INSTALLATION & OPERATION START-UP REPORT

NON-CONDENSING HOT WATER BOILERS

NOTE: WARRANTY IS VALID ONLY IF THIS FORM IS COMPLETED AND RETURNED TO FULTON WITHIN TWELVE WEEKS OF START-UP.

DATE		CUSTOMER	
TECHNICIAN		CONTACT NAME	
TECH. COMPANY		CITY, STATE	
BOILER MODEL		PHONE NUMBER	
NATIONAL BOARD #		E-MAIL	
FULTON REP.			

GENERAL:

Boiler location			
Base is noncombustible material	◯ YES	◯ NO	
Room temperature			ºF
Ambient air temperature outside			ºF
Room pressure/neutral atmospheric pressure			IN WC
Room has passive ventilation (vents & convection)	◯ YES	◯ NO	
If mechanical ventilation is used, interlock is present	◯ YES	◯ NO	
Boiler clearance is suitable for maintenance	◯ YES	◯ NO	
Top of the boiler & inspection openings are accesible	◯ YES	◯ NO	
Burner make & model (if separate burner nameplate is present)			

COMBUSTION AIR SUPPLY FROM BOILER ROOM ONLY:

If boiler room, what is the Upper Louver Size? (net free area)			FT^2
If boiler room, what is the Lower Louver Size? (net free area)			FT^2
Combustion air louver type	◯ FIXED	◯ MOTORIZED	
If motorized, are they interlocked with the boilers?	◯ YES	◯ NO	☐

COMBUSTION AIR SUPPLY DUCTED DIRECTLY TO BOILER ONLY:

Combustion air intake material type (ie: PVC, Spiral Metal Duct, etc.)			
Air intake termination location	◯ ROOFTOP	◯ SIDEWALL	
Intake configuration	◯ INDIVIDUAL	◯ COMMON	
Combustion air intake ducting diameter			IN
Combustion air intake ducting length			FT
Combustion air intake elbow quantity	45°	90°	
Horizontal separation between intake and exhaust termination			FT
Vertical separation between intake and exhaust termination			FT

FLUE GAS EXHAUST VENT CONFIGURATION:

Flue gas exhaust venting material			
Exhaust termination location	◯ ROOFTOP	◯ SIDEWALL	
Exhaust configuration	◯ INDIVIDUAL	◯ COMMON	
Venting inside diameter			IN
Total venting length (rise + run)			FT
Vertical rise only			FT
Elbows quantity	45°	90°	
Exhaust fan installed	◯ YES	◯ NO	
Exhaust fan setpoint pressure			IN WC
Common vent pressure with all the boilers on	HIGH FIRE	LOW FIRE	
Boiler has a modulating draft damper	◯ YES	◯ NO	
Common exhaust has a modulating draft damper	◯ YES	◯ NO	◯ N/A

SAFETY CHECKS: *Check all safeties below for proper operation and document the final settings.*

DEVICE	SETTING	OPERATIONAL
Low water safety		
Air switch		
Low gas pressure switch		
High gas pressure switch		
Low oil pressure switch		
High oil pressure switch		

DEVICE	SETTING	OPERATIONAL
Blower motor overload		
Oil pump overload		
High temperature limit		
Temperature controller		
Fuel train leak test		
Proof of Closure (POC)		

MOTOR MEASUREMENTS:

	AMPERAGE			VOLTAGE		
LEGS:	L1	L2	L3	L1-L2	L2-L3	L1-L3
Blower motor @ high fire						
Oil pump motor						

NOTE: Complete all combustion tables that apply. A minimum of one table will apply for any boiler.

COMBUSTION TABLE - PRIMARY FUEL (Linkageless): *Fuel Type:* ◯ *Natural Gas* ◯ *Propane*

FIRING POSITION:	P0 LIGHT	P1	P2	P3	P4	P5	P6	P7	P8	P9 100%
Air gate position										
Air position										
Supply gas pressure (IN WC)										
Manifold gas pressure (IN WC)										
Pilot gas pressure (IN WC)										
Fan discharge pressure (IN WC)										
Analyzer O_2 %										
CO_2 %										
CO ppm										
NOx @ 3%										
Room ambient temperature (ºF)										
Combustion air temperature (ºF)										
Stack temperature (ºF)										
Stack draft (IN WC)*										
Outlet water temperature (ºF)										
Main flame signal										
Pilot flame signal **										
VFD (%)										
FGR Servo Position										

** Use only a Slack Tube® Manometer or equivalent. The use of a digital manometer is not recommended.*
*** Where applicable*

COMBUSTION TABLE - NATURAL GAS COMBUSTION AT OPERATING TEMPERATURE (Linkage):

FIRING RATE:	0	25	50	75	100
Air gate position					
Gas valve position					
Supply gas pressure (IN WC)					
Manifold gas pressure (IN WC)					
Over burner pressure (IN WC)					
NOx corrected to 3% O_2					
O_2 %					
CO_2 %					
CO PPM					
Ambient air temperature (ºF)					
Stack temperature (ºF)					
Outlet water temperature (ºF)					
Stack draft (IN WC)					
Flame signal					

COMBUSTION TABLE - OIL COMBUSTION AT OPERATING TEMPERATURE (Linkage):

FIRING RATE:	0	25	50	75	100
Air gate position					
Hauck valve position					
Pump pressure (PSI)					
Nozzle pressure (PSI)					
O_2%					
CO_2%					
CO PPM					
Ambient air temperature (ºF)					
Visible smoke					
Stack temperature (ºF)					
Outlet water temperature (ºF)					
Stack draft (IN WC)					
Flame signal					

COMBUSTION TABLE - LO-HI-LO SECOND FUEL: *#2 Fuel Oil Lo-Hi-Lo (Staged)*

FIRING POSITION:	P0 LIGHT	P1 STAGE 1	P2 ON	P2 STAGE 2	P2 OFF
Oil pump pressure (PSI)					
Oil return pressure (PSI)					
Oil pump inlet suction (PSI)					
Combustion head setting					
Air position					
Fan discharge pressure (IN WC)					
Smoke spot (scale number)					
Visible smoke					
Analyzer O_2 %					
CO_2 %					
CO ppm					
Boiler room ambient temp. (ºF)					
Combustion air temperature (ºF)					
Stack temperature (ºF)					
Stack draft (IN WC)					
Outlet water temperature (ºF)					
Main flame signal					

COMBUSTION TABLE - MODULATED SECOND FUEL: *Fuel Type:* ◯ *Natural Gas* ◯ *Propane* ◯ *#2 Fuel Oil Modulated*

FIRING POSITION:	P0 LIGHT	P1	P2	P3	P4	P5	P6	P7	P8	P9 100%
Oil pump pressure (PSI)										
Oil return pressure (PSI)										
Oil pump inlet suction (PSI)										
Combustion head setting										
Fuel position										
Air position										
Supply gas pressure (IN WC)										
Manifold gas pressure (IN WC)										
Pilot gas pressure (IN WC)										
Fan discharge pressure (IN WC)										
Smoke spot (scale number)										
Analyzer O_2 %										
CO_2 %										
CO ppm										
Room ambient temperature (ºF)										
Combustion air temperature (ºF)										
Stack temperature (ºF)										
Stack draft (IN WC)										
Outlet water temperature (ºF)										
Main flame signal										
Pilot flame signal										
VFD (%)										
Atomization Pressure (PSI)										

When complete, please keep this form with the boiler, store a record copy in a safe location, and return a copy to Fulton:

Fulton
ATTN: Service Coordinator
972 Centerville Road
Pulaski, New York 13142

NOTE: Submission of this report is not an acceptance/approval of the technician's work and recorded data. Reports will be filed but may not be reviewed by technical service.