Dry Docking/Repair Specification

M/V SD PROGRESS

Vessel's Particulars
Length overall 225.00 m
Breadth extreme 32.20 m
Depth to main deck 18.00 m
DWT 65.708 MT
GRT International 36.438
NRT International 22.310
Flag GREEK
Class LLR
Year of Built 1989
Builders JIANGNAN SHIPYARD, SHANGHAI, CHINA
Hull no 2182

Vessel's description
A single type bulk carrier with 7 holds and 7 hatches with forecastle deck, upper wing tank and hopper type double bottom.

Machinery particulars
Main engine MAN B & W 5L70MCE
M/E turbochargers BBC - VTR 564 - 32
Diesel Generators 3 SET DAIHATSU 6DL - 20
Oil fired boiler OSAKA OEC - 315S
Steering Gear KAWASAKI, FE21 - 102
Propeller NAKASHIMA PROPELLER CO.
4 BLADES KEYLESS TYPE, SOLID
6960MM DIA, 4915MM PITCH, NI-AL-BR
Rudder DOUBLE - PLATED STREAMLINE SEMI - SPADE MARINER TYPE
Tailshaft DIA 700 MM, LENGTH 6185 MM
Stern Tube KOBE STEEL LTD. D-750
Elec. power 450 / 60 HZ
Hull painted areas
a) Flat bottom area (side keel to side keel) 2.686 m²
b) Vertical bottom area (LLL draught to side keel) 4.030 m²
c) Bootoping area (DLL draught to LLL) 5.052 m²
d) Topsides 2.353 m²
e) Cargo holds area 22.436 m²

Sea chests
number: 4 (FOUR)

A. General Services

A1 Berthing and unberthing within/outside normal working hours.
A2 Wharfage per day.
A3 Docking and undocking.
A4 First day in drydock including linesmen.
A5 Second and following days in drydock per day.
A6 Tugboats per boat/hour.
A7 Pilot services per shift within/outside normal working hours.
A8 Supply riggers per shift/man.
A9 Electric power supply per kwh.
A10 Electric power connection/disconnection per connection.
A11 Sea cooling water supply per day/hose.
A12 Sea cooling water connection/disconnection per connection.
A13 Fresh water connection/disconnection per connection.
A14 Fresh water supply per ton.
A15 Compressed air connection/disconnection per connection.
A16 Compressed air supply per day/per hose.
A17 Galley refuse and garbage removal per day/time/drum.
A18 Crane for owners use.
   a) Drydock crane
   b) Quay crane.
   c) Floating crane
A19 Firewatch per hour
A20 Fire line connection/disconnection per connection.
A21 Maintaining fire line pressure per day.
A22 Telephone service on board per connection and per impulse.
A23 Gas free certificate on arrival.
A24 For each additional visit of chemist on board.
A25 Gangway alongside berth and in drydock (price for placing, rental and removal.)
A26 Water ballast supply per ton.
A27 Cleaning of drydock upon completion of repairs.
A28 Specify and quote cost of any other standard service related to work specified herein.

B. DRYDOCKING

B1 Anchors and chains, lowered & ranged
B2 Anchors and chains hosing down
B3 Chains marking and restoring
B4 Chains links gauging/link
B5 Loose studs to be welded/stud
B6 Chain cable to change end for end
B7 Drain plugs removed, refitted/plug
B8 Drain plugs manufactured per piece/diam
B9 Sea chests, grids dismantle, clean, paint and refit/grid
B10 Ship's side valves to be opened, examined, repaired, reclosed with new packing/per type of valve, diameter
B11 Anodes to be renewed, incl. staging on bilge, stern sea chests with:
   a. Yard's material up to 10 kgs/anode
   b. Yard's material over 10 kgs/anode
   c. Owner's material up to 10kgs/anode
   d. Owner's material over 10kgs/anode
B12 Propeller polishing to ISO class I, incl. 1 coat oil
B13 Removal of propeller ashore for repairs, transportation back to ship for refitting incl. all necessary staging and access works
B14 Bottom plating gaugings/point with written report
B15 Tailshaft weardown measurements to be recorded incl. staging and all necessary access works
B16 Outer stern tube to be emptied of oil, remain empty for sufficient time to verify tightness of inner sealing rubbers. Replenish with new oil and reclose in good order. Renewal of oil seals, including all necessary access work/staging
B17 Tailshaft withdrawal, magnaflux, refitting of rope guard, incl. all necessary access work in E/R and outside
B18 Skimming of inboard/outboard liners
B19  Manufacture and installation of new rope guard
B20  Rudder removal of access plates for upper and lower pintles and rewelding after completion of measurements, including staging
B21  Upper and lower pintle clearances measured and recorded, incl. staging
B22  Rudder removal, examination, machining of pintle seating and refitting, incl. all necessary access work and staging, transportation to and from workshop.
B23  Rudder plating seams veeing out and rewelding/m incl. staging
B24  Rudder pintles removal lower and upper, transportation to and from workshop, measured and pintle sleeve machined. Lower and upper pintle bush to be removed. New pintle bush to be supplied, machined to size and refitted back, incl. all necessary access work and staging
B25  Rudder stock removal and replacement for purposes of inspection of bearings and fitted parts
B26  Veeing out and rewelding of btm shell seams/m incl. staging

C. HULL SURFACE PREPARATION AND PAINTING
Paint owners supply prices to be given as per sqmeter

C1  High pressure washing
C2  Hydroblasting (state standards availiable)
C3  Hand scraping
C4  Hard scraping
C5  Gritsweeping
C6  Gritblasting SA1 standards
C7  Gritblasting SA2 standards
C8  Gritblasting SA2.5 standards
C9  Hose down with fresh water
C10  Touching up per coat
C11  Painting with A/C per coat
C12  Painting with A/F per coat
C13  Repainting of Plimsoll mark including staging
C14  Repainting of draught marks, bulbous bow marks, fore and aft, incl. staging, per mark number.
C15  Repainting of vessel's name and port of Registry incl. staging per letter.

D. HOLDS PREPARATION AND PAINTED AFLOAT

D1  Holds hose down per sq.meter.
D2  Holds hydroblasting per sq.meter.
D3  Holds gritsweeping per sq.meter. Price to include staging.
D4  Gritsweeping SA1 standards per sq.meter. Price to include staging.
D5  Gritsweeping SA2 standards per sq.meter. Price to include staging.
D6  Gritsweeping SA2.5 standards per sq.meter. Price to include staging.
D7  Holds hose down after gritblasting per sq.meter.
D8  Spot blasting for all available standards.
D9  Staging required per cubic meter and/or sq.meter
D10 Cherry pickers cost per day.
D11 Painting primer full coat per sq.meter.
D12 Painting primer touch up.
D13 Painting finish full coat per sq.meter.
D14 Painting finish touch up.
D15 Stripe painting per sq.meter and/or running meter

E. WATER BALLAST TANKS PREPARATION & PAINTING

E1  Washdown per square meter.
E2  Hydroblasting per square meter.
E3  Gritsweeping per square meter. Price to include possible staging, removal of
grit, lighting, etc.
E4  Gritsweeping SA1 standards per sq.meter. Price to include staging.
E5  Gritsweeping SA2 standards per sq.meter. Price to include staging.
E6  Hose down after gritblasting per sq.meter.
E7  Spot blasting for all available standards.
E8  Painting primer full coat per sq.meter.
E9  Painting primer touch up.
E10 Painting finish full coat per sq.meter.
E11 Painting finish touch up.

F. TANK CLEANING

F1  Cleaning of Double Bottom Water Ballast tanks per cubic mtr
F2  Removal of scale and mud per ton
F3  Cleaning of Fuel Oil db for Gas Free per cubic mtr
F4  Removal of oil sludge per ton (insert tons)
F5  Manhole covers open up and closing per manhole
F6  Ventilation fan con/discon (insert no of fans)
F7  Ventilation fan usage per fan per day
G. STEEL WORKS

G1 Advise minimum steel renewal capacity basis per 24 hours.

H. PIPING WORKS

H1 Steel pipe (sch. 40 and sch 80) renewal per diameter, per running meter, per compartment.

I. MACHINERY WORKS

I1 Main Engine maintenance works:
1. Open up of M/E cylinder covers, removal of various fittings.
2. Removal and cleaning for inspection of M/E pistons, gauging of cylinder liner and mounting on completion.
3. Removal of cyl. Liners, to be cleaned and painted in way of cooling water side, refit with new o-rings, hydro-testing upon completion, (o-ring and paint supplied by the owner.
4. Removal of piston connecting rods, removal & inspection of main, top end, and crank bearings, refitting.
5. Removal of exhaust valves to workshop, dismantling, cleaning, hydro-testing and return on board.
6. Removal of stuffing boxes, renewal of packing rings, (supplied by the owner), adjustment & refitting.

I2 Removal from ship, remelting, remachining to size and return on board following Main Engine bearings:
Main bearing, crank pin bearing and crosshead bearing.

I3 Overhauling of turbocharger, replacement of needed spares, (supplied by owner), mounting and test.

I4 Removal from ship, chemical cleaning and painting of various heat exchangers, (air coolers, lub. oil cooler, piston cooler etc.), and refitting on board.

I5 Auxiliary Boiler:
1. Cleaning of Boiler surfaces, (water side and fire side).
2. Dismantling and inspection of various boiler mountings, refitting with new packings.
3. Dismantling inspection and adjustment of safety valves, testing upon refitting.
J. ELECTRICAL WORKS

J1 Quote for motor rewinding per kw power.

K. MISCELLANEOUS

K1 Testing of lifeboat's davits.
K2 Removal of lifeboats to workshop and refitting to the vessel.
K3 Lifeboats painting.
K4 Testing of lifting appliances.

GENERAL TERMS AND SCOPE OF WORK

Please state:
1 Time in running days to complete following items in drydock and afloat:
   A. Normal drydocking including hull sandblasting and painting (areas to be decided at drydock).
   B. Renewal of about 100 tons of steel in way of cross decks

   Items not stated above must not be included in the time estimation
2 Your best quotation soonest with item prices for work and services.
3 Normal working days and normal working hours also in holidays appart from weekends during the whole repair period and after same.
4 Your best credit terms.
5 When/where invoices have to be finalised.
6 Minimum gridblasting/coating rates per normal working day in sq meters
7 If vessel will dock in floating or graving dock, also max. trim, draught and maximum displacement required.
8 Minimum steel renewal capacity per normal working day in tons.
9 Labour cost per manhour (normal and overtime)