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TEST Report

Report Number	160803124GZU-001	Original Issued:	13/Oct/2016	Revised:	9/Feb/2018
Regulation	Annex I of European Council Regulation (EU) 2016/426 of 9th March 2016 relating to appliances burning gaseous fuels				
Product Tested	Outdoor Gas Barbecues				
Model No(s)	KS153718, KS163718, KS163718TB, KS163718TS, KS163718T, KS159500.				

Applicant	Dongguan Kingsun Enterprises Co., Ltd	Manufacturer	Dongguan Kingsun Enterprises Co., Ltd
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Total 39 pages

Compliance Tests Performed

EU Type Examination of the above appliances to the requirements and test methods of BSEN 498: 2012 for the barbecue, BS EN 484: 1998 for the side burner and EN 1860-1: 2013+A1:2017 for charcoal grill to demonstrate compliance, as categories I_{3+(28-30/37)}, I_{3B/P(30)}, I_{3B/P(37)} and I_{3B/P(50)} with the Annex I Essential Requirement of European Council Regulation (EU) 2016/426.

Conclusion

The samples examined, after modification, were found to comply with the above document as detailed within this report. The results only refer to those products tested, the details of which are contained within the main body of this report.

Completed by:	Steve Zhu	Reviewed	Sky Yu
Title:	Sr Supervisor	Title:	Sr. Project Engineer
Signature:		Signature:	

In order to demonstrate full compliance with the GAR (affix the CE Mark), an EU Surveillance Certificate (EU Declaration of Conformity to Type) is required. For surveillance assessment, details of information required to be provided by the licence holder/manufacturer are listed on the last page of this test report.

Revision summary

DD/Month/YYYY	Project Engineer/ Reviewer	Page #	Project No	Reason for revision
13/Oct/2016	Jeremy Xing/ Kevin Yi	-	160803124GZU	First issue
10/Jun/2017	Jeremy Xing/ Kevin Yi	1,2,4,35 36,	170527028GZU	See note 1
26/Sep/2017	Steve Zhu Sky Yu	1-2, 23- 24, 37	170901075GZU	See note 2
9/Feb/2018	Steve Zhu Sky Yu	1-3, 9, 38-39	170901078GZU	See note 3.

Note 1:

1. Added alternative hoods for model KS159500, detail as below table,

	
Alternative main hood	Previous main hood approved in project 160803124GZU
	
Alternative side hood	Previous side hood approved in project 160803124GZU

2. Added alternative cooking grids of main gas barbecue for model KS159500, detail as below table,

	
Alternative cooking grids	Previous cooking grids approved in project 160803124GZU

Note 2: Update for charcoal part from EN1860-1:2013 to EN1860-1:2013+A1:2017.

Note 3:

1. Update the report from the essential requirement of GAD 2009/142/EC to the essential requirement of European Council Regulation (EU) 2016/426;
2. Update the gas tap certificate to GAR, delete ZHEN DA gas taps;

End of above notes.

DESCRIPTION OF APPLIANCE									
Product	Mobile Hooded Gas Barbecues								
Brand name	N/A								
Description	<p>Model KS153718 is a mobile barbecue with side burner, total rated at 9.35 kW (682g/h). The grill burners are rated at 2.05 kW per burner and the side burner at 3.2 kW. The appliance has three SS tubular grill burners and single SS flat round side burner controlled by gas taps mounted on the facial panel. The appliance features a single shot piezo ignitor, which acts on middle main burner and the side burner. Two side main burners are lighted via the cross-lighting channels. The instructions on the facial panel cover the lighting sequence of the burners. The appliance has a cooking area 430 mm wide and 440 mm deep (Area 0.189 m³) covered by one griddle and one grid which both are enamel cast iron. A warming rack of plating steel wires is fitted with the appliance and 360 mm wide and 227 mm deep (Area 0.081 m³). Heating diffusers made of enamelled steel plate are used to distribute the heat between burners and cooking area. A hood of paint steel is designed to intent with this barbecue. The hood has a temperature gauge and a SS handle. The combi barbecue has a charcoal grill and a charcoal smoker. The charcoal grill has a same cooking area with the gas grill but in contrast, it is covered by two grids of enamel steel wires. The charcoal grill has a same warming rack and same hood except additional with a chimney. The height of the charcoal grate can be adjusted by side manual handles. The charcoal smoker is located at last right side. The smoker has no cooking area but provide the smoking via the hole between the charcoal grill and itself. The trolley only has two wheels on the left side. A mesh bottom shelf is designed below the combustion chamber.</p> <p>Model KS163718 is similar with KS153718. Difference is that KS163718 has a right side shelf without smoker and cooking area only fitted with enamel steel wires. KS163718 has an optional design with "U" shape lid handles and a plate bottom shelf.</p> <p>Model KS163718TB is similar with KS163718 except it changes to two main burners but keeps same heat input.</p> <p>Model KS163718TS is similar with KS163718TB except it removes right side shelf and replaced with a steel handle for moving the appliance.</p> <p>Model KS163718T is similar with KS163718TS except it changes the left side burner to a shelf.</p>								
Models	KS153718, KS163718, KS163718TB, KS163718TS, KS163718T								
Model Similarity	Model	Number of Burners		Heat Input (kW)			Charcoal Smoker	Side Shelf	Remark
		Main	Side	Main	Side	Total			
	KS153718	3	1	2.05	3.2	9.35	1	N/A	--
	KS163718	3	1	2.05	3.2	9.35	N/A	Right	An optional design with "U" shape lid handles and a plate bottom shelf
	KS163718TB	2	1	3.075	3.2	9.35	N/A	Right	--
	KS163718TS	2	1	3.075	3.2	9.35	N/A	N/A	--
	KS163718T	2	N/A	3.075	N/A	6.15	N/A	Left	--
Category	Countries								
I ₃ +(28-30/37)	GB, BE, CY, CZ, FR, GR, IE, IT, LV, LT, LU, PT, SK, SI, ES, CH.								
I _{3B/P(30)}	AL, BG, CY, HR, DK, EE, FI, FR, HU, IS, IT, LT, LU, MT, MK, NL, NO, RO, SK, SI, SE, TR, GR.								
I _{3B/P(37)}	PL								
I _{3B/P(50)}	AT, DE, SK, CH, CZ.								

DESCRIPTION OF APPLIANCE	
Product	Mobile Hooded Gas Barbecues
Brand name	N/A
Description	<p>Model KS159500 is a mobile barbecue with side burner, total rated at 12.30 kW (900g/h). The grill burners are rated at 2.93 kW per burner and the side burner at 3.5 kW. The appliance has three SS tubular grill burners and single infrared side burner controlled by gas taps mounted on the facial panel. The appliance features a single impulse ignitor, which acts on all main burners and the side burner. The instructions on the facial panel cover the lighting sequence of the burners. The appliance has a cooking area 545 mm wide and 420 mm deep (Area 0.229 m³) covered by two grids which both are enamel cast iron. A round cooking plate of enamel cast iron is intended to inlay between two grids. A warming rack of enamel steel plate is fitted with the appliance and 518 mm wide and 198 mm deep (Area 0.102 m³). Heating diffusers made of enamelled steel plate are used to distribute the heat between burners and cooking area. The side sear burner has one cooking grid of enamel cast iron. A wind shield plate is fitted with side burner and 100 mm*70 mm. Hoods of paint steel are designed to intent with this barbecue. The hood of side burner shall be opened during operation and the hood of main burners has a temperature gauge and a SS handle. A grease tray is secured below the combustion chamber. The combi barbecue has a charcoal grill and a charcoal smoker. The charcoal grill has the same cooking grids with the gas grill and same hood except additional with a chimney. The height of the charcoal tray can be adjusted by a front lift handle. The charcoal smoker is located at last right side. The smoker has a cooking grid 310 mm*310 mm. The trolley only has four locking casters. The appliance has two layers mesh shelves below the charcoal combustion chamber.</p> <p>KS159500 has optional hoods. The alternative hood only has different front decorative plate, which compared with the previous hood approved in project 160803124GZU.</p> <p>KS159500 has optional gas cooking grids. The alternative cooking grids are identical with those approved in project 160803124GZU except without the round cooking plate.</p>
Models	KS159500
Model Similarity	None
Category	Countries
I ₃ +(28-30/37)	BE, CH, CY, CZ, ES, FR, GB, IE, IT, LT, LU, LV, PT, SI, SK, TR
I _{3B/P(30)}	AL, BG, CY, CZ, DK, EE, FI, FR, GR, HR, HU, IT, IS, LT, LU, LV, MT, MK, NL, NO, RO, SE, SI, SK
I _{3B/P(37)}	PL
I _{3B/P(50)}	AT, CH, CZ, DE, SK

TECHNICAL DATA	KS153718, KS163718			
Gas category	I ₃₊ (28-30/37)	I _{3B/P(30)}	I _{3B/P(37)}	I _{3B/P(50)}
Declared heat input	9.35 kW (682 g/h) for KS153718, KS163718			
Inlet pressure	Butane at 28 -30 mbar and propane at 37 mbar	LPG Mixtures at 30 mbar	LPG Mixtures at 37 mbar	LPG Mixtures at 50 mbar
Setting pressure	As per inlet pressure of appliance			
Injector size	Main: 0.71 mm Side: 0.89 mm	Main: 0.71 mm Side: 0.89 mm	Main: 0.66 mm Side: 0.84 mm	Main: 0.62 mm Side: 0.79 mm
Burner type:	<p>Main burner: "I-type" stainless steel tubular burner with total 90 ports (45 on each side). Flame ports: 86pcs- Ø2.00mm, 4pcs- Ø3.00mm. A row of 6 cross lighting ports Ø2.00mm positioned at downside of burner, close to enture tube. Detail is referred to Drawing 316940002123.</p> <p>Side burner for all models: The burner is a prefabricated steel structure made from 5 component parts. The burner top, the burner base/port ring, the securing bracket, the entry tube and the burner end cap. The burner top is crimped onto the burner base/port ring. The securing bracket and entry tube is crimped into the burner base. The end cap is spot welded onto the end of the entry tube. The burner has 50pcs flame ports of 2.8 mm diameter. Detail is referred to Drawing 2E12-02000044.</p>			
Number of burners	Model	Number of burners		
		Main	Side	
	KS153718	3	1	
Number of injectors	Model	Number of injectors		
		Main	Side	
	KS153718	3	1	
KS163718	3	1		
Burner Aeration setting	<p>Main burners for KS153718, KS163718: 24pcs- Ø2.00mm aeration ports covered by a metal screen.</p> <p>Side burner for all models: 2 – 14 mm long x 10 mm wide covered by a metal screen.</p>			
Inlet connection	Connection to suit country of destination			

TECHNICAL DATA		KS163718TB, KS163718TS, KS163718T					
Gas category	I ₃₊ (28-30/37)		I _{3B/P(30)}	I _{3B/P(37)}	I _{3B/P(50)}		
Declared heat input	9.35 kW (682 g/h) for KS163718TB, KS163718TS 6.15 kW (450 g/h) for KS163718T						
Inlet pressure	Butane at 28 -30 mbar and propane at 37 mbar		LPG Mixtures at 30 mbar	LPG Mixtures at 37 mbar	LPG Mixtures at 50 mbar		
Setting pressure	As per inlet pressure of appliance						
Injector size	Main: 0.86 mm Side: 0.89 mm(if applicable)		Main: 0.86 mm Side: 0.89 mm(if applicable)	Main: 0.82 mm Side: 0.84 mm(if applicable)	Main: 0.77 mm Side: 0.79 mm(if applicable)		
Burner type:	<p>Main burner: "I-type" stainless steel tubular burner with total 88 ports (44 on each side). Flame ports: 84pcs- Ø2.00mm, 4pcs- Ø3.00mm. A row of 7 cross lighting ports Ø2.00mm positioned at downside of burner, close to enture tube. Detail is referred to Drawing 316940003201.</p> <p>Side burner for all models: The burner is a prefabricated steel structure made from 5 component parts. The burner top, the burner base/port ring, the securing bracket, the entry tube and the burner end cap. The burner top is crimped onto the burner base/port ring. The securing bracket and entry tube is crimped into the burner base. The end cap is spot welded onto the end of the entry tube. The burner has 50pcs flame ports of 2.8 mm diameter. Detail is referred to Drawing 2E12-02000044.</p>						
Number of burners	Model	Number of burners					
		Main	Side				
		KS163718TB	2				
		KS163718TS	2				
Number of injectors	Model	Number of injectors					
		Main	Side				
		KS163718TB	2				
		KS163718TS	2				
Burner Aeration setting	Main burners for KS163718TB, KS163718TS, KS163718T: 2 – 14 mm long x 5 mm wide covered by a metal screen.						
	Side burner for all models: 2 – 14 mm long x 10 mm wide covered by a metal screen.						
Inlet connection	Connection to suit country of destination						

TECHNICAL DATA	KS159500			
Gas category	I ₃₊ (28-30/37)	I _{3B/P(30)}	I _{3B/P(37)}	I _{3B/P(50)}
Declared heat input	12.3 kW (900 g/h)			
Inlet pressure	Butane at 28 -30 mbar and propane at 37 mbar	LPG Mixtures at 30 mbar	LPG Mixtures at 37 mbar	LPG Mixtures at 50 mbar
Setting pressure	As per inlet pressure of appliance			
Injector size	Main: 0.84 mm Side: 0.92 mm	Main: 0.84 mm Side: 0.92 mm	Main: 0.81 mm Side: 0.87 mm	Main: 0.74 mm Side: 0.80 mm
Burner type:	<p>Main: "I-type" stainless steel tubular burner with total 90 ports (45 on each side). Flame ports: 88pcs- Ø2.00mm, 2pcs- Ø3.00mm. A row of 7 cross lighting ports Ø2.00mm positioned at downside of burner, close to enture tube. Detail is referred to Drawing 316940001029.</p> <p>Side: The burner is an infrared burner made from 4 major parts, metal screen, ceramic plate, burner base and entry tube. The burner has two ceramic plates, 134 mm long and 92 mm wide for each one. Flame ports of 1.1 mm diameter are distributed uniformly in the ceramic plate. Detail is referred to Drawing 2E12-05000441.</p>			
Number of burners	3 main burners and 1 side burner			
Number of injectors	3 main injectors and 1 side injector			
Burner Aeration setting	<p>Main burners: 2 – 14 mm long x 6 mm wide covered by a metal screen.</p> <p>Side burner: 2 – 14 mm long x 10 mm wide covered by a metal screen.</p>			
Inlet connection	Connection to suit country of destination			

CRITICAL CONTROLS FITTED TO THE APPLIANCE				
Component Name	Manufacturer / Trademark	Type / Model	Technic al data	EC Type Examination Certificate No and other Report No
Gas tap	Dongguan Abyda Gas Valve Co. Ltd.	KVL100-B, KVL100, KVL130,	0°C - 100°C	KIWA certificate with PIN number 0063BS7961
	Zhongshan GDA Gas Valve Co., Limited.	GL1AS, GL1A, GL2A,	-20°C - 120°C	Intertek GAR EU cert with PIN C0359BR643
	Foshan City Shunde District Laifu Gas Valve Co.,Ltd	AH6A, AH6, AH5	-20°C - 120°C	DBI GAR EU cert 2531CS-0105 rev. 00
		AH2A	-20°C - 120°C	DBI GAR EU cert 2531CS-0105 rev. 00

PRODUCT PHOTOGRAPHS_KS153718, KS163718, KS163718TB, KS163718TS, KS163718T	
KS153718_front view	KS153718_lid open
	
KS163718_front view	KS163718_lid open
	
KS163718(optional)_front view	KS163718(optional)_lid open
	
KS163718TB_front view	KS163718TB_lid open
	

PRODUCT PHOTOGRAPHS_KS153718, KS163718, KS163718TB, KS163718TS, KS163718T	
KS163718TS_front view	KS163718TS_lid open
	
KS163718T_front view	KS163718T_lid open
	
Side Burner	Heat Radiation Plate
	
Inner View_three main burner	Inner View_two main burner
	

PRODUCT PHOTOGRAPHS_KS153718, KS163718, KS163718TB, KS163718TS, KS163718T			
Gas Cooking Area_ steel wires		Gas Cooking Area_ cast iron	
			
Charcoal Cooking Area_ steel wires		Inner View_ smoker	
			

PRODUCT PHOTOGRAPHS_ KS159500	
KS159500_front view	KS159500_lid open
	
Heat Radiation Plate	Inner View_main burner
	
Side Burner	Gas Cooking Area_cast iron
	
Charcoal Grill Cooking Area_cast iron	Charcoal Smoker Cooking Area_cast iron
	

PRODUCT PHOTOGRAPHS_ KS159500	
Optional KS159500_front view	Optional KS159500_lid open
	
Optional Gas Cooking Area_cast iron	Blank
	Blank

Findings of examination to BS EN 498: 2012 Dedicated liquefied petroleum gas appliance Barbecues for outdoor use contact grills include

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
5.1	<p>The appliance is not designed for conversion to different gases. It is supplied in three versions one for operation at 28–30/37 mbar and 30 mbar for gas categories I₃₊ and I_{3B/P(30)}, one for operation at 37 mbar gas category I_{3B/P(37)} and one for operation at 50 mbar for gas category I_{3B/P(50)}.</p> <p>The appliance operates under the conditions of use stated in the instruction literature without requiring any intervention by the user to the internal gas circuit or the adjusters on the barbecue.</p> <p>All adjusters are locked and sealed in position by the manufacturer.</p>	Complies Complies Complies
5.2	<p>The quality and thickness of the materials used in the appliance are such that they do not alter in constructional and performance during use.</p> <p>The materials are suitable for the chemical, thermal and mechanical changes that they might be subjected to in use.</p> <p>The materials are not liable to any change that would impair the operation of the appliance.</p> <p>Materials that are not made of corrosion resistant materials are protected against corrosion.</p> <p>Asbestos is not used in the construction of the appliance.</p> <p>The surface treatment of components in contact with food will not contaminate or affect food.</p>	Complies Complies Complies Complies Complies Complies
5.3	<p>All parts of the appliance requiring frequent cleaning by the user are accessible without using tools for dismantling.</p> <p>It is possible to replace parts correctly without difficulty following the instructions.</p> <p>The appliance does not have sharp edges or corners that could give rise to injury.</p> <p>The appliance has no glass components.</p> <p>It is not possible for the gas container or hose components to be soiled by spillage of cooking juices.</p> <p>Cooking juices do not impair the safety of operation of the appliance.</p> <p>No adjustable parts of the appliance by the user.</p>	Complies Complies Complies Not applicable Complies Complies Complies
5.4	Strength	
5.4.1	When the appliance were tested no displacement, distortion or deterioration of parts occurred	Complies
5.4.2	No glass panels fitted to the appliance.	Not applicable
5.5	<p>The gas circuit is assembled by the manufacturer.</p> <p>The component parts of the barbecue are easy to assemble by the purchaser.</p> <p>The appliance is not portable.</p>	Complies Complies Not applicable
5.6	Stability	
5.6.1	<p>The appliance was stable on a horizontal plane.</p> <p>The appliance was stable when placed on a horizontal plane with the grid loaded as stated in clause 7.2.6.1.</p> <p>Heat radiant plate is fixed well in only one position.</p> <p>No foldable support.</p>	Complies Complies Not applicable Not applicable
5.6.2	<p>The appliance was stable when placed on a 10° slope and the lid did not fall down.</p> <p>Not designed to have gas cylinder fitted in the appliance.</p>	Complies(1) Not applicable
5.7	<p>Holes and screws intended for assembly do not enter gas ways.</p> <p>The soundness of parts connected to the gas circuit is all metal to metal seals.</p> <p>Taps and injectors use a jointing compound to help seal the items in place.</p> <p>Soft solder is not used in the assembly of the gas circuit.</p> <p>The sealing compound has characteristics suitable for its use.</p> <p>The inlet connection is the only removable component. When the joint was made and disconnected five times it was found to be satisfactory.</p>	Complies Complies Complies Complies Complies Complies

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
5.8	<p>The connection of the appliance is easily achieved by following the instructions.</p> <p>The entire gas supply is at the pressure supplied by the regulator.</p> <p>The appliance will be supplied with the appropriate gas connection for the country of destination.</p> <p>During normal use the connection does not come loose.</p> <p>The hose does not come into contact with temperatures in excess of that stated in this standard.</p>	Complies Complies Complies Complies Complies Complies Complies
5.9	The appliance has lockable castors or the legs sit on the ground directly.	Complies
5.10	Taps	
5.10.1	<p>Each burner is controlled by a tap opening and closing the gas supply.</p> <p>The taps are easy to manipulate and accessible and suffer no damage during use.</p> <p>They are protected against internal and external clogging.</p> <p>After the temperature test the taps remain easy to operate.</p> <p>No movement of the taps relative to the gas circuit occurs during normal use.</p>	Complies Complies Complies Complies Complies
5.10.2	<p>The taps are taper plug type units.</p> <p>They have an automatic compensating device to take up play and ensure soundness.</p> <p>Reduced rate is at the end of the taps travel.</p>	Complies Complies Complies
5.10.3	The taps are not variable position units.	Not applicable
5.11	Control handles	
5.11.1	<p>It is obvious which burner is controlled by which tap handle.</p> <p>Movement of one handle does not cause inadvertent movement of the next handle.</p> <p>Control knobs all identical in operation and size.</p> <p>Control handles cannot be fitted in the incorrect position.</p> <p>The shape of the handle makes manipulation easy.</p> <p>The closing position of the taps is clockwise.</p> <p>The turning of the control handles does not cause the appliance to move.</p>	Complies Complies Complies Complies Complies Complies Complies
5.11.2	Marking	
5.11.2.1	<p>The closed and open position of the taps is marked on the fascia panel of the appliance in a visible position and is durable and legible.</p> <p>The closed position of the taps is marked.</p> <p>The closed position of the taps does not give rise to confusion.</p> <p>Other positions of the taps are marked in a non-confusing manner.</p>	Complies Complies Complies Complies
5.11.2.2	The taps do not have variable positions.	Not applicable
5.12	The injectors are of the calibrated type and are detachable, accessible and are indelibly marked for size.	Complies
5.13	<p>The ignition device ensures safe and rapid ignition of the burners.</p> <p>The components of the ignition device are designed to avoid damage and accidental movement during transport and use.</p> <p>The relative positions of the burner and ignition collector are defined to ensure rapid and safe ignition of the burner.</p> <p>The ignitor and ignition device are protected against soiling in use and maintenance.</p> <p>The ignition device lights each burner for model KS159500. For other models, the ignition device lights side burner and main ignition burner, other main burner(s) lighted by cross-lighting channel(s). The instructions for lighting the appliance safely are printed on the facial panel of the barbecue.</p>	Complies Complies Complies Complies Complies
5.14	No flame supervision device fitted to the appliance.	Not applicable

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
5.15	<p>The burner does not move when the appliance is moved.</p> <p>It is easy to clean parts of the burner without removal of the burner from the appliance.</p> <p>The burner does not leak gas from any joint.</p> <p>The burner can be easily dismantled and replaced for cleaning.</p> <p>The parts of the ignition electrode and burner are in a fixed position.</p> <p>No burner removable parts.</p> <p>Heat radiant plates not move accident in use and easy to dismantle and clean.</p> <p>The burners have cross-lighting devices secured in a predefined position between the burners.(except model KS159500)</p> <p>It is easy to light the burner by a manual means, a match, through a lighting hole in the side of the combustion chamber.</p> <p>It is possible to confirm if the burner has lit.</p>	Complies Complies Complies Complies Complies Not applicable Complies Complies Complies Complies
5.16	<p>The grid bars are no bigger than 20 mm apart.</p> <p>The grid withstood the load test stated in clause 7.2.16 and remained on its supports.</p> <p>The grids are removable.</p>	Complies Complies Complies
5.17	No turnspit fitted to the appliance.	Not applicable
5.18	Appliance incorporating a gas cylinder	
5.18.1	The appliance does not incorporate a gas cylinder.	Not applicable
5.18.2	The appliance does not incorporate a gas cylinder.	Not applicable
5.19	The markings on the appliance were found to be durable.	Complies
5.20	No auxiliary energy devices connected to mains electrical supply.	Not applicable
6	Performance characteristics	
6.1	The appliance was found to be sound both before and after the test programme.	Complies
6.2	Verification of heat inputs	
6.2.1	The heat input of the individual burner was verified. Refer to Data Result.	Complies
6.2.2	The full heat input was verified. Refer to Data Result.	Complies
6.3	No flame supervision device fitted to the appliance.	Not applicable
6.4	Safety of operation. Refer to Data Result.	
6.4.1	Ignition, cross lighting	
6.4.1.1	Ignition	Complies
6.4.1.2	Cross lighting	Complies
6.4.2	The flame stability of the appliance was found to be satisfactory.	Complies
6.4.3	The appliance was found to be satisfactory when tested with a 3 m/s draught blowing at the barbecues.	Complies
6.4.4	The appliance was found to be satisfactory when the overheating test was carried out.	Complies
6.5	Temperatures. Refer to Data Result.	
	a. Temperature of surface in contact with flexible tubing	Complies
	b. Nozzle or gas connection temperature.	Complies
	c. Auxiliary equipment.	Complies
	d. Control handles and parts intended to be touched	Complies(2)
	e. Support	Complies
	f. Wall of LPG cylinder compartment (if any)	Not applicable
6.6	Maximum pressure rise = 0. 45 bar Temperature =25 °C	Complies
6.7	Combustion Refer Data Result.	Complies(3)
6.8	The appliance did not soot during the test programme.	Complies
7.	Test Method (information)	
8.1	Appliance marking	
	The name of the manufacturer or his identifying symbol (for manufacturer definition, see Decision No 768/2008/EC)	Complies
	the appliance name	Complies
	the total nominal heat input of all the burners expressed in kilowatts based on the gross calorific value and in grams per hour	Complies
	the appliance category(ies);	Complies
	the type of electrical supply used, if applicable	Not applicable

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
	“Use outdoors only.”	Complies
	“Read the instructions before using the appliance.”	Complies
	“WARNING: accessible parts may be very hot. Keep young children away.”	Complies
	In addition a logo or a warning shall be used to forbid gas cylinders in places of the appliance not intended to receive gas cylinders if any.	Complies
	the type of gases which may be used and the corresponding supply pressures	Complies
8.2	Packaging marking	
	The type of gases which may be used and the corresponding supply pressures	Complies
	The appliance category(ies);	Complies
	“Read the instructions before using the appliance”;	Complies
	“Use outdoors only”.	Complies
8.3	Instructions for assembly, use and maintenance	
	The instructions shall repeat the information required by 8.1. In addition they shall specify	Complies
a)	the manufacturer's address (for manufacturer definition see Decision No 768/2008/EC);	Complies
b)	the conditions of assembly and possibly dismantling and of storage of the functional section of the appliance, in particular:	Complies
1.	The precautions to be taken when storing the appliance	Complies
2.	The precautions to be taken in the case of blockage of the Venturi or Venturis	Complies
3.	The precaution to be taken in case of humidity of refractory materials, if exist	Complies
4.	The assembly diagrams, if applicable;	Complies
5.	The marking of injectors;	Complies
6.	Special requirements for built-in appliances, in particular unit dimensions, the type of materials in contact with the appliance, the installation of the cylinder, the precautions to be taken for fixing the flexible hose which must be accessible for its entire length, protection against bad weather;	Not applicable
c)	The conditions of connection to the gas cylinder, in particular:	
1.	The type(s) of cylinder(s) to be used, their maximal external dimensions (regulator included) and their position(s); those information may be illustrated by a scheme as the one presented in Figure 6;	Complies
2.	The type of regulator to be used indicating that it shall comply with the relevant EN standard	Complies
3.	The type of flexible tube connecting the appliance to the gas cylinder and the length recommended which shall not exceed 1,50 m;	Complies
4.	The routing of the flexible tube and the use of guides if any;	Complies
5.	The necessity of changing the flexible tube when the national conditions require it, and/or depending on its validity;	Complies
d)	The conditions of servicing, in particular:	
1.	The position of the connection flexible tube so as to ensure that it is not subjected to twisting;	Complies
2.	“This appliance must be kept away from flammable materials during use”;	Complies
3.	The absolute necessity of not obstructing the ventilation openings of the cylinder compartment;	Complies
4.	The precautions to be taken when changing the gas cylinder which shall be carried out away from any source of ignition;	Complies
5.	The type of protection for the surface to be used when the support temperature exceeds 50 K;	Not applicable
e)	The conditions of use, in particular:	
1.	The usual cleaning and maintenance as well as the frequency of such tasks	Complies
2.	The procedure in the event of gas leak (turning off the gas supply);	Complies
3.	The method of lighting (positions of taps, lids, etc.);	Complies
4.	The recommendation of the use of protective gloves when handling particularly hot components	Complies

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
5.	A note advising that parts sealed by the manufacturer or his agent shall not be manipulated by the user	Complies
f)	The following warnings:	
1.	“Use outdoors only.”	Complies
2.	“Read the instructions before using the appliance.”	Complies
3.	“WARNING: accessible parts may be very hot. Keep young children away.”	Complies
4.	“Do not move the appliance during use.”	Complies
5.	“Turn off the gas supply at the gas cylinder after use.”	Complies
	For appliances using other sources of energy, the instructions shall contain the instructions specified by the corresponding standards.	Not applicable
g)	information relating to general revision and reparations	
1.	Indication: “ Do not modify the appliance”;	Complies
2.	Indication of reparation service address or the internet website giving its access.	Complies

Findings of examination to BS EN 484: 1998 Dedicated liquefied petroleum gas appliance. Independent hotplates, including those incorporating a grill for outdoor use

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
5.1	<p>The appliance is not designed for conversion to different gases. It is supplied in two different versions, one for operation at 28–30/37 mbar and 30 mbar for gas categories I_{3+(28-30/37)} and I_{3B/P(30)}, one for operation at 37 mbar for gas category I_{3B/P(37)} and one for operation at 50 mbar for gas category I_{3B/P(50)}.</p> <p>The appliance operates under the conditions of use stated in the instruction literature without requiring any intervention by the user to the internal gas circuit or the adjusters on the appliance.</p> <p>All adjusters are locked and sealed in position by the manufacturer.</p> <p>Note: KS163718T has no side burner and not applicable to BS EN 484:1998.</p>	Complies Complies Complies
5.2	<p>The quality and thickness of the materials used in the appliance are such that they do not alter in constructional and performance during use.</p> <p>The materials are suitable for the chemical, thermal and mechanical changes that they might be subjected to in use.</p> <p>The materials are not liable to any change that would impair the operation of the appliance.</p> <p>Materials that are not made of corrosion resistant materials are protected against corrosion.</p> <p>Asbestos is not used in the construction of the appliance.</p> <p>The surface treatment of components in contact with food will not contaminate or affect food.</p>	Complies Complies Complies Complies Complies Complies Complies
5.3	<p>All parts of the appliance requiring frequent cleaning by the user are accessible without using tools for dismantling.</p> <p>It is possible to replace parts correctly without difficulty following the instructions.</p> <p>The appliance does not have sharp edges or corners that could give rise to injury.</p> <p>Spillage from the container does not affect the operation of the burner and parts are accessible for cleaning.</p> <p>It is not possible for the gas container, gas carrying components or hose components to be soiled by spillage of cooking juices.</p> <p>Model KS159500 has a side infrared burner for searing and fits with a grease tray.</p> <p>Other models have no grill burner of the type defined in this standard.</p> <p>No adjustable parts of the appliance by the user.</p>	Complies Complies Complies Complies Complies Complies Not applicable Complies
5.4	Manipulation of grills	
5.4.1	The appliance is not fitted with a contact grill.	Not applicable
5.4.2	No grill pan is fitted with the radiant grill.	Not applicable
5.5	<p>Not distortion, deterioration or displacement of parts occurs in normal use.</p> <p>The materials used in the assembly and body of the burner do not fracture or distort by more than 1 mm when a load is placed on the grid.</p>	Complies Complies
5.6	<p>The gas circuit is assembled by the manufacturer.</p> <p>The component parts of the side burner are easy to assemble by the purchaser.</p>	Complies Complies
5.7	Stability	
5.7.1	<p>The appliance was stable on a horizontal plane.</p> <p>The appliance was stable when placed on a horizontal plane with the grid loaded as stated in clause 7.2.6.1.</p> <p>The lid is held open by its own weight.</p> <p>No foldable support.</p>	Complies Complies Complies Not applicable
5.7.2	<p>The appliance was stable when placed on a 10° slope loaded and unloaded and the lid did not fall.</p> <p>Not designed to have gas cylinder fitted in the appliance.</p>	Complies Not applicable
5.7.3	The burner had an adequate number of supports for the pan to rest in a level stable fashion.	Complies

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
	The diameter of pan is 150 mm to 240 mm. A 20 cm pan was stable when 15 mm of centre moved and the appliance did not fall over.	Complies Complies
5.8	Holes and screws intended for assembly do not enter gas ways. The soundness of parts connected to the gas circuit is all realized by metal to metal seals or joints with rubber seals. Taps and injectors use a jointing compound to help seal the items in place. Soft solder is not used in the assembly of the gas circuit. The sealing compound has characteristics suitable for its use. The inlet connection is the only removable component. When the joint was made and disconnected five times it was found to be satisfactory.	Complies Complies Complies Complies Complies Complies Complies Complies
5.9	The connection of the appliance is easily achieved by following the instructions. The entire gas supply is at the pressure supplied by the regulator. The appliance will be supplied with the appropriate gas connection for the country of destination. During normal use the connection does not come loose. The hose does not come into contact with temperatures in excess of that state in this standard.	Complies Complies Complies Complies Complies
5.10	The appliance has lockable castors or the legs sit on the ground directly.	Complies
5.11	Taps	
5.11.1	Each burner is controlled by a tap opening and closing the gas supply. The taps are easy to manipulate and accessible and suffer no damage during use. They are protected against internal and external clogging. After the temperature test the taps remain easy to operate. No movement of the taps relative to the gas circuit occurs during normal use. Dismantling of the tap for re-greasing is possible. The tap remained functional after the temperature test.	Complies Complies Complies Complies Complies Complies Complies
5.11.2	The tap is a plug type tap. It has an automatic compensating device to take up play and ensure soundness. The tap has stops at both ends of the rotational travel. Reduced rate is at the end of the tap travel.	Complies Complies Complies Complies
5.11.3	The tap is not a variable position tap.	Not applicable
5.12	Control handles	-
5.12.1	It is obvious which burner is controlled by which tap handle. Movement of one handle does not cause inadvertent movement of any of the other handles. Control knob is identical to the ones fitted to the grill burners in operation and size. Control handle cannot be fitted in the incorrect position. The shape of the handle makes manipulation easy. The closing position of the tap is clockwise. The turning of the control handle does not cause the appliance to move.	Complies Complies Complies Complies Complies Complies Complies
5.12.2	Marking	
5.12.2.1	The closed and open position of the tap is marked on the fascia panel of the appliance in a visible position and is durable and legible. The closed position of the tap is marked. The closed position of the tap does not give rise to confusion. Other positions of the tap are marked in a non-confusing manner.	Complies Complies Complies Complies
5.12.2.2	The tap does not have variable positions.	Not applicable
5.13	The injectors are of the calibrated type and are detachable, accessible and are indelibly marked for size.	Complies
5.14	The ignition device ensures safe and rapid ignition of the burners. The components of the ignition device are designed to avoid damage and accidental movement during transport and use.	Complies Complies

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
	The relative positions of the burner and ignition pilot are defined to ensure rapid and safe ignition of the burner. The ignitor and ignition device are protected against soiling in use and maintenance. The ignition device lights the side burners directly. The ignition device lights the side burners directly.	Complies Complies Complies Complies
5.15	No flame supervision device fitted to the appliance.	Not applicable
5.16	The burner does not move when the appliance is moved. The burner does not leak gas from any joint. The burner can be easily dismantled and replaced for cleaning. The parts of the ignition collector and burner are in a fixed position relative to each other. The burner crown is not removable. The pan support is fixed design. The burner parts are not interchangeable.	Complies Complies Complies Complies Not applicable Complies Complies
5.17	The appliance does not incorporate a gas container.	Complies
5.18	The markings on the appliance were durable and were still legible at the end of the test programme.	Complies
5.19	No auxiliary energy sources connected to electrical mains supply used.	Not applicable
6	Performance characteristics	
6.1	The appliance was found to be sound both before and after the test programme.	Complies
6.2	The heat input of the appliance was verified.	Complies
6.3	No flame supervision device fitted to the appliance.	Not applicable
6.4	Safety of operation	
6.4.1	The ignition and crosslighting of the appliance were found to be satisfactory.	Complies
6.4.2	The flame stability of the appliance was found to be satisfactory.	Complies
6.4.3	The appliance was found to be satisfactory when tested with a 3 m/s draught blowing at the appliance.	Complies(4)
6.4.4	The appliance was found to be satisfactory when the overheating test was carried out.	Complies
6.5	Temperatures. Refer to Data result.	Complies
6.6	Overheating of the gas container	Complies
6.7	Combustion Side burner Refer to Data result.	Complies
6.8	The appliance did not soot during the test programme.	Complies
6.9	Rational use of energy	
6.9.1	The appliances as supplied met the efficiency requirement of 50% for open burners. 52.91% for models KS153718, KS163718, KS163718TB, KS163718TS. Note: it's not applicable for model KS159500 considering grill function of the infrared burner.	Complies
6.9.2	The appliances did not fit with a covered burner.	Not applicable
7.	Test Method (information)	
8.1	Marking on the appliances	Complies
	1. the name of the manufacturer or his identifying symbol	Complies
	2. the appliance name	Complies
	3. the total nominal heat input of all the burners expressed in kilowatts based on the gross calorific value and in grams per hour	Complies
	4. the type of gases which may be used and the corresponding supply pressures	Complies
	5. the appliances category	Complies
	6. the type of electrical supply used, if applicable. In addition, the data plate or any other support shall give the following warnings	Note applicable
	a. 'use outdoors only'	Complies
	b. 'read the instructions before using the appliance'	Complies
8.2	Packaging marking	Complies
	1. the type and pressure of the commercial gases which may be used	Complies
	2. the appliance category	Complies
	3. the instruction to only use the appliance outdoors	Complies

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
	4. the necessity of reading the instructions before use	Complies
8.3	Instructions for assembly, use and maintenance	Complies
8.3.1	the manufacturer's address	Complies
8.3.2	the conditions of assembly and dismantling and of storage of the functional section of the appliance, in particular:	Complies
	1. the precautions to be taken when storing the appliance	Complies
	2. the precautions to be taken in the case of blockage of the enture or venturis	Complies
	3. assembly diagrams, if applicable	Complies
	4. the marking of injectors	Complies
8.3.3	the conditions of connection to the gas container, in particular	Complies
	1. the type(s) of container(s) to be used and their position(s)	Complies
	2. the type of regulator to be used	Complies
	3. the type of flexible tube connecting the appliance to the gas container and the length recommended, which shall not exceed 1,50 m	Complies
	4. the routing of the flexible tube and the use of guides	Complies
	5. the necessity of changing the flexible tube when the national conditions require it	Complies
8.3.4	the conditions of installation, in particular	Complies
	1. the position of the connection flexible tube so as to ensure that it is not subjected to twisting	Complies
	2. an instruction such as 'this appliance must be kept away from inflammable materials	Complies
	3. the necessity of not obstructing the ventilation openings of the container compartment	Complies
	4. the precautions to be taken when changing the gas container, which shall be carried out away from any source of ignition	Complies
	5. the type of protection for the surface to be used when the support temperature exceeds 50 K	Not applicable
8.3.5	the conditions of use, in particular	Complies
	1. the usual cleaning and maintenance as well as the frequency of such tasks	Complies
	2. the procedure in the event of gas leak (turning off the gas supply)	Complies
	3. the minimum and maximum sizes of cooking vessels to be used	Complies
	4. the recommendation of the use of protective gloves when handling particularly hot components	Complies
	5. note advising that parts sealed by the manufacturer or his agent must not be altered by the user.	Complies
	6. 'only to be used outdoors'	Complies
	7. 'read the instructions before using the appliance'; as well as the instructions of the form:	Complies
	a. 'do not move the appliance during use'	Complies
	b. 'turn off the gas supply at the gas container after use'	Complies
	c. 'any modification of the appliance may be dangerous'	Complies

**Findings of examination to EN 1860-1: 2013+A1:2017 Appliances, solid fuels and firelighters for barbecuing – Part 1 Barbecues burning solid fuels – Requirements and test methods.
(Only for Dual Fuel(Charcoal barbecue and 3 burner gas barbecue with side burner))**

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
4	Requirements	
4.1	General requirements	
	The coatings on the appliance withstood the thermal test when tested to the requirements and test methods of clause 5.2. Note: For surfaces of and coatings on parts of the barbecue coming into contact with the food to be barbecued, cooking grid, rotisserie spit, rotisserie meat forks and gravy trays, see Regulation (EC) No 1935/2004 (see Bibliography). Differing legal requirements may exist in non-EU-countries.	Complies Complies
	The appliance is not a suitcase or portable appliance.	Not applicable
	The appliance is free from burrs, rough surfaces, sharp edges and corners that could cause injury to the user.	Complies
	The accessible parts of the appliance are made of steel and were greater than 0.7 mm thick. (Declared: thick 0.8 mm)	Complies
	When placed horizontally surface the appliance did not fall over when any of the removable components were inserted or removed and no item became detached or moved. The appliance also remained functional after clause 5.2 had been completed.	Complies
	After testing in accordance with Clause 5 a barbecue fails if:	
	a) No deformation of a component compromises the use and safety of the barbecue;	Complies
	b) No component cracks and/or fractures appear;	Complies
	c) No component falls off;	Complies
	d) The temperature and safety requirements are met	Complies
4.2	Requirements for parts	
4.2.1	Cooking grid	
	The cooking grids had a clear distance of less than 20 mm during and after testing to clause 5.2 and 5.6. (Declared: gap 17 mm)	Complies
	The cooking grid has the function of a grate	Complies
	When tested to clause 5.5 the cooking grid did not deform by more than 5%. The grid did not bend when the load was removed.	Complies
	Un adjustable cooking grid	Not applicable
	No handles	Not applicable
	The grid is un-adjustable for height.	Not applicable
	The cooking grid does not come into contact with the fuel when the charcoal grid is loaded to 75% of its capacity.	Complies
4.2.2	Rotisserie Spit	
	The appliance is not supplied with a spit.	Not applicable
4.2.3	Fuel compartment	
4.2.3.1	General	
	The fuel compartment is a steel sheet construction an opening on the bottom for model KS159500. Other models have no opening on bottom of the fuel compartment.	Complies
	The fuel compartment is made of steel sheet.	Complies
	The thickness of the steel sheet compartment is 0.8 mm	Complies
	The fuel compartment is not made of any material other than steel sheet and cast material.	Not applicable
4.2.3.2	Openings	
	An opening is on the bottom of the fuel compartment and an ash catcher is fixed under it for model KS159500. Other models have no opening on bottom and fit a charcoal tray.	Complies
4.2.3.3	Depth of the fuel compartment	
	The minimum depth of the fuel compartment is more than 60 mm. and it's available over 80 % of the usable area of the fuel compartment.	Complies
	The fuel compartment is not a grate.	Not applicable
	Each position of fuel compartment is secured.	Complies
	The barbecue is not a permanent barbecue.	Not applicable
4.2.4	Ash compartment or catcher	

CLAUSE	COMMENTS AND RESULTS	CONCLUSION
4.2.5	The ash catcher is made of metal sheet and it is 0.8 mm. Gravy tray or drip pan	Complies
4.2.6	The ash catcher acts as drip pan. Stand	Complies
	The stand is not foldable.	Not applicable
	The appliance was found to be stable when tested placed on a 10° inclined plane. The test was conducted with 1.5kg charcoal indicated per instruction manual.	Complies
	The stand can support the barbecue when tested in any position as described in 5.4. The barbecue shall not tip over and when used in accordance with the instructions for use no components shall fall off.	Complies
	The appliance can be sit by lockable castors or legs.	Complies
4.2.7	Handles or gripping devices	
	The length of handles exceeds 80 mm.	Complies
	Refer to Data result.	Complies
4.2.8	Motor	
	No motor fitted to this appliance.	Not applicable
5	Test methods	
6	Marking	
	The markings are visible, legible and indelible and in the language of the country of origin.	Complies
a.	The manufacturer's name was on the hangtag of the appliance.	Complies
b.	The warning notice "CAUTION! Do not use spirit or petrol for lighting or re-lighting!" is located on the left side shelf of the appliance. This warning notice shall still be legible and shall not have come off after testing in accordance with 5.2. The size of the lettering shall be at least 3 mm for capital letters and 2 mm for small letters and shall be visible during.	Complies Complies
c.	The model number of the appliance is on the packaging.	Complies
d.	Graphical pictograms (choose one of the following options: Figure 13 a), b) or c))	Complies
7	Instructions for use	
	The instructions for use were supplied in English for proof reading but will be supplied in the language of the country of destination the appliance is for sale in. The following information will be supplied with each appliance.	Complies
a.	The model number of the appliance.	Complies
b.	A statement the appliance has to be installed on a secure level base prior to use.	Complies
c.	Method of assembly with illustrations.	Complies
d.	Advice on the safe operation of the appliance.	Complies
e.	The recommendation that the appliance be heated up and the fuel kept red hot for at least 30 minutes prior to first cooking on the appliance.	Complies
f.	Recommended fuel, and maximum amount to be used.	Complies
g.	The correct lighting procedures including the statement 'Do not cook before the fuel has a coating of ash'.	Complies
h.	No batteries used on this appliance.	Not applicable
i.	The appliance is not a permanent appliance.	Not applicable
j.	The following warning notices: (for closed barbecue)	
	ATTENTION: This appliance will become very hot, do not move it during operation'.	Complies
	'Do not use indoors'.	Complies
	Caution! Do not use spirit, petrol or comparable fluids for lighting or re-lighting. Use only firelighters complying to EN 1860-3.	Complies
	WARNING: 'Keep children and pets away'.	Complies
	Both for open and closed barbecues and also for permanent barbecues (choose one of the following options: Figure 14 a), b) or c). "Do not use the barbecue in a confined and/or habitable space e.g. houses, tents, caravans, motor homes, boats. Danger of carbon monoxide poisoning fatality."	Complies
8	Package The packaging shall be marked with the following pictograms (choose one of the following options: Figure 15 a), b) or c).	Not applicable.

TEST SUMMARY					
Evaluation Period	3 August 2016 – 15 August 2016			Project No.	160803124GZU
Sample Rec. Date	3 August 2016	Condition	Prototype	Sample ID.	S160803124GZU-001
Test Location	Xicheng Area 2, Shiyong Village, Hengli Town, Dongguan City, Guangdong Province, China				
Test Procedure	Testing Manufacturer Premises				

Test Data Results:

Considering the construction, below test was chose and conducted:

Model	BS EN 498:2012	BS EN 484:1998	BS EN 1860-1:2013
KS153718	ALL	ALL	ALL
KS163718	Stability, temperature	Covered by KS153718	Stability, temperature
KS163718TB	All test except temperature test/side burner test covered by KS163718	Covered by KS163718	Covered by KS163718
KS163718TS	Stability, temperature	Covered by KS163718TB	Stability, temperature
KS163718T	Stability, temperature	Covered by KS163718TB	Stability, temperature
KS159500	ALL	N/A, Infrared burner	ALL

6.2 Heat input

KS153718 I ₃₊ , I _{3B/P(30)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	9.51	6.13	2.09	3.30
Rated heat input	kW	9.35	6.15	2.05	3.20
Deviation	%	101.7%	99.6%	2.0%	3.2%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

KS153718 I _{3B/P(37)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	9.20	6.08	1.99	3.35
Rated heat input	kW	9.35	6.15	2.05	3.20
Deviation	%	98.4%	98.9%	-2.7%	4.7%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

KS153718 I _{3B/P(50)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	9.86	6.37	2.14	3.35
Rated heat input	kW	9.35	6.15	2.05	3.20
Deviation	%	105.4%	103.6%	4.6%	4.8%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

KS163718TB I ₃₊ , I _{3B/P(30)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	9.36	6.23	3.11	3.32
Rated heat input	kW	9.35	6.15	3.075	3.20
Deviation	%	100.1%	101.3%	1.1%	3.6%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

6.2 Heat input(cont')

KS163718TB I _{3B/P(37)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	9.56	6.38	3.16	3.36
Rated heat input	kW	9.35	6.15	3.075	3.20
Deviation	%	102.3%	103.7%	2.9%	5.0%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

KS163718TB I _{3B/P(50)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	9.66	6.41	3.14	3.38
Rated heat input	kW	9.35	6.15	3.075	3.20
Deviation	%	103.3%	104.2%	2.3%	5.6%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

KS159500 I ₃₊ , I _{3B/P(30)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	12.55	8.97	2.99	3.59
Rated heat input	kW	12.30	8.79	2.93	3.50
Deviation	%	102.0%	102.0%	2.1%	2.6%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

KS159500 I _{3B/P(37)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	12.51	9.06	3.03	3.61
Rated heat input	kW	12.30	8.79	2.93	3.50
Deviation	%	101.7%	103.1%	3.3%	3.1%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

KS159500 I _{3B/P(50)}		Burner position			
		Total	Total main	Main	Side
Measured Heat input	kW	12.83	9.22	3.01	3.68
Rated heat input	kW	12.30	8.79	2.93	3.50
Deviation	%	104.3%	104.9%	2.8%	5.2%
Limited	%	≥90 %	≥90 %	± 8 %	± 8 %
Test result:	--	Pass	Pass	Pass	Pass

6.4 Safety of operation

Condition	Gas	Pressure	Hot or Cold	Result
For $I_{3+}(28-30/37)$ and $I_{3B/P}(30)$				
Ignition	G30 G31 G32 G30 G31 G32	20 to 35 mbar 25 to 45 mbar 25 to 45 mbar 20 to 35 mbar 25 to 45 mbar 25 to 45 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Cross lighting	G30 G31 G32 G30 G31 G32	20 to 35 mbar 25 to 45 mbar 25 to 45 mbar 20 to 35 mbar 25 to 45 mbar 25 to 45 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Lift	G30 G31 G32 G30 G31 G32	20 to 35 mbar 25 to 45 mbar 25 to 45 mbar 20 to 35 mbar 25 to 45 mbar 25 to 45 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Light back	G30 G31 G32 G30 G31 G32	20 to 35 mbar 25 to 45 mbar 25 to 45 mbar 20 to 35 mbar 25 to 45 mbar 25 to 45 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Draught	G31 G31	37 mbar 37 mbar	Hot Cold	Complies Complies

6.4 Safety of operation (cont')

Condition	Gas	Pressure	Hot or Cold	Result
For I_{3B/P(37)}				
Ignition	G30 G31 G32 G30 G31 G32	25.0 to 45.0 mbar 25.0 to 45.0 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Cross lighting	G30 G31 G32 G30 G31 G32	25.0 to 45.0 mbar 25.0 to 45.0 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Lift	G30 G31 G32 G30 G31 G32	25.0 to 45.0 mbar 25.0 to 45.0 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Light back	G30 G31 G32 G30 G31 G32	25.0 to 45.0 mbar 25.0 to 45.0 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Draught	G31 G31	37 mbar 37 mbar	Hot Cold	Complies Complies
For I_{3B/P(50)}				
Ignition	G30 G31 G32 G30 G31 G32	42.5 to 57.5 mbar 42.5 to 57.5 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Cross lighting	G30 G31 G32 G30 G31 G32	42.5 to 57.5 mbar 42.5 to 57.5 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Lift	G30 G31 G32 G30 G31 G32	42.5 to 57.5 mbar 42.5 to 57.5 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Light back	G30 G31 G32 G30 G31 G32	42.5 to 57.5 mbar 42.5 to 57.5 mbar	Hot Hot Hot Cold Cold Cold	Complies Complies Complies Complies Complies Complies
Draught	G31 G31	50 mbar 50 mbar	Hot Cold	Complies Complies

6.5 Temperatures

KS153718	Measured °C	Rise°C	Limited	Result
Hose surface	33.8	12.3	70K	Complies
Gas connector	37.1	15.6	30K	Complies
Main Gas tap	53.7	32.2	120°C	Complies
Side Gas tap	31.8	10.3	120°C	Complies
Ignitor	25.3	3.8	120°C	Complies
Facial panel	77.8	56.3	60K	Complies
Side facial panel	41.3	19.8	60K	Complies
Gas lid handle	53.3	31.8	35K	Complies
Charcoal lid handle	48.3	26.8	35K	Complies
Smoker lid handle	30.5	9.0	35K	Complies
Control knob	30.0	8.5	60K	Complies
Side control knob	24.1	2.6	60K	Complies
Ignition button	25.3	3.8	60K	Complies
Side wall	29.2	7.7	70K	Complies
Back wall	48.4	26.9	70K	Complies
Floor	40.7	19.2	70K	Complies

KS163718	Measured °C	Rise°C	Limited	Result
Gas lid handle(type 1)	54.3	32.8	35K	Complies
Gas lid handle(type 2)	48.2	26.7	35K	Complies
Charcoal lid handle(type 1)	48.3	26.8	35K	Complies
Charcoal lid handle(type 2)	42.0	20.5	35K	Complies
Side shelf/50 mm	66.5	45.0	60K	Complies
Side shelf/100 mm	53.4	31.9	60K	Complies
Lid handle type	Type 1		Type 2	
				

KS159500	Measured °C	Rise°C	Limited	Result
Hose surface	26.2	5.4	70K	Complies
Gas connector	29.8	9.0	30K	Complies
Main Gas tap	76.8	56.0	120°C	Complies
Side Gas tap	31.2	10.4	120°C	Complies
Ignitor	53.4	32.6	120°C	Complies
Facial panel	67.8	47.0	60K	Complies
Side facial panel	51.7	30.9	60K	Complies
Gas lid handle	47.7	26.9	35K	Complies
Charcoal lid handle	46.0	25.2	35K	Complies
Smoker lid handle	30.2	9.4	35K	Complies
Handle of ash tray	30.7	9.9	35K	Complies
Handle of height adjuster of charcoal grate	51.6	30.8	60K	Complies
Control knob	39.6	18.8	60K	Complies
Side control knob	27.0	6.2	60K	Complies
Ignition button	32.9	12.1	60K	Complies
Side wall	47.8	27.0	70K	Complies
Back wall	55.4	34.6	70K	Complies
Floor	42.4	21.6	70K	Complies

6.7 Combustion

KS153718, I ₃₊ , I _{3B/P(30)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	48	4.30	14	0.016
		Pn	37	4.03	14	0.013
		Half rate	198	2.55	14	0.109
		low rate/Pn	180	2.69	14	0.094
	Single main burner	Pmax	198	2.22	14	0.125
		Pn	125	1.34	14	0.131
		half rate	89	0.94	14	0.133
		low rate/Pn	89	0.94	14	0.133
Lid opened	Total main burners	Pmax	41	4.97	14	0.012
		Pn	29	4.29	14	0.009
		half rate	172	3.45	14	0.070
		low rate/Pn	168	3.61	14	0.065
	Single main burner	Pmax	163	2.86	14	0.080
		Pn	101	2.01	14	0.070
		half rate	79	1.92	14	0.058
		low rate/Pn	83	1.83	14	0.063
NA	Side burner	Pmax	106	2.48	14	0.060
		low rate/Pn	17	1.54	14	0.015

KS153718, I _{3B/P(37)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	44	4.57	14	0.013
		Pn	65	3.88	14	0.023
		half rate	88	2.62	14	0.047
		low rate/Pn	139	2.75	14	0.071
	Single main burner	Pmax	131	2.28	14	0.080
		Pn	226	2.28	14	0.139
		half rate	39	1.07	14	0.051
		low rate/Pn	78	2.35	14	0.046
Lid opened	Total main burners	Pmax	49	4.83	14	0.014
		Pn	73	4.95	14	0.021
		half rate	93	3.91	14	0.033
		low rate/Pn	145	4.05	14	0.050
	Single main burner	Pmax	135	3.76	14	0.050
		Pn	241	4.63	14	0.073
		half rate	78	2.09	14	0.052
		low rate/Pn	81	2.73	14	0.042
NA	Side burner	Pmax	85	2.49	14	0.048
		low rate/Pn	8	1.42	14	0.008

6.7 Combustion (Cont')

KS153718, I _{3B/P(50)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	40	3.89	14	0.014
		Pn	33	4.50	14	0.010
		half rate	107	2.28	14	0.066
		low rate/Pn	283	2.75	14	0.144
	Single main burner	Pmax	181	1.68	14	0.151
		Pn	170	1.75	14	0.136
		half rate	42	1.01	14	0.058
		low rate/Pn	66	1.14	14	0.081
Lid opened	Total main burners	Pmax	54	3.91	14	0.019
		Pn	41	4.32	14	0.013
		half rate	119	3.88	14	0.043
		low rate/Pn	301	4.03	14	0.105
	Single main burner	Pmax	197	2.83	14	0.097
		Pn	181	2.94	14	0.086
		half rate	63	2.09	14	0.042
		low rate/Pn	72	2.18	14	0.046
NA	Side burner	Pmax	48	2.35	14	0.029
		low rate/Pn	93	2.42	14	0.054

KS163718TB, I ₃₊ , I _{3B/P(30)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	40	3.56	14	0.016
		Pn	36	3.22	14	0.016
		half rate	242	2.08	14	0.163
		low rate/Pn	194	2.48	14	0.110
	Single main burner	Pmax	152	3.36	14	0.063
		Pn	99	2.95	14	0.047
		half rate	121	1.88	14	0.090
		low rate/Pn	119	2.15	14	0.077
Lid opened	Total main burners	Pmax	31	3.85	14	0.011
		Pn	28	3.41	14	0.011
		half rate	207	2.87	14	0.101
		low rate/Pn	166	2.68	14	0.087
	Single main burner	Pmax	132	3.06	14	0.060
		Pn	89	2.99	14	0.042
		half rate	109	2.17	14	0.070
		low rate/Pn	113	2.72	14	0.058

6.7 Combustion (Cont')

KS163718TB, I _{3B/P(37)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	229	6.51	14	0.049
		Pn	201	5.84	14	0.048
		half rate	215	2.82	14	0.107
		low rate/Pn	196	3.42	14	0.080
	Single main burner	Pmax	155	3.76	14	0.058
		Pn	180	3.49	14	0.072
		half rate	96	1.54	14	0.087
		low rate/Pn	155	2.62	14	0.083
Lid opened	Total main burners	Pmax	183	6.73	14	0.038
		Pn	192	5.90	14	0.046
		half rate	178	3.19	14	0.078
		low rate/Pn	181	3.63	14	0.070
	Single main burner	Pmax	132	3.92	14	0.047
		Pn	151	3.91	14	0.054
		half rate	101	2.30	14	0.061
		low rate/Pn	145	2.91	14	0.070

KS163718TB, I _{3B/P(50)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	123	3.29	14	0.052
		Pn	107	3.42	14	0.044
		half rate	136	2.01	14	0.095
		low rate/Pn	210	2.55	14	0.115
	Single main burner	Pmax	35	4.16	14	0.012
		Pn	18	4.10	14	0.006
		half rate	123	2.54	14	0.068
		low rate/Pn	99	3.02	14	0.046
Lid opened	Total main burners	Pmax	83	3.56	14	0.033
		Pn	96	3.79	14	0.035
		half rate	127	2.94	14	0.060
		low rate/Pn	171	3.02	14	0.079
	Single main burner	Pmax	29	4.39	14	0.009
		Pn	16	3.84	14	0.006
		half rate	103	2.93	14	0.049
		low rate/Pn	82	3.18	14	0.036

6.7 Combustion (Cont')

KS159500, I ₃₊ , I _{3B/P(30)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	27	4.90	14	0.008
		Pn	24	4.36	14	0.008
		half rate	12	2.15	14	0.008
		low rate/Pn	14	2.08	14	0.009
	Single main burner	Pmax	11	1.46	14	0.011
		Pn	9	1.13	14	0.011
		half rate	7	1.05	14	0.009
		low rate/Pn	10	1.09	14	0.013
Lid opened	Total main burners	Pmax	23	4.38	14	0.007
		Pn	18	4.09	14	0.006
		half rate	14	3.11	14	0.006
		low rate/Pn	16	3.37	14	0.007
	Single main burner	Pmax	13	2.03	14	0.009
		Pn	9	1.15	14	0.011
		half rate	8	1.13	14	0.010
		low rate/Pn	6	1.09	14	0.008
NA	Side burner	Pmax	33	2.01	14	0.023
		half rate	58	1.01	14	0.080

KS159500, I _{3B/P(37)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	77	4.09	14	0.026
		Pn	61	3.63	14	0.024
		half rate	25	2.07	14	0.017
		low rate/Pn	22	2.01	14	0.015
	Single main burner	Pmax	12	1.48	14	0.011
		Pn	9	1.41	14	0.009
		half rate	6	1.07	14	0.008
		low rate/Pn	4	1.07	14	0.005
Lid opened	Total main burners	Pmax	55	5.18	14	0.015
		Pn	49	4.71	14	0.015
		half rate	18	3.09	14	0.008
		low rate/Pn	16	2.76	14	0.008
	Single main burner	Pmax	18	1.92	14	0.013
		Pn	10	1.65	14	0.008
		half rate	5	1.39	14	0.005
		low rate/Pn	4	1.12	14	0.005
NA	Side burner	Pmax	41	2.28	14	0.025
		half rate	65	1.28	14	0.071

6.7 Combustion (Cont')

KS159500, I _{3B/P(50)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	18	4.77	14	0.005
		Pn	13	4.57	14	0.004
		half rate	12	2.08	14	0.008
		low rate/Pn	11	2.62	14	0.006
	Single main burner	Pmax	12	1.62	14	0.010
		Pn	3	1.21	14	0.003
		half rate	5	0.94	14	0.007
		low rate/Pn	4	1.07	14	0.005
Lid opened	Total main burners	Pmax	16	5.39	14	0.004
		Pn	10	4.81	14	0.003
		half rate	8	3.74	14	0.003
		low rate/Pn	9	3.88	14	0.003
	Single main burner	Pmax	8	3.17	14	0.004
		Pn	6	3.01	14	0.003
		half rate	5	1.09	14	0.006
		low rate/Pn	3	1.02	14	0.004
NA	Side burner	Pmax	29	2.22	14	0.018
		half rate	60	1.07	14	0.079

6.9 Rational use of energy (EN484)

Model	KS153718/KS163718/KS163718TB/KS163718TS/KS163718T
Category	I _{3B/P(29)}
Measured result	52.91%
Limit	≥50%
Result	Pass

TEST SUMMARY				
Evaluation Period	2/June/2017		Project No.	170527028GZU
Sample Rec. Date	2/June/2017	Condition	Prototype	Sample ID. S170527028-001
Test Location	Xicheng Area 2, Shiyong Village, Hengli Town, Dongguan City, Guangdong Province, China			
Test Procedure	Testing Manufacturer Premises			

Test Data Results:

Considering the modifications on hoods and gas cooking grids, below test was chose and conducted:

Model	BS EN 498:2012
KS159500	7.2.6 Stability of the appliance 7.2.16 Grid 7.3.1 Soundness 7.3.2 Verification of the nominal heat input 7.3.7 Combustion

6.2 Heat input

KS159500 I ₃₊ , I _{3B/P(30)}		Burner position
		Total main
Measured Heat input	kW	8.29
Rated heat input	kW	8.79
Deviation	%	94.3%
Limited	%	≥90 %
Test result:	--	Pass

KS159500 I _{3B/P(37)}		Burner position
		Total main
Measured Heat input	kW	8.98
Rated heat input	kW	8.79
Deviation	%	102.2%
Limited	%	≥90 %
Test result:	--	Pass

KS159500 I _{3B/P(50)}		Burner position
		Total main
Measured Heat input	kW	8.37
Rated heat input	kW	8.79
Deviation	%	95.2%
Limited	%	≥90 %
Test result:	--	Pass

6.7 Combustion

KS159500, I ₃₊ , I _{3B/P(30)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	31	1.90	14	0.023
		Pn	7	3.59	14	0.003
		half rate	62	1.09	14	0.080
		low rate/Pn	27	1.84	14	0.021

KS159500, I _{3B/P(37)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	74	4.65	14	0.022
		Pn	62	3.84	14	0.023
		half rate	18	1.95	14	0.013
		low rate/Pn	30	1.98	14	0.021

KS159500, I _{3B/P(50)}						
Lid position	Burner	Gas pressure mbar	(CO) _M ppm	(CO ₂) _M %	(CO ₂) _N %	(CO) _N %, (0.2%)
Lid closed	Total main burners	Pmax	35	4.14	14	0.012
		Pn	23	3.87	14	0.008
		half rate	18	2.12	14	0.012
		low rate/Pn	17	2.48	14	0.010

TEST SUMMARY

Evaluation Period	29/Aug/2017 ~ 1/Sep/2017	Project No.	170901075GZU
Test Location	Dongguan Kingsun Enterprises Co., Ltd Xicheng Area 2, Shiyong Village, Hengli Town, Dongguan City, Guangdong Province, China		
Test Procedure	Testing Manufacturer Premises		

Test program: due to the update for charcoal part from EN1860-1:2013 to EN1860-1:2013+A1:2017, no additional testing was requested, only marking and manual was updated and checked.

TEST SUMMARY

Evaluation Period	1/Sep/2017~8/Jan/2018	Project No.	170901078GZU
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Test program:

No testing due to annual surveillance, and the client provide the Risk assessment form per European Council Regulation (EU) 2016/426.

Actions arising during examination**BS EN 498:2012 and BS EN 484:1998 and BS EN 1860-1: 2013 from 160803124GZU**

<u>Clause</u>	<u>Comment</u>
5.6.2(1) (BS EN 498:2012)	KS159500 was found it fell over when placed on a 10°slope. Action taken: the manufacturer was informed and increased the distance between side wheels to 44 cm. It complies after re-testing. (Resolved) KS163718 was found it fell over when placed on a 10°slope. Action taken: the manufacturer was informed and added a steel wire Ø6.00mm*285mm into front legs. It complies after re-testing. (Resolved)
6.5(2) (BS EN 498:2012)	KS159500 was found the temperature of facial panel outside the limit. Action taken: the manufacturer was informed and improved this issue. An additional steel sheet as the thermal shield was installed between the control panel and combustion chamber, meanwhile, 2pcs metal spacers were used to keep 6.5mm distance between them, so, thermal exhausting can be formed. It complies after re-testing. (Resolved)
6.7(3) (BS EN 498:2012)	KS153718/KS163718 was found AFCO outside the limit during combustion test. Action taken: the manufacturer was informed and increased the gap of crosslighting tube itself to 5.5mm. It complies after re-testing. (Resolved)
6.4.3(4) (BS EN 484:1998)	KS159500 was found side infrared burner extinguished during 3 m/s draught testing. Action taken: the manufacturer was informed and added a metal sheet (100 mm*70 mm) as the wind shield above side burner. It complies after re-testing. (Resolved)

SURVEILLANCE

In order to affix the CE mark, an EU Surveillance Certificate (EU Declaration of Conformity to Type) is required. The following information should be provided to the Notified Body conducting the surveillance:

The full Certification (technical file) issued containing the following information:

- Type Examination Certificate
- Type Examination report
- Type examination GAR application form
- Declarations of Conformity
- Safety related control certificates
- Appliance marking
- Packaging marking
- Instruction manual (user and installation where applicable)
- BOM (bill of materials list)
- Full set of drawings
- Risk Assessment Form

Note: The above information is required for production and QA surveillance assessments.

*****END OF REPORT*****