

USER MANUAL

ELECTRICAL STEAM GENERATOR

DLD6-0.4-B3

Please read it carefully before use.

Summarization

DLD6-0.4-B3 Type Electric heating steam boiler is my livelihood of the latest production of small electric heating steam boiler in a part of products. Not only a fully new boiler structure, simple aesthetic appearance, and will use the latest type of control vigor. So they have the new structure, performance, quality, easy to use, safe, reliable, handsome and practical, energy saving and environmental protection, and many other advantages. At the same time, the water level control device used water level ball float valve ,the heating power 6kW, and single phase 220V power supply, and it could be adapted to different customer needs.

It can be widely used in the garment industry washing, dry-cleaning, ironing process, such as the steam supply, can also be applied to small and medium-sized enterprises and individual service operators in the production and livelihood in the most economical and practical gas equipment.

Main technique parameter

Model	DLD6-0.4-B3
Heated power(kW)	6
Rated amount of steam(kg/h)	9
Rated pressure (MPa/bar)	0.4(4)
Rated temperature of steam(°C)	151
Water Capacity(L)	12
Size(mm)	580x450x980
Water level controller	ball float valve
Voltage	AC 220V/1PH

Characteristics:

DLD6-0.4-B3 type Electric heating boiler is fully automated-type steam boilers, water drum contents by ball float valve , And to accompany the water and pumps, according to the level of boiler water pumps to control the work to ensure that the boiler water level in the high - and low-security between the normal water level fluctuations, and ensure that boilers can connect to operate normally. As a result, the boiler water level gauge is no longer with。 drum also equipped with the minimum safety level, its position slightly lower than the low security level, as if the boiler water level lowered to the water level, it will cut off all through contact with heating power to prevent the water level continues to decline, and burning electric heating elements to ensure that the electrical heating elements and the security of the whole boiler。

DLD6-0.4-b3 is automatically electrically heated steam boiler, but its water level control device is float-type controller (relay), the use of stainless steel drum float in the float devices, leveraging the role of , directly to the position switch to activate the pump and stop to ensure that the boiler water level in the high - and low-security between the normal water level fluctuations can guarantee continuous uptime boiler。

In the top of the boiler with a pressure gauge, can display and monitor the boiler pressure working . In boiler body are equipped with pressure controller, as early as when the pressure increased reach the steam pressure controller set limit, no heating, which can be prevented continue to increase pressure caused by the phenomenon of overpressure. When the pressure drop to under pressure controller set time limit, he will be automatically connected to circuit, and through contacts to let restore electrical strength and heating. Maintain normal pressure and gas. In the factory, the general pressure on the controller will be the control of the set at between 4.2 bar and 3.5 bar(0.42-0.35MPa), users not to be used again to make adjustments.

Only accidental circumstances (such as pressure controller failure ,contactor contact bonding, etc.) being able to give the strength of electric power to cut off, which will enable the work of the boiler and pressure continue to rise out of control, beyond the original set ceiling, in such circumstances. The boiler safety valve spring-loaded equipment will be automatically opened to release steam to ensure that the pressure will not be unduly increased, in order to ensure the safe operation of boiler

As long as the boiler feedwater box guarantee continuous water supply, boiler will be able to achieve a fully automated continuous, stable operation.

Explanation of Installation

1. Wheel installed at the bottom of the boiler, to facilitate the movement or transport, and therefore should be set up in the easy-to-use operation and maintenance of premises, due to restrictions on the length of vapor hose should also be installed in the hot-gas or used in the vicinity of other equipment.

2. When the boiler single-phase 380 V power supply, according to the models rated boiler heating power corresponding to 1.2 times the work of current size, the cross-sectional area necessary to use copper wires to the power supply. Furthermore, the grounding terminal, security equipment to protect the earth as a grounding line

3. Boiler Feedwater softened water or distilled water should be used, the appropriate hoses can be used to connect to the water inlet on the joints.

4. Boiler bottom there is a sewage valve DN15 (G1/2) before use should be closed. Before the boiler to stop using in daily, it should be open sewage. Outfall should be received secure locations to prevent soft drinks scalded. The operator should be in the boiler side when Sewage valve operation.

5. The steam boiler, on the top of the hose connector of trigeminal boiler valve, it can connect with the steam iron hose connections in directly. This can be demolished trigeminal valve components, and to change as pipe valves and other equipment connected with gas.

6. Boiler installation within the various electrical components, pressure controller, the water level probe, as well as a safety valve, such as security annex, instrumentation, and so on, have been adjusted in the factory, and not random changes, adjustments

Explanation of Using

1. Ready

(1) Checking and make sure the boiler valve, electrical components, and the operation line, steam line are in normal before using.

(2) Then closed the bottom sewage valve, open the feed-water pump and the steam outfall valve. Then, to feed water. and get the breaker(QF) and the power switch is on, then, pressing the opening system(1), feed-water, at this time, the indicator light is on, the feed-water pump stop automatically when the water feeding reach the highest water level. The light is off.

(3) Closed the top steam outfall valve or, opened a little, the ready process is finish.

2. open and the running

(1). Connect power supply, completion of the preparation process, to begin immediately and start water boilers, electric heating element is the beginning heating, heating bright lights, boilers, water heating is boiling

shall, produce steam, pressure increased gradually until the pressure controller set the ceiling, automatic stop heating, heating lights extinguished. At this point the field to start gas supply

Boiler heating circuit for the sub-heating method, operation panel with another boat-shaped switch AK2、AK3, were marked with full power for heating and power-heating. By different switch location, as different heating power, boost speed and start the process of evaporation of different sizes. Have the freedom of choice.

(2).Boilers enter normal operation; it will maintain a certain level of pressure and water level fluctuation within the scope of automatic continuous operation continue. Only when the boiler full power operation, the amount of evaporation can not satisfy the demand for gas, which is running beyond its capacity, the pressure will be lower than the rated working pressure, but also for work

3. The stopping

(1) Press the switch on the operator panel AK1, instructions light off, then will be cut off power supply and control of heating power, boilers immediate access to stop procedures, then. Steam pressure will be gradually reduced until zero. Pressure close to zero, the lower part of the sewage valve can be opened, the remaining water and remove furring

(2) the boiler is stopping working ., a valve or sewage valve that opened a little at the end . This can be avoided vacuum formed when the boiler gradually cooling, it will be in the water cisterns inhalation, and even The full absorption of water boiler. However, even if the absorption of water, but also no bad out, just in the next activated, the appropriate release them some water

4. feed-water

(1).Automatic Boiler running process, the operation will control the entire process automatically. so that the pressure, the water level is maintained at the pre-set (adjusted) within the scope of their normal work. The water level is low, to feedwater automatic by pumps, the highest security level, pumps automatically stops. Pressure greater than the pressure controller set the lower limit, electric heating devices reach to limit the of pressure , and stop heating, thus maintain the normal pressure.

(2).Had better use softening water as feedwater of water.Otherwise should choose guarding- fouling agent to prevent fouling. Time and quantity-limit immit medicine in the boiler and eliminate pollution according requirement of explanation sheet. Water quality of feed water should accord with the following criterion.:

Suspending object (mg/L)	General rigidity (mmol/L)	pH measurement (25°C)	General alkali-degree (mmol/L)
≤ 5	≤ 0.03	≥ 7	≤ 2

If water can not achieve the above requirements, scale inhibitor should be used to prevent boiler fouling. Antiscale the use of the agent

should be chosen according to the scale inhibitor Manual regulations and requirements, regular quantitative drug to increase boiler, and sewage. sewage should be in the high water level, low pressure, low evaporation working when boiler working off.

5. Notice:

(1) Boiler water level probe in the top flat above a dedicated cover. Wiring probe should be reliable, and no foreign things malfunction caused it. Used for a period of time and found that the water level control or alarm failure . The bottom probe should be removed wash the surface, and maintain normal function

(2) Sewage should be do at the end of operation. And the pressure to lower. Sewage should be taken to avoid scalding.

(3)Boiler stop, it should cut off power and water supply ,and do a good job of Shutdown of the operation and cleaning work, can be off.

Maintenance and upkeep

1.Should maintain boiler cleaning, the valve will be open sewage water heaters with sediments to put together when the pressure dropped to zero.

2. Had better use softening water as feedwater of water. If the direct use of general as boiler feed water, the water should be used scale remover regular cleaning, the use of the method according to his statement to the provisions of operation. If the boiler wall, the surface of scale. Recommendations: ammonia chloride and soda will be the 1 ~ 1.5kg and dissolved in water 12 to 15kg solution made by adding water or by adding water boiler funnel, and then heating ventilation to 0.2 MPa (2bar), cooking stoves half an hour and then heated to stop。 the pressure low to 0.1 MPa (1bar) After the opening of the sewage release them all fire, please be injected water rinse twice to clean the furnace

3. Pressure gauge should be a check every six months, to let gauge the value consistently in the correct direction

4. Every 1-3 months manually open the safety valve for a deflated trial., stimulating stem hand to exhaust When the boiler in normal operation, to prevent adhesion occurred, affecting safety valve is unable to accurately exhaust.

5. Monthly electrical appliances should be checked and confirmed, the control component of normal, correct. And remove the fault may have

Familiar malfunction and eliminating method:

Malfunction phenomenon	Malfunction reason	Eliminating method
putting through power, but indicator light is off	Touching of power is badness	Restart joint and tightening
	Malfunction of indicator light	Replace
	A switch doesn't join	Join all switch
It is down to least water level, but water pump is out of working yet.	Malfunction of touching implement (ball float control-shape)	Repair or replace
	Much begrime of water level probe (ball float control-shape)	Wash or replace
	Wire touching is badness	Fix tightly again
	Malfunction of water pump	Repair or replace fittings
	Blocking of ball float control-shape by fouling	Dismantle and wash ball float control
The motor of feed water pump circle, but not to feed water	Without water in the water tank	Check supply of water source or ball float control valve
	Pipe-line jam of tie-in	Clear or replace
	Abrasion of water pump impeller or lapse of act-seal ring	Restart fixing tightly
	Blocking of check valve	Repair or replace
	Some air in the feed water-pump	Screw loosely Out-steam plug of water pump, discharge air
Over-high or over-low of water level	Blocking of communicating valve	Rinsing, dredging and repairing

	of water gage	
	open circuit(prob-control shape) of water level probe(electrode bar)	Repair or replace
	Contactora malfunction	Repair or replace
Pressure non- rising	Electric heated pipe mangle	Repair or replace
	Contactora mangle	Repair or replace
	Malfunction of pressure-control	Repair or replace
	Bending of pressure gauge or blocking of T tube joint	Rinsing, dredging and repairing
Pressure rising slowly	Using beyond capacity	Reducing cube of using steam
	Pipe-line leak steam or it doesn't heat preservation	Clean leakage, strengthen heating preservation
	Feed water trap of pipeline leak steam	Repair or replace
	Draining valve of the end of pipeline doesn't close	Close blow-off valve
	Three-phase power supply lack phase circuit	Repair or replace
	Part of electric heated pipe mangle or fouling is so much	Clear or replace
safety valve exhaust ceaselessly	Working pressure of boiler is over-high	Regulation once more
	Discharging pressure of safety valve is over-low	Regulation once more
	Petal of safety valve put fixedly	Clean and repair
	Others malfunction of safety valve(valve body break, spring is lapse)	Replace
Pressure rise quickly until safety valve open	noumenon of boiler is full of water,steam	Open blow-off valve to discharge water until

to return to zero with heating	space is too small.	normal, then restart
Indication of water gauge is wrong	Pin of gauge is loose	Replace new gauge or repair and inspect
	Others malfunction of water gauge	Replace new gauge or repair and inspect
Unable to discharge pollution	Blocking of base of boiler	Clean sundries and furring of boiler
	Malfunction of Draining valve	Replace or repair
Leakage of Draining valve, Unable to close	Blocking of eyewinker in valve	Check and clean
	Valve petal of airproofing is sadness	Check and clean
electrical apparatus flop or quiver continuously, working is not steady	The voltage is low	Regulation of voltage
	liquid level probe(electrode bar) is so much begrime	Clean probe
	signal line of liquid level relay connect grounding(crust) badly	Check and eliminate
	Contactors is short circuit or mangle	replace