

INSPECTION REPORT

UNIT #2

Project : 3 x JMS 620 GS.N-L GE Jenbacher Gas Engine Generator Set



A. NAME PLATE

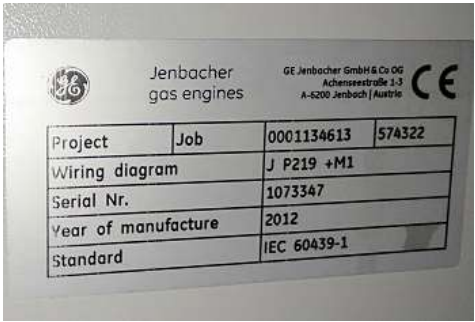
1. Gas Engine Generating Set

 The image shows a nameplate for a Jenbacher gas engine generating set. The plate is mounted on a green-painted metal surface. It contains technical specifications in a table format, including ISO 8528 compliance, CE marking, and various performance metrics like rated power, voltage, and frequency.	<table> <tr> <td>Type</td><td>: JMS 620 GS-F</td></tr> <tr> <td>Serial No.</td><td>: 1073352</td></tr> <tr> <td>Year of manufacturer</td><td>: 2012</td></tr> <tr> <td>Operating hours</td><td>: 19,784</td></tr> <tr> <td>Rated power (COP)</td><td>: 3349 kW</td></tr> <tr> <td>Rated power factor</td><td>: 1</td></tr> <tr> <td>Max. site altitude</td><td>: 500 m</td></tr> <tr> <td>Max. ambient temp. (intake air)</td><td>: 40°C</td></tr> <tr> <td>Rated frequency</td><td>: 50 Hz</td></tr> <tr> <td>Rated voltage</td><td>: 11000 V</td></tr> <tr> <td>Rated current</td><td>: 176 A</td></tr> <tr> <td>Mass</td><td>: 21300</td></tr> <tr> <td>Performance</td><td>: G2</td></tr> <tr> <td>SO number</td><td>: 11346 JP 217</td></tr> </table>	Type	: JMS 620 GS-F	Serial No.	: 1073352	Year of manufacturer	: 2012	Operating hours	: 19,784	Rated power (COP)	: 3349 kW	Rated power factor	: 1	Max. site altitude	: 500 m	Max. ambient temp. (intake air)	: 40°C	Rated frequency	: 50 Hz	Rated voltage	: 11000 V	Rated current	: 176 A	Mass	: 21300	Performance	: G2	SO number	: 11346 JP 217
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2. Engine

 The image shows a nameplate for a Jenbacher gas engine. The plate is mounted on a green-painted metal surface. It contains technical specifications in a table format, including engine type, ISO standard power, speed, and weight. A large number '13' is handwritten on the left side of the plate.	<table> <tr> <td>Engine type</td><td>: J 620 GS-F111</td></tr> <tr> <td>Engine no,</td><td>: 1073352</td></tr> <tr> <td>ISO standard power</td><td>: 3431 kW</td></tr> <tr> <td>Speed</td><td>: 1500 rpm</td></tr> <tr> <td>Weight</td><td>: 16100 kg</td></tr> </table>	Engine type	: J 620 GS-F111	Engine no,	: 1073352	ISO standard power	: 3431 kW	Speed	: 1500 rpm	Weight	: 16100 kg
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Speed	: 1500 rpm										
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3. Interface Panel

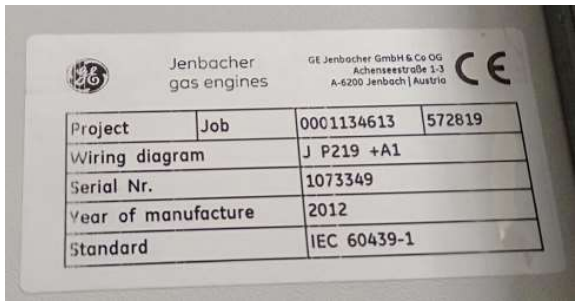
 The image shows an interface panel for a Jenbacher gas engine. The panel is white with a GE logo and contains a table with project and wiring information. It also features a CE marking.	<table> <tr> <td>Project</td><td>: 0001134612/573517</td></tr> <tr> <td>Wiring diagram</td><td>: J P219 +M1</td></tr> <tr> <td>Serial No.</td><td>: 1073338</td></tr> <tr> <td>Year of manufacturer</td><td>: 2012</td></tr> <tr> <td>Standard</td><td>: IEC 60439-1</td></tr> </table>	Project	: 0001134612/573517	Wiring diagram	: J P219 +M1	Serial No.	: 1073338	Year of manufacturer	: 2012	Standard	: IEC 60439-1
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Wiring diagram	: J P219 +M1										
Serial No.	: 1073338										
Year of manufacturer	: 2012										
Standard	: IEC 60439-1										

4. Generator



Machine ID No.	: 84 31365 A101
Frame/Core	: DIG 142 e/4
Year of Manufacturer	: 2012
KVA Base Rate (BR)	: 4450 kVA
Frequency (HZ)	: 50
Speed (rpm)	: 1500
Over Speed (rpm)	: 1800
Voltage (volt)	: 10500
Phase	: 3
Connection	: Y
Amps Base Rate (BR)	: 245 A
Power Factor (PF)	: 0.80
Rating	: S1
Excitation (volt)	: 48.4
Excitation (amps)	: 4.97
Ambient Temp.	: 40°C
Enclosure	: IP 23
Insulation Class	: F/F
Weight	: 9700 kg

5. Module Control Panel



Project	: 0001134613/572819
Wiring diagram	: J P219 +A1
Serial No.	: 1073349
Year of manufacturer	: 2012
Standard	: IEC 60439-1

B. INSPECTION

1. Engine

Top view



Bank A side view



Bank B side view



Flywheel side view



Cooling side view



Bank A (Above)



Bank A (Below)



Bank B (Above)



Bank B (Below)



Bank A side block



Bank B side block



Bypass throttle valves



Gas inlet



Throttle servo motor



Throttle Valve



Oil inlet & discharge lines and oil level



Priming pumps



Heat exchanger



Cooling system interface



Jacket water pump



Pre-heat cooling water



Motor starter

Ignition control



Mechanical oil circulation pump



Bluebay/lube oil ventilation system



Interface panel outside view



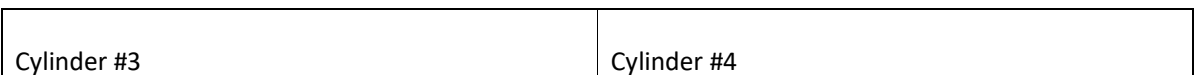
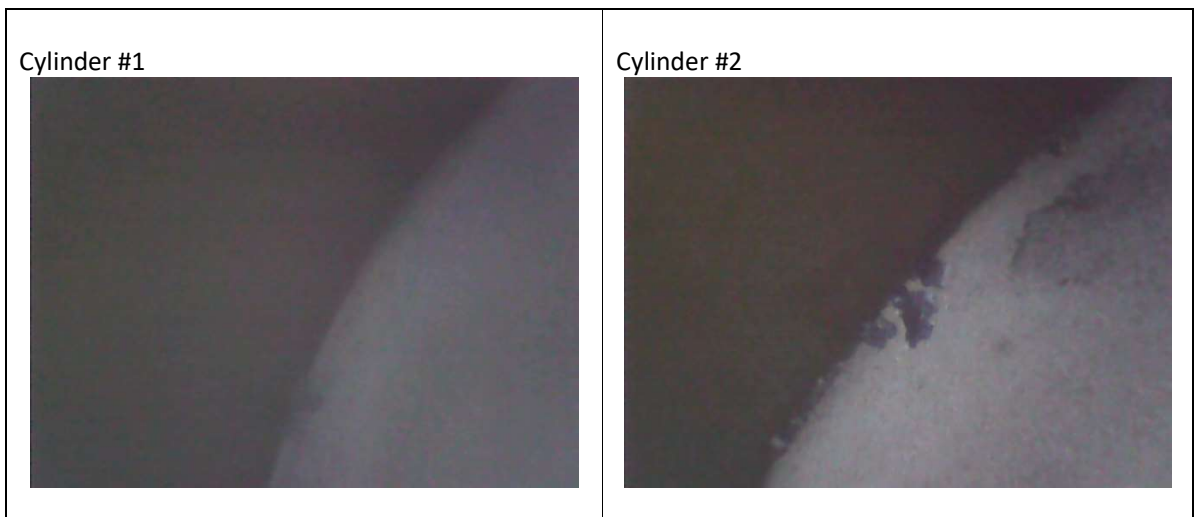
Interface panel inside view



Spark Plug



Combustion cylinder endoscope:



	
Cylinder #5 	Cylinder #6 
Cylinder #7 	Cylinder #8 

Cylinder #9	Cylinder #10
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Cylinder #11



Cylinder #12



Cylinder #13

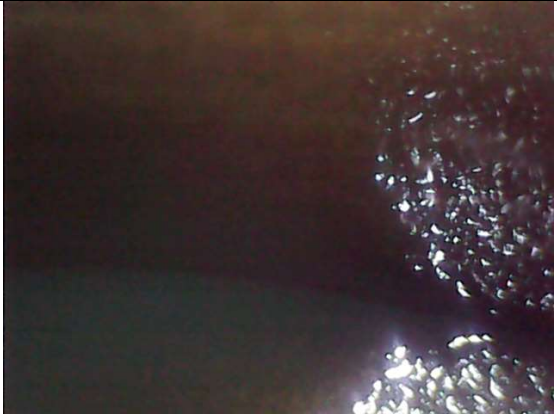


Cylinder #14



Cylinder #15

Cylinder #16

	
Cylinder #17 	Cylinder #18 
Cylinder #19 	Cylinder #20 

2. Turbo Charger

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Bank A: Easy turn by hand (gab: 0,45mm)



Bank B: Easy tur by hand (gab: 0.45mm)



3. Crank Shaft Axial, *all connecting rods movements is moving good (2/12 to 10/20)*

Zero position



Movements/displacement : 0.30 mm



**4. Crank Shaft Bearing
Cylinder #12**

Bearing #12



Shaft #12



Liner #2

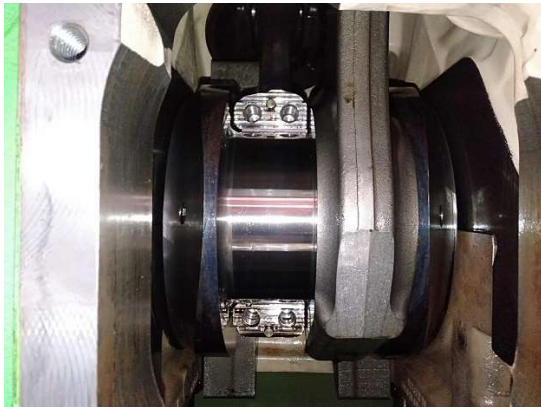


Cylinder #16

Bearing #16



Shaft #16



Liner #6

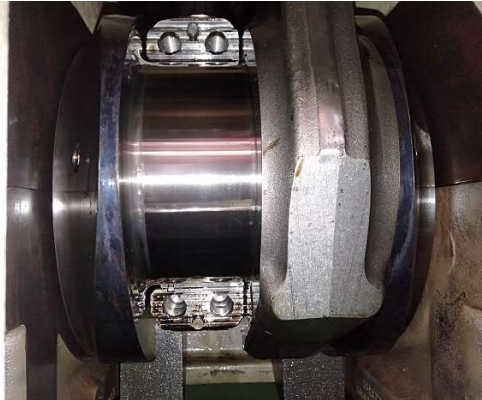


Cylinder #10

Bearing #20



Shaft #20



Liner #10



5. Coneccting Rods Pictures

Hand hole #12

Hand hole #13



Hand hole #14

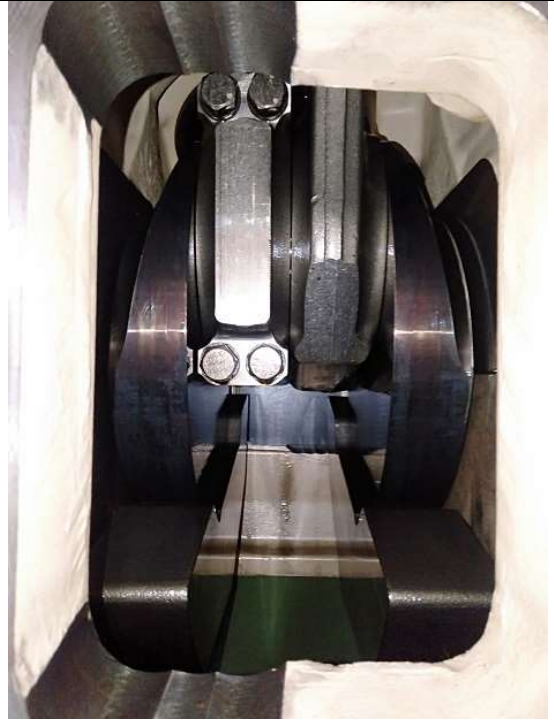


Hand hole #15



Hand hole #16

Hand hole #17



Hand hole #18



Hand hole #19



Hand hole #20

Engine oil tank



6. Generator



Rear view



Grease top up line (TOP)

Grease top up & disposal line (BOTTOM)



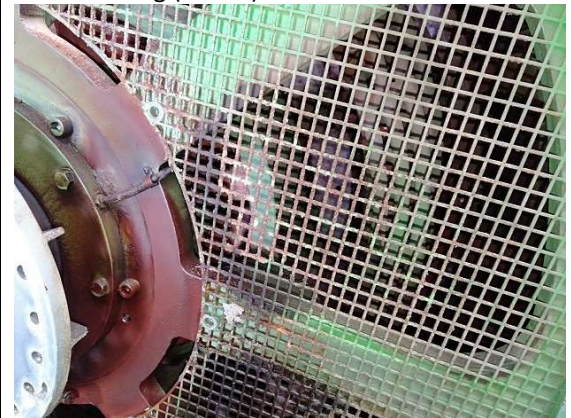
Main winding (TOP)

Main winding (BOTTOM)



Main winding (LEFT)

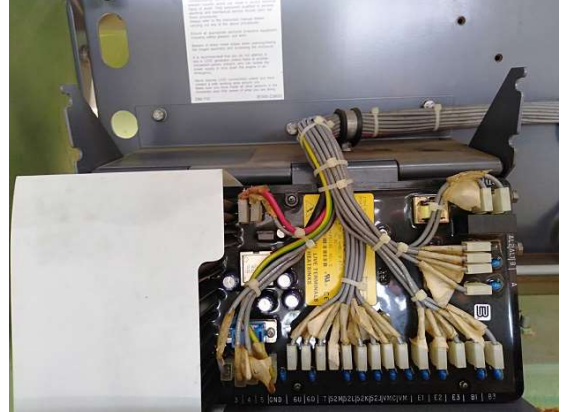
Main winding (RIGHT)



Exciter/AVR panels



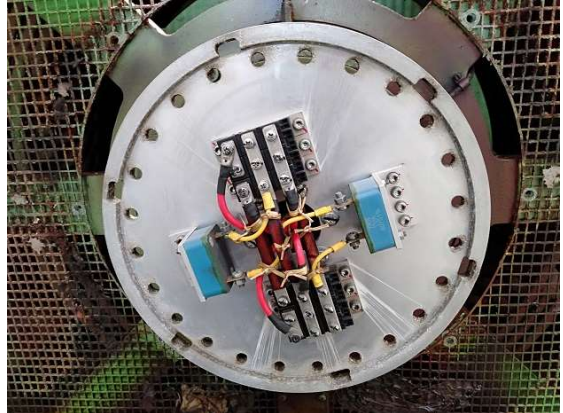
AVR



Exciter/AVR interfacing terminals



Exciter diodes



Main terminal box



Close up 1

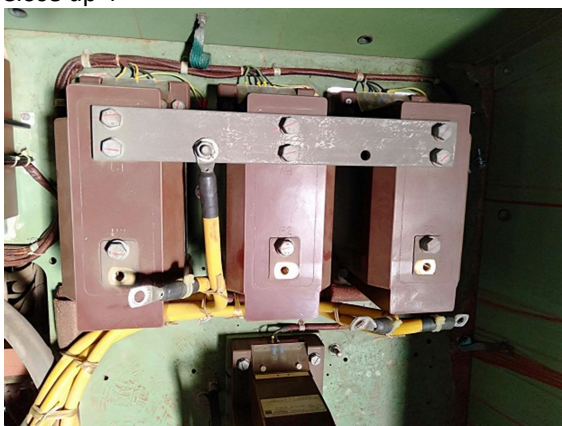


Close up 2

Close up 3



Close up 4



Phase U insulation resistance: **8.7** mega ohm



Phase V insulation resistance: >1 giga ohm



Phase W insulation resistance: 1.47 giga ohm



Terminal box corner 1



Terminal box corner 2



Terminal box corner 3



Terminal box corner 4



7. Exhaust gas Y-pipe



8. Gas Line (Gas train, prechamber and accessories)



9. Cooling water

HT circuit circulation pump



LT circuit circulation pump



HT & LT three way valves



Pressurized tank



10. Module Control Panel

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Front view



Inside panel



Flash card



12. Accessories

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Engine lifting lug A-side



Engine lifting lug B-side



Generator rotor lock bar



Engine turning bar

disappear

13. Technical Documents

Technical description	Wiring diagram
Maintenance book	Spareparts list
Alarm list	Logsheet (at least last 3 months)

14. Hystorical of the units

1. 1 st engine commissioning date	
2. The last date operated	
3. Stop mode	
4. Running hours	
5. Stop reason	
6. Periodical maintenace	
7. Unscheduled repair	
8. Part replacement	
9. Engine oil	
10. Others:	