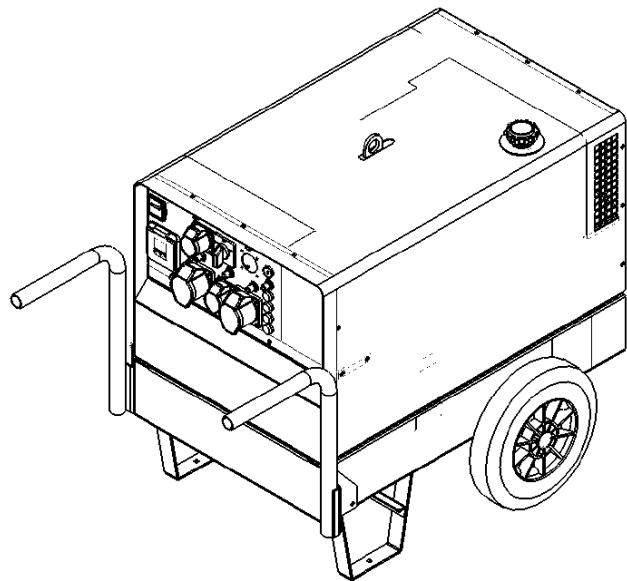
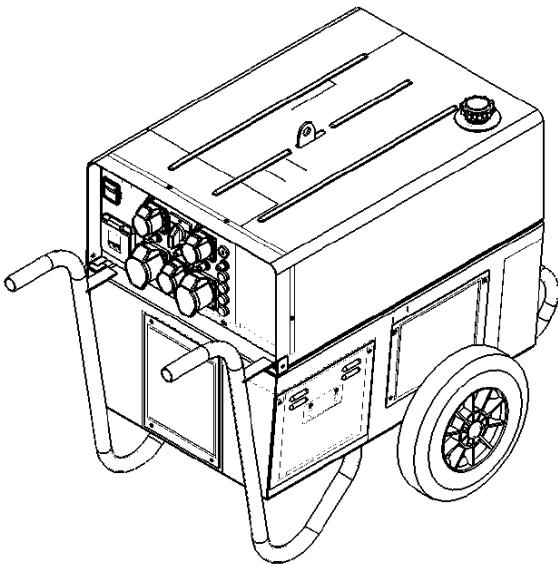




## **SE6000D4 - SSD6000 - SSD6000S** **Handbook**



**DO NOT OPERATE THE GENERATOR BEFORE READING THIS MANUAL AND ENGINE MANUFACTURER'S OWNER'S MANUAL AND WARNINGS.**

**THIS STEPHILL GENERATOR HAS BEEN DESIGNED TO PROVIDE SAFE AND EFFICIENT SERVICE IF OPERATED AND MAINTAINED CORRECTLY.**

**MANY ACCIDENTS OCCUR THROUGH FAILURE TO ADHERE TO FUNDAMENTAL SAFETY PROCEDURES.**

**Stephill Generators Ltd  
Wallis close  
Park Farm South  
Wellingborough  
Northants  
NN8 6AG**

**Tel : +44 (0)1933 677911  
Fax : +44 (0)1933 677916  
E-mail : [info@stephill-generators.co.uk](mailto:info@stephill-generators.co.uk)  
Web : [www.stephill-generators.co.uk](http://www.stephill-generators.co.uk)**

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## 1 Specification

	SE6000D4	SSD6000	SSD6000S
kVA	6.0	6.0	6.0
kW	4.8	4.8	4.8
LWA	96	91	84
dBA@7M	71	66	59
Engine	Yanmar L100	Yanmar L100	Yanmar L100
Alternator	NSM M100 SG	NSM M100 SG	NSM M100 SG
Voltage	230v &115v CTE	230v &115v CTE	230v &115v CTE
Weight	174Kg	196Kg	230Kg
Length	1220mm	1290mm	1290mm
Width	710mm	785mm	785mm
Height	910mm	890mm	970mm
Fuel	24L	24L	24L
Hours run 100% load	13	13	13
Hours run 75% load	17	17	17

## 2 General Safety

### 2.1 Warning signs

Warnings shown on the machine should be observed at all times. The warning signs should be checked for legibility and any that have become damaged should be replaced. The following are shown on the generator:

## **WARNING**

### **BEFORE STARTING.**

- **READ HANDBOOK AND SAFETY ADVICE**
- **CHECK OIL LEVEL**
- **DO NOT ADJUST ENGINE SPEED WITHOUT SUITABLE TEST EQUIPMENT**



**RISK OF ELECTRIC SHOCK  
ALWAYS TURN OFF GENERATOR  
BEFORE OPENING. KEEP  
CLOSED AT ALL OTHER TIMES**



**CAUTION  
HOT EXHAUST**

### 2.2 Safety hazards

Do not climb on the generator, as dents may cause overheating of the acoustic lining. It is important to keep the generator clean and well serviced, in particular keep all air vents / louvers clear of debris to prevent poor performance or possible overheating and permanent damage to the generator.

Keep well clear of moving parts on the generator at all times.

Children and pets must be kept clear of the operating area.

## 3 Potential Hazards



### 3.1 Auxiliary power

The electricity produced by an engine driven Generator is very similar to mains electricity and should be treated accordingly.

Do not remove covers and attempt to work on the Generator while the engine is running. Check the rating and electrical safety of the load before connecting the Generator.

Equipment should never be connected that in total exceeds the specified rating of the Generator.

Installation of the generator as a standby or secondary power source should only be undertaken by a fully qualified electrician using the appropriate means of isolation from the mains supply. Installation must comply with all applicable laws and electrical codes.

### **3.2 Operating Environment**

The Generator should always be operated on level ground.

### **3.3 Temperature Range**

A temperature range between -10°C and +40°C are the normal limits of operation. Operating outside the range will require additional modifications.

### **3.4 Reference Relative Humidity**

The standard reference condition for relative humidity is 30%. Above this value the rated power must be reduced.

### **3.5 Reference Barometric Pressure**

The standard reference condition for total barometric pressure is 1 bar. This corresponds to an altitude of approximately 100m. Above 100m the rated power must be reduced.

### **3.6 Flammable Environment**

Stephill Generators must not be used in a flammable environment.

### **3.7 Saline Environment**

Operation of the machine in a saline environment will require additional corrosion protection.

## **4 Safety Considerations**



### **4.1 General**

All Stephill Generators comply with all the current EEC directives including:

2006/42/EC Machinery Directive

2000/14/EC Noise Emission in the Environment by Equipment for use Outdoors

2004/108/EC EMC Directive

2006/95/EC Low Voltage Directive

### **4.2 Fuel**

Fuels and lubricants are a potential source of fire. Lubricants in particular used engine oil, are potentially carcinogenic. Direct contact should always be avoided by wearing suitable rubber gloves when handling them. Be careful not to spill fuel, clean up any spillages. Inhalation or swallowing of Diesel should be avoided. If in doubt seek medical advice. All other forms of contact are irritant and therefore should also be avoided. If skin contact is made wash with soap and water.

### **4.3 Lubricating Oil**

New oil presents no hazard following short term exposure.

Used oil should not be allowed to contact the skin. If this does occur, wash off quickly with a proprietary hand cleanser.

### **4.4 Safe Lifting**

Where mechanical assistance is used in lifting machines, ensure the lifting eye is used, and that all components used to lift the machine are within their Safe Working Load (SWL).

The integral lifting beam and associated lifting eye on the generator should be regularly checked for signs of damage or gross corrosion.

All Nuts and Bolts associated with the lifting beam should be regularly checked for tightness and corrosion.

Lifting equipment should not be attached directly to the Engine/Alternator except for lifting of Engine/Alternator only.

#### **4.5 Earth connection**

All Stephill products are fitted with an earth stud on the control panel this must be connected to an earthing system or spike. Any earth spike required is dependant on the local conditions of use. The size is determined by reference to current IEE regulations or to a competent electrician.

#### **4.6 Fumes**

Make sure that the Generator is at least 2 metres away from any building during operation. Operate in a well ventilated unconfined area, so that fumes can be properly dispersed.

Silencer outlet should be facing an open area to prevent fumes being recirculated. There is the danger of asphyxiation due to exhaust gases. Inhalation of poisonous exhaust fumes can lead to serious injury or death. The generator must not be used in a poorly ventilated or enclosed area.

#### **4.7 Noise**

Ear protection may be required depending on the combined noise level of the Generator, auxiliary load and the operator's distance from it and the length of exposure. (Noise at Work Regulations 1989)

#### **4.8 Battery Acid**

This is corrosive and irritant by all forms of exposure. Direct contact should always be avoided by wearing suitable rubber gloves, some form of eye protection should also be used. If skin contact is made wash with clean water.

#### **4.9 Fire**

Ensure that suitable fire extinguishers (AFFF or CO<sub>2</sub>) are kept within proximity to the generator. Do not cover, enclose, or obstruct the airflow to the generator during or shortly after use, due to fire hazard or damage to the generator from overheating. Allow the generator to cool after use before storing away. Keep all inflammable objects clear of the Generator.

#### **4.10 Hot parts**

There is the danger of burns as parts of the generator will become very hot during use. No part of the engine, alternator or exhaust must be touched during or shortly after operation. Do not operate the generator unless all guards are in place. There is a risk of burns or serious personal injury.

### **5 Operating instructions**

#### **5.1 Pre-start checks**

Before starting the generator please read the Yanmar engine owners manual.

Check Fuel & Oil level before attempting to start.

The generator is equipped with a low fuel level switch which will shutdown the engine and prevent it from starting, if the fuel level is low.

The engine is equipped with an oil and temperature switch and will shutdown for low oil pressure and high engine temperature.

#### **5.2 Warning**

Do not operate the changeover switch with load connected.

Always switch load off before disconnecting plugs.

To switch power off at the Generator always use the circuit breaker.

#### **5.3 Fuel system bleeding procedure SE6000D4**

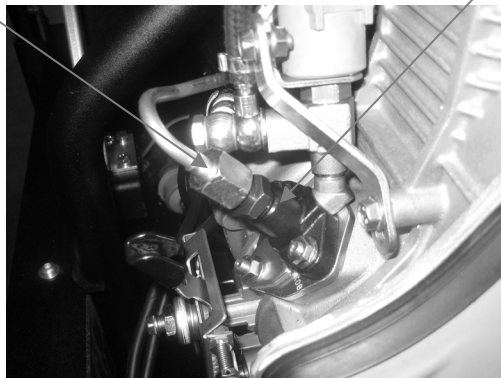
Before attempting to bleed the fuel system on the SE6000D4, ensure the key switch is in the off position, the tank has a minimum of 10 litres of fuel and the lid is open.

1. Loosen the Brass injector pipe fitting (17mm nut) on the fuel pump, move to one side, leaving the delivery valve holder (black male fitting) on the fuel pump exposed.
2. Loosen the Delivery valve holder (17mm nut) but only by 2 complete turns.
3. Turn the starter key to the on position, (do not start the generator). The battery and low oil pressure warning lamps should be illuminated.
4. Then slowly turn the starter key to the spring position until the battery warning lamp goes out. You should also hear the fuel solenoid click to indicate it is open. Hold the

key in this position until all the air has escaped from the delivery valve holder fitting on the fuel pump and diesel starts to trickle out, then turn the starter key back to the off position.

5. Then tighten the Delivery valve holder and the Brass injector pipe. Now the fuel system has been bled and the generator should start.
6. If the engine still will not start repeat steps 1-5 but turn key to start position and diesel should squirt out of delivery valve holder. Once this has been achieved go to step 6.

Injector pipe fitting



Delivery valve holder

#### 5.4 Fuel system bleeding procedure SSD6000/S

A self-bleeding system is fitted to these generators; the engine should not need bleeding unless maintenance has been carried out.

Before attempting to bleed the fuel system on the SSD6000/S ensure the tank has at least 10 litres of fuel.

1. Turn the starter key to the first position, do not start the generator. The battery and low oil pressure warning lamps should be illuminated.
2. Then slowly turn the starter key to the spring position until the battery warning lamp goes out. You should also hear the fuel solenoid click to indicate it is open; the fuel lift pump will also be operational. Hold the key in this position for around 1 minute, turn the starter key back to the off position.

Now the fuel system has been bled and the generator should start.

**Note:** If a Deepsea 3110 control module is fitted to the generator you have a fuel pump prime button to bleed the system with.

#### 5.5 Control panel

Before connecting plugs into the generator ensure the load is turned off. If this is not possible turn the circuit breaker to the off position.

The 230v Supply is Neutral bonded to earth.

The 115v Supply is CTE. (Centre Tapped to Earth)

Turn the voltage selector switch to the required voltage.

Connect the plug/plugs into the generator.

Switch on the load / Circuit breaker.

Always turn load off before stopping generator.

#### 5.6 Long term storage

For storage or long periods of inactivity, Stephill Generators recommend the following: Generators should be stored with oil filled to the correct capacity; Storage periods of 18 months and over may require special lubricants and treatments. If so please seek further advice from the engine manufacturer.

Before the generator is used after long term storage, all fuels and oils should be replaced. Generator mounts, pipes and hoses should be checked to ensure that they are unperished following extended periods of storage.

The generator should be stored in a clean dry area, ideally having a reasonable constant ambient temperature, and ideally not below freezing.

## **6 KEY START OPERATING INSTRUCTIONS**

Before attempting to start the generator ensure the engine has the appropriate amount of lubricating oil and the fuel tank has at least 10 litres of diesel.

Turn the key to the first position, the oil and battery lamps should be illuminated.

Turn the key to crank position until engine fires, oil and battery lamps should now have been extinguished.

Return key to run position and the generator should now be running.

To stop, turn the key to stop position.

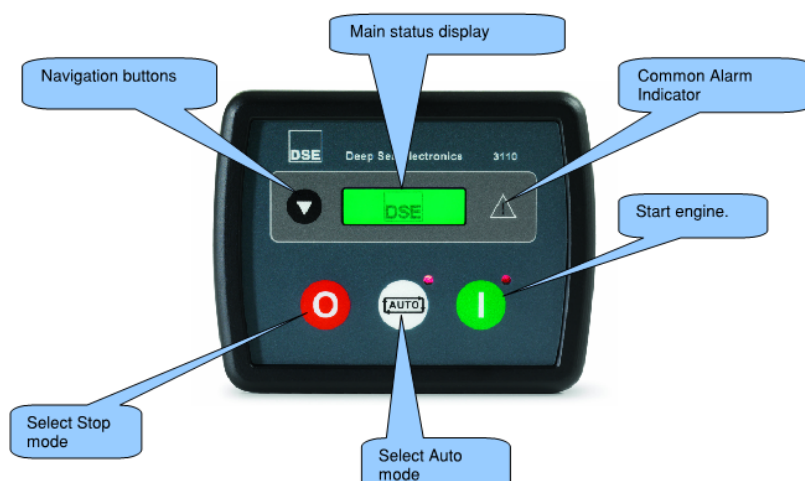
### **6.1 Fault finding key start**

Before diagnosing a possible fault ensure all the bulbs in the fault lamps are working. The easiest way to check is to swap the lamp heads containing the bulb into a holder you know works eg. the battery or oil lamp. A blown bulb will not show you a possible fault!

Fault	Possible cause	Check
Starter motor not engaging & not starting	Battery  Reset button Faulty wiring  Faulty starter motor	Check battery voltage, should be about 12.5V. Check electrolyte level in battery. Check DC reset button on control panel. Check for loose wires on starter motor. Check continuity from key switch to reset button. Check continuity from key switch to starter motor. Check / Change starter motor.
Starter motor engaging & not starting	Faulty lamps/lamp holder Run-Stop lever in wrong position Fuel lamp illuminated Full of fuel still won't run  Temperature lamp lit Fuel Solenoid	Check bulbs and lamp holders. Move to Run position.  See fuel lamp fault. Check machine has not run out of fuel and introduced air into system (bleed). See temperature lamp fault. Check 12v supply to solenoid. Check solenoid is operating. Check connections on key switch.
Battery charge lamp illuminated when running	Fuse blown Wiring Regulator	Fuse holder situated next to regulator Check regulator and harness connections. Check continuity (earth connection) from regulator to body of engine. Check AC voltage on green/white wires from engine voltage should be 38V. Check key switch connections. Replace regulator.
Oil lamp stays illuminated during start procedure	Low oil  Oil pressure switch  Oil pressure relay	Check oil level is at max on dip stick. Check for signs of oil leak. Check oil pressure switch normally closed when engine is at rest and open when engine running. Replace Oil pressure switch. Check relay for loose wires. Check operation of relay.
Temperature lamp stays illuminated during start procedure	Temperature switch  Temperature switch relay	Check operation of temperature switch normally closed opens with fault. Check relay for loose wires. Check operation of relay.
Fuel lamp stays illuminated during start procedure	Low fuel Faulty level switch  Fuel level relay	Check fuel level is at 1/3 a tank minimum. Check level switch operation normally closed with low fuel, opens when fuel level ok. Check connections on level switch. Check relay for loose wires. Check operation of relay.


## 7 DEEP SEA 3110 OPERATING INSTRUCTIONS


### 7.1 Description of controls



### 7.2 Starting the engine

To begin the starting sequence, press the  button.

The  icon is displayed to indicate Manual mode and the manual LED flashes.

The  button must be pressed once more to begin the start sequence.

### 7.3 Starting sequence

If a start request is present, the fuel relay is energised and the engine will be cranked. If the engine fails to fire during this cranking attempt then the starter motor is disengaged for the *crank rest* duration after which the next start attempt is made. Should this sequence continue beyond 3 attempts, the start sequence will be terminated and the display shows **Fail to Start**.

When the engine fires, the starter motor is disengaged. Speed detection is factory configured to be derived from the main alternator output frequency.

After the starter motor has disengaged, the *Safety On* timer activates (10 Sec), allowing Oil Pressure, High Engine Temperature, Under-speed, Charge Fail and any delayed Auxiliary fault inputs to stabilise without triggering the fault.


### 7.4 Engine running


Once the engine is running and all starting timers have expired, the animated icon is displayed.

If all start requests are removed, the *stopping sequence* will begin.

### 7.5 Stopping the engine

In manual mode the set will continue to run until either:

The *stop button*  is pressed – The set will immediately stop

The *auto button*  is pressed. The set will observe all auto mode start requests and stopping timers before beginning the *Auto mode stopping sequence*.

### 7.6 Automatic operation

Activate auto mode by pressing the  pushbutton. The  icon is displayed to indicate Auto Mode operation if no alarms are present.

Auto mode will allow the generator to operate fully automatically, starting and stopping as required with no user intervention.

### 7.7 Waiting in auto mode


If a starting request is made, the starting sequence will begin.

Starting requests can be from the following sources:

Activation of an auxiliary input that has been configured to *remote start*.



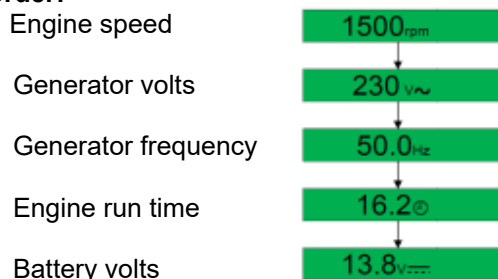
## 7.8 Viewing the instruments

It is possible to scroll to display the different pages of information by repeatedly operating the scroll button 
















Once selected the page will remain on the LCD display until the user selects a different page or after an extended period of inactivity, the module will revert to the status display. When scrolling manually, the display will automatically return to the Status page if no buttons are pressed for the duration of the configurable *LCD Page Timer*.



If an alarm becomes active while viewing the status page, the display shows the Alarms page to draw the operator's attention to the alarm condition.

### Page order:-




## 7.9 Fault icons

	<b>AUXILIARY INPUTS</b>	Auxiliary inputs can be user configured and will display the message as written by the user.
	<b>FAIL TO START</b>	The engine has not fired after the pre-set number of start attempts.
	<b>FAIL TO STOP</b>	The module has detected a condition that indicates that the engine is running when it has been instructed to stop. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"><b>NOTE:-</b> 'Fail to Stop' could indicate a faulty oil pressure sensor - If engine is at rest check oil sensor wiring and configuration.</div>
	<b>LOW OIL PRESSURE</b>	The module detects that the engine oil pressure has fallen below the low oil pressure pre-alarm setting level after the <i>Safety On</i> timer has expired.
	<b>ENGINE HIGH TEMPERATURE</b>	The module detects that the engine temperature has exceeded the high engine temperature pre-alarm setting level after the <i>Safety On</i> timer has expired.
	<b>UNDERSPEED</b>	The engine speed has fallen below the underspeed pre alarm setting.
	<b>OVERSPEED</b>	The engine speed has risen above the overspeed pre alarm setting.
	<b>CHARGE FAILURE</b>	The auxiliary charge alternator voltage is low as measured from the W/L terminal.
	<b>LOW FUEL LEVEL</b>	The level detected by the fuel level sensor is below the low fuel level setting. (Optional)
	<b>BATTERY UNDER VOLTAGE / BATTERY OVER VOLTAGE</b>	The DC supply has fallen below or risen above the low/high volts setting level.
	<b>GENERATOR UNDER VOLTAGE</b>	The generator output voltage has fallen below the pre-set pre-alarm setting after the <i>Safety On</i> timer has expired.
	<b>GENERATOR OVER VOLTAGE</b>	The generator output voltage has risen above the pre-set pre-alarm setting.
	<b>GENERATOR UNDER FREQUENCY</b>	The generator output frequency has fallen below the pre-set pre-alarm setting after the <i>Safety On</i> timer has expired.
	<b>GENERATOR OVER FREQUENCY</b>	The generator output frequency has risen above the pre-set pre-alarm setting.
	<b>EMERGENCY STOP</b>	The emergency stop button has been depressed. This is a failsafe (normally closed to battery positive) input and will immediately stop the set should the signal be removed. Removal of the battery positive supply from the emergency stop input will also remove DC supply

		from the Fuel and Start outputs of the controller.
		 <b>NOTE:-</b> The Emergency Stop Positive signal must be present otherwise the unit will shutdown.
	<b>INTERNAL MEMORY ERROR</b>	The configuration file is corrupted. Contact your supplier for assistance.

### 7.10 Fault finding 3110

Unit is inoperative Read/Write configuration does not operate	<p>Check the DC supply.</p> <p>Check reset button not tripped and reset if required.</p> <p>Check 12V DC supply to module. If supply present but not operational try new unit.</p> <p>Check for loose wires on the DC connector plug and socket.</p> <p>Check continuity on +VE and -VE wires to battery.</p>
Unit shuts down	<p>Check DC supply voltage is not above 16 Volts or below 9 Volts</p> <p>Check the operating temperature is not above 70°C.</p> <p>Check the DC fuse.</p>
Unit locks out on Emergency Stop	<p>Check emergency stop switch is functioning correctly.</p> <p>Check wiring is not open circuit.</p>
Low oil Pressure fault operates after engine has fired	<p>Check engine oil pressure.</p> <p>Check oil pressure switch and wiring, switch is normally closed and opens with pressure.</p> <p>Check Oil level and fill to correct level if necessary</p> <p>Check for loose wires on the Oil switch &amp; DC loom connector block.</p> <p>Check the continuity of the earth wire. (Refer to wiring diagram)</p> <p>Check operation of Oil switch.</p>
High engine temperature fault operates after engine has fired.	<p>Check engine temperature.</p> <p>Check switch/sensor and wiring.</p> <p>Check switch polarity is correct Normally closed.</p> <p>Check for loose wires on the temperature switch &amp; DC loom connector block.</p> <p>Check the continuity of the earth wire. (Refer to wiring diagram)</p> <p>Check operation of the temperature switch.</p> <p>Check that the generator air inlets and outlets are not obstructed.</p>
Shutdown fault operates	<p>Check relevant switch and wiring of fault indicated on LCD display.</p> <p>Check configuration of input.</p>
HZ / Frequency shutdown & Voltage shutdown	<p>Check reset button not tripped and reset if required.</p> <p>Check AC Input at module. 115V or 230V (Dependant on type of generator)</p> <p>Check engine speed is set to 52.5Hz at no load. Adjust if required (Speed should be set when engine is cold)</p> <p>Check AC supply from alternator. (If no output refer to alternator handbook)</p> <p>Check fuse on AVR. (If fitted)</p> <p>Check engine has been regularly serviced.</p>
Warning fault operates	<p>Check relevant switch and wiring of fault indicated on LCD display.</p> <p>Check configuration of input.</p>
Fail to Start is activated after pre-set number of attempts to start	<p>Check wiring of fuel solenoid.</p> <p>Check fuel lift pump operational &amp; fuel supply to engine.</p> <p>Check battery supply.</p> <p>Check battery supply is present on the Fuel output of the module.</p> <p>Check battery voltage is above 12.5V.</p> <p>Check Oil level and fill to correct level if necessary.</p> <p>Check fuel level.</p> <p>Check operation of fuel lift pump.</p> <p>Check fuel is reaching the injectors. When running correctly fuel should be running freely from the injector return pipe. If no fuel running from return check the fuel filters &amp; check condition of fuel.</p> <p>Check no air in system. Keep fuel pump running using prime button for 20-30 seconds.</p>
Starter Motor not operating	<p>Check Emergency stop.</p> <p>Check the fuses.</p> <p>Check battery voltage is above 12.5V.</p> <p>Check for loose wires on the solenoid, relays, fuses, module terminals, plug</p>

	<p>and socket.  Check +VE supply from battery to starter motor.  Check -VE supply.  Check start terminal on Starter motor &amp; trace back to battery via relay.  Check start terminal on Starter motor &amp; trace back to module via relay, plug &amp; socket.  Ensure oil pressure switch or sensor is indicating the “low oil pressure” state to the 3110 controller.</p>
Fuel solenoid not operating	<p>Does the Fuel solenoid energise when the starter motor turns over.  Check Emergency stop.  Check the re-sets.  Check battery voltage is above 12.5V.  Check for loose wires on the solenoid, relays, fuses, module terminals, plug and socket.  Check -VE supply.  Check +VE on Fuel solenoid &amp; trace back to battery via relay.  Check +VE on Fuel solenoid &amp; trace back to module via relay, plug &amp; socket.</p>
Continuous starting of generator when in <b>AUTO</b>	<p>Check that there is no signal present on the “Remote Start” input.  Check configured polarity is correct.</p>
Generator fails to start on receipt of Remote Start signal.	<p>Check Start Delay timer has timed out. (Not configured on standard builds)  Check signal is on “Remote Start” input.  Confirm correct configuration of input is configured to be used as “Remote Start”.  Check that the oil pressure switch or sensor is indicating low oil pressure to the controller. The set will not start if oil pressure is not low.</p>
Battery not charging	<p>Check for loose wires on charge alternator.  Check for loose wires on the DC connector plug and socket.  Check fuse. Fuse holder situated next to regulator in control panel.  Check continuity of all wires from charge regulator. (Refer to wiring diagram)  Check voltage at the battery while generator is running, voltage should be 13.4V - 14.4V.  Check AC voltage on green/white wires from engine voltage should be 38V.  Replace regulator.</p>
Low fuel level	<p>Check fuel level is at 1/3 a tank minimum.  Check level switch operation normally closed with low fuel, opens when fuel level ok.  Check connections on level switch.</p>
Engine runs but generator will not take load	<p>Check MCB is switched on.  Check change over switch if fitted is switched to correct voltage.</p>
Fail to stop alarm when engine is at rest	<p>Check low oil pressure switch is operating correctly.  Check engine is operating correctly.</p>
Module appears to ‘revert’ to an earlier configuration	<p>When editing a configuration using the PC software it is vital that the configuration is first ‘read’ from the controller before editing it. This edited configuration must then be “written” back to the controller for the changes to take effect.  When editing a configuration using the Front Panel Editor, be sure to press the  Save button to save the change before moving to another item or exiting the Front Panel Editor.</p>
Inaccurate generator measurements on controller display	<p>The 3110 controller is true RMS measuring so gives more accurate display when compared with an ‘average’ meter such as an analogue panel meter or some lower specified digital multimeters. Accuracy of the controller is better than 1% of full scale. Ie Gen volts full scale is 333V ph-n so accuracy is <math>\pm 3.33V</math> (1% of 333V).</p>

**▲ NOTE:- The above fault finding is provided as a guide check-list only.** For further information <http://www.deepseapl.com/>

## **8 SERVICE AND MAINTAINENCE**

### **IMPORTANT WARNING:**

After any service on the generator, ensure that all piping and electrical cables are correctly routed and secured away from hot parts. Failure to observe this warning may result in damage to the piping and cables which could result in a fire.

Do not service or work on generator whilst the engine is running. Always disconnect battery prior to working on engine or alternator.

### **8.1 Engine service**

Service the engine strictly in accordance with the instructions given in the relevant operator manual / handbook. An approved specialist must carry out any maintenance. Any spare parts required should be of genuine manufacturer's origin. Note: failure to adhere to manufacturer's recommended service schedules may invalidate the warranty. Please consult engine operator's manual for full service intervals.

### **8.2 Alternator service**

Brushless alternators employed on Stephill Generators are maintenance free. Service must be carried out by competent qualified personnel strictly in accordance with the instructions given in the handbook. Any spare parts required should be of genuine manufacturer's origin.

## **9 Alternator spares**

Part No	Alternator	Description
028-0026	NSM	Diode
037-0019	NSM	Capacitor - 35µf

## **10 Yanmar consumable spares**

Part No	Description
029-0007	Air filter
029-0032	Oil filter

## **11 Spares (general)**

Part No	Description	Qty
028-0036	Alternator NSM	1
029-0022	Engine L100	1
029-0049	L100 Exhaust gasket	1
039-0015	Engine wiring loom	1
027-0013	Engine mount	2
027-0014	Alternator mount	2
027-0022	Wheel	2
027-0023	Wheel cap	2
022-1012	Filler cap	1
022-1003	50mm Fuel tank gasket	1
022-1004	Temperature switch	1
020-0128	Temperature switch plate	1
022-1015	Low fuel switch	1
022-1001	Neoprene door seal	3M
022-1017	Toggle latch strike	2
022-1018	Toggle latch	2
022-1002	Stay	1
022-1	Gas strut	1
022-1007	Wing head stud	6
022-1008	Retainer washer (wing head stud)	6
022-1009	Snap in housing (wing head stud)	6
022-1010	Wear washer (wing head stud)	6
018-0054	50mm Grommet	2
022-1021	50mm Air hose	0.5M

Part No	Description	Qty
055-0006	Hours run meter	1
036-0039	MCB Cover	1
036-0009	Circuit breaker 20Amp 2pole	1
036-0049	Re-set button 16Amp	3
036-0052	Re-set button 30Amp	2
036-0056	Re-set button Dust cover	6
036-0050	Re-set button 20Amp	1
044-0001	Socket 115V 16Amp	2
044-0002	Socket 230V 16Amp	1
044-0003	Socket 115V 32Amp	1
044-0004	Socket 230V 32Amp	1
043-0021	Voltage selector switch	1
045-0012	Battery warning lamp	1
045-0013	Low fuel warning lamp	1
045-0016	Low oil warning lamp	1
045-0014	High engine temperature warning lamp	1
045-0001	Key switch	1
045-0017	Bulb	4
054-0009	Battery 12N24-3	1
056-0001	Relay-5pin 12V DC	3
022-0596	Fan adaptor	1
022-0614	Fan cowl	1
022-1035	Fan	1
022-1036	Fan locking ring	1

#### **12 SE6000D4**

Part No	Description	Qty
022-0536	SE6000D Silencer bracket	1
022-0563	SE6000D4 Silencer	1
022-0501	SE6000D4 Tail pipe	1
014-1004	Flush pull (Roof hand hold)	1
022-2002	SE6000D4 Control panel (wired)	1
022-0552	SE6000D4 Control panel (blank)	1
022-0562	SE6000D4 Fuel tank	1
048-0013	SE6000D4 Fuel filter	1

#### **13 SSD6000**

Part No	Description	Qty
022-0565	SSD6000 Manifold pipe	1
022-0566	SSD6000 Silencer	1
022-0569	SSD6000 Down pipe	1
022-0567	SSD6000 Tail pipe	1
022-0579	SSD6000 Fuel tank	1
022-1011	6mm Tee piece	2
022-2010	SSD6000 Control panel (wired)	1
022-0606	SSD6000 Control panel (blank)	1
022-1037	Facet fuel lift pump	1
045-0061	Deep Sea 3110 Module	1
045-0062	Deep Sea 3110 Gasket	1
048-0004	Fuel filter inline	1
022-1033	Flush pull (Roof hand hold)	1

#### **14 SSD6000S**

Part No	Description	Qty
022-0565	SSD6000S Manifold pipe	1
022-0566	SSD6000S Silencer	1
022-0580	SSD6000S Secondary Silencer	1
022-0569	SSD6000 Down pipe	1

Part No	Description	Qty
022-0579	SSD6000 Fuel tank	1
022-2010	SSD6000 Control panel (wired)	1
022-0606	SSD6000 Control panel (blank)	1
022-1037	Facet fuel lift pump	1
045-0061	Deep Sea 3110 Module	1
045-0062	Deep Sea 3110 Gasket	1
048-0004	Fuel filter inline	1
022-1033	Flush pull (Roof hand hold)	1

## **15 WARRANTY**

This generator supplied by STEPHILL GENERATORS LTD carries a warranty of 12 months from date of despatch or 2000 Hours.

During the warranty period, should the plant fail due to faulty design, materials or workmanship by STEPHILL GENERATORS LTD or its sub-contractors, we undertake to rectify the fault.

STEPHILL GENERATORS LTD will accept no responsibility whatsoever for equipment that has failed due to;

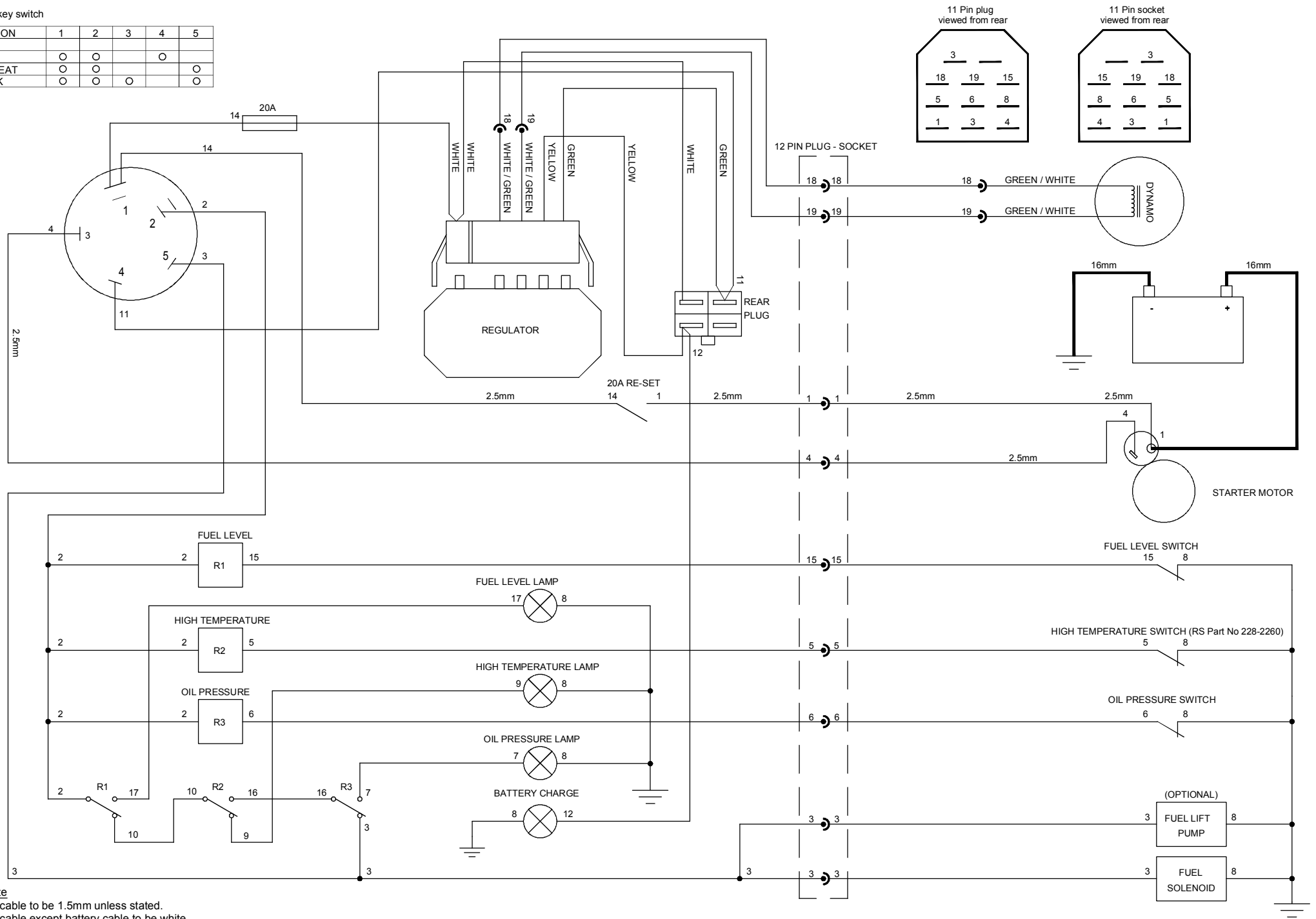
- Operation with incorrect fuel, lubricating oil.
- Improper repair or use of parts not supplied by STEPHILL GENERATORS LTD.
- Lack of, or incorrect maintenance.
- Fair wear and tear, misuse, negligence, accidental damage, improper storage, incorrect starting / warm-up / run-in or shutdown.

No warranty claim will be considered by STEPHILL GENERATORS LTD unless any defective parts are available for inspection by us, or our nominees, to determine the reason or cause of failure, and STEPHILL GENERATORS LTD is given the option of repair or replacement.

STEPHILL GENERATORS LTD are not responsible for incidental or consequential damages, downtime, or other costs due to warrantable failure, and unauthorised alterations made to any product supplied by STEPHILL GENERATORS LTD.

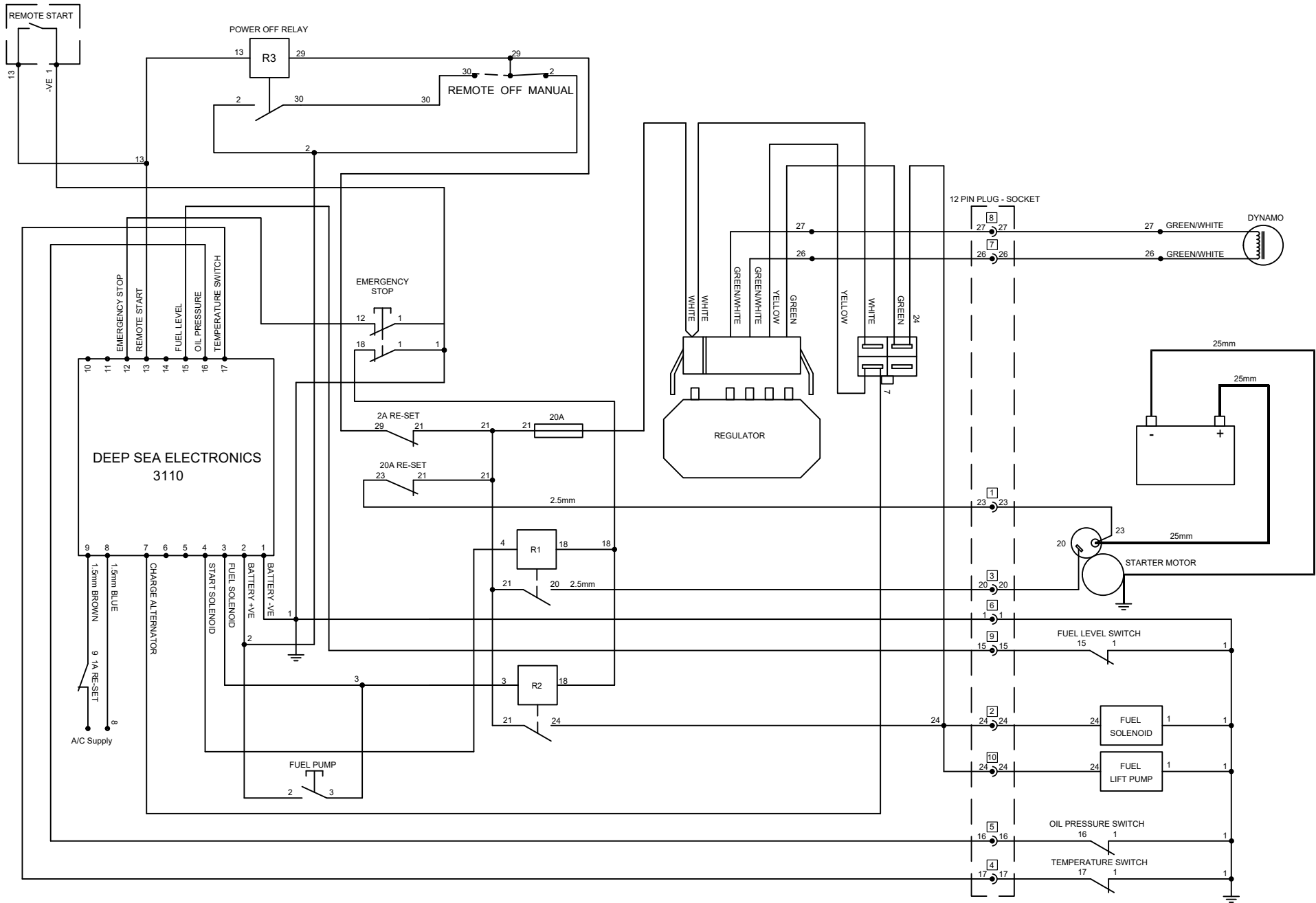
Lucas key switch

POSITION	1	2	3	4	5
OFF					
RUN	○	○		○	
PRE HEAT	○	○			○
CRANK	○	○	○		○




Note  
 All cable to be 1.5mm unless stated.  
 All cable except battery cable to be white.

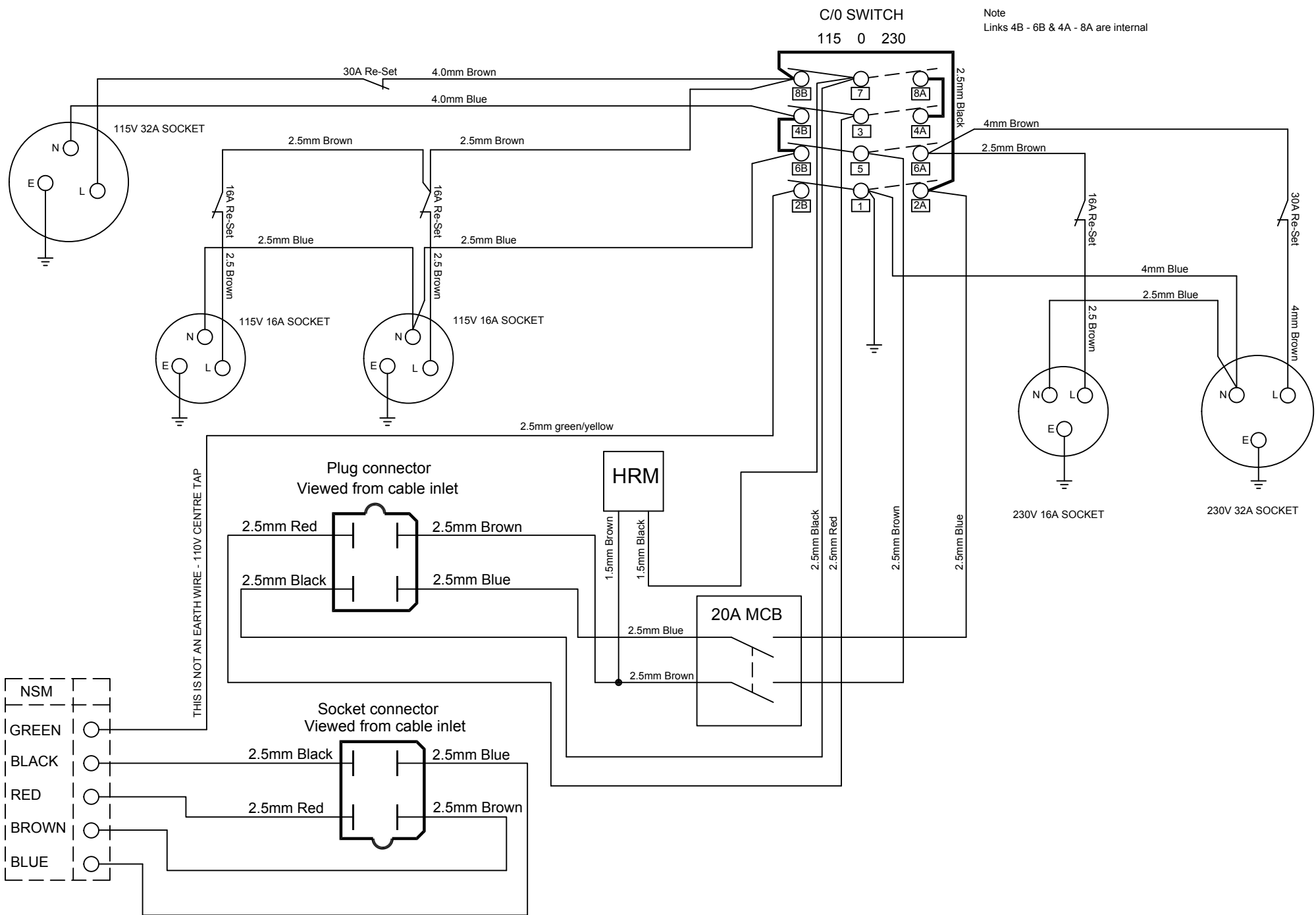
	Drawing Number SW11016	Description L100 WIRING ELECTRIC START LOP/HET/CHARGE FAIL 15A FLYWHEEL CHARGER	Last Number Used 20	Issue D	Date 21/11/11	Revision Wiring updated to show plug and socket & dynamo.
	Drawn R GOLDING			C	24/09/08	Wiring changed numbers 11 & 14.
				B	20/01/06	Wire numbers added to regulator.



NOTE  
 ALL CABLE TO BE 1.5MM UNLESS STATED  
 ALL CABLE EXCEPT BATTERY CABLE TO BE WHITE

	Drawing Number SW11066	Description SSD6000 L100 Deep Sea 3110 Wiring with power off relay	Last Number Used 30	Issue A	Date 20/10/17	Revision New drawing
	Drawn R GOLDING					





C/O SWITCH  
115 0 230

Note  
Links 4B - 6B & 4A - 8A are internal

THIS IS NOT AN EARTH WIRE - 110V CENTRE TAP



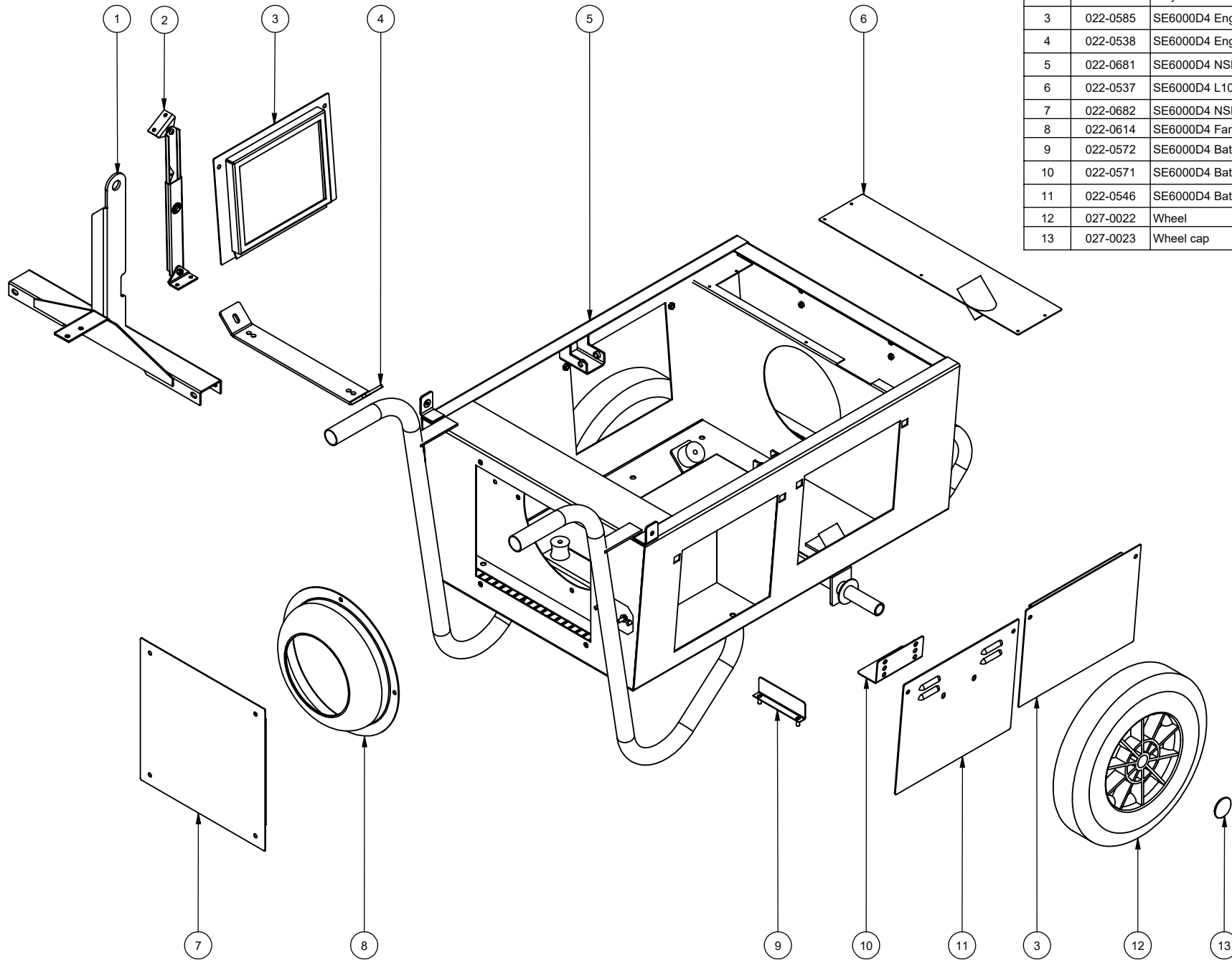
Drawing Number  
SW 12072  
Drawn  
R Golding

Description  
SE6000D NSM Dual voltage wiring  
diagram 115V CTE / 230V Neutral bonded  
& Single pole Re-Sets.

Last Number Used  
N/A

Issue	Date	Revision
A	28/01/13	New drawing.

Issue	Date	Revision
A	28/01/13	New drawing.



Item	Part Number	Description	Qty
1	022-0687	SE6000D4 NSM Lifting beam	1
2	022-1002	Stay	1
3	022-0585	SE6000D4 Engine door	2
4	022-0538	SE6000D4 Engine mounting bracket	1
5	022-0681	SE6000D4 NSM Trolley base	1
6	022-0537	SE6000D4 L100 Air inlet tube plate	1
7	022-0682	SE6000D4 NSM door	1
8	022-0614	SE6000D4 Fan cowl	1
9	022-0572	SE6000D4 Battery clamp bottom	1
10	022-0571	SE6000D4 Battery clamp top	1
11	022-0546	SE6000D4 Battery door	1
12	027-0022	Wheel	2
13	027-0023	Wheel cap	2



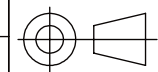
Drawing Number  
22-696

Drawn  
R Golding

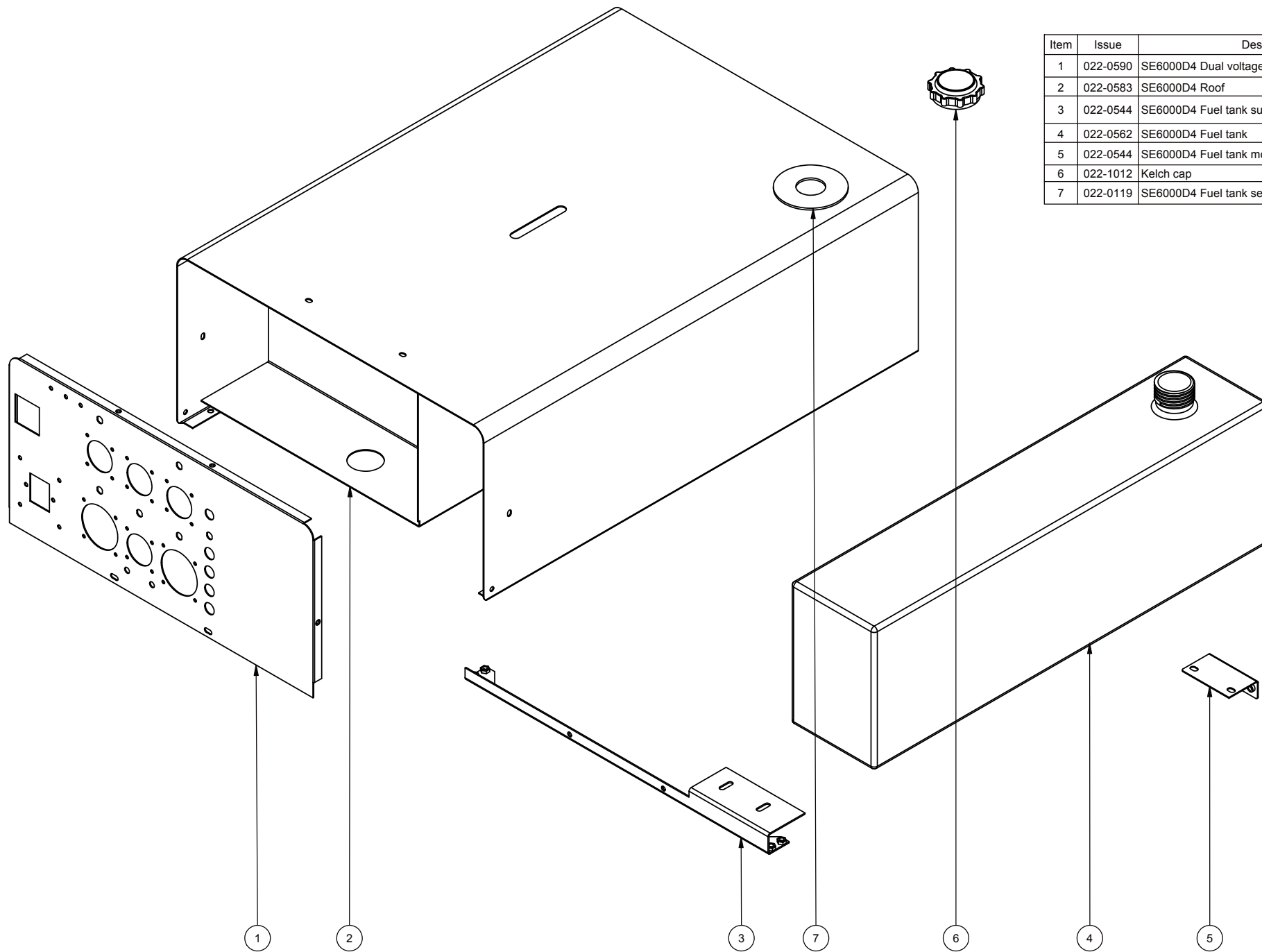
Description  
SE6000D4 NSM Exploded view

Issue	Date	Revision
A	04/02/13	New drawing
B	17/06/15	Descriptions changed.
C	11/06/18	Stay added.

Colour  
N/A  
Material  
Mild steel

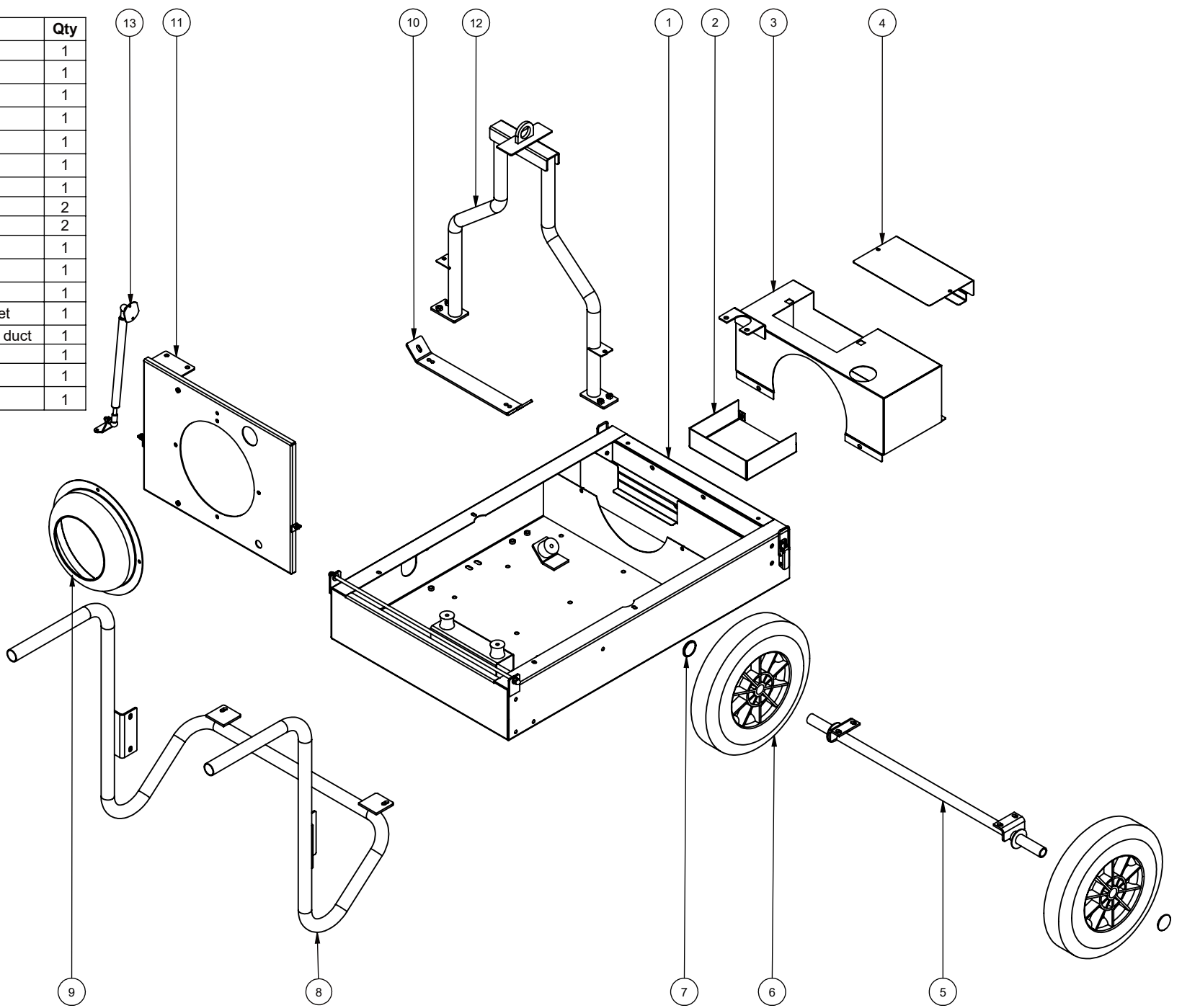


THIRD  
ANGLE  
PROJECTION



Item	Issue	Description
1	022-0590	SE6000D4 Dual voltage control panel
2	022-0583	SE6000D4 Roof
3	022-0544	SE6000D4 Fuel tank support bracket large
4	022-0562	SE6000D4 Fuel tank
5	022-0544	SE6000D4 Fuel tank mounting bracket small
6	022-1012	Kelch cap
7	022-0119	SE6000D4 Fuel tank sealing gasket

	Part No	Description	Qty
1	022-0627	SSD6000 Base	1
1	022-0675	SSD6000S Base	1
2	022-0607	SSD6000 Battery tray	1
2	022-0673	SSD6000S Battery tray	1
3	022-0576	SSD6000 Engine air inlet duct	1
4	022-0575	SSD6000 Battery door	1
5	022-0598	SSD6000 Axle	1
6	027-0022	Wheel	2
7	027-0023	Wheel cap	2
8	022-0704	SSD6000 Handle	1
8	022-0724	SSD6000 Handle Lighting tower	1
9	022-0614	SSD6000 Fan cowl	1
10	022-0538	SSD6000 Engine mounting bracket	1
11	022-0697	SSD6000 NSM Alternator air inlet duct	1
12	022-0609	SSD6000 Lift beam	1
12	022-0677	SSD6000S Lift beam	1
13	022-1055	Gas strut	1



Drawing Number  
22-697

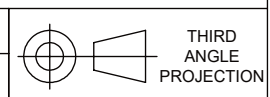
Drawn  
R Golding

Description  
SSD6000 & SSD6000S Base exploded view

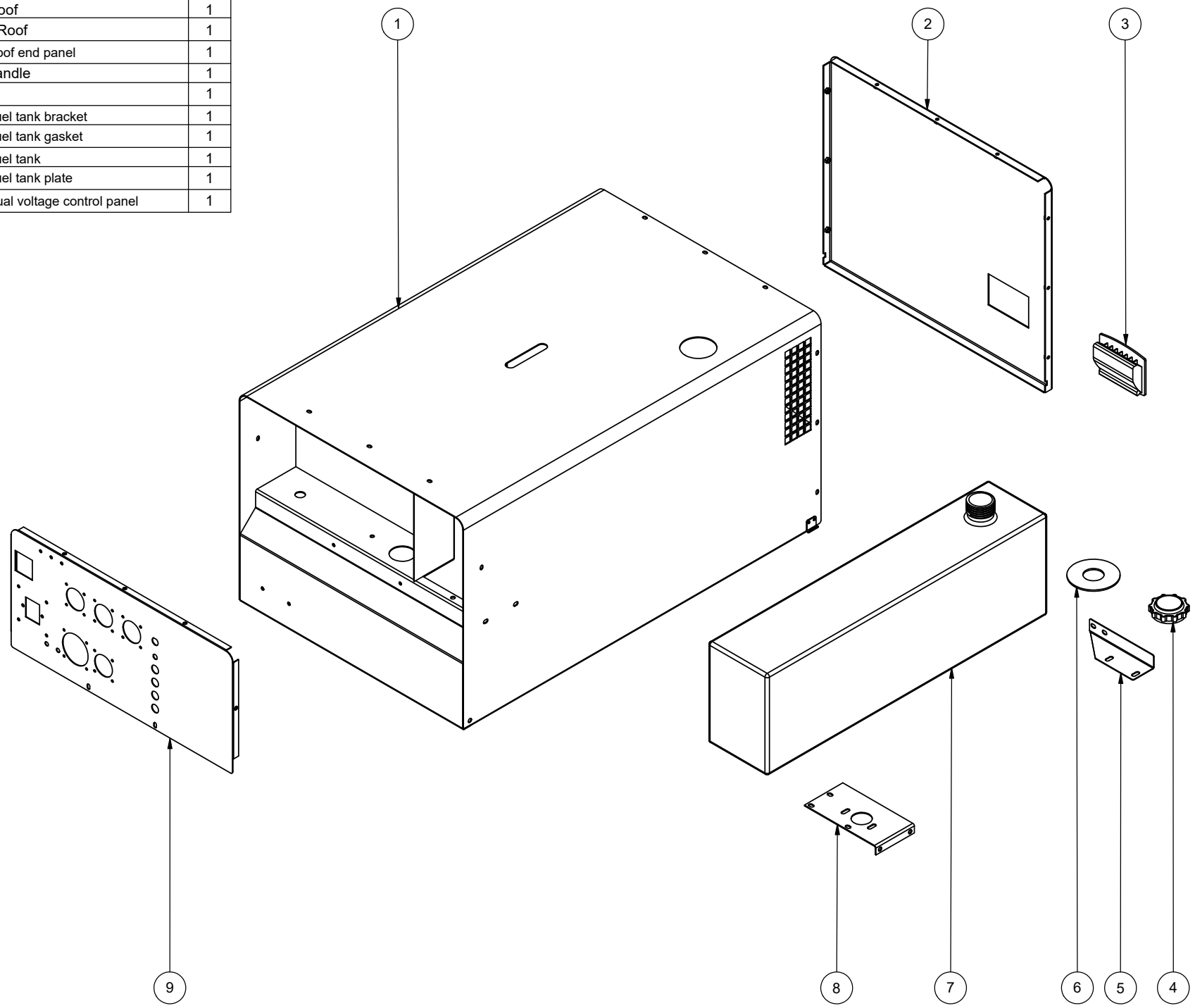
Issue	Date	Revision
A	04/02/13	New drawing
B	16/06/15	Descriptions updated.
C	07/06/18	Handle changed & Gas strut added.

Colour  
N/A

Material  
Mild steel



	Part No	Description	Qty
1	022-0593	SSD6000 Roof	1
1	022-0676	SSD6000S Roof	1
2	022-0605	SSD6000 Roof end panel	1
3	022-1033	Flush pull handle	1
4	022-1012	Kelch cap	1
5	022-0594	SSD6000 Fuel tank bracket	1
6	022-0119	SSD6000 Fuel tank gasket	1
7	022-0579	SSD6000 Fuel tank	1
8	022-0633	SSD6000 Fuel tank plate	1
9	022-0606	SSD6000 Dual voltage control panel	1



	Drawing Number 22-665	Description SSD6000 & SSD6000S Roof exploded view	Issue A	Date 15/04/08	Revision New drawing	Colour N/A	THIRD ANGLE PROJECTION
	Drawn R Golding		Issue B	Date 17/06/15	Revision Descriptions updated.	Material Mild steel	
			Issue C	Date 11/06/18	Revision Fuel tank & fuel tank plate part number changed.		