

By Amanda Parolise



CARBON FOOTPRINT

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Existing Condensing Boiler: CB-1 Condensing Boiler

Date: November 2013
Building: 200,000-sq-ft industrial space
Floor: Basement
Year Installed: 1977
Inspected By: AEM
Serial Number: 111010293

Equipment Type: Condensing boiler
Manufacturer: X-Y-Z
Model: CB-930
Size: 400 Boiler HP 13,800 MBH
Volts: 120/1/60

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EXISTING CONDITIONS AND DEFICIENCIES

Y	N	NA		Y	N	NA	
			HVAC				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the unit installed per details?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All ATC devices appear in good condition?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the piping insulation complete and in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are circulators in good condition with no leaks?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there asbestos in the heating system?				Are there air controls (e.g., air separator), air vents, and expansion tank(s)?
							ELECTRICAL
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there sufficient working pressure gauges?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is motor high-efficiency?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there sufficient temperature sensors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there a localized disconnect?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are temperature sensors reading accurately?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the unit have a VSD pump?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there signs of leaks in water, fuel, or combustion exhaust?				PLUMBING
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there valve tags and a valve chart?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there localized drains to serve the unit?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are drain lines piped directly to drains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there water makeup with backflow preventer?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is piping insulation in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are gas vents piped to outdoors?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is flue and breeching insulation in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the city water PRV in good condition?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is condensing boiler flue pipe installed per manufacturer's recommendation?				MAINTENANCE
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there a combustion air source?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	System flow diagram mounted by unit?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the room under negative pressure versus positive pressure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	O&M manual secured at unit or on file?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there seismic supports/hangers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Work order last completed?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there access around equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a service contract for this unit?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Overall, unit is clean, no vibration or noise?				

END OF EQUIPMENT USEFUL SERVICE LIFE (USL)

USL (YRS)		USL (YRS)	
25	Condensing Boiler is 36-years-old, benchmark is 25 years	20	Controls are 36-years-old, benchmark is 20 years

STANDARDS AND CODE ISSUES

Y	N	NA		Y	N	NA	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does unit meet current codes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does unit/system meet current energy code?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is emergency power a requirement?				

ENERGY CONSERVATION

Y	N	NA		Y	N	NA	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End of USL, replace with higher efficient unit (hot water pumps)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reset supply temperature setpoints
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Can unit/system be retrofitted to meet latest energy code?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rebalance primary and secondary hot water system after hydraulic model
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Consider occupied/unoccupied modes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Open balancing valves to 100%