

**PRICE SCHEDULE FOR DRY DOCKING REPAIRS OF TUG CHAPORA - II
ANNEXURE A**

NOTE: (1) Tenderer must quote the rates in conformity with the tender document and shall be given in the units indicated below and not in any other manner failing which tender will not be considered.

(2) Rates quoted shall include cost of materials, consumables, labour, etc. required for execution of the tendered work as well as inclusive of taxes, but exclusive of the service tax which will be paid extra.

SCHEDULE - A - DRY DOCK CHARGES

1	2	3	4	5	(4 x 5) = 6
Sr. No.	Description	Unit	Qty	Unit Rate (in Rs)	Amount (Rs) in Figures & Words
A-01	Tug to be docked/slipped and undocked/unslipped after repairs and painting	...L.S	1		Rs _____ (Rupees ----- ----- only)
A-02 (a)	Preparation of chocks if required	...L.S	1		Rs _____ (Rupees ----- ----- only)
(b)	Fabricate and install shaped chocks suitable for the Tug in case of dry docking at Hughes dry dock in MbPT, Mumbai (Drawing Enclosed)	per chock	14		Rs _____ (Rupees ----- ----- only)
A-03	Dry dock hire charges for 10 days	per day	10		Rs _____ (Rupees ----- ----- only)
A-04	Wet berth charges if required 15 days	per day	15		Rs _____ (Rupees ----- ----- only)
A-05	Dry dock cleaning charges if any	per day	1		Rs _____ (Rupees ----- ----- only)
A-06	Pump assistance/ fire line under pressure/fire man to be provided.				
(a)	Fire line connection & disconnection (taken together).	each time	1		Rs _____ (Rupees ----- ----- only)
(b)	Keeping line under pressure without any leaks (only if hot work is carried out)	per day	1		Rs _____ (Rupees ----- ----- only)
(c)	Fire man on duty(only if hot work is carried out)	/man/day	1		Rs _____ (Rupees ----- ----- only)
A-07	Fresh water to be supplied as and when required				
a)	Connection and disconnection taken together	each time	1		Rs _____ (Rupees ----- ----- only)
b)	Fresh water charges	per ton	1		Rs _____ (Rupees ----- ----- only)

c)	Additional water tank to be provided for storing fresh water	each	1		Rs _____ (Rupees ----- ----- only)
A-08	Shore electric power to be provided as and when required				
(a)	Connection & disconnection (taken together)	each time	1		Rs _____ (Rupees ----- ----- only)
(b)	Power charges	per kwh	1		Rs _____ (Rupees ----- ----- only)
A-09	Carry away pipe to be provided in dry dock (max two nos.) if required by yard as per practice	each	1		Rs _____ (Rupees ----- ----- only)
A-10	Opening, closing and locking of drain plugs of various tanks, if required only	each	1		Rs _____ (Rupees ----- ----- only)
A-11	Manhole covers to be opened & closed with new packing if required only	each	1		Rs _____ (Rupees ----- ----- only)
A-12	Issue of gas free/Man entry/Hot work certificates for additional oil/chemicals tanks (if payable)	each	1		Rs _____ (Rupees ----- ----- only)
A-13	Any other charges in connection with dry-docking (to be specified)	each	1		Rs _____ (Rupees ----- ----- only)
	Total (Schedule A)				

SCHEDULE - B CLEANING AND PAINTING					
<p>Following Painting work from Sr. No.B-01 to B-09 is to be carried out using Jotun, Sigma or International brand of paints. Separate quotations to be submitted for each brand of paint in case of cost variation. All paintings to be carried out under supervision of paint manufacturers, representative & guaranteed for 2 1/2 years. All paints to be shown to the Master and clearance obtained before application. After each coat of paint, dry paint thickness to be measured with suitable instrument and shown to the Master. All details of painting to be recorded and submitted to the Master in duplicate. Each coat of painting to be done after washing with fresh water and mopping the area and charges for the same to be included in the cost of painting.</p>					
B-01	<p>Tugs bottom from keel to load line including Skeg and propeller guard to be scraped and high pressure water washed. Then the above area to be blasted to S.A 2.5 finish. Blasted area to be spray painted immediately with primer. Subsequent coats of paint to be applied only after washing and mopping the primed area with fresh water. All paints to be shown to the Master and clearance obtained before application. After each coat of paint, dry paint thickness to be measured with suitable instrument and shown to the Master. Propeller blades and Port hole glasses and other areas to be suitably covered to prevent damage while painting/blasting. All details of painting to be recorded and submitted to MPT officials in triplicate.</p> <p>Total area=600 m²</p>				
(a)	Scraping the area	.../m ²	600		Rs _____ (Rupees ----- only)
(b)	High pressure water washing	.../m ²	600		Rs _____ (Rupees ----- only)
(c)	Blasting to SA 2.5	.../m ²	600		Rs _____ (Rupees ----- only)
(d)	Spray painting of epoxy primer/anti corrosive to DFT 125 microns	.../m ²	600		Rs _____ (Rupees ----- only)
(e)	Spray painting of epoxy sealer coat to DFT100 microns	.../m ²	600		Rs _____ (Rupees ----- only)
(f)	Tin free anti fouling red two coats DFT 75 microns each	.../m ²	600		Rs _____ (Rupees ----- only)

B-02	Tugs side from load line to Main deck and gun whale outside to be fresh water jet washed, blasted to SA 2.5 finish and spray painted immediately with primer. Subsequent coatings to be applied only after washing and mopping the primed area with fresh water. All paints to be shown to the Master and clearance obtained before application. After each coat of paint, dry paint thickness to be measured with suitable instruments and shown to the Master. All details of painting to be recorded and submitted to MPT officials in triplicate. Tyre fenders to be removed before blasting and refitted after painting. Total area=210m ²				
(a)	Fresh water jet washing	.../m ²	210		Rs _____ (Rupees ----- only)
(b)	Blasting to SA 2.5	.../m ²	210		Rs _____ (Rupees ----- only)
(c)	Spray painting of epoxy primer/anticorrosive to DFT 100 microns	.../m ²	210		Rs _____ (Rupees ----- only)
(d)	Spray painting of epoxy sealer coat to DFT 100 microns	.../m ²	210		Rs _____ (Rupees ----- only)
e)	Painting epoxy orange finish two coats DFT 50 micron each	.../m ²	210		Rs _____ (Rupees ----- only)
(f)	Tyre fenders removal and refitting charges	per Tyre	1		Rs _____ (Rupees ----- only)
B-03	Bulwark inside to be jet washed with fresh water & blasted to S.A 2.5 finish. Area to be thoroughly cleaned and spray painted immediately with two coats of epoxy primer at DFT125 microns each and two coats of finish orange DFT 50 microns each	L.S.	1		Rs _____ (Rupees ----- only)
B-04	Port and stbd. sea suction apertures gratings to be removed, sea chest to be high pressure water washed, scraped, chipped and blasted to SA2.5 finish. Area to be thoroughly cleaned and painted with two coats of anticorrosive and two coats of CR antifouling red to a total DFT of 300 microns. Gratings to be cleaned, fitted back & locked after painting work. Total area 31m ².	.../m ²	31		Rs _____ (Rupees ----- only)
B-05	Draft marks for'd & aft, tugs name and registry for'd and aft and plimsol markings Port & stbd. to be painted with 2 coats white enamel paint.	L.S.	1		Rs _____ (Rupees ----- only)

B-06	Main deck to be jet washed with fresh water, blasted to SA2.5 finish, thoroughly cleaned immediately and spray painted with one coat of CR primer. Subsequent coats to be applied only after washing and mopping the areas with fresh water. Paint to be presented for masters approval and coat thickness measured and shown to the Master. All details of painting to be recorded and submitted to MPT officials in triplicate. Painting to be done under the supervision of paint makers representative. Area=220m ²				
(a)	Fresh water jet washing.	.../m ²	220		Rs _____ (Rupees ----- ----- only)
(b)	Chipping of heavy rust scales if required only.	.../m ²	220		Rs _____ (Rupees ----- ----- only)
(c)	Blasting the decks to SA 2.5 finish	.../m ²	220		Rs _____ (Rupees ----- ----- only)
(d)	Spray painting two coats of epoxy/anti corrosive primer to DFT 125 microns	.../m ²	220		Rs _____ (Rupees ----- ----- only)
(e)	Spray painting two coats of epoxy orange finish to a DFT of 50 microns each.	.../m ²	220		Rs _____ (Rupees ----- ----- only)
B-07	Boat deck to be high pressure water washed and blasted to SA 2.5 finish. Area to be thoroughly cleaned and painted two coats of epoxy/anti corrosive primer to DFT125 and two coats of epoxy orange finish to DFT 50 microns each, Area=57m ²	.../m ²	57		Rs _____ (Rupees ----- ----- only)
B-08	All deck fittings including funnel, davit, mast, railings, telescopic mast, ladders, all deck machinery, sounding & Vent pipes, fire lines, valves, monitors, hatches, sky lights, rope guard, tow hook, ventilation trunkings, Bollards, etc to be spot chipped, scraped, wire brushed, cleaned and pressure jet washed with fresh water and touched up with CR primer. After cleaning, the area is to be painted with one coat of epoxy primer DFT125 and two coats of	L.S.	1		Rs _____ (Rupees ----- ----- only)
B-09	Superstructure exterior including funnel & other rooms opening on deck housing accessories & railings on superstructure to be jet washed with fresh water and blasted to SA 2.5 finish. Area to be thoroughly cleaned and spray painted with one coat of anti-corrosive primer DFT125 and two coats of epoxy finish orange	L.S.	1		Rs _____ (Rupees ----- ----- only)

B-10	Forward fresh water tank to be opened up in dry dock, thoroughly cleaned and offered for survey. Rusted and loose paint areas if any to be identified and touched up with suitable paint. Manhole covers to be fitted with new packings after master's inspection. Studs and nuts to be renewed, if required. Drain plugs to be opened, closed and	L.S.	1		Rs _____ (Rupees ----- ----- only)
a)	Pressure testing of tank with fresh water, only if required by MPT officials/IRS Surveyor.	L.S.	1		Rs _____ (Rupees ----- ----- only)
b)	Supply of nuts, bolts, etc.	cost+10%			
B-11	After peak water ballast (fresh water) tank to be drained in dry-dock, manhole covers to be opened up, tank to be spot chipped, scraped and wire brushed as required, cleaned and presented for IRS survey. After survey tank to be touched up with primer and painted with one full coat of epoxy black paint. Manhole covers to be boxed back with new packings and studs/nuts to be renewed if required. Capacity - 61.41m ³	L.S.	1		Rs _____ (Rupees ----- ----- only)
a)	Pressure testing of tank with fresh water only if required by MPT officials/IRS Surveyor.	L.S.	1		Rs _____ (Rupees ----- ----- only)
b)	Supply of studs, nuts, etc.	cost+10%			
B-12	Fore Peak Tank to be drained in dry dock, manhole covers to be opened up, tank to be spot chipped, scraped and wire brushed as required, cleaned and presented for IRS survey. After survey tank to be touched up with primer and painted with one full coat of epoxy black paint. Manhole covers to be boxed back with new packings and studs/nuts to be renewed if required.	L.S.	1		Rs _____ (Rupees ----- ----- only)
a)	Pressure testing of tank with fresh water only if required by MPT officials/IRS Surveyor.	L.S.	1		Rs _____ (Rupees ----- ----- only)
b)	Supply of nuts, studs etc.	cost+10%			
B-13	Chain locker to be opened thoroughly cleaned after removal of gratings. Chipped scraped and wire brushed and presented for IRS survey. After survey chain locker to be touched up with primer and painted with one full coat of bitumastic black paint. Cover to box up with new studs and nuts if reqd. Approximate capacity- 6.25 m ³	L.S.	1		Rs _____ (Rupees ----- ----- only)
a)	Supply of nuts, studs, etc.	cost+10%			

B-14	Forward void space rusted area to be scraped, wire brushed, cleaned and touched up with primer. Complete area to be painted with one coat of epoxy black paint and shown to Surveyor. Approximate capacity 24.15 m ³	L.S	1		Rs _____ (Rupees ----- ----- only)
B-15	Following tanks to be opened, ventilated, gas freed and cleaned, presented for IRS survey. Tank covers to be boxed back with new packings. (Tanks pressure tested with fresh water and shown to surveyor only if required by surveyor). After survey tanks to be emptied, opened, mopped, dried and covers boxed back with new packings, and studs/nuts to be renewed if necessary				
	Quote separately for pressure testing of tanks				
a)	i) L.O tank-capacity-6.58 m ³	L.S.	1		Rs _____ (Rupees ----- ----- only)
	ii) Pressure testing of L.O. tank - 6.58m ³	L.S.	1		Rs _____ (Rupees ----- ----- only)
b)	i) Waste oil tank-capacity-4.03 m ³	L.S.	1		Rs _____ (Rupees ----- ----- only)
	ii) Pressure testing of Waste oil tank - 4.03m ³	L.S.	1		Rs _____ (Rupees ----- ----- only)
c)	i) Bilge holding tank-capacity-4.03m ³	L.S.	1		Rs _____ (Rupees ----- ----- only)

	ii) Pressure testing of Bilge holding tank - 4.03m ³	L.S.	1		Rs _____ (Rupees ----- only)
d)	i)Sewage tank-capacity-2.20 m ³	L.S.	1		Rs _____ (Rupees ----- only)
	ii) Pressure testing of Sewage tank - 2.20m ³	L.S.	1		Rs _____ (Rupees ----- only)
e)	i) Aft ballast tank	L.S.	1		Rs _____ (Rupees ----- only)
	ii) Pressure testing of Aft ballast tank	L.S.	1		Rs _____ (Rupees ----- only)
f)	Supply of studs, nuts, etc.	cost+10%			
B-16	Following oil tanks to be opened, ventilated, gas freed and certificate issued. Unpumpable oil to be bailed out, tanks cleaned, scraped and wire brushed where necessary and presented for IRS survey. After survey tank covers to be fitted and tanks pressure tested with fresh water in the presence of IRS Surveyor.(only if required). After completion of survey, tanks to be emptied, dried and fully wiped with diesel oil as the case may be. Tanks to be boxed back with new packings and studs/nuts to be renewed where				
a)	i) E.R. D.B D.O. bunker tank, capacity - 51.68m ³	....L.S	1		Rs _____ (Rupees ----- only)
	ii) Pressure testing of E.R. D.B D.O. bunker tank, capacity - 51.68m ³	....L.S	1		Rs _____ (Rupees ----- only)
b)	i) D.O Service Tank PORT, capacity- 19.0 m ³	....L.S	1		Rs _____ (Rupees ----- only)
	ii) Pressure testing of D.O Service Tank PORT, capacity- 19.0 m ³	....L.S	1		Rs _____ (Rupees ----- only)
c)	i) D.O Service Tank STBD, capacity- 19.0 m ³	....L.S	1		Rs _____ (Rupees ----- only)
	ii) Pressure testing of D.O Service Tank STBD, capacity- 19.0 m ³	....L.S	1		Rs _____ (Rupees ----- only)
d)	Supply of studs, nuts, etc.	cost+10%			

B-17	Engine room bilges up to floor plate level total area including pipelines & fittings to be scraped, chipped, wire brushed, cleaned and painted with one coat of chlorinated rubber primer and one coat of chlorinated rubber black finish. (Floor plates and any other obstructions, etc is required to be removed and refitted properly with counter sunk screws after completion of work). Compartment to be shown to Engineer in charge and permission obtained before application of each	....L.S	1		Rs _____ (Rupees ----- ----- only)
B-18	Engine room above floor plate level total area (Port, Stbd, forward aft, deck head) including all machineries, fittings, etc to be chipped, scraped, wire brushed and cleaned with soap water and touched up with primer. After cleaning, the area is to be painted with one coat of white enamel for bulkhead, side and deck head. All the machineries to be painted with existing colour paint. Compartment to be shown to Engineer -in- charge and approval obtained before painting.	....L.S	1		Rs _____ (Rupees ----- ----- only)
B-19	Voith propeller blades to be cleaned, polished and coated with varnish and presented for IRS survey	....L.S	1		Rs _____ (Rupees ----- ----- only)
B-20	Tugs skeg, and propeller guard drain, filling and vent plugs to be opened for inspection. Skeg and propeller guard interior to be float coated with fish oil and all plugs to be fitted back as before with new packings, etc.	....L.S	1		Rs _____ (Rupees ----- ----- only)
	To quote for fish oil separately	per litre	1		Rs _____ (Rupees ----- ----- only)
B-21	Ultrasonic readings of plate thickness to be taken on hull, deck, bulk heads etc. as per requirement of MPT officials/ IRS Surveyor only.	....L.S	1		Rs _____ (Rupees ----- ----- only)
a)	Hull plates as required (Approx. - 50 nos.)	per reading	50		Rs _____ (Rupees ----- ----- only)
b)	Deck plates as required (Approx. - 20 nos)	per reading	20		Rs _____ (Rupees ----- ----- only)

c)	Bulk heads, sea chest, tank bottoms, and other areas as required (Approx. 20 nos.)	per reading	20		Rs _____ (Rupees ----- ----- only)
B-22	Wasted Aluminium alloy anodes only, to be cropped and renewed as follows:				
a)	Anodes fitted on hull , sea chests, skeg, propeller support pads -13 Kgs. wt. (Approx-36 nos)	each	36		Rs _____ (Rupees ----- ----- only)
b)	Around V.S.P. Wt. 10kgs (Approx.- 20 nos)	each	20		Rs _____ (Rupees ----- ----- only)
B-23	Following sea valves to be opened up, thoroughly cleaned, valves lapped on seat for clean all round contact and presented for survey. After satisfactory survey valves to be assembled back with new joints, glands packings etc. and shown in leak proof conditions. Various bolts/studs with nuts to be renewed if required				
a)	Sea suction valves 250NB - 2 nos.	each	2		Rs _____ (Rupees ----- ----- only)
b)	Sea suction valves 350NB - 2 nos.	each	2		Rs _____ (Rupees ----- ----- only)
c)	Sea suction After filter Gate Valve 250NB -2nos	each	2		Rs _____ (Rupees ----- ----- only)
d)	Air vent of sea chest 100NB-2nos	each	2		Rs _____ (Rupees ----- ----- only)
e)	Air vent of sea chest 65NB-2nos	each	2		Rs _____ (Rupees ----- ----- only)

f)	Compressed Air blow valve/ sea chest 15 NB -4nos	each	4		Rs _____ (Rupees ----- ----- only)
g)	Overboard discharge valve 200NB-1 no (M.S.W)	each	1		Rs _____ (Rupees ----- ----- only)
h)	Overboard discharge valve 150NB-2 nos(FI-FI)	each	2		Rs _____ (Rupees ----- ----- only)
i)	Overboard discharge valve 65NB-2 nos (A/C and A/E)	each	2		Rs _____ (Rupees ----- ----- only)
j)	Overboard discharge valve 100 NB-1 no(FIRE &G.S)	each	1		Rs _____ (Rupees ----- ----- only)
k)	Overboard discharge valve 25NB-1 no (O.W.S)	each	1		Rs _____ (Rupees ----- ----- only)
l)	Storm valve 125 NB-2 nos	each	2		Rs _____ (Rupees ----- ----- only)
m)	-do- 9"	each	1		Rs _____ (Rupees ----- ----- only)
n)	-do- 10"	each	1		Rs _____ (Rupees ----- ----- only)
o)	-do- 11"	each	1		Rs _____ (Rupees ----- ----- only)
p)	-do- 12"	each	1		Rs _____ (Rupees ----- ----- only)
q)	Hot bends for pipes of various dia	% of pipe cost /mtr			
r)	T joints for pipes of various dia.	% of pipe cost /mtr			
s)	Flanges for pipes of various dia.	% of pipe cost /mtr			
t)	Ready bends for pipes of various dia.	for each size			
u)	Supply of Bolts & nuts 3/8",1/2",5/8",1", etc.	cost+10%			

B-25	Renewal of dirty oil tank air vent pipe on deck 2 1/2' dia, 1mtr long	L.S.	1		Rs _____ (Rupees ----- ----- only)
B-26	Main Sea suction filter chest Port and Stbd. Including covers, inside to be cleaned chipped, scraped, wire brushed and painted with two coats of anticorrosive paint and covers boxed back. Size DIA - 45cmsxLength 50cms.	L.S.	1		Rs _____ (Rupees ----- ----- only)
a)	Corroded area to be repaired if required, as per instruction of Engineer in charge of Tug. Size DIA - 45cmsxLength 50cms.				
B-27	Fire pump Port and Stbd. Sea Suction filter chest; including covers, inside to be cleaned, chipped, scrapped, wire brushed and painted with two coats of anticorrosive paint and covers boxed back. Size DIA - 45cmsxLength 50cms.	L.S.	1		Rs _____ (Rupees ----- ----- only)
	Quote for stainless steel filter basket- 2nos	each	2		Rs _____ (Rupees ----- ----- only)
B-28	Port and Stbd anchor and chain to be lowered on the dock floor and ranged, chain and anchor if required high pressure water washed, chipped where required, calibrated and painted with two coats of bituminous black paint. Anchor and Swivel to be made free if required. After survey, chain and anchor to be stored back in place. Chain ends to be exchanged if required, by Master of the Tug. Calibrated readings to be submitted	L.S.	1		Rs _____ (Rupees ----- ----- only)
a)	P& S anchor and chain lowering and ranging on dock.	L.S.	1		Rs _____ (Rupees ----- ----- only)
b)	High pressure water washing.	L.S.	1		Rs _____ (Rupees ----- ----- only)

c)	Calibration and submitting of calibration report as per IRS.	L.S.	1		Rs _____ (Rupees ----- ----- only)
d)	Painting two coats of bituminous black paint.	per coat	2		Rs _____ (Rupees ----- ----- only)
e)	Making free anchor and swivel, if required only.	L.S.	1		Rs _____ (Rupees ----- ----- only)
f)	Renewal of End Dee shackles, if required only(Labour charges)	L.S.	1		Rs _____ (Rupees ----- ----- only)
g)	Renewal of Kenter shackles, if required only(Labour charges)	L.S.	1		Rs _____ (Rupees ----- ----- only)
h)	Renewal of Swivels, if required only(Labour charges)	L.S.	1		Rs _____ (Rupees ----- ----- only)
Total (Schedule B)					

SCHEDULE C- DECK REPAIRS					
C-01	Tugs hull/side and bulkhead plates thickness to be gauged by the IRS approved ultrasonic test.				
	1) All decks	L.S.	1		Rs _____ (Rupees ----- ----- only)
	2) Tugs/Hull plates and side plates	L.S.	1		Rs _____ (Rupees ----- ----- only)
	3) Sea Chests and sky	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-02	Various platings to be crapped and renewed as per surveyors recommendations and on based on ultrasonic. Hull below water line 12mm. Side shell and main deck 9mm. Bulwark 7mm and super structure 6mm.	L.S	1		Rs _____ (Rupees ----- ----- only)
a)	Obstructions in way of hot work and plate renewal to be removed refitted exactly as before on completion of repairs.	L.S	1		Rs _____ (Rupees ----- ----- only)
b)	Necessary staging to be provided to carry out the work.	L.S.	1		Rs _____ (Rupees ----- ----- only)
c)	New plates to be grit blasted and coated with blast steel EP5 halting primer before welding.	L.S	1		Rs _____ (Rupees ----- ----- only)
d)	Three sets of drawing to be submitted of ultrasonic readings of plates. Removed plates to be shown hatched to drawing.	L.S.	1		Rs _____ (Rupees ----- ----- only)
e)	After renewal of plates to be tested and shown to IRS surveyor in water tight condition. New plates in way of tanks to be pressure tested.	L.S	1		Rs _____ (Rupees ----- ----- only)
C-03	Existing tyre fender to be removed from place and to be replaced with new one (3 pieces) and to be fitted with wire and chain as existing and shaped possibly as per drawing.	L.S.	1		Rs _____ (Rupees ----- ----- only)
	ID 230 x OD 460 x 3200 mm - 1	L.S.	1		Rs _____ (Rupees ----- ----- only)
	This work to be done after completing the W type renewal of fish plates and pins and 'W' fenders.	L.S.	1		Rs _____ (Rupees ----- ----- only)

C-04	10 Nos. 'W' type fenders to be renewed with new plates and pins. Worn out pins on the other fenders to be renewed. Approx. 10 nos.	each	10		Rs _____ (Rupees ----- ----- only)
C-05	10 Nos. rubber fender tyres (Aircraft) to be supplied with 3 holes for fixing on the sides.	each	10		Rs _____ (Rupees ----- ----- only)
C-06	2 nos. pushing tyres (14.00.25) to be supplied with 3 holes for pushing purpose.	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-07	One in no. wheel house wiper to be made operational.	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-08	30 Nos. 'D' Shackles 3/4" to be supplied.	each	30		Rs _____ (Rupees ----- ----- only)
C-09	Monkey island stbd. Side fire monitor gate valve to be overhauled (leading)	L.S	1		Rs _____ (Rupees ----- ----- only)
C-10	Galley steel table to be removed. One holed pipe approx. 2 mtrs. In length to be renewed. Table to be fixed back after repairing.	L.S	1		Rs _____ (Rupees ----- ----- only)
C-11	Fire hose boxes rubber packings along with glass to be renewed. To order 3 nos. new fire boxes as the existing ones broken and 3 nos, to be renewed.	L.S	1		Rs _____ (Rupees ----- ----- only)
C-12	Double flat bar to be welded on the sides (P&S) 410 mm wide 10mm thick length approx. 59 mts. Segmented stripes of 10mm thick plate to be welded inside the pipe at intervals of 0.5m. Plates to be zinc chromate coated and painted one coat of anti corrosion before welding. Oil tanks are involved in this work. Obstruction to be removed and fitted in way of fender work	L.S	1		Rs _____ (Rupees ----- ----- only)
C-13	Deep pitting on the hull side shell and decks to be filled by welding.	L.S	1		Rs _____ (Rupees ----- ----- only)
C-14	Good quality canvas cover to be made for compass windlass rescue boat and search light.	L.S	1		Rs _____ (Rupees ----- ----- only)
C-15	3 nos. good quality fire hose size 63mm lengths 18 mts. Each to be procured.	each	3		Rs _____ (Rupees ----- ----- only)

C-16	18 nos. lifejackets batteries to be procured exp. 10/12	each	18		Rs _____ (Rupees ----- only)
C-17	3 nos. sheaves of Rescue boat davit to be overhauled.	each	3		Rs _____ (Rupees ----- only)
C-18	To modify movement of Rescue boat crane by fixing additional electric motor for fast turning.	L.S.	1		Rs _____ (Rupees ----- only)
C-19	To raise rescue boat platform to make the boat down by the stern for water to go out during rainy season.	L.S.	1		Rs _____ (Rupees ----- only)
C-20	Tally plates to be procured and fitted. Approx. 25 nos.	each	25		Rs _____ (Rupees ----- only)
C-21	Corroded nuts and bolts of all fire hydrants monitors to be renewed with good quality SS nuts. 100 nos.	each	100		Rs _____ (Rupees ----- only)
C-22	To renew Bulwark stay on stbd. Side aft deck which is dented. 40cm x 32 cm.	L.S.	1		Rs _____ (Rupees ----- only)
C-23	Two nos. holders to be fitted near to life buoy to fix self igniting lights.	each	2		Rs _____ (Rupees ----- only)
C-24	Echo Sounder front glass is not renewed last time in Mumbai. Same to be fitted.	...L.S.	1		Rs _____ (Rupees ----- only)
C-25	Talk back system from W/H to aft deck not working for long time. Informed C/O. Same to be made operational.	...L.S.	1		Rs _____ (Rupees ----- only)
C-26	Booby hatch (4 nos.) channel ribs to renew 2 nos. hatch cover deats to be renewed. (6 nos.)	...L.S.	1		Rs _____ (Rupees ----- only)
C-27	Fore store vent (P&S) wire mesh to be fitted properly.	each	1		Rs _____ (Rupees ----- only)

C-28	2 nos. clamps for nozzles on the main deck to be provided.	each	2		Rs _____ (Rupees ----- ----- only)
C-29	One in no. Air Pipe flap to renew main deck.	...each	1		Rs _____ (Rupees ----- ----- only)
C-30	3 nos. fire hose boxes to be welded as required by Tug staff.	each	3		Rs _____ (Rupees ----- ----- only)
C-31	Freeport near to bollard midship to be crapped and renewed. Approx. 01 m x 40cm.	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-32	Port and Stbd side emp. Ladder doors lower part to be crapped and renewed (strips) 01 m x 10 cm.	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-33	Bulwark plate near to door port side to be crapped and renewed. 30cm x 30cm	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-34	Step near to Port side W/T door to be crapped and renewed. 50cm x 20cm.	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-35	M.S. housing for loud hailer and Towing Winch mechanism is corroded, same to be renewed.	L.S.	1		Rs _____ (Rupees ----- ----- only)
C-36	Towing hook to be overhauled as the Quick Release System from W/H not operational.	L.S.	1		Rs _____ (Rupees ----- ----- only)
	Total (Schedule C)				

SCHEDULE-D MAIN ENGINE REPAIRS					
D-01	Main Engine (WARTSILA 6L26. HP 2X2596 (2X1910 KW) RPM 1000)'S' L.T. temp always more than main engine 'P' by ° C. Fault to be rectified.	...L.S	1		Rs _____ (Rupees ----- ----- -only)
D-02	Ford & Aft Air compressors Ingersollrand model 7T 2 (35.0 kg/sq.cm max) Inter coolers, safety devices etc. to be thoroughly cleaned. HP&LP valves and safety valves to be cleaned, overhauled, all parts to be assembled and compressor tried out satisfactorily. Safety devices to be shown in required working order to Ch. Engineer or tested in the presence of MPT officials and certificate issued.	...L.S	1		Rs _____ (Rupees ----- ----- -only)
D-03	Following Air Receivers to be opened along with mountings and safety devices, and all parts thoroughly cleaned. Various valves to be overhauled. All items to be presented for survey and on completion of the same, Receiver and mounting to be assembled and satisfactory trial shown. All valves to be shown air tight. Safety devices to be tried out in the presence of Ch. Engineer and shown in proper working condition.				
a)	Port and Stbd Main air receiver capacity 500 ltrs- 2nos	each	2		Rs _____ (Rupees ----- ----- -only)
b)	Aux. Air receiver. Cap - 200 ltrs.	L.S	1		Rs _____ (Rupees ----- ----- -only)
c)	Spares to be supplied if required	cost+10%			
D-04	Non return flap valve to be provided for hydrophore pipe suction valve. Pipe OD 60 mm - 1 no. Non return valve to be supplied and to be fitted as required.	cost+10%			
D-05	Main Engine 'O' Ring 3.53 x 69.44. Part No. 4701 - 014 - 12 Nos.	each	12		Rs _____ (Rupees ----- ----- -only)
D-06	Both Domestic S.W. & F.W Hydrophore pressure tanks to be scrapped and painted with black plastic antirust paint F.W. Hydrophore tank drain V/V broken piece to be removed and new v/v of 1 1/2" dia to be supplied and fitted.	L.S.	1		Rs _____ (Rupees ----- ----- -only)
D-07	Port Main Engine F.O. flow meter reducer before flow meter leaking same to be repaired.	L.S.	1		Rs _____ (Rupees ----- ----- -only)

D-08	Following items to be supplied to Chief Engineer of the Tug as required.				
a)	Pressure gauges 0 to 10 kg/cm ² / dial 70 cm / Thread PF 1/2" - 5 Nos.	each	5		Rs _____ (Rupees ----- ----- -only)
b)	Pressure gauges 0 to 16 kg/cm ² / dial 70 cm / Thread PF 1/2" - 6 Nos.	each	6		Rs _____ (Rupees ----- ----- -only)
c)	Pressure gauges 0 to 10.6 kg/cm ² / dial 100 cm / Thread PF 3/4" - 6 Nos.	each	6		Rs _____ (Rupees ----- ----- -only)
	Total (Schedule D)				

SCHEDULE E- ELECTRICAL REPAIRS					
E-01	Following generator and motors to be completely dismantled, all parts thoroughly cleaned and presented for inspection of MPT officials. After inspection, windings to be varnished, baked and rotors assembled. Bearings to be renewed if required. Meggar readings to be taken before and after overhauling and submitted in triplicate. Motor starter to be opened, overhauled and fitted back. <u>Defective parts to be replaced.</u>				
a)	Main generator alternators. Make: Stamford, 120 KW, Type VCH 2734H2 - 2 Nos.	each	2		Rs _____ (Rupees ----- ----- -only)
b)	Engine Blower Motor. Make Bharat Bijlee 2.0 HP/1.5 KW/415 V, 1415 RPM	each	1		Rs _____ (Rupees ----- ----- -only)
E-02	Port & Stbd. Navigation light socket and wires to be renewed as required. Approx. 25 mtrs.	per meter	25		Rs _____ (Rupees ----- ----- -only)
E-03	Aft. Deck store light switch and switch socket combo located on the deck not operational to be removed from place and new ones to be supplied and fitted inside the store room on bracket.	L.S.	1		Rs _____ (Rupees ----- ----- -only)
E-04	Wash room exhaust blower to supply and fit in place.	L.S.	1		Rs _____ (Rupees ----- ----- -only)
E-05	Both Air compressors presently not working on auto mode fault to rectify and parts to renew.	each	2		Rs _____ (Rupees ----- ----- -only)
E-06	Following items to be supplied APS, to Engineer-in-Charge of the tug as required.				
a)	Galley hot plate APS - Spare HOT 2 KW/220 V/50 HZ - 1 No.	each	1		Rs _____ (Rupees ----- ----- -only)
b)	Galley hot plate heating coil APS - 2 sets.	per set	2		Rs _____ (Rupees ----- ----- -only)
c)	Miniature bulbs 130 V - 24 Nos.	each	24		Rs _____ (Rupees ----- ----- -----)

d)	Miniature bulbs 30 V - 24 Nos.	each	24		Rs _____ (Rupees ----- ----- -only)
e)	Barrel type starter holder for fluorescent light - 50 nos.	each	50		Rs _____ (Rupees ----- ----- -only)
f)	Hot plate switch (APS) - 1 no.	each	1		Rs _____ (Rupees ----- ----- -only)
g)	Double pole socket/switch combination 15A - 6 nos.	each	6		Rs _____ (Rupees ----- ----- -only)
h)	Double pole switch 10 Amps APS - 6 nos.	each	6		Rs _____ (Rupees ----- ----- -only)
i)	Well glasses for deck light fittings - 24 nos.	each	24		Rs _____ (Rupees ----- ----- -only)
j)	Deck light fittings with glass - 8 nos.	each	8		Rs _____ (Rupees ----- ----- -only)
k)	Twin fluorescent light plastic shades 2' long - 12 nos.	each	12		Rs _____ (Rupees ----- ----- -only)
l)	Emergency light bulbs 24V APS - 24 nos.	each	24		Rs _____ (Rupees ----- ----- -only)
m)	Lube oil temp gauge 40°C to 120°C for greaves engine - 2 nos.	each	2		Rs _____ (Rupees ----- ----- -only)
n)	Industrial gang bell 24V DC Size 10 cm Model no. GB - 10 - 3 nos.	each	3		Rs _____ (Rupees ----- ----- -only)
o)	Voltmeter 0 - 500 V AC - 2 nos.	each	2		Rs _____ (Rupees ----- ----- -only)
p)	Ammeter 0 - 60 Amps AC - 2 nos.	each	2		Rs _____ (Rupees ----- ----- -only)

q)	Ammeter 0 - 150 Amps - AC - 2 Nos.	each	2		Rs _____ (Rupees ----- ----- -only)
r)	Ammeter 0 - 300 Amps - AC - 2 nos.	each	2		Rs _____ (Rupees ----- ----- -only)
E-07	Emergency Lighting System Contactor Switch-01 No. Make -- Siemens	cost+10%			
	Contactor no.—3TF47				
	Coil Voltage—24 V/DC				
	Total (Schedule E)				
	Grand Total (Schedule A to E)				

Signature of the Authorised Person

Date :

Seal :