

Generating Set Functional Test Report
In accordance with ISO 8528 - 6 2005

PLANT NUMBER: EC9724/1 CE: NO

RATED OUTPUT	KVA	<u>400</u>	RATING CLASSIFICATION	<u>PDP</u>	
	KW	<u>320</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400/230</u>		PERFORMANCE CLASS	<u>CF</u>
	AMPS	<u>577</u>		(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE		<u>B.C.U.</u>	COOLING METHOD	<u>WATERCOOLED</u>	

ENGINE MAKE	<u>PENICINS</u>	BUILD NUMBER	<u>TGDF5018</u>
ENGINE MODEL	<u>2206A-E13TAC3</u>	SERIAL NUMBER	<u>U11347U</u>
ALTERNATOR MAKE	<u>STAMFORD</u>		
ALTERNATOR MODEL	<u>HCR444F</u>	SERIAL NUMBER	<u>0260163/063</u>
CONTROL PANEL(S)	<u>INDEPENDANT/AUTOSYSTEM</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>A-T-S</u>	SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)

LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP DEG C	OIL TEMP DEG C	OIL PRESS BAR
load acceptance	<u>60</u>	<u>50.0</u>	<u>400</u>	<u>277</u>	<u>1912</u>	<u>-</u>	<u>-</u>	<u>3.7</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>508</u>	<u>352</u>	<u>88</u>	<u>-</u>	<u>2.8</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M) 85
(UNITS WITH ACOUSTIC CANOPIES ONLY & MEASURED UNDER TEST BAY CONDITIONS AT 75% LOAD IN ACCORDANCE WITH ISO8528-10)

AMBIENT TEST CONDITIONS		FUEL/OIL USED	
ALTITUDE (M)	<u>Sea Level</u>	FUEL SPEC	<u>BS2869A2</u>
BAROMETRIC PRESSURE (kpa)	<u>101.0</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>21</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>46</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:

ENGINE	<u>2000 SERIES</u>	CONTROL PANEL(S)	<u>SB18826</u>
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TESTED BY I. JOHNSON

DATE 19/08/2010

Generating Set Functional Test Report
In accordance with ISO 8528 - 6 2005

PLANT NUMBER: EC724/2 CE: NO

RATED OUTPUT	KVA	<u>400</u>	RATING CLASSIFICATION	<u>PDP</u>			
	KW	<u>320</u>					
	PHASE	<u>3</u>					
	VOLTS	<u>400/230</u>			PERFORMANCE CLASS	<u>CF</u>	
	AMPS	<u>577</u>					(AS DEFINED BY ISO 8528-1)
	HZ	<u>50</u>					
	RPM	<u>1500</u>					
GOVERNOR TYPE	<u>B.C.U.</u>	COOLING METHOD	<u>WATERCOOLED</u>				

ENGINE MAKE	<u>PERMANS</u>	BUILD NUMBER	<u>TGDF3018</u>
ENGINE MODEL	<u>2206A-B13TAG3</u>	SERIAL NUMBER	<u>U19677J</u>
ALTERNATOR MAKE	<u>STAMFORD</u>	SERIAL NUMBER	<u>0269585/001</u>
ALTERNATOR MODEL	<u>HCR444F</u>	SERIAL NUMBER(S)	
CONTROL PANEL(S)	<u>WROSTANT/AUTOSYNCH</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>A-T-S</u>	SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)								
LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP DEG C	OIL TEMP DEG C	OIL PRESS BAR
load acceptance	<u>60</u>	<u>50.0</u>	<u>400</u>	<u>277</u>	<u>192</u>	<u>-</u>	<u>-</u>	<u>3.8</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>508</u>	<u>352</u>	<u>89</u>	<u>-</u>	<u>2.7</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP
 AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M) 85
 (UNITS WITH ACOUSTIC CANOPIES ONLY & MEASURED UNDER TEST BAY CONDITIONS AT 75% LOAD IN ACCORDANCE WITH ISO8528-10)

AMBIENT TEST CONDITIONS		FUEL/OIL USED	
ALTITUDE (M)	<u>Sea Level</u>	FUEL SPEC	<u>BS2869A2</u>
BAROMETRIC PRESSURE (kpa)	<u>101.0</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>21</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>46</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:	
ENGINE	<u>2000 SERIES</u>
CONTROL PANEL(S)	<u>SB18826</u>

TESTED BY E. JOHNSON

DATE 19/08/2010

Generating Set Functional Test Report
In accordance with ISO 8528 - 6 2005

PLANT NUMBER: EC9724/3 CE: NO

RATED OUTPUT	KVA	<u>400</u>	RATING CLASSIFICATION	<u>PDP</u>
	KW	<u>320</u>		
	PHASE	<u>3</u>		
	VOLTS	<u>400/230</u>	PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>577</u>		
	HZ	<u>50</u>		
	RPM	<u>1500</u>		
GOVERNOR TYPE		<u>B.C.U.</u>	COOLING METHOD	<u>WATERCOOLED</u>

ENGINE MAKE	<u>PERMANS</u>	BUILD NUMBER	<u>TGDF5018</u>
ENGINE MODEL	<u>2206A-E13TAG3</u>	SERIAL NUMBER	<u>U11510U</u>
ALTERNATOR MAKE	<u>STAMFORD</u>		
ALTERNATOR MODEL	<u>HCR444F</u>	SERIAL NUMBER	<u>0260163/034</u>
CONTROL PANEL(S)	<u>AVD505ANT / AVD505YCH</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>A-T-S</u>	SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)

LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP DEG C	OIL TEMP DEG C	OIL PRESS BAR
load acceptance	<u>60</u>	<u>50.0</u>	<u>400</u>	<u>277</u>	<u>192</u>	<u>-</u>	<u>-</u>	<u>3.4</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>508</u>	<u>352</u>	<u>90</u>	<u>-</u>	<u>2.7</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP 85

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

(UNITS WITH ACOUSTIC CANOPIES ONLY & MEASURED UNDER TEST BAY CONDITIONS AT 75% LOAD IN ACCORDANCE WITH ISO8528-10)

AMBIENT TEST CONDITIONS		FUEL/OIL USED	
ALTITUDE (M)	<u>Sea Level</u>	FUEL SPEC	<u>BS2869A2</u>
BAROMETRIC PRESSURE (kpa)	<u>100.9</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>18</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>94</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:

ENGINE	<u>2000SERIES</u>	CONTROL PANEL(S)	<u>SB18826</u>
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TESTED BY I. JOHNSON

DATE 20/08/2010

Generating Set Functional Test Report
In accordance with ISO 8528 - 6 2005

PLANT NUMBER: EC9724/4 CE: NO

RATED OUTPUT	KVA	<u>400</u>	RATING CLASSIFICATION	<u>PDP</u>	
	KW	<u>320</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400/230</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>577</u>			(AS DEFINED BY ISO 8528-1)
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE	<u>B.C.U.</u>	COOLING METHOD	<u>WATERCOOLED</u>		

ENGINE MAKE	<u>PENICINS</u>	BUILD NUMBER	<u>TCDF5018</u>
ENGINE MODEL	<u>2206A-E13TAG3</u>	SERIAL NUMBER	<u>U11508U</u>
ALTERNATOR MAKE	<u>STAMFORD</u>		
ALTERNATOR MODEL	<u>HCR444F</u>	SERIAL NUMBER	<u>0260164/014</u>
CONTROL PANEL(S)	<u>AV505MTR/AV903YN</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>A-T-S</u>	SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)

LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE	OIL	OIL
						TEMP DEG C	TEMP DEG C	PRESS BAR
load acceptance	<u>60</u>	<u>50.0</u>	<u>400</u>	<u>277</u>	<u>192</u>	<u>-</u>	<u>-</u>	<u>4.4</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>508</u>	<u>352</u>	<u>88</u>	<u>-</u>	<u>2.8</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP
 AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M) 85
 (UNITS WITH ACOUSTIC CANOPIES ONLY & MEASURED UNDER TEST BAY CONDITIONS AT 75% LOAD IN ACCORDANCE WITH ISO8528-10)

AMBIENT TEST CONDITIONS		FUEL/OIL USED	
ALTITUDE (M)	<u>Sea Level</u>	FUEL SPEC	<u>BS2869A2</u>
BAROMETRIC PRESSURE (kpa)	<u>99.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>98</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:

ENGINE	<u>2000 SERIES</u>	CONTROL PANEL(S)	<u>SB18826</u>
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TESTED BY I. JOHNSON

DATE 23/08/2010