

ANNEXURE A- SCOPE OF WORK

SPECIFICATION FOR THE PROVISION/SUPPLY AND INSTALLATION OF A NEW CUMMINS PORT MAIN ENGINE (X 1) FOR WORKBOAT SWIFT TERN IN THE PORT OF RICHARDS BAY

**ENGINE DETAILS AS FOLLOWS:
CUMMINS KTA M4 FOR PORT SIDE INSTALLATION**

CONFIGURATION	In-Line , 6 Cylinder , 4 Stroke Diesel					
ASPIRATION	Turbocharged / Aftercooled					
DISPLACEMENT	19L					
BORE AND STROKE	159 x 159 mm					
ROTATION	Counter clockwise facing flywheel					
FUEL SYSTEM	Pressure Time (PT)					
OVERALL LENGTH	1877mm					
OVERALL WIDTH	1003mm					
OVERALL HEIGHT	1905mm					
OVERALL WEIGHT	2073mm					
RATINGS	522Kw	710MHP	700BHP	2100RPM	HEAVY DUTY	IMO 1

- **SUPPLIER TO PROVIDE ALL THE NECESSARY TOOLS AND EQUIPMENT REQUIRED TO ENSURE THE INSTALLATION A SUCCESS**
- **TO PROVIDE FOR ANY LIFTING OR RIGGING EQUIPMENT REQUIRED**
- **TRANSPORTATION OF THE ENGINE TO THE PORT OF RICHARDS BAY**
- **PROVIDE THE RELEVANT PERMITS REQUIRED FOR THE ENTIRE DURATION OF THE INSTALLATION EG. HOT WORKS**
- **ANY ELECTRICAL CONNECTIONS AND WIRING MUST BE DONE BY THE SUPPLIER**
- **UPON SUCCESSFUL INSTALLATION TO COMMISSION THE ENGINE AND ENSURE RUNNING PARAMETERS ARE CORRECT AND TEST ALL SAFETY INTERLOCKS**
- **INCLUDE ALL LUBRICANTS AND COOLANT REQUIRED FOR THE COMMISSIONING**
- **INCLUDE ALL THE RELVANT MANUALS FOR THE ENGINE INCLUDE SERVICE MANUAL AND PARTS MANUAL**
- **ENSURE THAT ALL SAFETY INTERLOCKS ASSOCIATED WITH THE ENGINE ARE CONNECTED CORRECTLY AND TESTED DURING COMMISSION**
- **WARRANTY ON THE NEW ENGINE IS COMPULSORY**

BILL OF QUANTITIES:

SERVICE OF MAIN ENGINES AND TURBOCHARGERS AND SUPPLY OF ENGINE SPARES FOR THE TUGBOAT LILANI IN THE PORT OF RICHARDS BAY

SUPPLIER TO SUPPLY THE FOLLOWING SPARES:

	DESCRIPTION	PART NO:	QUANTIT Y	UNIT PRICE	TOTAL PRICE
01	VITON: O - RING	P11014-03 ITEM NO:12	32		
02	VITON: O - RING	P11014-03 ITEM NO:4	04		
03	VITON: O – RING 316.87 X7.0	P11014-03 ITEM NO:8	02		
04	VITON: O- RING 471.96 X 7.0	P11014-03 ITEM NO:16	02		
05	VITON: O - RING	P11014-03 ITEM NO:2	32		
06	VITON: O - RING	P11620-01 ITEM NO:4	16		
07	VITON: O - RING	P11812-01 ITEM NO:7	16		
08	GASKET	P11812-01 ITEM NO:A5	02		
09	O-RING SILICONE	P11812-01 ITEM NO:A9	02		
10	GASKET	P11812-01 ITEM NO:A3	02		
11	KIT INSPECTION OF FUEL VALVE	P12088-01 ITEM NO: K1	16		
12	FUEL NOZZLE	P12018-02 ITEM NO: A1	16		
13	MDO FILTER	P12014-01 ITEM NO: B27	04		
14	GASKET	P12014-01 ITEM NO: B28	04		

SUPPLIER TO PERFORM THE FOLLOWING SERVICES:

	DESCRIPTION	TOTAL PRICE
01	18000 HOUR SERVICE AS PER ORIGINAL MANUFACTURERS RECOMMENDATIONS INCLUSIVE OF SPARES AND TOOLS REQUIRED	
02	SERVICE BOTH TURBOCHARGERS WITH ALL SPARES AND TOOLS REQUIRED	
03	CALIBRATION OF ALL FUEL PUMPS FOR BOTH ENGINES	
04	SERVICE OF PORT AND STARBOARD GOVERNORS	
05	SERVICE OF PORT AND STARBOARD STARTER MOTORS	
06	RESTORE REMOTE SPEED OPERATION AND LOCAL OPERATION	
07	TEST OVERSPEED AND CALIBRATE BOTH ENGINES RPM'S	
08	TWO SPARE FUEL PUMPS TO BE SUPPLIED TO CRAFT	
09	TWO OIL MIST DETECTOR SERVICE KITS TO BE SUPPLIED TO CRAFT	
10	TRANSPORTATION /ACCOMMODATION TO AND FROM RICHARDS BAY	
11	OTHERS COSTS: MUST BE SPECIFIED	