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GENEVA PIPE USED IN I-15 CONSTRUCTION

We all know that Geneva sells its products to service centers, distributors, steel processors and various end users which include manufacturers of welded tubing, highway guardrail, storage tanks, rail cars, ships, and agricultural and industrial equipment. However, we rarely get to see these end products in use first hand, but now everyone who drives over any new bridges or overpasses on I-15 will be grateful for the quality products Geneva Steel makes.

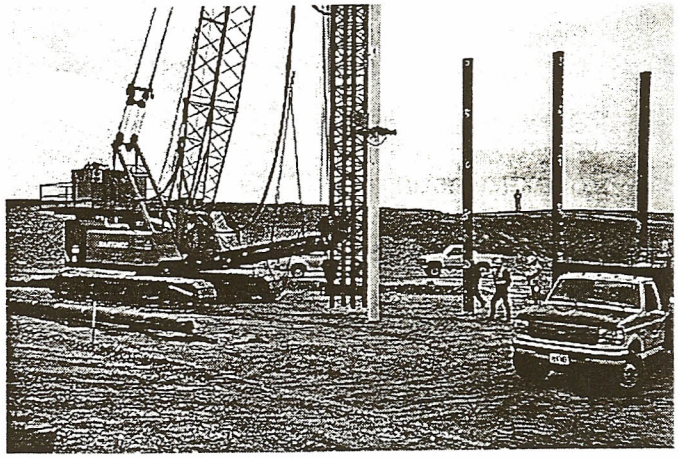
Wasatch Constructors, a consortium of three contractors, was the group awarded the infamous I-15 project. In an effort to build stronger and more stable bridges, Wasatch Constructors is using pilings and footings as ground support for these structures. Piles are made by driving steel pipe into the ground and then filling them with concrete.

Syro Steel, one of Geneva's pipe customers, is contracted to supply all of the 12- and 16-inch pilings, the majority of the piles Wasatch Constructors will be needing. With 138 bridges and overpasses being rebuilt, Wasatch Constructors will need about 18,000 piles, ranging from 30 to 120 feet in length. This amounts to about 1.5 to 2-million feet of Geneva pipe.

Chuck Norton, vice president of sales at Syro, said they will be using both pipe and plate products from Geneva to make these piles. Because some piles will range as much as 120 feet in length and Geneva's pipe mill only produces pipe at a maximum length of 80 feet, Syro has to weld some of the pipe together. Syro either slices or welds the pipe to the required length and then welds an end cap on one end of each pile. The end cap is made from cutting Geneva's 1.25-inch plate in a round piece sized to weld on to the 12- and 16-inch piles.

Dan Hemenway, MSE foundation engineer for Wasatch Constructors, says the end caps are welded on to the end of each piling so they can be driven, close ended, into the ground until the piles reach sand and gravel layers. Hemenway says the piles are driven into the ground with a Junttan hydraulic hammer and a Manitowac crawler crane, filled with concrete, and topped with concrete footings and columns. Once this main foundation is complete, the bridges are built atop of this ground support.

"It is nice to be able to support local construction industry with major pipe products we produce in the pipe mill," said **Stephen Oyler,** marketing manager tubular. "This type of product complements our product mix for oil and natural gas transmission lines we produce."



WITH 138 BRIDGES AND OVERPASSES BEING REBUILT, WASATCH CONSTRUCTORS WILL NEED ABOUT 18,000 PILES, RANGING FROM 30 TO 120 FEET IN LENGTH. THIS AMOUNTS TO ABOUT 11/2 TO 2 MILLION FEET OF GENEVA PIPE.

NEW FUEL ADDITIVE BURNS LONGER, CLEANER IN GENEVA TRAINS

A new fuel additive for plant locomotives is reducing emissions, improving fuel efficiency and prolonging engine life. The product is called FPC and is marketed by FPC International.

It all started a few months ago when FPC International approached Geneva about using the fuel additive. FPC salesmen claimed the new additive would improve fuel efficiency, decrease emissions and improve the engine life of the locomotives used here at the plant.

In fact, the salesmen were so sure about their product, they arranged a trial period to test FPC on our locomotives and even provided the Geneva with the equipment to run the tests.

"Some other companies have been using this treatment in all of their diesel engines for years," said **Dave Lombardi,** general manager of transportation and yards. "Early on in the process, **Jim Simkins** called around and found that other companies were not only using it, but claimed that it was prolonging engine life by 30 percent."

Under the direction of Lombardi, environmental engineer **David Lee,** and Relco's **Jeff Shifton,** two locomotives were run through a series of tests prior to adding FPC to the fuel supply. On October 15, FPC was added to the fuel supply for a 50-day trial period. The locomotives

THINGS HOLLYWOOD TRIES TO TEACH US ABOUT OUR BUSINESS:

A Ladle Metallurgy Station is the only sure way to destroy 21st century terminators.

Dancers make great welders.

All the really interesting stuff happens during the night shift.

To save a company, an executive can send their child out with a 2 week deadline to sell, sell, sell.

Beautiful people think they can ignore safety.

Betting you paycheck on Clint Eastwood in a brawl is a great source of extra income.

Shareholders really can make a difference.

Welders make great dancers.

With all of the trains, tracks and bridges that are destroyed, rail transportation may never be reliable.

If something goes wrong, it's always the foreigners who are at fault.

Geneva today looks like the post-apocalyptic earth.

were tested again following the trial period on December 4.

"So far the preliminary results look great," said Lee. "Test results show that adding FPC· resulted in an average reduction in fuel consumption of 9 percent, representing a net fuel savings of approximately 4 cents a gallon (above the cost of the additive). In addition, the air boxes and exhaust stacks were visibly cleaner. Carbon and oil buildup on the intake ports was gradually removed exposing the bare metal."

The treated fuel also showed dramatic improvements in the environmental arena. Unburned hydrocarbons were reduced by an average of 75 percent. Smoke, measured on a Bacharach Smoke Scale, was reduced by 16 percent.

"The most significant improvements were made at throttle notch 4," said Lee. "This represents the typical kind of use for locomotives at Geneva."

It is expected that the need for carbon-related maintenance for injectors, ring zone areas, valves and air boxes will be reduced because of the cleanliness of the burn. This will also preserve lubrication quality, reducing bearing, liner and ring wear.

Members of the community like to see Geneva place a continued effort on environmental issues, especially as we move into the winter inversion season. Even though FPC· has many apparent operational benefits, the community only observes one: reduced smoke emissions.

NEW FLOOR PLATE PATTERN AVAILABLE - AGAIN

Geneva's new floor plate is available - again. You may remember how in August, Geneva was excited to announce the offering of a new floor plate pattern. It was supposed to be easier to flatten, cut-up, roll and unroll while decreasing roll time and giving flexibility in the size and density of the button pattern.

"The new pattern has more national acceptance and is a higher quality product due to the improved accuracy of the pattern," said **Dennis M. Nolen**, director of marketing, sales and integrated manufacturing, at the time of the announcement. "Aesthetically, the pattern looks much better than Geneva's previous floor plate pattern. This change will help open our product up to other uses and will offer more opportunity to sell to other customers."

After successful trial runs, the Company announced availability of the new floor plate to customers in September 1997. There was a good response by customers to the look of the new pattern. They loved it.

However, the process of milling the buttons into the rolls was discovered to be much more difficult than was expected and the availability of the new design was put on hold until the Company could produce the quality of floor plate we promised our customers. The problem is that the button length at full depth is only 1 inch and to cut a button with the proper aspect ratio, the cutter diameter is required to be five inches. The cutter itself is a slotting cutter with carbide teeth, and only one tooth can be engaged in the cut at any given time. As each tooth of the cutter starts to cut, the cutter drive is loaded; and as each tooth leaves the cut, the drive is unloaded. This alternating load/unload condition caused a rapid increase in gearing backlash through the gear train, which caused carbide inserts to wear rapidly and even shatter along with rapid failure of drive train bearings and shafts.

The solution to the problem was to replace the gear box drive units with a larger direct drive spindle driven by a larger motor through a cog belt. This system is currently installed, operational and running well.

"The machine is a lot more dependable now," said **Alan Robertson**, general manager of the roll shop.

The Company has begun taking orders again and started rolling coiled floor plate product. "We've been putting out a roll per day for the last two weeks," said **Corey Mitchell**, rolling mill project engineer. "We are pretty much in full production now."

Previously, the mill did not run much floor plate because it required 80 hours to mill one floor plate roll. Mitchell says the roll time is down to 8 hours, which is what the mill was originally shooting for.

Mitchell says the mill is working with several tooling suppliers to find the best priced and best looking button supplier. It should take the Company about four to six weeks to select a permanent tool supplier.

Jay Johnson, director of order fulfillment and production control, says the Company will