

11 North Brook Hall Road (1st Floor)

Dhaka 1100, Bangladesh.

Phone : +88-02-47115468, +88-02-47111856

Fax : +88-02-9565276 email : padma@agni.com

DATE: April 23, 2018

To,

CROSS WORLD POWER LTD.

Attn:

Engr. Mohammad Nurul Alam Manager, Sales & Marketing Mobile: 01755514716

REF: CWPL-AM/0849/18-R01F

# ORDER FOR SUPPLY OF 200 KVA 3 PHASE HEAVY DUTY DIESEL GENERATING SETS.

Dear Mr Alam,

We are pleased to order with reference to your technical offer # CWPL-AM/0849/18-R01T dated Apr 22, 2018 based on following details:

SI No	Product Name	Unit	Price (BDT)	Qty	Total Price(BDT)
	TEMPEST Brand 200 KVA (Prime) Rating Diesel	Set	1,975,000.00	1	1,975,000.00
	Generator with Perkins engine and Stamford alternator			-	- 1466
	BRAND : Tempest		2 .		
	ENGINE: Perkins, UK				
	ALTERNATOR: Stamford, UK				
	CONTROL MODULE: Deepsea, UK				
	PORT OF SHIPMENT: Felixstowe port, UK				
	AVAILABILITY : 5 to 15 days from ready stock				i i

Total Price (Ready Stock) in BDT 1,975,000.00 GRAND TOTAL (Excluding VAT & AIT) in BDT 1,975,000.00

Amount in words: BDT One Million Nine Hundred and Seventy-Five Thousand Only.

**2. PAYMENT TERMS:** 1) 10% as non-refundable booking fee with work order and 80% before delivery and rest 10% after Installation and commissioning.

3. PACKING: Export friendly 'Shrink Wrap' packing.

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Factory: Nandalalpur Road (Delpara) Pagla, P.S- Fatullah, Dist- Narayangonj, Ph. +88 -02-47696262 Reg. No: C-17637(437)/88 | VAT Reg. No: 19271000284 | web: www.padmagroup-bd.com



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4. DELIVERY: Within 5 to 15 days from the date of our valued work orderat:

Asia Induatries Pvt. Ltd.

Nandalalpur Road (Delpara), Pagla, P.S # Fatullah, Narayangonj.

**5. COMPLETION OF THE WORK:** Installation Commissioning and testing of the genset sould be completed within 3 (three) working days from the date of delivery, provided the site and commissioning materials made ready by Asia Industries.

7. INSTALLATION AND COMMISSIONING CHARGE: Free of Cost Without Materials.

### 8. GENERATOR DETAILS:

Tempest (Manufactured by Allam Marine Limited, UK) Diesel Generating Set Model: PS200 (NEW) (200KVA Prime & 220 KVA Standby) at 1500 rpm, 50 Hz, 3 phase, 4 wire, 400/230 volts at 0.8 power factor. All other details are as follows:

BRAND : Tempest	MODEL : PS200 (NEW)			
COUNTRY OF ORIGIN : UK	PORT OF SHIPMENT : Any port, UK			
CAPACITY (Prime) : 200 KVA	CAPACITY (stand by) : 220 KVA			
START SYSTEM : Automatic Microcontroller based as well manual Start / Stop System				
EMERGENCY STOP : Emergency Stop available as protection device				
VIBRATION SKID : Built-in vibration skid for smooth operation				
BATTERY CHARGER : Auto Batt ery Charger (ABC) included				
DIMENSION (Open Set) (cm) : 251X82X166 (LxWxH)	FUEL TANK CAPACITY : 533 Liters (Openset) Liter			
FUEL CONSUMPTION: 34.70 Ltr./Hr. at 75% Load				

## **Engine Details:**

BRAND/ORIGIN	: Perkins, UK	MODEL	: 1106A-70TAG4	
SPEED	: 1500 RPM	INDUCTION SYS	TEM : Turbocharged	*
ENGINE TYPE : 4 s	stroke multi cylinder industr	ial diesel Engine s	uitable for tropical environment	

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COOLING SYSTEM: Water cooled (Radiator cooled with engine driven fan)

PROTECTION: Over speed, under speed, oil pressure, Over heating etc

FUEL TANK: Built in with base

### **Alternator Details:**

Industrial brushless AC Alternator model all other details are as follows:

BRAND/ORIGIN : Stamford, UK		Model / Frequency	: UCI274H , 50 Hz	
PHASE	: 3 Phase	Output (Volts)	: 400/415 volts (Line to line)	
COOLING	: Air cooling	Insulation Type	: Class " H "	
PROTECTION with IP21/IP2		ign screen protected, fan venti	lated, drip-proof, self exciting in accordance	
VOLTAGE REG	ULATOR : Automatic Volt	age Regulator (AVR)		

VOLTAGE REGULATION:  $\pm 1\%$  /  $\pm 1.5\%$  power factor between 0.8 lagging & unity (Depends on Connected Load)

Note: Supporting documents related to import of the product as per clause 8 should be provided by cross world.

# **Control Module:**

**OPERATION** 

Deep Sea Electronics (DSE), UK control system is incorporated with automatic set to manually & automatically start & stop the generator indicating the operation status and fault conditions via a graphical LCD display and a flashing LED on the front panel. All other details are as follows:

CONTROL MODULE TYPE : Auto start (AMF) digital control module

: Operation of the module is via push but ons mounted on the front panel with

STOP, AUTO and MANUAL positions etc

DIGITAL INSTRUMENTS : Ammeter, Voltmeter, Frequency meter, run hour meter, Oil Pressure, Water

Temperature etc.

ALARM INDICATOR : Under/Over Volts, Under/over speed, Under/Over Frequency, Low Oil Pressure,

High Engine Temperature, Fail to Start and Loss of speed sensing etc.

LOAD TRANSFER TIME : Adjustable, Delay on start 1 to 25 sec, Delay on transfer 1 to 70 sec

ENGINE COOLING TIME : 5 minutes maximum

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PHASE FAILUE RELAY

: Digital option & control for Main's upper lower cut off voltage set ng and adjustable hysteresis voltage, sensing option etc

### **Standard Items:**

The following items should be supplied with the gen-set as standard:

- (i) Lead Acid Battery 12/24 Volts as required
- (ii) Silencer
- (iii) Rubber anti vibration mountings
- (iv) Flexible Bellows
- (v) Battery charger
- (vi) Main Line 3 pole Circuit Breaker
- (vii) Alternator mounted deep sea UK original main controlling panel
- (viii) Fuel tank for 10 hours operation
- (ix) Operational manual & keys etc.
- (x) Toolbox

### **Warranty/Guarantee:**

3000 hours or 2 year warranty whichever comes first, should be effective from the date of delivery at the client's premises. Warranty policy is for any manufacturing defects or any premature wear & tear due to usage. The faulty part(s) is/are to be replaced/ repaired within the warranty period. Lube oil required for running during warranty period should be provided by Cross world. However, Warranty doesn't cover improper maintenance by the user such as consumable items, servicing by unauthorized person, running the genset above it's capacity or any unauthorized modification of the genset.

## **Installation & Commissioning:**

The price quoted here includes Carrying, Loading, Unloading, Installation & Commissioning charge provided the genset is installed in Basement or at Ground Floor level within Dhaka City. However, this offer does not include the cost of commissioning materials, such as, Power/Control Cable, Diesel(Except initial commissioning quantity), Civil works, ducting, Manual labor, Silencer pipe Extension Work & any other materials that may be necessary for installation of the generator set.

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## Spare parts, After Sales Service and AMC:

After Completion of warranty period of 2 years, additional one year of free service for maintenance should be provided by Cross world. After that Cross World should extend their support for servicing of the generating sets at a reasonable charge by entering into a service agreement with Asia Industries.

## **Training:**

Corss World should provide training to Asia Industries operator of the Genset after completion of the commissioning.

Sincerely,

Mohammad Abu Taiob

Manager, Technical & Business

Development

Mobile: 01765033362

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