QATAR NAVIGATION (QPSC)

SHIP REPAIR & FABRICATION

Telephones

Office: 4771690 / 4771695

Fax : 4771687



Telex: 4206 DH
Cable: "NAVIGATION" Doha
Bank A/c:QNB Main Branch
P.O.Box 1000, Doha - Qatar
Swift Code: QNBAQAQA
QAR A/C No. 0013-000309-060
USD A/C No. 0013-000309-061

Page: 1 / 3

900001

SHIP MANAGEMENT - SHIPYARD INTERCO Shipyard WS

PO Box 153, Doha - Qatar

INVOICE NO: SFWK/INV/012726/2021

DATE: 30/04/2021

EXPENSE A/C: 85.901.1434006

W/O NO: 21-011042 / 1

W/O REF: MLO 21026

Vessel Name/Description : M.V. "HALUL-41"

Job No	Description	Line	Amount
2500	ALTERNATOR ADDITIONAL WORKS:-	5,	040.00
	Rotor shaft trueness checked and report submitted to QC.Rotor shaft damaged coupling area and key way repaired, damaged exists key closed with key tack welded, OD machined down to 2mm on diameter, taken final trueness and new key way machined. Coupling damaged ID and key way welded, ID machined according rotor shaft coupling OD and new key way machined. O1 nos SS new key manufactured with 1 1/8" x 16mm x 165mm long.		
	As per our quotation No EM 15728B, item no. 1.		
2501	RESLEEVING OF ALTERNATOR END COVER:-	2,	600.00
	NDE cover damaged bore repaired, enlarge the bore $225\mathrm{mm}$, manufactured grey cast iron sleeve, inserted with interference fit, secured with 02 nos M6 grub screw and final machined as per bearing OD + $0.03\mathrm{mm}$ with O ring groove.		
	As per our quotation No EM 15728B, item no. 2.		
7000	OVERHAULING OF ALTERNATOR (500 kW):-	16,	740.00
	1 No. alternator (500KW) received in work shop. Taken megger test and airgap. In our visual inspection, we found rotor shaft and coupling key damaged, as per client instruction started overhauling. Removed alternator coupling, drive end, NDE with excitor coil. Removed bearing and takeout rotor from inside the stator. All alternator parts cleaned by electro cleaner solvent. Rotor, stator and excitor coil keep inside automatic temperature control oven. Main stator, rotor and excitor stator re-varnished. End covers, rotor and coupling		

E & O.E

for QATAR NAVIGATION (Q.S.C)

SHIP REPAIR, FABRICATION & ENGINEERING DIVISION

QATAR NAVIGATION (QPSC)

SHIP REPAIR & FABRICATION

Telephones

Office: 4771690 / 4771695

Fax : 4771687



Telex: 4206 DH
Cable: "NAVIGATION" Doha
Bank A/c:QNB Main Branch
P.O.Box 1000, Doha - Qatar
Swift Code: QNBAQAQA
QAR A/C No. 0013-000309-060
USD A/C No. 0013-000309-061

Page: 2 / 3

900001

SHIP MANAGEMENT - SHIPYARD INTERCO Shipyard WS

PO Box 153, Doha - Qatar

INVOICE NO: SFWK/INV/012726/2021

DATE: 30/04/2021

EXPENSE A/C: 85.901.1434006

W/O NO: 21-011042 / 1 W/O REF: MLO 21026

Vessel Name/Description : M.V. "HALUL-41"

Job No Description

Line Amount

sent to machine shop for calibration as per QC instruction.DE and NDE bearing housing DP test done. found satisfactory. Rotor shaft MPI test completed and found satisfactory. ND end cover found loosen. Re-sleeved non drive end cover. Found shaft coupling area slightly bend. Shaft and coupling sent to machine shop for repairing. After repairing rotor with coupling sent to dynamic balancing, dynamic balanced. After that start to reassembling the alternator using by owner supplied bearings. Coupling installed in the same position. Megger test and airgap carried out. found satisfactory.

As per our quotation No EM 15728, item No. 1. & EM 15728C, item No. 1.

(QRs. 12,100.00 + QRs. 4,640.00 = QRs. 16,740.00).

9000 HIRE OF HYDRAULIC TORQUE WRENCH:-

800.00

Hydraulic torque wrench provided on hire basis as per signed delivery Note dated 10-02-2021 and 25-02-2021.

Based on our quotation No EM 15728A, item No. 1.

(QRs. 50.00 per day x 16 Days = QRs. 800.00).

Encls:-

Copy of our quotation No. EM 15728 By E mail dated 07-02-2021.

Copy of signed delivery Note dated 10-02-2021 & 25-02-2021

Copy of our quotation No. EM 15728A By E mail dated 11-02-2021.

Copy of our quotation No. EM 15728B By E mail dated 18-02-2021.

Copy of your E Mail dated 18-02-2021.

Copy of our quotation No. EM 15688C By E mail dated 04-03-2021.

E & O.E

for QATAR NAVIGATION (Q.S.C)

SHIP REPAIR, FABRICATION & ENGINEERING DIVISION

QATAR NAVIGATION (QPSC)

SHIP REPAIR & FABRICATION

Telephones

Office: 4771690 / 4771695

Fax : 4771687



Telex: 4206 DH
Cable: "NAVIGATION" Doha
Bank A/c:QNB Main Branch
P.O.Box 1000, Doha - Qatar
Swift Code: QNBAQAQA
QAR A/C No. 0013-000309-060
USD A/C No. 0013-000309-061

Page: 3 / 3

900001

SHIP MANAGEMENT - SHIPYARD INTERCO Shipyard WS

PO Box 153, Doha - Qatar

INVOICE NO: SFWK/INV/012726/2021

DATE: 30/04/2021

EXPENSE A/C: 85.901.1434006

W/O NO: 21-011042 / 1 W/O REF: MLO 21026

Vessel Name/Description : M.V. "HALUL-41"

Job No Description

Line Amount

Copy of your E Mail dated 09-03-2021.

Copy of signed delivery Note dated 09-03-2021

Copy of your E Mail dated 28-04-2021.

Copy of DP test report dated 11-02-2021.

Copy of Alternator shaft & End cover initial calibration report dated 15-02-2021.

Copy of MPI test report dated 15-02-2021.

Alternator coupling initial report dated 16-02-2021.

Copy of Alternator shaft final calibration report dated 22-02-2021.

Copy of dynamic balancing report dated 09-03-2021.

Copy of main stator and rotor air gap report dated 13-03-2021.

Copy of signed delivery note dated 13-03-2021.

Invoice Amount -->

25,180.00

(QAR - Twenty-Five Thousand One Hundred Eighty Only)

E & O.E

for QATAR NAVIGATION (Q.S.C)

SHIP REPAIR, FABRICATION & ENGINEERING DIVISION