

**PRESENTED TO THE GREEK SECTION OF
THE SOCIETY OF NAVAL ARCHITECTS
AND MARINE ENGINEERS (S.N.A.M.E.)**

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NEWBUILDING PROCESS: THE BASICS ...

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NEWBUILDING PROCESS: THE KEY EVENTS

MARKET RESEARCH / PRE-CONTRACT NEGOTIATIONS



CONTRACT SIGNING



STEEL CUTTING (S/C)



KEEL LAYING (K/L)



LAUNCHING (L/C)



DELIVERY (D/L)



NEWBUILDING PROCESS: SETTING UP A NEWBUILDING PROJECT

OUTLINE SPECIFICATION



COMMERCIAL TERMS & KEY EVENT DATES



Letter of Intent (L.O.I.)



CONTRACT & SPECIFICATION NEGOTIATIONS



CONTRACT & SPECIFICATION SIGNING

CONTRACT: STANDARD ELEMENTS (THE ARTICLES)

Parties	Parties description (Owning Company – Yard)
Description & CLASS	Description, particulars – Class, Notation - Subcontracting
Contract price and terms of payment	
Adjustment of contract price	Delivery Date (Penalty or Bonus) - Speed - SFOC - DWT
Inspection and Plan approval	Time Frames for P.A. – Site Supervision
Modifications, Changes and Extras	Modifications - Changes after signing – Change Orders
Trials and Completion	Details on Trials and acceptance
Delivery	Contractual Delivery Date (Documents, Certificates, etc.)
Delays and Extensions of time (Force Majeure)	
Builders warranty (Warranty of Quality)	Claims & Guarantee Engineer
Default (Buyer's or Builder's)	Cancelation and Rescission by the Buyer – Buyer's Default
Buyers' supplies	
Arbitration	Disputes and arbitration (Class Role)
Successors and Assigns	Selling the vessel before completion (Resale or Novation)
Taxes and Duties	
Patents, trademark & copyrights	
Interpretation and governing law	
Insurance	
Notice	Official communication (Contacts between parties)
Effectiveness	

CONTRACT: ISSUES FOR CONSIDERATION – HINTS & TIPS

Payment Terms

- From 5%+5%+5%+5%+80% to 20% x 5
- Nowadays in case of “buyer’s” market → 10%+20%+15%+15%+40%
- Nowadays in case of “builder’s” market → 20% x 5

Payment terms – key event status before payment

- **Clause for S/C:** Steel stock purchased ≥ 5~10% of vessel’s Steel Weight.
- **Clause for K/L:** Steel weight constructed ≥ 5~10% of vessel’s Steel Weight.
- **Clauses for S/C & K/L:** Can be also time-clause related to the D/L
- Contract with Builder’s Credit (possible at Far East)

Contractual obligations of the builder related to technical part

- S.F.O.C. (ISO condition) of M/E
- Vessel’s speed at particular draft with 15% sea margin
- Vessel’s DWT

Delays or Early Delivery (Penalties and Bonuses)

- 30 days Grace period for delayed (no penalty) or earlier delivery (no bonus)
- 31~150 (to 210) days delay have an agreed amount of a penalty/day.
- Beyond the non-permissible delays Owner can reject/renege the price
- Owner has to clarify IN DETAIL conditions for earlier Delivery (Contract wording “....delivery **on or before**...”)

Subcontracting

- Very important issue especially for building in Korea as subject can increase supervision cost considerably affecting also quality of the vessel (Example big Korean yards subcontract huge amount of blocks 50~70% in China).

Rules & Regulations

- Rules published and known to be applicable at the delivery date, but not in force during Contract signing, should be applied at yard’s cost

BUILDING SPECIFICATION: STANDARD SECTIONS

General	Description – Dimensions – DWT – Capacity - M/E – SPEED – F.O.C. – Endurance –Class -Rules – Certificates - T&S –Vibration – Noise – Shop Tests - S/T - Plan approval -Final Plans -Buyers Supplies - Drydocking
Hull	Material & Scantlings – Workmanship – Construction – Shell & appendage Aft Body – Engine area- Cargo Area & DBT– Fore body – Deck House & E/C
Material Protection (Painting)	Painting – Workmanship – Treatment (PSP & SSP) – Application in Block and Dock stage – Detail Painting schedule with DFTs – Cathodic Protection
Hull Outfitting	Mooring and Anchoring set up - Steering Gear – Deck outfitting (M/Hs, Hatches, Ladders, Doors, davits etc) – Vent systems – Life saving Equipment
Accommodation	Layout – Cabin class – Insulation – Partitions, ceiling, lining, door, window- Furnishing and fittings –Refrigerated Provision chamber - Ventilation & A/C
Hull piping	Piping materials and work – Material specification for piping – Schs & insulation – Systems (WB-Bilge-FO-LO-Fire-Vent- Sounding, etc)
Cargo Handling System (Depend on vessel type)	Systems for Cargo Loading/uploading depending on the vessel BC: Cargo Hatch Covers – Cargo Cranes COT: Cargo lines-Steam Lines-Tank Cleaning–IGS–Controls & instrumentation
Machinery (with piping arrangements)	M/E – Shafting plant – Steam Plant- Electric Power Plant –Auxiliary Machinery Miscellaneous –Spare Parts – Piping & fittings – Piping Systems
Automation and Control System	Control Stations (ECR-Navigation control)-Automations & Remote Controls – Instrumentation – Fire Detection System- ECC-BCC-AMS
Electrical Equipment and System	Elec. Power Supply Equipment-Switchboards-Elec. Motors- Lighting – Interior communication – Navigation Equip. – Wireless Equip. - Cable installation

BUILDING SPECIFICATION: ISSUES FOR CONSIDERATION - TIPS

SPEED

- IMPORTANT issue always but especially for the 1st Vessel of a series
- Model test on S/T condition. Avoid extrapolation- interpolation
- Torsion meter to be used at least for 1st vessel of the series.
- Weather conditions to be fair at least for 1st vessel of the series (≤ 5 Beaufort)
- Current method of speed correction (NSMB 1976) to be replaced (ISO15016)
- Koreans put spec. speed very near to model test results (about 0.05knot)

M/E

- The cost of M/E optimization Vs SFOC in NCR is a serious aspect which has to be investigated from the Head office (especially nowadays)

Design - Scantlings

- Yard's proposed design to be checked at **Owner's operation needs and intended cargoes**. T&S sets the Midship section and scantlings not the opposite. Several Owner believe that they can install in a standard spec additional cargoes on the signed Midship section....Not so easy....

TMCP Steel

- In the majority of the specs there is no any reference on TMCP steels which is actually standard practice for the yards. Subject can be avoided if Owner insists.

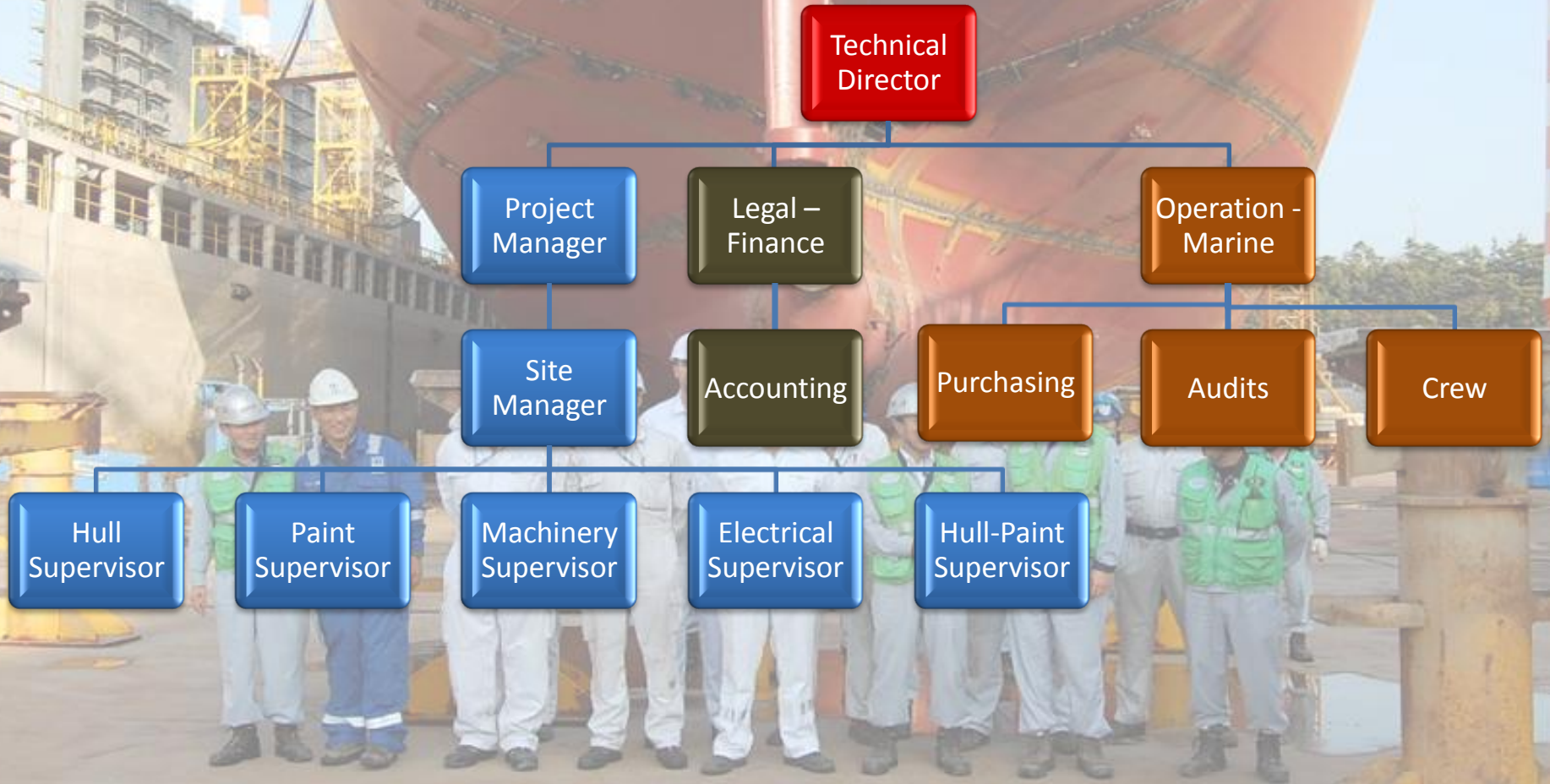
DRY-DOCKING

- In Chinese medium – small size shipyards the period between L/C to D/L can last long. Dry-docking of the vessel in this case is mandatory and has to be mentioned into spec.

Auxiliary Engines

- Check the number of Auxiliary engines to be used during vessel's service conditions. It is very possible the need of D/G upgrade for more reasonable performance with small cost (**especially for added extra consumers – N2 Gen**)

NEWBUILDING TEAM – ROLES & RESPONSIBILITIES



NEWBUILDING PROCESS – BASIC MILESTONES

Contract Signing + Building Specification Signing

- **Maker List (selection of Makers)**
- **Plan Approval Process**
- **Setting – up Supervision Team**

S/C

- **S/C + Primary Surface Preparation**
- **Kick Off Meeting with Class and yard**
- **Tripartite agreement (PSPC Rule)**
- **Block Inspection (Hull – Paint – Outfitting)**

K/L

- **Erection Process (Hull + Paint)**
- **NDT Plan**
- **Air Tests**
- **Rudder -Shaft - M/E Alignment**
- **Paint Completion & Marking (Outside Hull)**

Launching

- **SW Ballast Tank Completion**
- **Tank Coating Commencement (in Case of PC or CC)**
- **Piping Systems (installation checking – Hydro Testing – Flushing)**
- **On Board Test Procedures + M/E mooring Trials**
- **Sea Trials + M/E Overhauling (+ Immersion test of COTs in case of PC/CC)**
- **Completion of all Owner's Comments During Construction (NCR – Inspection Comments + S/Ts Comments)**

Delivery

- **After Sales**
- **Evaluation of the existing specification**
- **Preparation of next specification**

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NEWBUILDING PROCESS – BASIC MILESTONES

Contract Signing + Building Specification Signing

S/C

- S/C + Primary Surface Preparation
- Kick Off Meeting with Class and yard
- Tripartite agreement (PSPC) - *FYI Several Chinese yards ask it from the contractual stage*
- Block Inspection (Hull – Paint – Outfitting)

K/L

Launching

Delivery

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K/L

- **Erection Process (Hull + Paint)**
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Launching

Delivery

NEWBUILDING PROCESS – BASIC MILESTONES

Contract Signing + Building Specification Signing

S/C

K/L

Launching

- SW Ballast Tank Completion (*require except “final” also “Closing” inspection*)
- Tank Coating Commencement (in Case of PC or CC)
- Piping Systems (installation checking – Hydro Testing – Flushing)
- On Board Test Procedures + M/E mooring Trials
- Sea Trials + M/E Overhauling (+ Immersion test of COTs in case of PC/CC)
- SW Ballast Tank (*require ballasting and re-inspection after S/T + Destructive test*)
- Completion of all Owner’s Comments During Construction (NCR – Inspection Comments + S/Ts Comments)

Delivery

NEWBUILDING PROCESS – BASIC MILESTONES

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Delivery

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DELIVERY PREPARATIONS – SITE OFFICE RESPONSIBILITIES

- **Acceptance of S/Ts**
- **Check on draft delivery documents all of their technical aspects that are the correct ones.**
- **Check all manuals related to certification of the vessel (SOPEP, Garbage manual., Cargo Handling Manual Etc) that are buyer's supply, to be in order and in time for presentation to the class.**
- **Check that certain drawings or manual needed for the smooth operation of the vessel have been reviewed and stamped from the class (i.e. Tank Calibration Tables, VEC Manual, OMDE manual, IGS manual, Vessel's operation, Etc)**
- **Check all buyer's supplies related to vessel's certification and safety have been received**
- **Check Class and Statutory Certificates (all in order and clear of any notation)**
- **Check Minor Certificates for equipment and material particularly those required by future port state controls .**
- **Check Builder's Certificates according to spec-contract requirements**
- **Check that final plans are in the correct revision (as built)**
- **Check all inventories and spare parts are onboard according to the agreed lists (in case of missing items side agreement will be prepared for transportation of same at vessel's calling port)**
- **Finalize ROB which has to deal with the final price**
- **Check and confirm agreed credit costs & extra costs which has to deal with the final price**
- **Check flag requirements are fulfilled (especially in cases of flag change at late stage)**



Thank you for your attention

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