

SIP Industrial Products Limited
Gelders Hall Road
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SIP Medusa T15000 Silenced Diesel Generator 25155



For help or advice please contact
your distributor, or sip directly
on: Tel.: 01509 500400
Email: sales@sip-group.com or
customerservice@sip-group.com
www.sip-group.com



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SAFETY INSTRUCTIONS



Danger / Caution: This image indicates risk of personal injury and/or the possibility of damage.



Warning: This image indicates risk of electrical injury or damage!



Note: This image indicates supplementary information.



Important: Please read the following instructions carefully, failure to do so could lead to serious personal injury and / or damage to the item.

Please read the following instructions carefully, failure to do so could lead to serious personal injury and / or damage to the generator.

When using your generator, basic safety precautions should always be followed to reduce the risk of fire, electric shock, personal injury and / or damage to the item. Save this user manual for future reference.

SIP recommends that this generator should not be modified or used for any application other than that for which it was designed. If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.

Before using your generator it is in your own interest to read and pay attention to the following safety rules.

General Safety Instructions

- Be sure that the generator is properly grounded to an external ground path prior to operation. Refer to the section entitled “ Grounding Instructions “ for proper grounding procedures.
- Be sure that the generator is operated only by persons who have read and who understand these instructions.
- Be sure that the generator is placed on a flat level surface prior to and during operation. The generator must not slide or shift during operation.

SAFETY INSTRUCTIONS

- Keep all persons away from the generator during operation.
- Do not allow persons wearing loose clothing or jewellery to start or operate the generator. Loose clothing or jewellery may become entangled in moving components, causing equipment damage and/or personal injury.
- Be aware of moving parts and hot surfaces that occur during normal operation of this generator.
- Be sure all devices are switched off prior to connecting them to the generator.
- Be sure that all tools and appliances are in good working order and are correctly grounded.
- Only use devices that have standard plugs; If an extension cord issued, be sure that it has plug/socket for proper grounding.
- Never operate the generator with damaged, broken or missing parts, or with any guards or covers removed.
- Never operate this generator in an explosive atmosphere or near any flammable sources.
- Always operate this generator in a well ventilated area to reduce the risk of suffocation.
- Shut off the generator engine and disconnect the spark plug wire before performing any service or maintenance to the unit.
- Do not operate this generator on wet surfaces or in the rain.
- Do not operate the generator or any electrical items with wet hands.



Caution: anyone who operates this generator should read and fully understand all of the instructions and warnings in this manual.



Electric Shock: There is a very real risk of electric shock if this generator is not used in the correct manner. NEVER Use the generator or anything connected to it in wet conditions.



Hot Surfaces: During normal operation certain parts of this generator will become hot. ALWAYS stay alert and be aware of hot components / surfaces. Allow the engine to cool before attempting to move, clean or maintain the generator.



Poisonous Fumes: Exhaust fumes produced during normal operation are poisonous. Do not operate this generator in enclosed areas.

SAFETY INSTRUCTIONS



Flammable: The fuel used to run this generator (diesel) is highly flammable. Never re-fuel the generator whilst it is still running. Store unused fuel safely and away from children and in accordance with local regulations / laws.

Refuelling Safety Instructions

- Do not refill the fuel tank while the engine is running.
- Be careful to prevent fuel spillage during refills.
- Be sure the fuel tank cap is securely in place before starting the engine.
- Allow engine to cool for at least two minutes before refuelling.
- Never refuel whilst smoking or in the vicinity of a naked flame.
- Take care not to spill any fuel on the engine, exhaust or any part of the generator. Should any fuel make contact with your clothes; change and wash them immediately.
- If any fuel makes contact with your skin wash with soap and water immediately.
- If you swallow any fuel, inhale any vapour or allow contact with your eyes, seek medical attention immediately.
- Be sure to store petrol in clean containers that do not contain water, dirt or rust because this will reduce the life of the engine; ensure that all local fuel storage laws are followed.



Caution: Never attempt to connect the generator directly to the electrical system of any building / structure which is connected to the main grid.

Electrical current from the generator may “back feed” into the home’s electrical system. It could cause damage or fire to the building, the generator as well as anything connected to it. Should a generator be required to be connected to any electrical system, it must be installed by a suitably qualified electrician who can warn you of any dangers that may occur.

Incorrectly installed generators can also cause personal injury. For example, if a power company employee is working on an electrical line believing it to be “dead” and current created by the generator is in the line, shock or electrocution may occur. The key to better safeguard against these dangers is professional installation by a qualified electrician and the installation of a generator transfer switch.

Keep in mind a generator burns fuel and must be run in a well ventilated area, it must not be run in a garage or other outbuilding.

Cords used to connect the generator to the lights and appliances must be correctly sized to prevent overheating or damage to the equipment as well.

SAFETY INSTRUCTIONS

Grounding Instructions

1. Use the ground terminal on the generator to connect the unit to a suitable ground source. Securely fasten the end terminal of the ground wire to the ground terminal on the generator.
2. The ground wire should be made of more than 6 square millimetre wire.
3. If the diameter of the wire is too small it may not provide an adequate ground path.
4. The other end of the ground wire must be securely fastened to an approved ground source. Refer to the local regulations for ground source information. If not sure of regulations or procedures, obtain assistance from a qualified (licensed or certified) electrical technician.
5. Connect to ground screw Fig.1

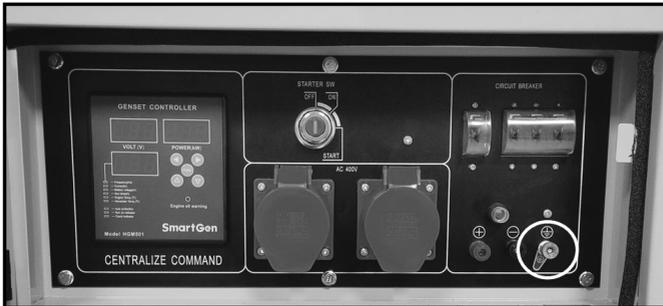


Fig.1

ELECTRICAL CONNECTIONS

Connecting Tools To The Generator

This generator is fitted with 1 x 230v 32A & 2 x 400v 32A type sockets. Inspect them, and anything to be connected to the generator, to ensure that no damage is present before every use. If any damage is visible have the socket / equipment inspected / repaired by a suitably qualified person.

The wires in the sockets are coloured in the following way:

230V: **L1** Brown - Live: **N** Blue - Neutral: **Ground Symbol** Green & Yellow - Earth: Ensure any plug / equipment to be connected to the generator is also wired in the same way.

400V: **L1** Black: **L2** Brown: **L3** Grey: **Ground Symbol** Green & Yellow - Earth. Ensure any plug / equipment to be connected to the generator is also wired in the same way.

Some 3 phase equipment is phase orientated so the direction should be observed and corrected if need be.

This generator is fitted with a 12v 6A DC connection. This can be used as a DC power supply or battery charging, the output current is unregulated. This socket may not charge / recognize all batteries.



Electric Shock: Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse for the equipment. If in doubt consult a qualified electrician.



NOTE: If an extension lead is required in order to reach the generator; ensure that this too is rated for the correct voltage and current along with the cross section.

GUARANTEE

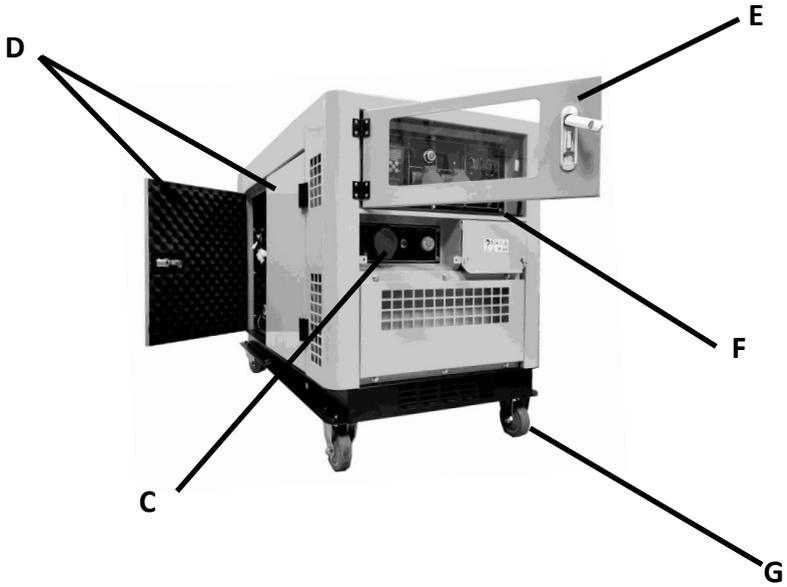
This item is covered by a 24 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the item outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges Including, but not limited to parts, labour and carriage costs.

Consumable items such as air filters, oil filters, fuel filters, caster wheels, keys etc are not covered by the warranty.

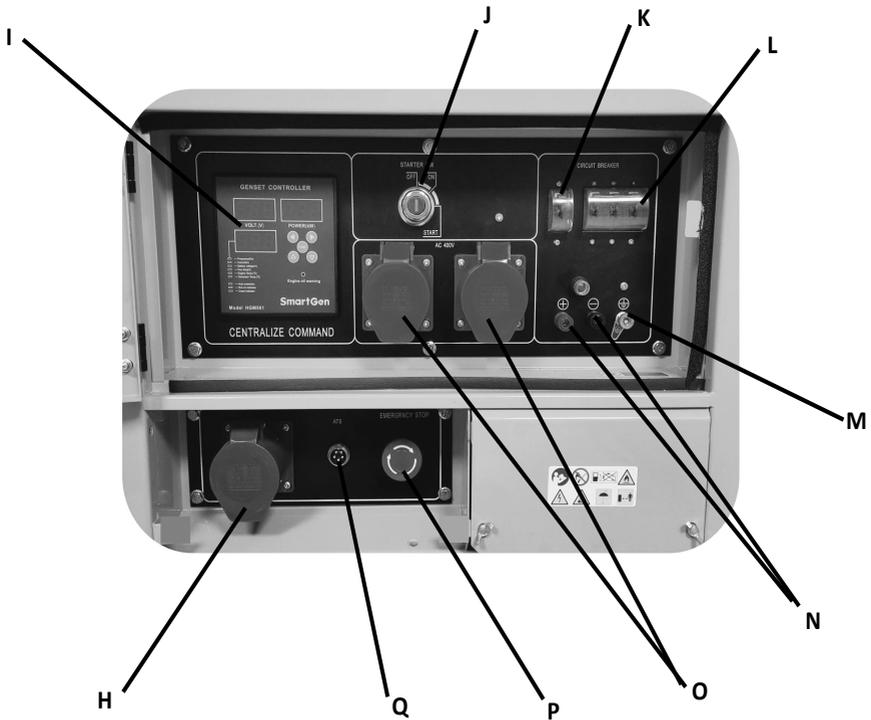


NOTE: Proof of purchase will be required before any warranty can be honoured.

GETTING TO KNOW YOUR GENERATOR



GETTING TO KNOW YOUR GENERATOR Cont...



<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
A	Locking Castor Wheel	J	Ignition
B	Access Doors	K	On / Off Switch
C	230v Single Phase Socket	L	AC Breakers
D	Access Doors	M	Grounding Screw
E	Lockable Control Panel Door	N	12v DC Output
F	Control Panel	O	2 x 400v Sockets
G	Fixed Castor Wheel	P	Emergency Stop
H	230V Single Phase Socket	Q	ATS Switch Socket
I	Multi-Function Display		

TECHNICAL SPECIFICATION

Model No.	25155 Medusa T15000
Engine Type	EURO 5 Diesel, 4-stroke, 997cc Twin Cylinder, Air Cooling, Direct Injection.
Engine RPM	3000
Start System	Electric Start
Alternator	Three Phase A.C. Generator, Brushed with AVR (Automatic Voltage Regulator)
Max Output	12KW / 15 KVA
Rated Output	11KW / 13.75 KVA
AC Voltage	1 x 230V 3.6KW 15.5A / 2 x 400 V 11KW 15.5A
DC Voltage / DC Current	12V / 6A
Fuel Capacity	32 L
Operation Capacity	6 - 7 hrs.
Oil Capacity	2.5 Litres
Protection Class (IP)	IP23M
Battery Specification	12V 36Ah
Power Factor	0.8
Performance Class	G1
Min. / Max. Working Temperature	-5/+40°C
Max. Altitude	<1000 mtrs.
Sound Power (LWA)	112 dB(A)
Dimensions	1260 x 660 x 915 mm
Weight	291kg NW / 320 Kg GW

OPERATING INSTRUCTIONS

Contents & Accessories

- Main Generator Unit
- Instruction Manual
- Tool Kit
- 2 x Fixed Caster Wheel
- 2 x Locking Caster Wheel
- 2 x Ignition Keys
- 2 x Rear Cabinet Keys
- 2 x Front Panel Door Keys
- 2 x 32A 5 Pin Plugs 400v
- 1 x 32A 3 Pin Plug 230v

Fitting The Castor Wheels.

The generator is supplied with 2 Fixed Castor Wheels and 2 Lockable Swivel Castor Wheels.

M8 Bolts and washers are also provided.

Lift the generator by either :-

Using a fork truck.

Using lifting equipment via the lifting eye. Fig.2.



Fig.2

Once Lifted and securely blocked, using the bolts provided fix all four castors.

The Nuts are captivated on the chassis. Fig.3 & 4.

Once secured into position, lift the genertor and remove any blocks and place on the ground.



Fig.3



Fig.4

OPERATING INSTRUCTIONS

Start Up Preparation:

Visual Inspection

- » Inspect the generator and check all connections.
- » ALWAYS check that no damage is present and that everything is tight and secure.
- » Turn all the switches and breakers off before carrying on with any other operations.
- » Unplug all the devices so there is no load in the generator.

Fuel / Refuelling

- » Remove the fuel cap.
- » Fill the tank with diesel, check the fuel gauge so it does not overfill. Leave a small air gap at the top.
- » Wipe up spilled fuel before starting the machine.
- » Close the fuel tank cap. Be sure fuel cap is secure.



NOTE: Use only clean, fresh, regular approved diesel/kerosene fuel for this machine. Never use "bio diesel" or fuels such as gasoline, benzene, paint thinners, or other oil compounds.



Caution: Never fill the fuel tank indoors. Always fill the tank outdoors and make sure the generator is placed on flat ground when fuelling. Never overfill the fuel tank.



Caution: Never refuel this generator while it is hot or operating, fire or explosion could result.

OPERATING INSTRUCTIONS

Filling the engine with oil: Checking the oil level

- » Access to fill the oil is through the black cap on the top cover; twist to remove. Fig.5
- » Unscrew the cap, Fig.6 and pour oil into the engine.
- » Fill the sump with SAE 10W30 / SAE 10W40 4-stroke engine oil.
- » Check the oil level using the dipstick; oil should be between the two marks, Fig.7, when the dipstick is placed **on** the threads but **not** screwed in. Fig.8



NOTE: When checking the oil level. Always ensure that the generator is placed on a firm level surface. Generator is shipped without any oil from new.



NOTE: This generator IS fitted with an oil level safety switch - check oil level before each use. Otherwise, the machine will not start.



Caution: Be sure oil level is maintained. Failure to do so will invalidate any warranty you may have.

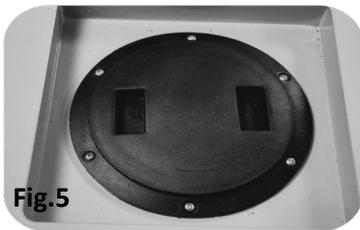


Fig.5

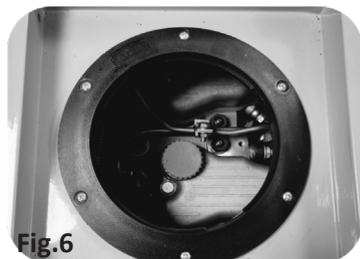


Fig.6

Fig.7

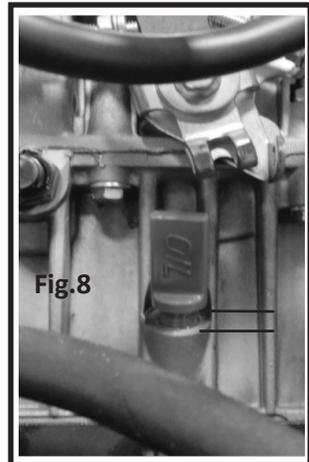


Fig.8

OPERATING INSTRUCTIONS

Fitting the battery

Looking at the front of the generator open the Left Side access doors.
The battery is located in fitted towards the rear of the engine towards the fan.
Fit the battery as in Fig.9.

Check that the battery is in good condition and not physically damaged.
DO NOT FIT IF DAMAGED!

Connect the black battery lead to the - (Negative) terminal; take great care not to leave the lead close to or touching the fan blade.

Connect the Red battery lead to the + (Positive) terminal.

Ensure that the battery retaining bracket is in place and tightened.



Caution: Wear acid-resistant goggles/face shield, gloves, and if available, an apron, when recharging or handling lead-acid batteries.



Fig.9



Caution: Don't open access doors whilst engine is running. Never try to remove or fit a battery whilst the engine is running.
The cooling fan rotates at 3000rpm; do not approach whilst running!

OPERATING INSTRUCTIONS

Start Up and Operation

Starting

1. Turn the AC Breaker to the 'OFF' position. Fig.10
 2. Make sure that the machine has got fuel and engine oil before operation.
 3. Turn the ignition key clockwise to the 'START' position. (do not hold in this position for more than 8 seconds) Fig.11
 4. Remove your hand from the key as soon as the engine starts. The key has to remain in the 'ON' position.
 5. Run machine for 5 minutes before applying any load allow to warm.
- » If the engine does not start after 10 seconds, wait 30 seconds before trying again. Excessive start attempts will cause the battery to flatten.
 - » From new the engine must be ran in. Avoid putting more than 50% load on the alternator for the first 20 hours.
 - » After twenty hours, drain the oil and replace with new oil - change the oil every 100hours thereafter.



Fig.10



Fig.11



NOTE: Do not loosen or readjust either the engine speed limiting bolt or the fuel injection limiting bolt as this will cause the performance of the generator to be affected. The warranty will be invalid.

OPERATING INSTRUCTIONS

AC Load

1. Turn the AC Switch to the ON position. Fig.12.
2. Before connecting any load make sure the voltage is reading +/- 5% of the voltage selected either 230v single phase or 400v 3 phase.
3. Turn the AC switch to the 'OFF' position along with the circuit breakers. Fig.12
4. Plug the machine / equipment into on the selected socket.
Make sure the generator is not running. Fig.13
5. Turn the AC switch to the 'ON' position along with the circuit breakers. Fig.14
6. Start the generator and ensure everything is working correctly.
7. The generator is fitted with a multi-functional digital display control box.. Fig.15



NOTE: When switching the voltage, the load must be lower then 2KW.



Fig.12



Fig.13



Fig.14



Fig.15

OPERATING INSTRUCTIONS

DC Load

The terminal should be used only for charging 12V AGM car batteries or similar.

1. Switch 'OFF' the engine.
2. Make sure the AC switch is turned to the 'OFF' position along with the circuit breakers. Fig.12
3. Connect the DC leads to the generator and the positive pole (+) of the battery. Do NOT connect the negative pole yet.
4. Start the generator.
5. Connect the negative pole to the battery.



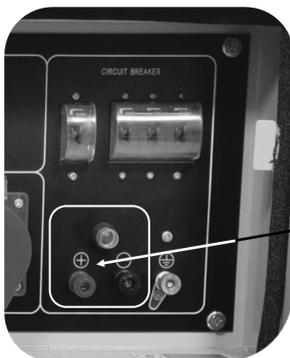
NOTE: Ensure the leads are connected correctly / matching the right polarity and do not allow any of the cables to touch each other. The DC output is unregulated.



Caution: Do not attempt to start the engine while the generator is still connected to the battery.



Caution: Do not use AC and DC output at the same time.



12v DC Outlet Terminals

OPERATING INSTRUCTIONS

Stopping the machine

1. Switch 'OFF' the equipment connected to the generator.
2. Turn 'OFF' the main switch and the AC circuit breakers (if applicable). Fig.16
3. Run the generator for a minute without any load.
4. Turn the key to the 'OFF' position.Fig.16,
5. Take the key out of the ignition switch.



Fig.16



NOTE: Disconnect one of the poles of the battery if the generator is not going to be use for a long time.

MAINTENANCE



NOTE: Any repairs / adjustments should only be attempted by a suitably qualified person; if you are unsure call the SIP Customer Services helpline number on the back page for your nearest technician.

Before carrying out any maintenance operation, always unplug the machine and allow to cool down.

Periodic Checks and Maintenance Schedule

Periodic checks and maintenance are very important in order to keep the generator in good condition and working under specifications.

	Weekly	First month or 20 Hrs.	Every 3 months or 100 Hrs.	Every 6 months or 300 Hrs.
Check Fuel Level	X			
Drain Fuel Tank		X		
Check Engine Oil	X			
Check for Leaks	X			
Visual Inspection	X			
Tighten Parts	X			
Change Engine Oil		X	X	
Change Oil Filter		X		X
Change Air Filter				X
Check Fuel Filter				X
Check Fuel Pipe				X
Check Battery			X	

MAINTENANCE

Changing the Engine Oil

1. There is a drain bolt located on the chassis to assist in draining the engine oil quickly. Fig.17
2. Make sure that the engine has been ran prior to changing the oil; warm oil will be thinner and easier to drain. Turn the engine OFF before draining the oil.
3. Get your oil collection system ready and unscrew the drain plug shown in Fig.17.
4. Once the all used oil is out of the engine, screw the drain plug back into the chassis, Refer to page 15 for re-filling the generator.



NOTE: The engine should be warm when draining the oil. Make sure it is done carefully avoiding any contact with a hot part.



Changing the Oil Filter

1. Once the sump is empty of oil.
2. Unscrew the oil filter and dispose of it correctly following local guidelines. Fig.18
3. Add a smear of oil to the seal of the new filter and screw into position.



NOTE: Contact SIP customer service for spare parts.

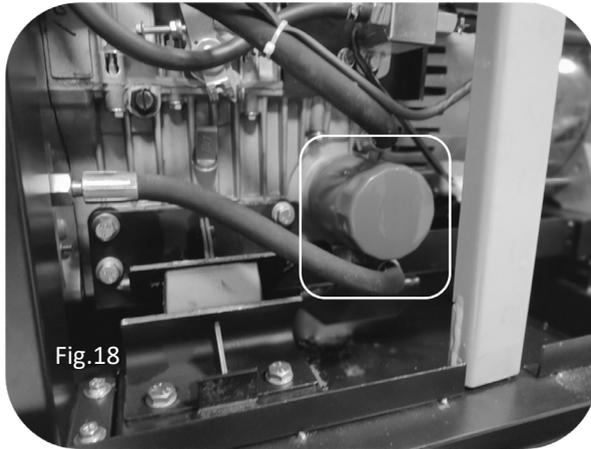


Fig.18

Changing the Air Element

1. To check or change the air filter the whole of the assembly must be removed from the generator.
2. Open the right side access panels, the air filter is located on the left side. Fig.19.
3. To remove the assembly, open the left side access panels.
4. Locate the 4 retaining bolts Fig.20.
5. Unscrew the bolts and remove the air filter assembly.
6. Open the filter cover and inspect / replace the air filter.



Fig.19

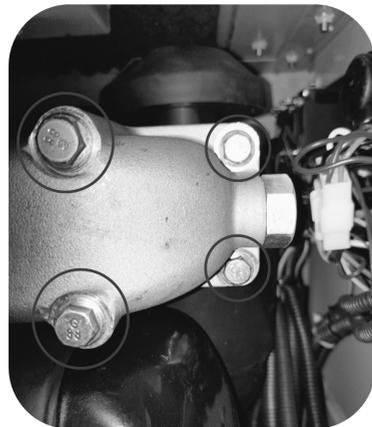


Fig.20

MAINTENANCE

Changing the Fuel Filter

1. Turn the fuel tap OFF.
2. Open all access panels, the inline fuel filter is located over the alternator, Fig.21A & B.
3. Slide the spring hose clips down the fuel pipe.
4. Take the fuel filter out.



Fig. 21A



Fig. 21B

Long Term Storage

- Operate the engine for a few minutes and stop it to drain the oil.
- Drain the fuel tank completely.
- Clean the generator with a damp cloth.
- Place it in on a flat surface.
- Store in a dry location - do not store in direct sunlight.

TROUBLESHOOTING

FAULT	CAUSE	REMEDY
Diesel engine does not start	Bad connections of current line	Check each connector
	Battery power is low	1. Charge the battery 2. Change the battery
	No fuel	Add fuel
	No oil	Add oil
	Fuel deterioration or contain deteriorated fuel	Drain the fuel tank and add clean fuel
	Piston ring worn or rings in wrong place	Change and adjust piston ring
	Bolts of cylinder head are not tighten	Re-tight the bolt
	Fuel oil or switch of fuel oil plugs	Replace or repair defective parts
The generator is not producing any power	AC circuit breaker is not open	Turn the AC circuit breaker to "ON" position
	AC circuit breaker is broken	Replace the AC circuit breaker
	AVR is broken	Replace AVR
	Motor failure, circuit failure	Replace or repair defective parts

EXPLODED DRAWING

*For full exploded drawings & parts lists contact:

- <https://www.sip-group.com/>
- SIP Customer Service: 01509 500400
- Email: customerservice@sip-group.com

Declaration of Conformity

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed
Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer within the UK, England, Scotland & Wales,
declare that the

SIP Medusa T15000 Silenced Diesel Generator - SIP Part No. 25155

Conforms to the requirements of the following regulation(s), as indicated.

Electromagnetic Compatibility Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
Regulations 2012
Supply of Machinery (Safety) Regulations 2008
Electrical Equipment (Safety) Regulations 2016
Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001

And the relevant harmonised standard(s), including

BS EN 55014 - 1: 2017
BS EN 55014 - 2: 2015
BS EN 61000 - 3 - 2: 2014
BS EN 61000 - 3 - 3: 2013
BS EN 60335-2-102: 2016
BS EN 60335-1: 2012+A11: 2014+A13: 2017
BS EN 62233:2008
BS EN ISO 8528-13:2016
BS EN 55012:2007+A1:2009
BS EN 61000-6-1:2019
BS EN ISO 3744:1995

Signed:



Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 28/01/2024

Declaration of Conformity

We

SIP (Machinery Europe) Ltd
ASM Chartered Accountants
First Floor Block One
Quayside Business Park
Dundalk
County Louth
Republic of Ireland

As the manufacturer's authorised representative within the EC
declare that the

SIP Medusa T15000 Silenced Diesel Generator - SIP Part No. 25155

Conforms to the requirements of the following directive(s), as indicated.

2014/30/EU - EMC Directive
2011/65/EU & 2015/863/EU - RoHS Directive
2006/42/EC - MD Directive
2014/35/EU - Low Voltage Directive
Outdoor Noise Directive 2000/14/EC
and regulation (EU) 2016/628 Emission limits and type-approval for internal
combustion engines for non -road mobile machinery

And the relevant harmonised standard(s), including

EN 55014 - 1: 2017
EN 55014 - 2: 2015
EN 61000 - 3 - 2: 2014
EN 61000 - 3 - 3: 2013
EN 60335-2-102: 2016
EN 60335-1: 2012+A11: 2014+A13: 2017
EN 62233:2008
EN ISO 8528-13:2016
EN 55012:2007+A1:2009
EN 61000-6-1:2019
EN ISO 3744:1995

Signed:



Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 28/01/2024



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised recycling agent. This will allow the recycling of raw materials and help protect the environment.

**FOR HELP OR ADVICE ON THIS
PRODUCT PLEASE CONTACT
YOUR DISTRIBUTOR, OR SIP
DIRECTLY ON:
TEL: 01509 500400
EMAIL: sales@sip-group.com or
customerservice@sip-group.com
www.sip-group.com**

*Photographs are for illustration purposes only.

Ref: 26MAR2024 Revision 2w