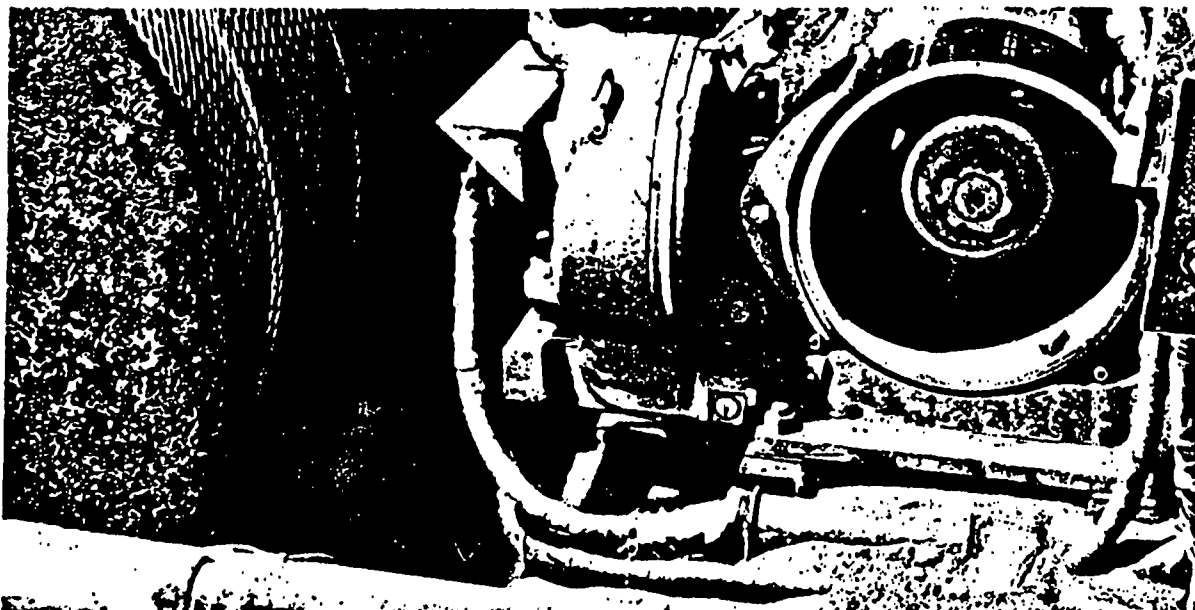




Read how REFRASIL tape cuts melt shop costs

Over 800 F environment

Wrapped with REFRASIL tape, motor leads on an overhead crane are protected from heat well over 800 F and flames at the Basic Oxygen Shop of the Ashland Works of Armco Inc.

The 240-ton crane is utilized to charge the furnaces and to move the ladle filled with molten slag when furnaces are tapped.

Old problem

A longtime problem has been vulnerability of the crane electrical lead from the limit switch to the motor itself. This lead supplies power to the motor that operates the lifting movement of the crane.

The electrical lead is subject to radiant heat from the BOM vessel and to direct flame and smoke when charging. When the furnace is charged the molten pig iron is 2400-2500 F. The lead, directly above where the pig iron is poured, is subject to a temperature estimated at 800 F.

Mill practice has been to replace leads and wrap them with asbestos about every three weeks. When heat degraded the asbestos, the lead itself would burn,

causing the motor to shut down. When the electric motor lead failed, it required a maintenance team 9 man-hours at a cost of \$12.50 per man-hour about three hours to replace the lead and rewrap it. This "delay time" costs over \$850 per hour in lost production.

New solution, big savings

During engineering evaluation the same crane motor lead was wrapped with two layers of REFRASIL tape. Although the cost of REFRASIL tape was 5 to 6 times that of the asbestos wrap, the REFRASIL wrapped lead has now been in service over 9 months and is still in good condition. Eliminating "delay time" every 3 weeks has resulted in a saving of more than \$12,000.

REFRASIL textile is an amorphous silica in a continuous filament fiber. It stands up in continuous use at temperatures to 1800 F when initial devitrification begins but will not melt or vaporize until temperatures exceed 3100 F.

For information, write HITCO Materials Division, 1600 W. 135th St., Gardena, California 90249. Telephone (213) 321-8080.

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