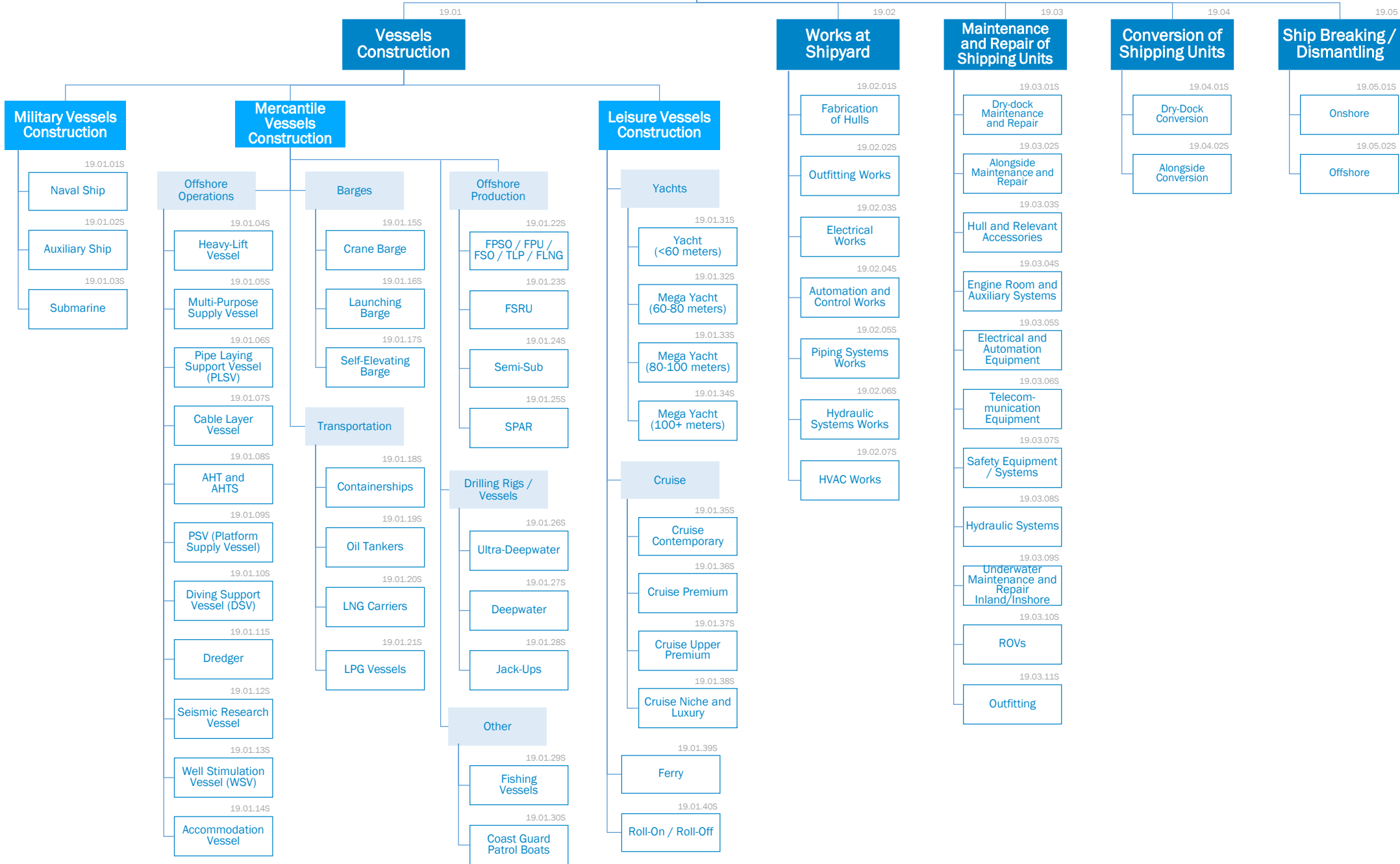


Shipbuilding



Shipbuilding

Shipbuilding is the construction of ships and other floating vessels. It normally takes place in a specialized facility known as a shipyard. Shipbuilding and ship repairs, both commercial and military, are referred to as "naval engineering". Despite having many similarities with shipbuilding, boatbuilding is not considered in this category group.

This category group aims to encompass all activities related to shipbuilding. Construction services are classified in three different groups according to the ship's scope (Mercantile, Military, and Leisure) following a study of the market competition. Works at Shipyard, Maintenance & Repairs, Conversion, and Ship Breaking are instead considered as cross-purpose activities.

MAIN RATIONALES BEHIND THE STANDARD CATEGORIZATION

Vessels Construction

- This Family includes services related to the construction and installation of specialized equipment of vessels for military, mercantile and leisure use as well as general shipyard works. These services are usually carried out at a shipyard or other specialized facilities.
- "Naval Ship" includes all combatant surface classes and are differentiated from other ships by construction and purpose. Generally, naval ships are damage resilient and armed with weapon systems.
- "Auxiliary Ship" includes supporting units such as hospital, replenishment, tankers, command and support, etc.
- "Submarine" include all submarine classes.
- "Multi-Purpose Supply Vessel" (MPSV) are typically designed with 'plug and play' equipment to accommodate a range of work scopes including: offshore rescue assistance, tanker assistance, towing, field assistance and unloading deck cargo and Liquid cargo to rigs and production platforms. The vessels may be equipped for field standby operations.
- "Accommodation Vessel" are used in the field to provide offshore accommodation and living facilities, deck space and workshops for fabrication, and cranes for supply and topside lifts. This category includes also accommodation barges.
- Yachts are classified according to their length as that is a discriminant for shipyards' physical capacity (i.e. having enough space to build the ship).
- "Cruise" ships market is segmented in:
 - Contemporary: Price/quality oriented customers (3000+ passengers; 130-220K Gross Tonnes).
 - Premium: Experienced and averagely demanding customers (500-2500 passengers; 90-140K Gross Tonnes).
 - Upper Premium: Upscale destination oriented cruises (<1300 passengers; 40-70K Gross Tonnes).
 - Luxury/Niche: Luxury and expedition cruises (<600 passengers; 10-40K Gross Tonnes).

Works at Shipyard

- This family includes all works and installation of materials carried out at the shipyard. The items listed here are common to most vessels notwithstanding their use destination.
- "Fabrication of Hulls" comprises all manufacturing and semi-manufacturing activities for hull fabrication, including the addition of anchor pockets, pipe fittings, etc.
- "Outfitting Works" includes the superstructure, installation of the ship's power plant, engines and other machinery, electrical, plumbing, HVAC, finishing of interiors and installation of furnishings.
- "Automation and Control Works" refers to systems and devices monitoring and controlling many aspects of the ship operation including:
 - Propulsion (Main Engine) and Power (Auxiliary Engines)
 - Auxiliary Machinery
 - Cargo & Ballast
 - Condition based monitoring

Notes:

- Works carried out in floating dry docks are also included in this family as they are akin in scope and procedures.

Maintenance and Repair of Shipping Units

- This Family includes all services needed to ensure the proper functioning of vessels and vessel equipment.
- "Hull and Relevant Accessories" includes all maintenance, repair and conversion works of the hull and its relevant accessories such as anchor pockets and pipe fittings.
- "Engine Room and Auxiliary Fittings" refers to engine, tanks and fluid management items, deck gear and hydraulic systems, steering gear, gearing, shafting, propellers, marine DC/AC electrical systems, and refrigeration while it does not include fire safety systems, which are instead listed under "Safety/Equipment Systems" (19.02.07S).
- "Electrical and Automation Equipment" does not include the electric equipment related to the engine as it is classified under "Engine Room and Auxiliary Fittings" (19.02.04S).
- "Underwater Maintenance and Repair Inland/Inshore" encompass services from inspection of external condition and any required maintenance work all the way through to highly technical major repairs or replacements of a ship's external underwater equipment and machinery.
- "Outfitting" can include the superstructure, installation of the ship's power plant, engines and other machinery, electrical, plumbing, HVAC, finishing of interiors and installation of furnishings.

Conversion of Shipping Units

- This Family includes all services related to the refitting and restructuring of vessels to adapt them to new uses.

Ship Breaking / Dismantling

- This Family includes all services related to the decommissioning and dismantling of ships carried on both onshore and offshore.