

CASE STUDY

Fuelling Machine Repairs

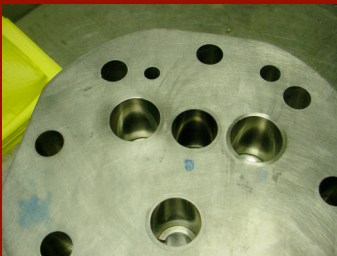
Canadian Metal-ad Corporation has been successfully repairing Fuelling Machine RAM tubes for Pickering NGS since 1992. With over 3000 channels completed between overhauls it is found that only minimal touch-ups are required on previously repaired Latch, #3 and C-Ram tubes.



Score damage on I.D. of the RAM barrel housing being repaired with Brush Nickel Plating

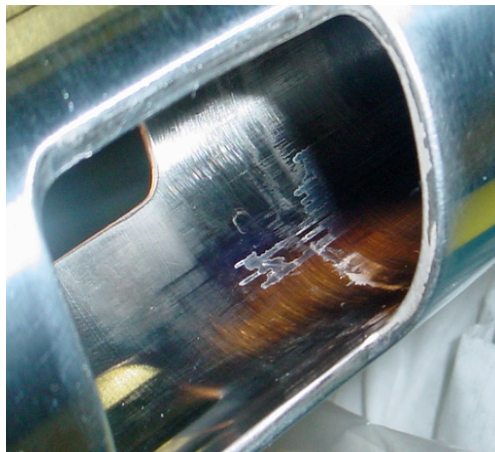


Brush Plating repair done on an oversized bearing fit on the FM frame unit.



CMC has developed a technique for the repair of Separator bores maintaining tight .0002" tolerances.

**PITTING DAMAGE ON THE I.D. OF LATCH TUBE
CAUSE HIGH LEAK RATES AT THE CLEVITE SEAL**



Among the many uses CMC has found for the Brush Plating process in the nuclear industry, Fuelling Machine, and in particular RAM tube refurbishment, has become one of the most successful repair programs to date. As shown above this Latch tube has sustained scoring, pitting and erosion damage at the clevite seal area. Using specifically designed plating and turning equipment; damages of this nature are permanently repaired in a few of days. This represents a huge savings when compared to the replacement cost of a new set of tubes. The program has been so successful that Pickering OPG has now included this Brush Plating repair procedure as routine on every RAM overhaul.

**UNIQUE SET UPS HAVE BEEN DEVELOPED FOR
THE REPAIRS ON ALL TYPES OF RAM TUBES**



Long lead times and lack of parts availability can be one of the biggest problems facing planners of equipment and component overhauls. These factors can cause long and costly delays which hamper the completion of many projects and therefore negatively affect the overall repair budget. While rebuilding their only spare separator at Pickering OPG, assessors found deep score damage on the piston walls. The replacement time for a new unit was quoted at 10 months. Using the Brush Plating process and innovative plating techniques CMC was able to fill the scoring with nickel and still maintain the .0002" tolerance. The repair time was 6 days and the separator was back together in less than 2 weeks.



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