

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

PLANT NUMBER: E9814/22 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>28</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>U983937T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1095814</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.3</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.0</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>			<u>4.3</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP 75

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>100.7</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>94</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:		
ENGINE	<u>08-152300</u>	CONTROL PANEL(S) <u>10-170300</u>

TESTED BY H. Wahr

DATE 14-8-10

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

PLANT NUMBER: E9814/23 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>28</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>U990027T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1095783</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</u>	SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)								
LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP	OIL TEMP	OIL PRESS
						DEG C	DEG C	BAR
load acceptance	<u>80%</u>	<u>50.5</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.3</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.2</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP  
 AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M) 75  
 (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>100.7</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>9/4</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:	
ENGINE	<u>08-152300</u> CONTROL PANEL(S) <u>10-170300</u>

TESTED BY H-Wahr DATE 14-8-10

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: E9814/24 CE: No

RATED OUTPUT	KVA	20	RATING CLASSIFICATION	PRP	
	KW	16			
	PHASE	3			
	VOLTS	400/230		PERFORMANCE CLASS	G1
	AMPS	28			(AS DEFINED BY ISO 8528-1)
	HZ	50			
	RPM	1500			
GOVERNOR TYPE			Mechanical	COOLING METHOD	WATERCOOLED

ENGINE MAKE	Perkins	BUILD NUMBER	GN65732
ENGINE MODEL	404D-22G	SERIAL NUMBER	U988097T
ALTERNATOR MAKE	Mecc Alte	SERIAL NUMBER	0001393714
ALTERNATOR MODEL	ECO 28-1L/4	SERIAL NUMBER(S)	
CONTROL PANEL(S)	Autostart	SERIAL NUMBER(S)	
SWITCHGEAR	ATS	SERIAL NUMBER(S)	

### LOAD TEST RESULTS (AT UNITY POWER FACTOR)

LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP	OIL TEMP	OIL PRESS
						DEG C	DEG C	BAR
load acceptance	80%	50.1	415	17.9	12.8	—	—	5.1
standby/ prime+10%	110%	50.0	415	24.6	17.6	—	—	4.2

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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)	Sea Level	FUEL SPEC	BS2869A2
BAROMETRIC PRESSURE (kpa)	100-4	DENSITY	0.84 kg/l
TEMPERATURE (Deg c)	16	CALORIFIC VALUE	42.5 MJ/kg
HUMIDITY (%)	94	LUB OIL SPEC	Multigrade

### WIRING DIAGRAMS:

ENGINE	08-152300	CONTROL PANEL(S)	10-170300
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TESTED BY

H. Wahr

DATE 14-8-10

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

PLANT NUMBER:

E9814/25

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>28</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>U9880957</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>0001393768</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.3</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.6</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

75

(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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>94</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H. Wah

DATE 16-8-10

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

PLANT NUMBER: E9418/26 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>28</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>4989468T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>0001393744</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.3</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>	<u>-</u>	<u>-</u>	<u>4.4</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>93</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H. Waker

DATE

16-8-10

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

PLANT NUMBER: E9814/27 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>28</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>4986545T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1098220</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.6</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.0</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.2</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>93</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H-Wah

DATE

16-8-10

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER:

E9014/28

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>28</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>4990136T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>	SERIAL NUMBER	<u>A1098217</u>
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER(S)	
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.0</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

75

(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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>93</u>	LUB OIL SPEC	<u>Multigrade</u>

### WIRING DIAGRAMS:

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H-W

DATE

16-8-10

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

PLANT NUMBER: E9814/29 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>28</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>4988407T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1096703</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</u>	SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)								
LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP	OIL TEMP	OIL PRESS
						DEG C	DEG C	BAR
load acceptance	<u>80%</u>	<u>50.1</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.4</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>			<u>4.1</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP  
 AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M) 75  
 (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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>93</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:			
ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>

TESTED BY H-Wahr

DATE 16-8-10

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

PLANT NUMBER: E9814/30 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>28</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>G265732</u>
ENGINE MODEL	<u>404D-22G</u>	SERIAL NUMBER	<u>4982888T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-14/4</u>	SERIAL NUMBER	<u>A1096706</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.2</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.2</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.3</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>93</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H-Wah

DATE

16-8-10

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

PLANT NUMBER: E9814/31 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>28</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>U986578T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>0001393740</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.8</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.3</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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>100.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>94</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H-Koh

DATE

16-8-10

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

PLANT NUMBER: E1116/32 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>28</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>4980997T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>0001393715</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</u>	SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)								
LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP	OIL TEMP	OIL PRESS
						DEG C	DEG C	BAR
load acceptance	<u>80%</u>	<u>50.6</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.3</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>94</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H-Wah

DATE

16-8-10

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

PLANT NUMBER: E113/33 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>28</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>U9900677</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1096430</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</u>	SERIAL NUMBER(S)	

**LOAD TEST RESULTS (AT UNITY POWER FACTOR)**

LOAD TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP	OIL TEMP	OIL PRESS
						DEG C	DEG C	BAR
load acceptance	<u>80%</u>	<u>50.3</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>—</u>	<u>—</u>	
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>—</u>	

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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>100.44</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>92</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY H-Wahr

DATE 16-8-10

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

PLANT NUMBER:

E9814/34

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>28</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>U984427T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1096431</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.1</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.3</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.2</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

75

(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>100.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>94</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H-Wah

DATE 16-8-10

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

PLANT NUMBER: E9814/35 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>28</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>U984480T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1095815</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.6</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>			<u>4.1</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP  
 AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M) 75  
 (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>100.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>94</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:			
ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>

TESTED BY H-H Wale DATE 17-8-10

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

PLANT NUMBER: E9814/36 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>28</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>U989490T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1096432</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.7</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>93</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H-Wahr

DATE 17-8-10

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

PLANT NUMBER: E9814/37 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>28</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>U986678T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1095788</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.0</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.4</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>			<u>4.3</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP 75

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</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>14</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>90</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:		
ENGINE	<u>08-152300</u>	CONTROL PANEL(S) <u>10-170300</u>

TESTED BY H.W. Calko

DATE 17-8-10

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

PLANT NUMBER: E9814/38 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>28</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>G265732</u>
ENGINE MODEL	<u>404D-22G</u>	SERIAL NUMBER	<u>U988470T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1095786</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.3</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.2</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP  
75

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</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>14</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>90</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H. Wahn

DATE 17-8-10

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER:

E9814/39

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>28</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>4986577T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1095789</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.3</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.1</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

75

(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>100.1</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>14</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>91</u>	LUB OIL SPEC	<u>Multigrade</u>

### WIRING DIAGRAMS:

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H. W. ...

DATE 17-8-10

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

PLANT NUMBER: E9814/40 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>28</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>4988081T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>0001393739</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.3</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.2</u>
standby/ prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.1</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

75

(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>100.3</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>15</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>92</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

*H. H. [Signature]*

DATE 17-8-10

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

PLANT NUMBER: E9814/41 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>28</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>U988152T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1098219</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.7</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.3</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>24.6</u>	<u>17.6</u>		<u>-</u>	<u>4.2</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION IP  
 AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M) 75  
 (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>100.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>90</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY HW

DATE 17-8-10

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER:

E9814/42

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>28</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>U989168T</u>
ALTERNATOR MAKE	<u>Mecc Alte</u>		
ALTERNATOR MODEL	<u>ECO 28-1L/4</u>	SERIAL NUMBER	<u>A1096705</u>
CONTROL PANEL(S)	<u>Autostart</u>	SERIAL NUMBER(S)	
SWITCHGEAR	<u>ATS</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>50.6</u>	<u>415</u>	<u>17.9</u>	<u>12.8</u>	<u>-</u>	<u>-</u>	<u>5.3</u>
standby/prime+10%	<u>110%</u>	<u>50.0</u>	<u>415</u>	<u>26.6</u>	<u>17.6</u>	<u>-</u>	<u>-</u>	<u>4.1</u>

GENERATING SET ENCLOSURE MECHANICAL PROTECTION

IP

AVERAGE SOUND PRESSURE LEVEL (DBA AT 1 M)

75

(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>100.4</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>16</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>86</u>	LUB OIL SPEC	<u>Multigrade</u>

### WIRING DIAGRAMS:

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170300</u>
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TESTED BY

H. Walsh

DATE

17-8-10