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Definition:

A Condensing Boiler -

Utilizes all of the energy created by combustion by capturing the heat from the exhaust, through condensing the moisture in the exhaust gas. To work, the return water must be lower than the exhaust gas dew point (less than 136° F).

Inside this Issue:

Don't forget to schedule your annual cleaning!

DELVAL EQUIPMENT CORP

BOILER TECH UPDATE

January 1, 2006

Rear Door Breakthrough

Cleaver-Brooks has announced the release of a greatly enhanced rear door design for their Firetube boilers. With proper maintenance and patching the original style rear door can and will provide many years of satisfactory service. There are several factors that contribute to the failure of the rear door refractory. The most common failures are hot spots with subsequent breakdown of insulation and baffle failure or a combination of the two. Fuel content, and water damage can also play a large part in refractory breakdown. All of these problems can and usually will shorten the life of the rear door.

Water damage, caused by leaking tubes will attack the lower section and cause disintegration of the refractory. Corrosives in the fuel will also attack the door causing the refractory to fail; however more frequently the failure is a result of the deterioration, loosening or breaking of the baffle tiles that separate the upper and lower refractory and therefore are susceptible to breakage while maneuvering the door and the thermal stresses caused by expansion and contraction. Broken baffles and openings between the lower section and the baffle tiles often allow excessive heat to penetrate the refractory and destroy the underlying insulation.

About 10 years ago, on their Low Emissions (LE) boilers, Cleaver-Brooks introduced their monolithic rear head which eliminated the spacing between the baffle and the upper and lower door. This innovation was a huge success and led to the development of the Cleaver-Brooks' new process Monolithic rear door refractory replacement kit. These kits enhance energy efficiency and safety and incorporate the latest in technology with a poured-monolithic lower section and a ceramic fiber upper half. The new process monolithic pour provides a long lasting solution and can be installed in about two thirds of the time it takes to do an old style rebuild. Expansion and thermal stress are minimized because the lower section and baffle are integrated into a solid monolithic structure. There is a safety benefit also as there is no need to remove heavy, hard to maneuver doors. The genuine Cleaver-Brooks mold and

Boiler Technology For Today

Cleaver-Brooks refractory make it possible to completely rebuild the rear door, in place on the boiler.

Delval was one of the first Cleaver-Brooks representatives to incorporate the Cleaver-Brooks new process monolithic re-pour into the group of services that we offer. We have installed many monolithic re-pours with zero failures to date. We stock monolithic re-pour kits and Cleaver-Brooks O.E.M. forms for all sizes of Cleaver-Brooks boilers.

Rear door refractory replacement is offered with a standard 1 year warranty and options for a five year factory warranty as well as a pro-rated ten year extended warranty provided by Delval. Call your Delval aftermarket sales representative if you suspect rear door problems. We will provide pricing if the refractory requires replacement or recommend the proper materials and techniques for proper patching and coating. Get the most out of your Cleaver-Brooks boiler, use only genuine Cleaver-Brooks replacement parts and factory authorized service.

Cleaver-Brooks and Delval Equipment Corporation Seminar:

"The Boiler Plus II - Management, Assessment & Optimization Seminar" in Atlantic City, New Jersey on May 9th & 10th.

Who Should Attend:

This seminar is designed for Facility Managers, Energy Managers, Plant Managers, Plant Engineers, Consulting Engineers, Boiler Room Supervisors, or anyone in an energy or safety overseeing capacity.

Objective:

The overall objective of the seminar is to make the recipient much more knowledgeable of how steam and hot water systems operate and how they can be improved to positively impact cost of operation, return on assets, reliability and safety. The attendee will walk away with valuable information and ideas that can be immediately applied to improve his or her operation, maximizing the assets in the system while improving the overall and safety of the operation.

For additional information, please contact :

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Neal Smith Retires

Neal Smith has retired as a Delval Equipment Corporation Sales Engineer after 26 years of service.

Neal joined Delval after working for Johnson Controls. When he started, he sold oxygen trim systems and progressed into selling the complete line of Cleaver-Brooks products.

During his career, he provided several thousands of boilers to major industries, schools, hospitals and rental companies. His knowledge and wit will be missed by all of his colleagues and customers.

Future plans call for him spending lots of time in the warm Florida sunshine!