



# B-808

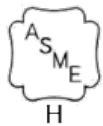
2008 Cleaver-Brooks CBLE-200-350-200



# GENERAL DESIGN



## STANDARDS & CERTIFICATIONS



ASME Section IV



National Board Registered



Hartford Steam Boiler Inspected



NFPA-85 Build Standard



UL (C) Boiler + Burner Package



FM Global

MANUFACTURER (OEM)	Cleaver-Brooks
YEAR	2008
SERIAL NO.	OL106838
NATIONAL BOARD NO.	15580
CRN NO.	L1038.5
MODEL	CBLE-200-350-200
TYPE	Scotch
DESIGN	Four-Pass Dryback Firetube
MOUNTING	Saddles & Skid-Mounted
INTERNAL	Corrugated Furnace & Straight Tubes



# CAPACITIES & INPUTS



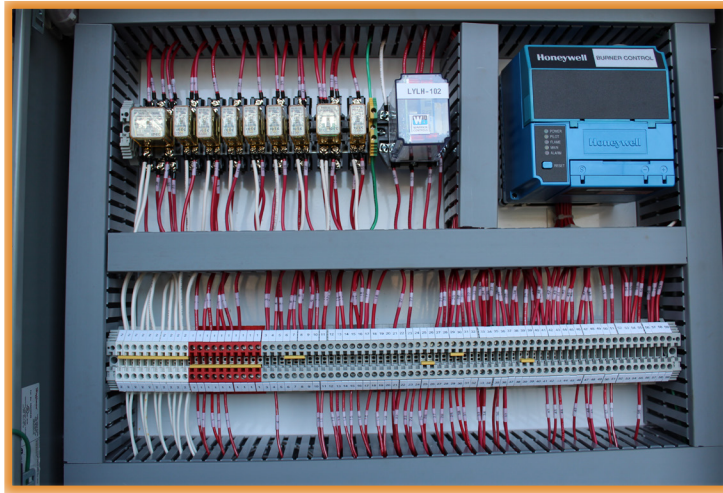
OUTPUT CAPACITY	12,075 LB/HR
HORSEPOWER	350 BHP
DESIGN PRESSURE (MAWP)	200 PSIG
OPERATING PRESSURE RANGE	50 - 185 PSIG
HEATING SURFACE	1,750 ft <sup>2</sup>
MAX. FUEL INPUT	NG: 14,288,00 BTU/HR #2: 102.1 GAL/HR
STANDARD FUELS <sup>1</sup>	Natural Gas & #2 Fuel Oil
ADDITIONAL FUELS <sup>2</sup>	#6 Fuel Oil
INPUT GAS PRESSURE	MAX: 4.5 PSIG MIN: 45 " WC
TURNDOWN RATIOS	NG: 10:1 #2: 8:1
EMISSION RATING (NOX)	NG: 30 PPM #2: 90 PPM

<sup>1</sup> Standard Fuels: Boiler comes ready to burn these fuels including fuel train, safety devices, integral wiring and delivery systems.

<sup>2</sup> Additional Fuels: Boiler is capable of running on these fuels but requires modifications to the burner, fuel delivery systems and wiring, at additional cost.



# BURNER AND ELECTRICAL



BURNER MANUFACTURER (OEM)	Cleaver-Brooks
MODEL	Integral - LE
TYPE	Full Modulation
FLUE GAS RECIRCULATION (FGR)	Yes
ELECTRIC	480V/3Ph/60Hz
ATOMIZATION	Air
CONTROL TYPE	Single-Point Positioning
BOILER CONTROL SYSTEM	-
BURNER MANAGEMENT SYSTEM	Honeywell RM7800L
FLAME SAFEGUARD	IR Scanner
BLOW MOTOR	30 HP
BURNER INSTALLED	Yes
PILOT TYPE	Propane (LPG), NG, Spark
INSTRUMENT AIR	-
AIR COMPRESSOR	5HP (Included)



# DIMENSIONS AND WEIGHTS



OVERALL LENGTH	20' 10"
OVERALL HEIGHT	9' 7"
OVERALL WIDTH	8' 0"
SHIPPING WEIGHT	29,300 LBS
OPERATING WEIGHT	44,765 LBS
BOILER OUTLET	6" $\varnothing$ 300# STUDDERY FLG.
EXHAUST OUTLET	20" $\varnothing$ OD



# COMPONENTS

BOILER TRIM			
ITEM	INCL	DESCRIPTION	STATUS*
MANWAYS	Y	(1) 12x16 - Top of Drum	I
HANDHOLES	Y	(6) 3.25x4.5 - Bottom, Lower, and Upper Drum	I
FURNACE ACCESS	Y	Front & Rear Hinged Doors	I
WATER COLUMN	Y	Apollo Valves	I
SIGHT GLASS	Y	Mounted on MM 194 with blowdown/drain, 5/8" Thick	I
PRIMARY LOW WATER CUTOFF	Y	Float Type (McDonnell Miller 194), Auto Reset	I
AUXILIARY LOW WATER CUTOFF	Y	Probe Type (Warrick 3C2), Manual Reset	I
BURNER MANAGEMENT SYSTEM	Y	Honeywell RM7800 1012	I
BOILER CONTROL SYSTEM	N		O
COMBUSTION CONTROL SYSTEM	Y	Honeywell RM7800 1012	I
OPERATING LIMIT CONTROL	Y	Honeywell 404F 1102	I
HIGH LEVEL LIMIT CONTROL	Y	Honeywell L4079 B 1041	I
LOW FIRE HOLD	Y	E54-D23BC	I
CONTINUOUS (SURFACE) BLOW-DOWN	N		O
INTERMITTENT (BOTTOM) BLOW-DOWN	Y	(2) 1-1/2" Everlasting Quick Opening, (1) 1-1/2" United Slow Opening	I
CHEMICAL FEED VALVE	N		O
SAFETY VALVES	Y	(2) Kunkle 6010HGM01, Set at 200 PSIG	L
SAMPLE COOLER	N		O
FLUE GAS RECIRCULATION (FGR)	Y	Integral to front head	I
MAIN STEAM NON-RETURN VALVE	N		O
MAIN STEAM STOP VALVE	N		O

\*Status: Installed (I), Shipped Loose (L), or Optional for Fee (O)



# COMPONENTS

<b>FEEDWATER</b>			
<b>ITEM</b>	<b>INCL</b>	<b>DESCRIPTION</b>	<b>STATUS</b>
CONTROL VALVE	N		O
STOP VALVE	Y	(1) 2" RP&C Globe Valve	I
CHECK VALVE	Y	(1) 2" NIBCO Check Valve	I
DRAIN VALVE	N		O
BYPASS VALVE	N		O
FEEDWATER TANK	N		O
FEEDWATER PUMP(S)	N		O

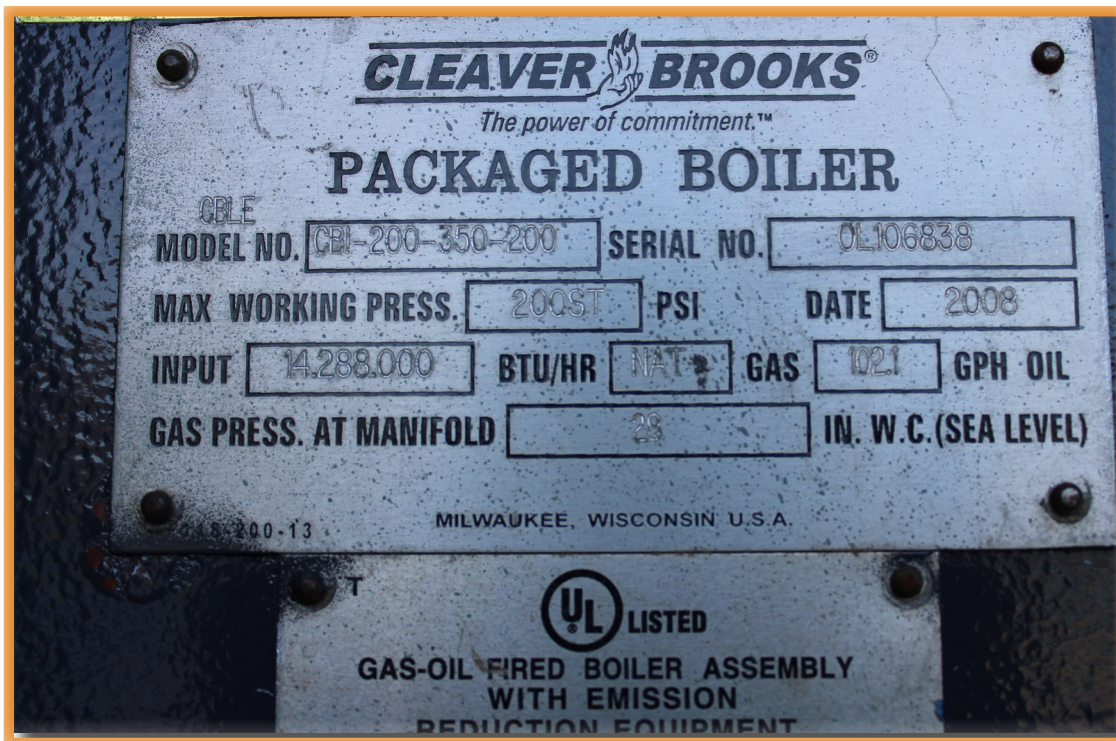
<b>FUEL HANDLING</b>			
<b>ITEM</b>	<b>INCL</b>	<b>DESCRIPTION</b>	<b>STATUS</b>
GAS PILOT FUEL TRAIN	Y	Gas Cocks, Regulator (Maxitrol 325-3), Solenoid (1/2" ASCO) & Vent Valve	I
GAS MAIN FUEL TRAIN	Y	Main Gas Valves (Honeywell 4055D 1019), LGPS/HGPS, Gas Cocks (3"), Vent Valve (ASCO 1-1/2")	I
FUEL OIL MAIN FUEL TRAIN	Y	(2) Main Oil Valves (ASCO HO1A252A171), Oil Flow Meter, Fuel Oil Controller	I
FUEL OIL PUMP	Y	3/4 HP Oil Pump	L
FUEL OIL SUPPLY/RETURN	Y	3/4" NPS Connections	I

<b>ADDITIONAL EQUIPMENT</b>			
<b>ITEM</b>	<b>INCL</b>	<b>DESCRIPTION</b>	<b>STATUS</b>
STUB STACK	N		O
BLOWDOWN SEPARATOR	N		O
ECONOMIZER	N		O
WATER TREATMENT	N		O
OIL HEATER	N		O

\*Status: Installed (I), Shipped Loose (L), or Optional for Fee (O)



# NAMEPLATES - OEM







# NAMEPLATES - POWERHOUSE

TO BE ENGRAVED  
UPON PURCHASE



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