

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER:

E9734/1

CE:

NO

RATED OUTPUT	KVA	<u>20</u>	RATING CLASSIFICATION	<u>Prp</u>	
	KW	<u>16</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400/230</u>	PERFORMANCE CLASS	<u>G1</u>	
	AMPS	<u>29</u>			(AS DEFINED BY ISO 8528-1)
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE	<u>MECHANICAL</u>	COOLING METHOD	<u>WATERCOOLED</u>		

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>GN65732</u>
ENGINE MODEL	<u>404D-22G</u>	SERIAL NUMBER	<u>U98580BT</u>
ALTERNATOR MAKE	<u>STAMFORD</u>		
ALTERNATOR MODEL	<u>BCZ184E</u>	SERIAL NUMBER	<u>0255518/031</u>
CONTROL PANEL(S)	<u>NONE</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>—</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>80</u>	<u>50.4</u>	<u>400</u>	<u>18.5</u>	<u>12.8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>25.5</u>	<u>17.6</u>	<u>82</u>	<u>—</u>	<u>4.1</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

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(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>101.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>23</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>61</u>	LUB OIL SPEC	<u>Multigrade</u>

### WIRING DIAGRAMS:

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>TEEM BOX</u>
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TESTED BY

J. JOHNSON

DATE

27/07/2010

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

PLANT NUMBER: B9734/2 CE: NO

RATED OUTPUT	KVA	<u>20</u>	RATING CLASSIFICATION	<u>PDP</u>	
	KW	<u>16</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400/230</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>29</u>		(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE	<u>MECHANICAL</u>	COOLING METHOD	<u>WATERCOOLED</u>		

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>GN65732</u>
ENGINE MODEL	<u>404D-22G</u>	SERIAL NUMBER	<u>U984173T</u>
ALTERNATOR MAKE	<u>STAMFORD</u>		
ALTERNATOR MODEL	<u>BCZ184E</u>	SERIAL NUMBER	<u>0255518/029</u>
CONTROL PANEL(S)	<u>NONE</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>—</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>80</u>	<u>50.5</u>	<u>400</u>	<u>18.5</u>	<u>12.8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>25.5</u>	<u>17.6</u>	<u>84</u>	<u>—</u>	<u>4.3</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP  
 AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)  
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 (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>101.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>23</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>61</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:			
ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>TERM BOX</u>

TESTED BY I. JOHNSON

DATE 27/07/2010

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

PLANT NUMBER:

B9734/3

CE:

NO

RATED OUTPUT	KVA	<u>20</u>	RATING CLASSIFICATION	<u>PDP</u>	
	KW	<u>16</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400/230</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>29</u>			(AS DEFINED BY ISO 8528-1)
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE	<u>MECHANICAL</u>	COOLING METHOD	<u>WATERCOOLED</u>		

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>G065732</u>
ENGINE MODEL	<u>404D-22G</u>	SERIAL NUMBER	<u>U988832T</u>
ALTERNATOR MAKE	<u>STAMFORD</u>		
ALTERNATOR MODEL	<u>BCZ184E</u>	SERIAL NUMBER	<u>0245516/011</u>
CONTROL PANEL(S)	<u>NONE</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>—</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>80</u>	<u>50.4</u>	<u>400</u>	<u>18.5</u>	<u>12.8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>25.5</u>	<u>17.6</u>	<u>84</u>	<u>—</u>	<u>4.5</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

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(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>101.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>22</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>64</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>TERM BOX</u>
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TESTED BY

I. JOHNSON

DATE

27/07/2010

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

PLANT NUMBER: E9734/4 CE: NO

RATED OUTPUT	KVA	<u>20</u>	RATING CLASSIFICATION	<u>PDP</u>	
	KW	<u>16</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400/230</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>29</u>			
	HZ	<u>50</u>			
RPM	<u>1500</u>				
GOVERNOR TYPE		<u>MECHANICAL</u>	COOLING METHOD	<u>WATERCOOLED</u>	

ENGINE MAKE	<u>PEDICINS</u>	BUILD NUMBER	<u>GN65732</u>
ENGINE MODEL	<u>404D-22G</u>	SERIAL NUMBER	<u>U984382T</u>
ALTERNATOR MAKE	<u>STAMFORD</u>		
ALTERNATOR MODEL	<u>BCA 184E</u>	SERIAL NUMBER	<u>0248118/008</u>
CONTROL PANEL(S)	<u>NONE</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>—</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>80</u>	<u>50.4</u>	<u>400</u>	<u>18.5</u>	<u>12.8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>25.5</u>	<u>17.6</u>	<u>84</u>	<u>—</u>	<u>4.6</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP

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>101.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>22</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>57</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:			
ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>TERM BOX</u>

TESTED BY I. JOHNSON DATE 27/07/2010

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

PLANT NUMBER: E9734/5 CE: NO

RATED OUTPUT	KVA	<u>20</u>	RATING CLASSIFICATION	<u>Prp</u>	
	KW	<u>16</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400/230</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>29</u>			
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE		<u>MECHANICAL</u>	COOLING METHOD	<u>WATERCOOLED</u>	

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>G1N65732</u>
ENGINE MODEL	<u>404D-22G</u>	SERIAL NUMBER	<u>U988823T</u>
ALTERNATOR MAKE	<u>STAMFORD</u>	SERIAL NUMBER(S)	<u>0248118/023</u>
ALTERNATOR MODEL	<u>BCA184E</u>		
CONTROL PANEL(S)	<u>NONE</u>		
SWITCHGEAR	<u>—</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>80</u>	<u>50.5</u>	<u>400</u>	<u>18.5</u>	<u>12.8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>400</u>	<u>25.5</u>	<u>17.6</u>	<u>85</u>	<u>—</u>	<u>4.6</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP  
 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>101.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>22</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>57</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:	
ENGINE	<u>08-152300</u>
CONTROL PANEL(S)	<u>TEEM BOX</u>

TESTED BY I. JOHNSON

DATE 27/07/2010