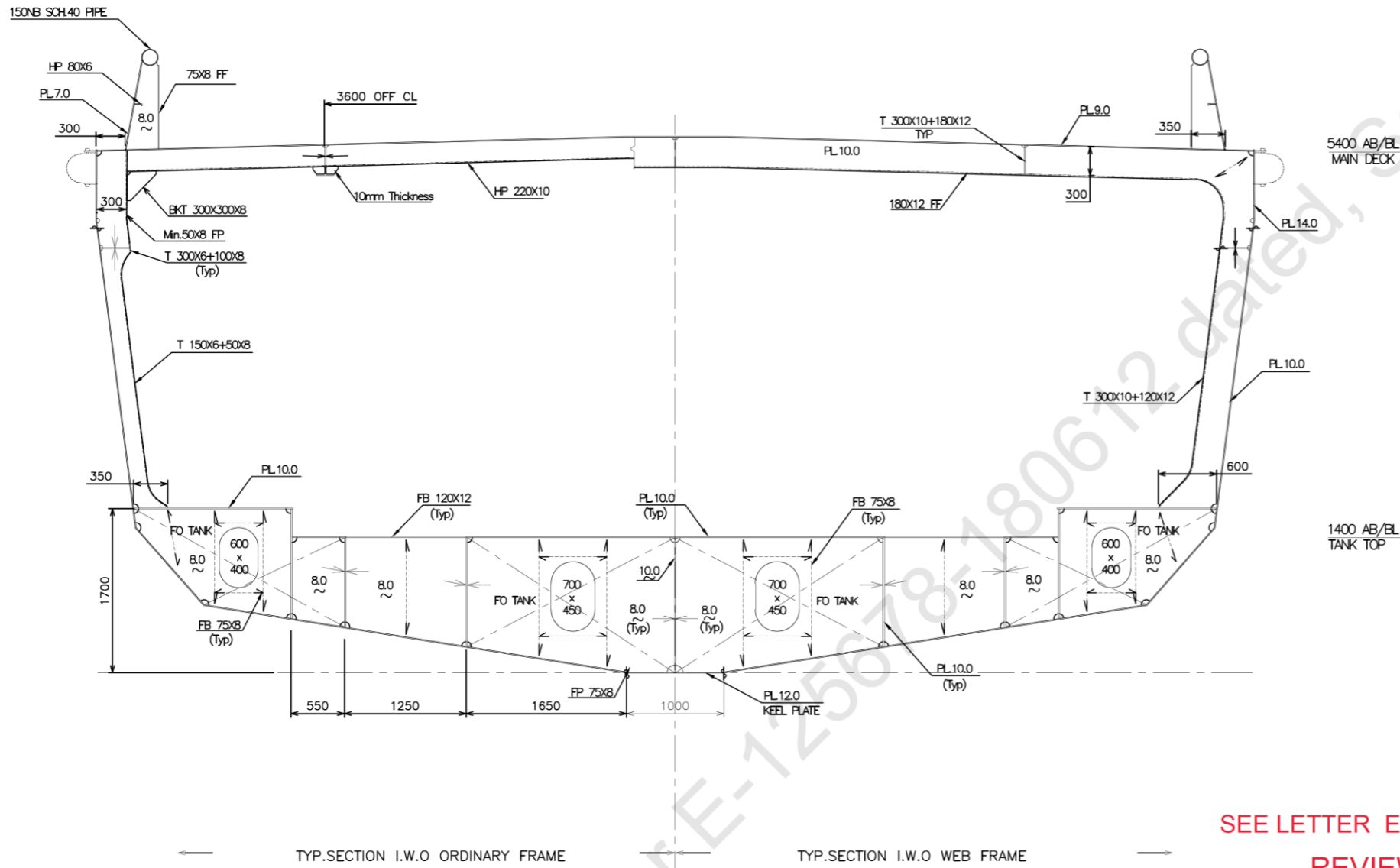


DESIGN BM & SF
 DESIGN STILL WATER BENDING MOMENT
 SAGGING - 2145 kNm
 HOGGING - 3365 kNm
 DESIGN STILL WATER SHEAR FORCE - 539 kN

NOTE

1. MATERIAL: ALL PLATES & STIFFENERS ARE TO BE IRS GRADE A STEEL/EQUIVALENT.
2. ALL DIMENSIONS ARE IN mm. (EXC. NOTED).
3. MAIN DECK, (AFT WORKING DECK), FROM FR.0 TO FR.26, IS DESIGNED FOR A PRESSURE OF 5t/m².
4. THIS DRAWING CONTAINS INDICATIVE SCANTLINGS FOR IN PRINCIPLE APPROVAL FROM CLASS. THIS DOES NOT PRECLUDE THE USE OF ALTERNATE STRUCTURAL ARRANGEMENT / PLATE-THICKNESS / STIFFENERS BY THE RESPECTIVE BUILDER FOR THEIR VESSEL. THESE ARE TO BE APPROVED BY THE CLASS PRIOR TO CONSTRUCTION.
5. EQUIVALENT ANGLE SECTIONS MEETING REQUISITE SECTION MODULUS MAY BE GIVEN IN LIEU OF BULB FLATS (HP).
6. IT IS RECOMMENDED TO USE ROUND RODS IN WAY OF HULL CHINES.
7. ALL DETAILING INCLUDING WELDING DETAILS AND CONNECTION DETAILS OF GIRDERS, BRACKETS, STIFFENERS, PILLARS, SCALLOPS, OPENINGS FOR DOORS & WINDOWS, HATCHES ETC. ARE TO BE SUBMITTED TO CLASS BY THE RESPECTIVE BUILDER.
8. SUPPORTING STRUCTURE I.W.O DECK FITTINGS FOR ANCHORING, MOORING, TOWING, CRANES ETC. ARE TO BE SUBMITTED SEPARATELY TO CLASS FOR THEIR APPROVAL.
9. SEPARATE STRUCTURAL DRAWINGS OF BOTTOM STRUCTURE, SIDE SHELL, BULKHEADS, TRANSVERSE SECTIONS, LONGITUDINAL SECTIONS, FORE END CONSTRUCTION, AFT END CONSTRUCTION, BOLTED HATCH CONSTRUCTION, SUPERSTRUCTURE, ENGINE FOUNDATION, BULWARK, SKEG, FENDER, CHAIN LOCKER OR ANY OTHER DETAILS REQUIRED FOR APPROVAL BY CLASS SHALL BE PREPARED AND SUBMITTED BY RESPECTIVE BUILDERS PRIOR TO CONSTRUCTION.



MAIN PARTICULARS

| | |
|-----------------|--------------------------------------------------------------------------|
| LENGTH O.A | abst 33.0 [m] |
| LENGTH B.P | abst 31.0 [m] |
| BREADTH (MLD) | abst 11.9 [m] |
| DEPTH (MLD) | abst 5.4 [m] |
| DRAFT (HULL) | abst 3.9 [m] |
| SCANTLING DRAFT | abst 4.86 [m] |
| COMPLEMENT | 11 PERSONS |
| BOLLARD PULL | 60 T @100% MCR |
| INSTALLED POWER | abst 3600 [kW] |
| CLASS NOTATION | IRS - SWASTIKA SUL, TUG SWASTIKA IY, AGNI 1 (2400 m ³ /hr) |

SEE LETTER E-125678-180612

REVIEWED



12-SEP-2021

PLAN ENDORSED FOR IN-PRINCIPLE APPROVAL

| | | | | | |
|-------------------------------------------------------------------|-------------|-------------------------------|-------------|----------|----------------|
| Rev. I | 30-Aug-2021 | For publishing on IPA website | AAB/VR | ABK | HUR |
| No: | Date | Description | Drawn | Checked | Approved |
| ASTDS | | 60T BP TUG | TITLE | | |
| Design No: CT3360 | | MIDSHIP SECTION | | | |
| COCHIN SHIPYARD LIMITED P.O. Bag 1653, COCHIN-682015, INDIA | | 1:60 | A3 | CT3360 | CT3360-200-003 |
| Scale | | Format | Project No. | Dwg. no. | |

This design was developed by Cochin Shipyard Ltd. for Indian Ports Association as a part of ASTDS Package. CSL does not make any representation or warranties, express or implied as to the completeness, accuracy, suitability of the design and it shall be the responsibility of the respective builder/end-user to make its own assessment / evaluation of any such completeness, accuracy, suitability of the design prior to construction and any consequence thereof.