

# Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: E 9938/11 CE: NO

RATED OUTPUT	KVA	12,5	RATING CLASSIFICATION	PRP
	KW	10		
	PHASE	3		
	VOLTS	400		
	AMPS	18		
	HZ	50		
	RPM	1500		
GOVERNOR TYPE			PERFORMANCE CLASS	61
			(AS DEFINED BY ISO 8528-1)	
			COOLING METHOD	WATERCOOLED

ENGINE MAKE	PERKINS	BUILD NUMBER	6K66045U
ENGINE MODEL	403D-15G	SERIAL NUMBER	503500U
ALTERNATOR MAKE	MECC-ALTE		
ALTERNATOR MODEL	ECO 3-2L/4	SERIAL NUMBER	0001405958
CONTROL PANEL(S)	AUTO-START	SERIAL NUMBER(S)	
SWITCHGEAR		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	80	50,8	400	14,5	8	—	—	5,1
standby/prime+10%	110%	50	400	15,8	11	84	—	4,8

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 ISO 8528-10)

AMBIENT TEST CONDITIONS		FUEL/OIL USED	
ALTITUDE (M)	Sea Level	FUEL SPEC	BS2869A2
BAROMETRIC PRESSURE (kpa)	1022	DENSITY	0.84 kg/l
TEMPERATURE (Deg c)	12	CALORIFIC VALUE	42.5 MJ/kg
HUMIDITY (%)	77	LUB OIL SPEC	Multigrade

WIRING DIAGRAMS:	
ENGINE	08-152300
CONTROL PANEL(S)	10-170800

TESTED BY L. Zerru

DATE 12, 10, 2010

# Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: E9938/12 CE: NO

RATED OUTPUT	KVA	12.5	RATING CLASSIFICATION	PRP
	KW	10		
	PHASE	3		
	VOLTS	400		
	AMPS	18		
	HZ	50		
	RPM	1500		
GOVERNOR TYPE			PERFORMANCE CLASS	G1
			(AS DEFINED BY ISO 8528-1)	
			COOLING METHOD	WATERCOOLED

ENGINE MAKE	PERKINS	BUILD NUMBER	CK660450
ENGINE MODEL	403D-15G	SERIAL NUMBER	503832U
ALTERNATOR MAKE	MECC - ALTE		
ALTERNATOR MODEL	ECO3-2L/4	SERIAL NUMBER	00014058.5.5
CONTROL PANEL(S)	AUTO-START	SERIAL NUMBER(S)	
SWITCHGEAR		SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)								
TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP DEG C	OIL TEMP DEG C	OIL PRESS BAR
load acceptance	80	50.3	400	11.5	8	—	—	5.0
standby/prime+10%	110%	50	400	15.8	11	87	—	4.4

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)	Sea Level	FUEL SPEC	BS2869A2	
BAROMETRIC PRESSURE (kpa)	1022	DENSITY	0.84 kg/l	
TEMPERATURE (Deg c)	10	CALORIFIC VALUE	42.5 MJ/kg	
HUMIDITY (%)	82	LUB OIL SPEC	Multigrade	

WIRING DIAGRAMS:	
ENGINE <span style="border: 1px solid black; padding: 2px;">08-152300</span>	CONTROL PANEL(S) <span style="border: 1px solid black; padding: 2px;">10-170800</span>

TESTED BY L. Green/Mu

DATE 13/10/2010

# Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: E3838/13 CE: 110

RATED OUTPUT	KVA	12.5	RATING CLASSIFICATION	PRP	
	KW	10			
	PHASE	3			
	VOLTS	400		PERFORMANCE CLASS	G1
	AMPS	18			(AS DEFINED BY ISO 8528-1)
	HZ	50			
	RPM	1500			
GOVERNOR TYPE			COOLING METHOD	WATERCOOLED	

ENGINE MAKE	PERKINS	BUILD NUMBER	4660450
ENGINE MODEL	40BD - 15G	SERIAL NUMBER	5038030
ALTERNATOR MAKE	MELC - ALTE	SERIAL NUMBER	0001406030
ALTERNATOR MODEL	ECO3 - 2L/4	SERIAL NUMBER(S)	
CONTROL PANEL(S)	AUTO - START	SERIAL NUMBER(S)	
SWITCHGEAR		SERIAL NUMBER(S)	

LOAD TEST RESULTS (AT UNITY POWER FACTOR)								
TYPE	LOAD %	HZ	VOLTS	AMPS	KW	ENGINE TEMP DEG C	OIL TEMP DEG C	OIL PRESS BAR
load acceptance	80	50.4	400	14.5	8	—	—	5.1
standby/prime+10%	110%	50	400	15.8	11	82	—	4.6

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)	Sea Level	FUEL SPEC	BS2869A2
BAROMETRIC PRESSURE (kpa)	1022	DENSITY	0.84 kg/l
TEMPERATURE (Deg c)	11	CALORIFIC VALUE	42.5 MJ/kg
HUMIDITY (%)	76	LUB OIL SPEC	Multigrade

WIRING DIAGRAMS:			
ENGINE	08-152300	CONTROL PANEL(S)	10-170800

TESTED BY L. Zumbala

DATE 13/10/2010

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

PLANT NUMBER: EGS 38/14 CE: NO

RATED OUTPUT	KVA	<u>12.5</u>	RATING CLASSIFICATION	<u>DRD</u>	
	KW	<u>10</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400</u>		PERFORMANCE CLASS	<u>G7</u>
	AMPS	<u>18</u>		(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>			
	RPM	<u>1500</u>	GOVERNOR TYPE		
			COOLING METHOD	<u>WATERCOOLED</u>	

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>6K66045U</u>
ENGINE MODEL	<u>403D-15G</u>	SERIAL NUMBER	<u>503793U</u>
ALTERNATOR MAKE	<u>MECC - ALTE</u>		
ALTERNATOR MODEL	<u>ECO3-2L14</u>	SERIAL NUMBER	<u>000409834</u>
CONTROL PANEL(S)	<u>AUTO-START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		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>59.4</u>	<u>400</u>	<u>11.5</u>	<u>8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>15.8</u>	<u>11</u>	<u>82</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>102.2</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>11</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>76</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152302</u>	CONTROL PANEL(S)	<u>10-176800</u>
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TESTED BY: L. Zimm DATE: 13/10/2010

# Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER:

E8938/15

CE:

NO

RATED OUTPUT	KVA	<u>12.5</u>	RATING CLASSIFICATION	<u>PRD</u>		
	KW	<u>10</u>				
	PHASE	<u>3</u>				
	VOLTS	<u>400</u>			PERFORMANCE CLASS (AS DEFINED BY ISO 8528-1)	<u>B1</u>
	AMPS	<u>18</u>				
	HZ	<u>50</u>				
	RPM	<u>1500</u>				
GOVERNOR TYPE			COOLING METHOD <u>WATERCOOLED</u>			

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>6K660450</u>
ENGINE MODEL	<u>403D-15G</u>	SERIAL NUMBER	<u>503811U</u>
ALTERNATOR MAKE	<u>MECC - ALTE</u>	SERIAL NUMBER	<u>0001406028</u>
ALTERNATOR MODEL	<u>ECO 3 - 2L/4</u>	SERIAL NUMBER(S)	
CONTROL PANEL(S)	<u>AUTO - START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		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>11.5</u>	<u>8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>15.8</u>	<u>14</u>	<u>81</u>	<u>-</u>	<u>4.6</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 ISO 8528-10)

AMBIENT TEST CONDITIONS		FUEL/OIL USED	
ALTITUDE (M)	<u>Sea Level</u>	FUEL SPEC	<u>BS2869A2</u>
BAROMETRIC PRESSURE (kpa)	<u>102.2</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>12</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>67</u>	LUB OIL SPEC	<u>Multigrade</u>

### WIRING DIAGRAMS:

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170800</u>
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TESTED BY

L. Zimm

DATE

13/10/2010

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: 28038/16 CE: NO

RATED OUTPUT	KVA	12.5	RATING CLASSIFICATION	PRP	
	KW	10			
	PHASE	3			
	VOLTS	400		PERFORMANCE CLASS	6.7
	AMPS	18			
	HZ	50			
RPM	1500				
GOVERNOR TYPE			COOLING METHOD	WATERCOOLED	

ENGINE MAKE	PERKINS	BUILD NUMBER	GK660450
ENGINE MODEL	4030-15G	SERIAL NUMBER	5038850
ALTERNATOR MAKE	MECC - ALTE	SERIAL NUMBER	9001405857
ALTERNATOR MODEL	ECO3-QL14		
CONTROL PANEL(S)	AUTO-START	SERIAL NUMBER(S)	
SWITCHGEAR		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	50.4	400	11.5	8	—	—	5.1
standby/prime+10%	110%	50	400	15.8	11	84	—	4.7

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)	Sea Level	FUEL SPEC	BS2869A2
BAROMETRIC PRESSURE (kpa)	103.2	DENSITY	0.84 kg/l
TEMPERATURE (Deg c)	12	CALORIFIC VALUE	42.5 MJ/kg
HUMIDITY (%)	67	LUB OIL SPEC	Multigrade

### WIRING DIAGRAMS:

ENGINE	08-152300	CONTROL PANEL(S)	10-170800
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TESTED BY  
*L. Zumb*

DATE  
13, 10, 2010

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

PLANT NUMBER: ESS38/17 CE: NO

RATED OUTPUT	KVA	<u>12.5</u>	RATING CLASSIFICATION	<u>PRP</u>		
	KW	<u>10</u>				
	PHASE	<u>3</u>				
	VOLTS	<u>400</u>			PERFORMANCE CLASS	<u>61</u>
	AMPS	<u>18</u>				
	HZ	<u>50</u>				
	RPM	<u>1500</u>				
GOVERNOR TYPE			COOLING METHOD <u>WATERCOOLED</u>			

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>GR660450</u>
ENGINE MODEL	<u>403D-156</u>	SERIAL NUMBER	<u>5038960</u>
ALTERNATOR MAKE	<u>MECC-ALTE</u>		
ALTERNATOR MODEL	<u>ECO3-2L/4</u>	SERIAL NUMBER	<u>0001405248</u>
CONTROL PANEL(S)	<u>AUTO-START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		SERIAL NUMBER(S)	

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

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>11.5</u>	<u>8</u>	<u>-</u>	<u>-</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>16.8</u>	<u>11</u>	<u>80</u>	<u>-</u>	<u>4.5</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>102.2</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>12</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>67</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170800</u>
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TESTED BY

R. Z...

DATE

13/10/2010

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: ESS38/18 CE: NO

RATED OUTPUT	KVA	12.5	RATING CLASSIFICATION	PRD
	KW	10		
	PHASE	3		
	VOLTS	400		
	AMPS	18		
	HZ	50		
	RPM	1500		
GOVERNOR TYPE			PERFORMANCE CLASS	61
			(AS DEFINED BY ISO 8528-1)	
			COOLING METHOD	WATERCOOLED

ENGINE MAKE	PERKINS	BUILD NUMBER	GK660450
ENGINE MODEL	403D-15G	SERIAL NUMBER	5038730
ALTERNATOR MAKE	MECC - ALTE	SERIAL NUMBER	0001406037
ALTERNATOR MODEL	ECO 3-2L/4	SERIAL NUMBER(S)	
CONTROL PANEL(S)	AUTO-START	SERIAL NUMBER(S)	
SWITCHGEAR		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	80	50.5	401	11.5	8	—	—	5.1
standby/prime+10%	110%	50	400	15.8	11	21	—	14.7

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)	Sea Level	FUEL SPEC	BS2869A2
BAROMETRIC PRESSURE (kpa)	102.7	DENSITY	0.84 kg/l
TEMPERATURE (Deg c)	12	CALORIFIC VALUE	42.5 MJ/kg
HUMIDITY (%)	67	LUB OIL SPEC	Multigrade

### WIRING DIAGRAMS:

ENGINE	08-152300	CONTROL PANEL(S)	10-170800
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TESTED BY

*L. Zumbler*

DATE

13/10/2010

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

PLANT NUMBER: E3938/19 CE: NO

RATED OUTPUT	KVA	<u>12.5</u>	RATING CLASSIFICATION	<u>PAP</u>	
	KW	<u>10</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>18</u>		(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE		COOLING METHOD	<u>WATERCOOLED</u>		

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>GK660450</u>
ENGINE MODEL	<u>403D-15G</u>	SERIAL NUMBER	<u>5034980</u>
ALTERNATOR MAKE	<u>MECC - AUTZ</u>		
ALTERNATOR MODEL	<u>2CO3-2L14</u>	SERIAL NUMBER	<u>0004406034</u>
CONTROL PANEL(S)	<u>AUTO-START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		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>14.5</u>	<u>8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>15.8</u>	<u>11</u>	<u>84</u>	<u>—</u>	<u>4.5</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>1021</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>9</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>10-170800</u>

TESTED BY L. Zambelli

DATE 14/10/2010

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

PLANT NUMBER: E9938/20 CE: NO

RATED OUTPUT	KVA	<u>12.5</u>	RATING CLASSIFICATION	<u>PRR</u>		
	KW	<u>10</u>				
	PHASE	<u>3</u>				
	VOLTS	<u>400</u>			PERFORMANCE CLASS	<u>Gd</u>
	AMPS	<u>18</u>			(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>				
	RPM	<u>1500</u>				
GOVERNOR TYPE			COOLING METHOD	<u>WATERCOOLED</u>		

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>61660450</u>
ENGINE MODEL	<u>403D-15G</u>	SERIAL NUMBER	<u>503884U</u>
ALTERNATOR MAKE	<u>MECL-ALTE</u>		
ALTERNATOR MODEL	<u>ECO 3-2L/4</u>	SERIAL NUMBER	<u>000406025</u>
CONTROL PANEL(S)	<u>AUTO-START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		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>401</u>	<u>14.5</u>	<u>8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>15.8</u>	<u>10</u>	<u>81</u>	<u>—</u>	<u>4.8</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>1022</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>10</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>84</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170800</u>
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TESTED BY

L. Tumbler

DATE

14/10/2010

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

PLANT NUMBER:

E 9938/21

CE:

NO

RATED OUTPUT	KVA	<u>12.5</u>	RATING CLASSIFICATION	<u>DRP</u>	
	KW	<u>10</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>48</u>		(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE			COOLING METHOD	<u>WATERCOOLED</u>	

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>6K660450</u>
ENGINE MODEL	<u>403D-156</u>	SERIAL NUMBER	<u>503530U</u>
ALTERNATOR MAKE	<u>MECL-ALTE</u>		
ALTERNATOR MODEL	<u>ECO 3-2L14</u>	SERIAL NUMBER	<u>0001408014</u>
CONTROL PANEL(S)	<u>AUTO-START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		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>14.5</u>	<u>8</u>	<u>—</u>	<u>—</u>	<u>5.7</u>
standby/ prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>15.8</u>	<u>11</u>	<u>80</u>	<u>—</u>	<u>4.6</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>1022</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>10</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>34</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170850</u>
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TESTED BY

L. Turnbull

DATE

14/10/2010

## Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: E9938/22 CE: 10

RATED OUTPUT	KVA	12.5	RATING CLASSIFICATION	DRD
	KW	110		
	PHASE	3		
	VOLTS	400		
	AMPS	18		
	HZ	50		
	RPM	1500	PERFORMANCE CLASS	G1
			(AS DEFINED BY ISO 8528-1)	
GOVERNOR TYPE			COOLING METHOD	WATERCOOLED

ENGINE MAKE	PERKINS	BUILD NUMBER	61600450
ENGINE MODEL	4030-156	SERIAL NUMBER	5038930
ALTERNATOR MAKE	WELL-ACITE		
ALTERNATOR MODEL	ECO 3-2L/4	SERIAL NUMBER	0001405943
CONTROL PANEL(S)	AUTO-START	SERIAL NUMBER(S)	
SWITCHGEAR		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	80	50	400	11.5	8	—	—	4.8
standby/prime+10%	110%	50	400	15.8	11	81	—	4.3

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)	Sea Level	FUEL SPEC	BS2869A2
BAROMETRIC PRESSURE (kpa)	102.7	DENSITY	0.84 kg/l
TEMPERATURE (Deg c)	11	CALORIFIC VALUE	42.5 MJ/kg
HUMIDITY (%)	58	LUB OIL SPEC	Multigrade

### WIRING DIAGRAMS:

ENGINE	08-152300	CONTROL PANEL(S)	10-170800
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TESTED BY

*L. Zumbala*

DATE

14/10/2010



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

PLANT NUMBER: EG338/24 CE: NO

RATED OUTPUT	KVA	<u>17.5</u>	RATING CLASSIFICATION	<u>PRO</u>	
	KW	<u>10</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400</u>		PERFORMANCE CLASS	<u>61</u>
	AMPS	<u>18</u>		(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE			COOLING METHOD	<u>WATERCOOLED</u>	

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>6K66 0450</u>
ENGINE MODEL	<u>403D-156</u>	SERIAL NUMBER	<u>5040770</u>
ALTERNATOR MAKE	<u>MECC-ALTE</u>		
ALTERNATOR MODEL	<u>ECO3-2L14</u>	SERIAL NUMBER	<u>1001406021</u>
CONTROL PANEL(S)	<u>AUTO-START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		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>400</u>	<u>11.5</u>	<u>8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>16.8</u>	<u>11</u>	<u>82</u>	<u>—</u>	<u>4.8</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>102.2</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>12</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>82</u>	LUB OIL SPEC	<u>Multigrade</u>

**WIRING DIAGRAMS:**

ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170800</u>
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TESTED BY

L. Zambini

DATE

14/10/2010

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

PLANT NUMBER: E9938/25 CE: NO

RATED OUTPUT	KVA	<u>12.5</u>	RATING CLASSIFICATION	<u>PRP</u>	
	KW	<u>10</u>			
	PHASE	<u>3</u>			
	VOLTS	<u>400</u>		PERFORMANCE CLASS	<u>G1</u>
	AMPS	<u>18</u>		(AS DEFINED BY ISO 8528-1)	
	HZ	<u>50</u>			
	RPM	<u>1500</u>			
GOVERNOR TYPE			COOLING METHOD	<u>WATERCOOLED</u>	

ENGINE MAKE	<u>PERKINS</u>	BUILD NUMBER	<u>6K660450</u>
ENGINE MODEL	<u>403D-15G</u>	SERIAL NUMBER	<u>5040750</u>
ALTERNATOR MAKE	<u>MECC - ALTE</u>		
ALTERNATOR MODEL	<u>ECO3-2L14</u>	SERIAL NUMBER	<u>000405832</u>
CONTROL PANEL(S)	<u>AUTO-START</u>	SERIAL NUMBER(S)	
SWITCHGEAR		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>40</u>	<u>11.5</u>	<u>8</u>	<u>—</u>	<u>—</u>	<u>5.1</u>
standby/ prime+10%	<u>110%</u>	<u>50</u>	<u>400</u>	<u>15.8</u>	<u>11</u>	<u>82</u>	<u>—</u>	<u>4.8</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>102.1</u>	DENSITY	<u>0.84 kg/l</u>
TEMPERATURE (Deg c)	<u>13</u>	CALORIFIC VALUE	<u>42.5 MJ/kg</u>
HUMIDITY (%)	<u>77</u>	LUB OIL SPEC	<u>Multigrade</u>

WIRING DIAGRAMS:			
ENGINE	<u>08-152300</u>	CONTROL PANEL(S)	<u>10-170800</u>

TESTED BY L. Zamora

DATE 14/10/2010

# Generating Set Functional Test Report

In accordance with ISO 8528 - 6 2005

PLANT NUMBER: E9838/6 CE: NO

RATED OUTPUT	KVA	12.5	RATING CLASSIFICATION	PRP
	KW	10		
	PHASE	3		
	VOLTS	400		
	AMPS	18		
	HZ	50		
	RPM	1500	PERFORMANCE CLASS (AS DEFINED BY ISO 8528-1)	61
GOVERNOR TYPE				

ENGINE MAKE	PERKINS	BUILD NUMBER	6K660450
ENGINE MODEL	403D-156	SERIAL NUMBER	503517U
ALTERNATOR MAKE	MECC-ALTE	SERIAL NUMBER	0004406020
ALTERNATOR MODEL	ECO3-2L/4	SERIAL NUMBER(S)	
CONTROL PANEL(S)	AUTO-START	SERIAL NUMBER(S)	
SWITCHGEAR		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	504	400	14.5	8	—	—	5.1
standby/	110%	50	400	15.8	14	81	—	4.5
prime+10%								

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)	Sea Level	FUEL SPEC	BS2869A2	
BAROMETRIC PRESSURE (kpa)	1013	DENSITY	0.84 kg/l	
TEMPERATURE (Deg c)	10	CALORIFIC VALUE	42.5 MJ/kg	
HUMIDITY (%)	34	LUB OIL SPEC	Multigrade	

### WIRING DIAGRAMS:

ENGINE	08-152300	CONTROL PANEL(S)	10-170800
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TESTED BY

*L. Zewski*

DATE

15/10/2010