

Ingersoll-Rand Locomotive

By Norm Holmes

The History...

The first diesel locomotive in the world was manufactured by Sulzer Brothers of Winterthur, Switzerland beginning in 1909 and road tested in 1913. Unlike today's diesel-electric units, the engine was mechanically connected to the driving wheels through jack shafts. It was marginally successful and disappeared during WW I.

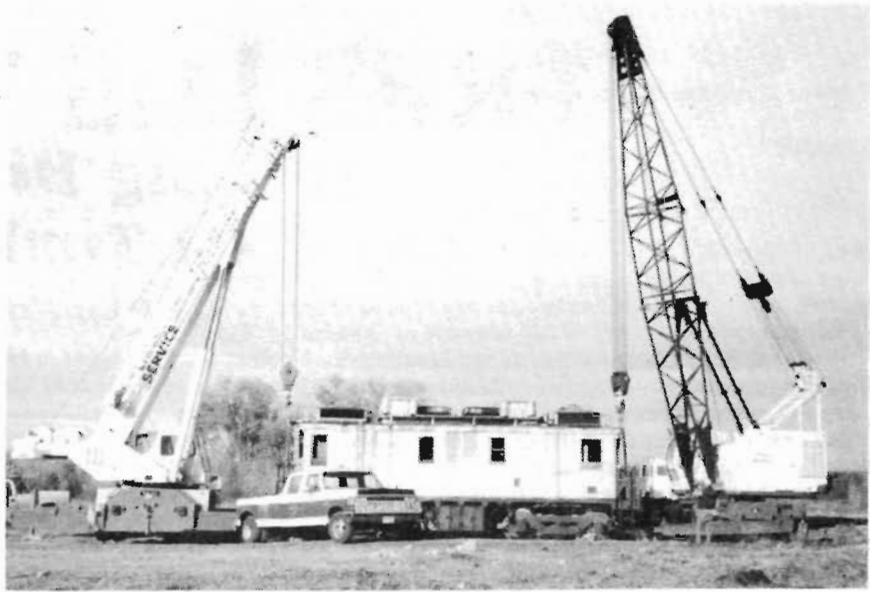
The first successful internal combustion engine powered locomotive built in the United States was completed in 1913 by General Electric. This gasoline-electric model used the same electric components that GE used in its electric locomotives of this era. Later, GE developed a diesel engine and installed it in a bob-tailed rail car in 1917. These were only laboratory models and were never sold. A number of other units were subsequently built and sold. However, none was very successful and production of GE diesel powered locomotives ceased in 1919.

Enter Ingersoll-Rand. By 1920 IR was an established diesel engine builder. A working agreement was concluded between GE and IR under which IR would build the diesel engine and GE would supply the mechanical portion in which the engine would be installed. An IR diesel engine was installed in an earlier gasoline-electric locomotive and testing began in 1923. Testing continued to 1925. The satisfactory performance turned in by this demonstrator led to the formation of a joint venture consisting of American Locomotive, General Electric and Ingersoll-Rand to build locomotives.

It might be well at this point to explain the difference between an "oil engine" and a "diesel engine." An oil engine had solid or fuel injection into the engine cylinders, diesel implied air injection. The air injection system proved troublesome and solid injection was adopted as standard, but the diesel name continued to be used.

The first unit constructed by this consortium was a 300 hp unit that was sold to CRR of NJ in October, 1925. This unit has been heralded as the first commercially successful diesel-electric locomotive in America. It operated until 1957 when it was placed in the B&O Railroad Museum in Baltimore, MD. Production continued until 1928 when American Locomotive dropped out of the consortium to develop its own diesel-electric locomotive. GE and IR built a similar style locomotive until 1935 when box cab car body construction was terminated and IR dropped out of the locomotive market. A total of 119 locomotives were built with IR engines.

Out of this total only three were sold to western companies. The sixth Alco/GE/IR 300 hp unit was sold to the Utah Copper Company at Bingham, UT. The first 600 hp unit (two 300 hp engines) was bought by the Red River Lumber Co. at Westwood, CA. The 46th unit they built (the eighth



Top photo: The locomotive is being lifted from its long-time resting place in Billings, MT. Lower photo: Following the good advice of the trucking company, Whitewood Transportation, the unit is being moved from its old resting place to the railhead straddling two truck trailers. The two drivers coordinated their speeds using radio communication. Both photos by Norm Holmes.

600 hp unit built) was sold to Foley Bros., Inc. at Colstrip, Montana. It was used to switch cars at Northern Pacific's strip mine operating over a one mile line from the coal pits to the NP interchange. In July 1963 it was sold to Long Construction Co. (now United Industries) in Billings to switch cars at their gravel plant. It was found that a rubber tired loader was easier to use so the unit saw little service.

Only five other IR box cabs exist as far as we know. All are 300 hp models. They are: CRR of NJ No. 1000 at the B&O Museum in Baltimore; B&O No. 1 at National Museum of Transport in St. Louis; IR's own No. 90 donated to the Henry Ford Museum in Dearborn; DL&W No. 91 at Illinois Railway Museum at Union; and Union Carbide No. 3 at the Alabama Railroad Museum. Our unit is probably the only 600 hp unit in existence. None are in operating condition. Our unit was constructed in May, 1929 and it weighs 110 tons. The GE serial numbers is 11047, dated February, 1929.

Information is from Dawn of the Diesel Age by John Kirkland; Trains magazine, December, 1970 by David H. Hanley; Diesel Locomotives by Kalmbach Publishing; and Train Shed Cyclopedia issue No. 20, Newton K. Gregg, publisher.