site offshore by crew and/ or special personnel and/ or industrial personnel; will be assigned notation "**MANNED PONTOON**". In addition, such pontoons are to comply with the applicable requirements of Part 5, Chapter 11, Section 4 of the Rules.
FLOATING DOCK		This notation will be assigned to floating dry docks built in accordance with the applicable requirements of Part 5, Chapter 12 of the Rules.
WELL STIMULATION VESSEL		This notation will be assigned to well stimulation vessels built in accordance with the applicable requirements of Part 5, Chapter 33.
	OCC	Well Stimulation Vessels transporting and handling hazardous and noxious liquid substances in bulk are to comply with the OSV Chemical Code (IMO Resolution A.1122(30) and will be eligible to be assigned this class notation.
OIL RECOVERY VESSEL		This notation will be assigned to oil recovery vessels built in accordance with the applicable requirements of Part 5, Chapter 34.
	FP 60C	This notation will be assigned to vessels designed and equipped to recover polluted water in the event of spills of oils which have, at the time of recovery, a flash point higher than 60 degree Celsius (closed cup test). The notation is not to be assigned to vessels carrying recovered oils at a temperature within 15 degree Celsius of its flash point.
OIL RECOVERY		This notation will be assigned to a vessel equipped for carrying out oil recovery in addition to other duties and complying with the applicable requirements of Part 5, Chapter 34
WELL TESTING VESSEL		This notation will be assigned to well testing vessels constructed in accordance with the applicable requirements of Part 5, Chapter 41.
Ro-Ro CARGO SHIP		This notation will be assigned to a vessel designed and constructed to carry roll-on/roll-off cargoes, equipped for carriage of vehicles, on exposed or enclosed single deck or multiple exposed/ enclosed decks. The requirements of Part 3, Chapters 11 & 12 of the Rules are to be complied with for decks with wheel loading and opening and closing appliances (bow doors) respectively. The requirements of Part 6 are also to be complied with for fire safety requirements of ro-ro spaces and vehicle spaces.
SPECIAL PURPOSE SHIP		This notation will be assigned to vessels that comply with the requirements in the IMO Code of Safety for Special Purpose Ships (SPS Code).
MOORED OIL STORAGE TANKER at (Location)		This notation would be assigned to an existing Double Hull Oil Tanker that is intended to be used as a storage vessel moored at a specified fixed location, with the IY notation either maintained or suspended and the ESP notation suspended.
LIVESTOCK CARRIER		This notation will be assigned to vessels that comply with the requirements in Part 5, Chapter 40 of the Rules.
For carriage of cement in bulk		This notation will be assigned to vessels which are designed and constructed solely for carriage of cement in bulk and the scantlings and arrangements have been approved accordingly

Abbreviation / Expanded Form	Significance
FOR CARRIAGE OF LIQUID HAVING F.P. EXCEEDING 60°C	This additional notation will be assigned where the ship is intended to carry only such type of products, under certain conditions. The notation is applicable to ships intended to carry unheated cargoes having F.P exceeding 60°C and cargoes heated to a temperature below and not within 15°C of their flashpoint.
PASSENGER SUBMERSIBLE WITH MAX. OPERATING DEPTH OF ___[m]	This notation will be assigned to submersibles designed and constructed for carriage of passengers (normally tourists) in accordance with MSC/Circ.981. The maximum safe operating depth of the submersible is to be indicated in the notation.
PIPE LAYING VESSEL	This notation will be assigned to vessels that are primarily engaged in installation of pipelines and are in compliance with Part 5 Chapter 13.
PIPE LAYING BARGE	This notation will be assigned to non self-propelled pipe laying vessels complying with the requirements for the class notation **BARGE** (i.e. Part 5, Chapter 11) and which comply with the relevant requirements of Part 5 Chapter 13
CABLE LAYING VESSEL	This notation will be assigned to vessels that are primarily engaged in installation of cables and are in compliance with Part 5 Chapter 13.
CABLE LAYING BARGE	This notation will be assigned to non self-propelled cable laying vessels complying with the requirements for the class notation **BARGE** (Part 5, Chapter 11) and which comply with the relevant requirements of Part 5 Chapter 13
ACCOMMODATION BARGE **ACCOMMODATION PONTOON**	Non-propelled, barges and pontoons which are designed and constructed for accommodation of industrial personnel, may be assigned class notation 'ACCOMMODATION PONTOON', when all accommodation/ storage/ auxiliary machinery spaces are provided above main deck. For 'ACCOMMODATION BARGE', spaces below the deck may also be used for accommodation/ storage/ auxiliary machinery etc. Barges/ Pontoons assigned notation 'ACCOMMODATION BARGE/ ACCOMMODATION PONTOON' need not be assigned 'MANNED BARGE/ MANNED PONTOON' notations. In addition to the rule requirements for assignment of class notations 'BARGE'/ 'PONTOON', these vessels are to additionally comply with the requirements applicable to vessels carrying industrial personnel, as specified by the Flag Administration. Additional class notations for comfort, station-keeping, etc., may be provided at the request of the owner.

Abbreviation	Expanded Form	Significance
6. Other Class Notations		
a) General Notations		
SPECIAL GOVERNMENT SERVICE		This notation may be assigned to special purpose vessels, which have been built to the satisfaction of the IRS Surveyors to arrangements and scantlings approved for the particular purpose of special government service.
ADE	ALTERNATIVE DESIGN EVALUATION	The additional class notation ADE will be assigned to vessels where alternative design is used in lieu of complying with the prescriptive requirements of the Rules. The relevant details, aspects where alternative design is used would be suitably indicated in the Class Certificate. Alternative design approach may be used in accordance with the '*Guidelines on Alternative and Risk Based Design Evaluation'.*
RA	RISK ASSESSMENT	The additional class notation RA will be assigned to vessels where the design is risk based and the same has been accepted based on risk assessment. However, if risk based design approach has been used for a particular aspect, then the relevant details, aspects would be suitably indicated in the Class Certificate. Risk based design approach may be used in accordance with the '*Guidelines on Alternative and Risk Based Design Evaluation'.*
DSA	DIRECT STRENGTH ASSESSMENT	These additional class notations will be assigned to ships where a full ship strength analysis using finite element method has been carried out in accordance with the relevant requirements of Part 3 Chapter 8 of the Rules. For **DSA** notation, loads are to be in accordance with the relevant requirements of Part 3, Chapter 8. For **DSA(SEA)** notation, loads are to be obtained from hydrodynamic seakeeping analysis.
DSA(SEA)	DIRECT STRENGTH ASSESSMENT (SEAKEEPING LOADS)	
DSA(CH)	DIRECT STRENGTH ASSESSMENT (CARGO HOLD)	This additional class notation will be assigned to ships where a cargo hold analysis using finite element method has been carried out in accordance with the relevant requirements of Part 3 Chapter 8 of the Rules. This notation is mandatory for ships with length ≥ 150[m] and having cargo hold or cargo tank arrangements.
FDA	FATIGUE DESIGN ASSESSMENT	The additional class notation FDA will be assigned to vessels where a fatigue design assessment has been carried out in accordance with the relevant requirements of the Rules and the 'Guidelines on Fatigue Design Assessment of Ship Structures'. FDA notation is mandatory for ships of length greater than or equal to 150 m and may be optionally applied for ships of length greater than 90 m. If fatigue assessment is carried out for vessels for a number of years >25 and/ or service in specified area, then the class notation FDA (N, specific area of operation), would be assigned; where 'N' denotes the number of years.
ERS	EMERGENCY RESPONSE SERVICE	This additional class notation will be assigned to ships which have opted for the emergency response service of IRS, under a prior agreement with the Ship Owner / Ship Manager. IRS will provide a computer assisted analysis of a damaged ship's stability and longitudinal strength in the event of a casualty to the ship.

Abbreviation	Expanded Form	Significance
b) Passenger and Crew Comfort Notations		
CMF(Px) **CMF(Px-c)** **CMF(Px-l)** **CMF(Px-c-l)**	PASSENGER COMFORT	Denotes that passenger spaces have been evaluated and certified in accordance with the applicable requirements of Part 5, Chapter 39 of the Rules, for passenger comfort. '**x**' denotes the comfort rating related to noise and vibration in passenger spaces. Ships which additionally comply with the requirements for indoor climate and/ or lighting in passenger spaces will be assigned additional qualifiers '**c**' and/ or '**l**', respectively.
CMF(Cy) **CMF(Cy-c)** **CMF(Cy-l)** **CMF(Cy-c-l)**	CREW COMFORT	Denotes that crew spaces have been evaluated and certified in accordance with the applicable requirements of Part 5, Chapter 39 of the Rules, for crew comfort. '**y**' denotes the comfort rating related to noise and vibration in crew spaces. Ships which additionally comply with the requirements for indoor climate and/ or lighting in crew spaces will be assigned additional qualifiers '**c**' and/ or '**l**', respectively.
CMF(Px, Cy) **CMF(Px-c-l, Cy-c-l)** **etc.**	PASSENGER AND CREW COMFORT	Denotes that both passenger and crew spaces have been evaluated and certified in accordance with the applicable requirements of Part 5, Chapter 39 of the Rules, for passenger and crew comfort. '**x**' and '**y**' denote the comfort rating related to noise and vibration for passenger spaces and crew spaces respectively. Ships which additionally comply with the requirements for indoor climate and/ or lighting will be assigned additional qualifiers '**c**' and/ or '**l**', respectively.
c) Cyber Safety Notations		
CyS-I	INFORMED CYBER SAFETY	Vessels complying with the applicable requirements of 'Guidelines on Maritime Cyber Safety' may be assigned this notation. This notation is assigned where the organisation assesses the issues related to cyber safety, cyber risks and have documented policies. The organization implements minimum cyber safety practices.
CyS-E	ESSENTIAL CYBER SAFETY	The additional class notation CyS-E will be assigned to ships/ units that are in compliance with the requirements for essential cyber safety as specified in Part 4, Chapter 7, Section 7 of the Rules and Regulations for the Construction and Classification of Steel Ships.
CyS-II	ADVANCED CYBER SAFETY	This notation will be assigned to vessels which comply with the requirements for CyS-E notation and additionally also comply with the applicable requirements of 'Guidelines on Maritime Cyber Safety'. This notation is assigned where the cyber safety policies and procedures are reviewed periodically for continual improvement. The organisation implements advanced cyber safety practices.

Typical Examples for Assigned Notations

When requested by an Owner and agreed to by IRS or when considered necessary by IRS, a class notation will be appended to the character of classification. This class notation will consist of one of, or a combination of – a type notation, a cargo notation, a special features notation and/or a service restriction notation, as relevant and applicable.

The distinguishing mark (卐 or 卐 or 卐) is mandatorily assigned to newly constructed vessels as specified in the Table. Existing vessels taken into class at a later stage after construction and delivery are not assigned the distinguishing mark.

The characters of classification for hull (SUL or SU or SU(-)) and for machinery (IY) are mandatorily assigned to vessels depending upon the satisfactory verification of compliance to the Rules.
Ship Type notations are also assigned mandatorily as appropriate to the type of ship.

ESP notation is mandatory for ships to which ESP Code applies such as Bulk Carriers, BC-A, BC-B, BC-C, Ore Carriers, Oil Tankers, Ore or Oil Carriers, Oil or Bulk Carriers and Asphalt Carriers with integral tanks. Further, ESP notation is a mandatory class requirement for Chemical Tankers.

Other class notations are optional in nature and are assigned depending on the special features, service restrictions, special systems provided, etc.

Typical examples for a few ship types are given below for a better idea of the notations. A brief description is also given in the respective Tables; below the assigned notations for a particular vessel. Detailed description may be referred in Table 1 of this Handbook and/ or Part 1 Chapter 1 of the *Rules and Regulations for the Construction and Classification of Steel Ships*.

1. Bulk Carrier

卐 SUL, BULK CARRIER ESP, Load Comp (4), CMF(Cy-c-I),

卐 IY, SYJ, IBS, TCM, PMS-CBM, BWT, CyS-II

卐	SUL	BULK CARRIER	ESP	Load Comp (4)	CMF(Cy-c-I)
Distinguishing Mark	*Character of Classification - Hull*	*Ship Type Notation*	*Survey related notation: Enhanced Survey Programme*	*Stability related Notation: Loading Computer*	*Crew Comfort notation related to noise& vibration, indoor climate and lighting*

IY	SYJ	IBS	TCM	PMS-CBM	BWT
Character of Classification - Machinery	*Machinery Notation: Unattended Machinery Spaces*	*Machinery Notation: Integrated Bridge Systems*	*Machinery notation: Tail-shaft Condition Monitoring*	*Machinery Notation: Planned Maintenance System – Condition Based Maintenance*	*Environment Notation: Ballast Water Treatment*

CyS-II
Cyber Safety Notation: Advanced Cyber Safety

2. Oil Tanker

卐 **SUL, OIL TANKER ESP, Load Comp (4), CMF(Cy-c-l)**

卐 **IY, SYJ, IBS, CCS, TCM, VCS2, EP, PMS-CBM, BWT, CyS-II**

Explanations for notations are similar as above.

3. Liquefied Gas Carrier

卐 **SUL, LIQUEFIED GAS CARRIER, 2G, Ethane, CMF(Cy), SFA**

卐 **IY, SYJ, IBS, CCS, TCM, PMS-CM, EP, BWT, CyS-I**

卐	SUL	LIQUIEFIED GAS CARRIER	2G	Ethane	CMF(Cy)
Distinguishing Mark	*Character of Classification - Hull*	*Ship Type Notation*	*Type of Gas Carrier*	*Cargo Notation*	*Crew Comfort Notation: related to noise & vibration*

SFA
Special Analysis Notation: Spectral Fatigue Analysis

IY	SYJ	IBS	CCS	TCM	PMS-CM
Character of Classification - Machinery	*Machinery notation: Unattended Machinery Spaces*	*Machinery Notation: Integrated Bridge Systems*	*Machinery Notation: Centralised Control Station*	*Machinery Notation: Tail-shaft Condition Monitoring*	*Machinery Notation: Planned Maintenance System – Condition Monitoring*

EP	BWT	CyS-I
Environment Notation: Environmental Protection	*Environment Notation: Ballast Water Treatment*	*Cyber Safety Notation: Informed Cyber Safety*

4. Passenger Ship

卐 SUL, PASSENGER SHIP, CMF(Px-c-I, Cy-c-I), HELDK, SFA

卐 IY, SYJ, IBS, CCS, TCM, PMS-CBM, EP, BWT, CyS-II

卐	SUL	PASSENGER SHIP	CMF(Px-c-I, Cy-c-I)	HELDK	SFA
Distinguishing Mark	*Character of Classification - Hull*	*Ship Type Notation*	*Passenger and Crew Comfort Notation: related to noise & vibration, indoor climate and lighting*	*Special Feature Notation: Helicopter Deck*	*Special Analysis Notation: Spectral Fatigue Analysis*

IY	SYJ	IBS	CCS	TCM	PMS-CBM
Character of Classification - Machinery	*Machinery Notation: Unattended Machinery Spaces*	*Machinery Notation: Integrated Bridge Systems*	*Machinery Notation: Centralised Control Station*	*Machinery Notation: Tail-shaft Condition Monitoring*	*Machinery Notation: Planned Maintenance System – Condition Based Maintenance*

PMS-CBM	EP	BWT	CyS-II
Machinery Notation: Planned Maintenance System – Condition Based Maintenance	*Environment Notation: Environmental Protection*	*Environment Notation: Ballast Water Treatment*	*Cyber Safety Notation: Advanced Cyber Safety*

5. Offshore Supply Vessel

卐 SUL, SUPPLY VESSEL, OCC, STS, HELDK, CMF(Cy-c)

卐 IY, SYJ, IBS, DP (3), CCS, TCM, PMS-CBM, EP CyS-II

卐	SUL	SUPPLY VESSEL	OCC	STS	HELDK	CMF(Cy-c)
Distinguishing Mark	*Character of Classification - Hull*	*Ship Type Notation*	*Complies with OSV Chemical Code*	*Stability related Notation: Damaged stability*	*Special Feature Notation: Helicopter Deck*	*Crew Comfort Notation: related to noise & vibration and indoor climate*

IY	SYJ	IBS	DP (3)	CCS	TCM	PMS-CBM
Character of Classification - Machinery	*Machinery Notation: Unattended Machinery Spaces*	*Machinery Notation: Integrated Bridge Systems*	*Machinery Notation: Dynamic Positioning – Highest level*	*Machinery Notation: Centralised Control Station*	*Machinery Notation: Tail-shaft Condition Monitoring*	*Machinery Notation: Planned Maintenance System – Condition Based Maintenance*

EP	CyS-II
Environment Notation: Environmental Protection	*Cyber Safety Notation: Advanced Cyber Safety*

6. Tug

卐 SUL, TUG, INDIAN COASTAL SERVICE, CMF(Cy-c)

卐 IY, SYJ, TCM,

卐	SUL	TUG	INDIAN COASTAL SERVICE	CMF(Cy-c)
Distinguishing Mark	*Character of Classification - Hull*	*Ship Type Notation*	*Service Restriction Notation: Specified Coastal Service*	*Crew Comfort Notation: related to noise & vibration and indoor climate*

IY	SYJ	TCM
Character of Classification - Machinery	*Machinery Notation: Unattended Machinery Spaces*	*Machinery Notation: Tail-shaft Condition Monitoring*

End of Handbook