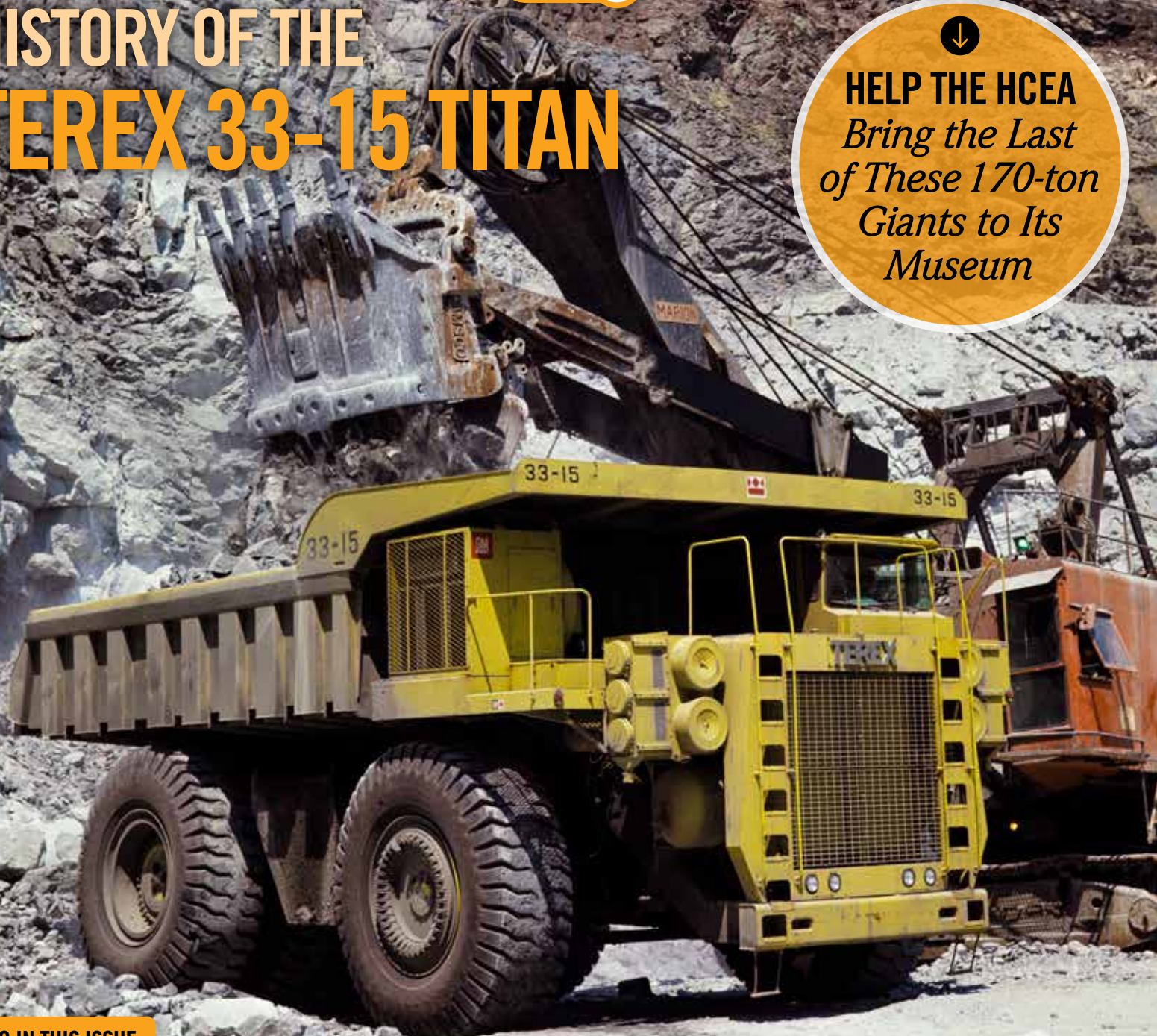


Equipment Echoes

HISTORY OF THE TEREX 33-15 TITAN



HELP THE HCEA
*Bring the Last
of These 170-ton
Giants to Its
Museum*



ALSO IN THIS ISSUE:

Constructing Glen Canyon Dam | 2020 Convention Preview

THE TEREX 33-15 TITAN

And How One Is Going to Come to Bowling Green

By Keith Haddock

Illustrations courtesy of the author except as noted

Thanks to the generosity of National Director Larry Kotkowski and the other HCEA members, the HCEA has acquired its largest and one of its most important pieces of equipment, the last extant Terex 33-15 hauler. The story of the acquisition is told in this article's sidebar, and here we'll look at the history of this truck and trace its importance in the development of America's off-road haul truck business.

In 1968, White Motor Corporation announced it had purchased the off-highway hauler product line from General Motors' Euclid Division, and that a new company, Euclid, Inc., would be established. General Motors (GM) had owned Euclid since 1953, and for several years had been pestered by the US Department of Justice to discontinue manufacturing off-highway trucks because it believed GM posed too great a threat to competition in this market. GM fought the case but eventually lost.

Included in the sale to White Motor were Euclid's original manufacturing plants in Euclid, Ohio, and the Euclid name. Also, under the terms of the Agreement, GM was not allowed to manufacture or market off-highway haul trucks in the United States for a period of four years, until mid-1972. It was, however, allowed to continue manufacturing its other earthmoving lines of scrapers, crawler tractors and wheel loaders, but since White Motor now owned the Euclid name, a new name was needed.



Down-on-view of a loaded early 33-15 at the Maroma Mine in Ontario, June 8, 1971. (Euclid-Terex Project Photo Collection, HECA Archives)

Originally, the Earthmoving Equipment Division name was used. Then, in late 1968, the name Terex, meaning "Earth King," was adopted for the Division's products built in the United States, and also for products built in GM's plants in Canada and Scotland which were unaffected by the American restriction. Thus, for the four-year period, Terex trucks built in these plants competed in the world market with similar Euclid trucks built by Euclid Inc. under White Motor.



Cover illustration from the first Terex 33-15 spec sheet, published in January, 1971, 18 months before the truck was available in America.

Although GM could not manufacture or market haul trucks in the US during the four-year hiatus, it could still design and test prototype units. So GM's engineers went to work and designed a completely new range of haul trucks to be initially available from the Canadian and Scottish plants, and eventually from the US plant once the moratorium expired. These were the Terex 33 Series, first of which was the 28-ton capacity 33-05 which reached prototype stage in September, 1970.

Meanwhile the Diesel Division of GM Canada Ltd., with its main plant in London, Ontario, moved forward with new 33-series trucks boasting diesel-electric drive, and larger capacity than the 33-series mechanical-drive models being designed in the United States. The first diesel-electric model was the 33-15 of 150-ton capacity which was unveiled in May, 1971, after many months of testing. The first unit went to work in a Canadian mining operation, and another appeared at the American Mining Congress in Las Vegas in October, 1971. It was allowed to be sold, but of course not in the United States until July, 1972. After the Las Vegas Mining Congress, the show machine was shipped back to Canada.

The 33-15 measured 41 feet 10 inches long, 20 feet 7 inches wide and 18 feet 8 inches high. Loading height was 16 feet 1 inch. Power was provided by a GM 16V-149T1, two-cycle, turbocharged and intercooled 16-cylinder diesel rated at 1,600 gross horsepower or 1,445 flywheel hp running at 1,900 rpm. With 150 tons payload, the gross weight of the vehicle tipped the scales at just over 267 tons. With a heaped load at 2:1 the body carried 95 cubic yards. The engine drove an AC generator supplying current to a solid-state rectifier bank which converted AC to DC to power two drive motors in the rear axle. Unlike most electric drive trucks of that era with their electric drive motors mounted in the wheel hubs, the DC motors in the 33-15 were located in the axle, with a planetary final reduction in each wheel hub. This method was said to ease maintenance where the electric motor was separated from the gear reduction.



What appears to be a Chevrolet Vega gives another sense of scale to the massive 33-15. (Image courtesy of Eric C. Orlemann)



Cover artwork from the Terex 33-15 specification dated December 1974.

In 1975, GM introduced its improved Terex 33-15B hauler with capacity increased to 170 tons. The main differences were upgraded electric traction motors and improved driver access. The original vertical steps by the radiator sometimes proved hazardous in icy or wet weather, so they were replaced by a safer design with

wider steps mounted at an angle. All other specifications, including the engine, remained basically the same.

Big brother to the 33-15 truck was the 350-ton capacity Terex 33-19. Launched in 1974 as the world's largest truck, it held onto that title for 24 years until Caterpillar introduced its 797 model, which was initially rated at 360 tons but later 400 tons capacity. Built at the London plant alongside the 33-15 and GM's railway locomotives for markets outside the USA., the 33-19 was a six-wheel truck (6 x 4 configuration) powered by a 16-645E4 locomotive engine from GM's Electro-Motive Division. It put out 3,300 gross horsepower at a low 900 rpm. Although enjoying a useful productive life, only one 33-19 was built. But that's another story; see Issue 38.

London continued to build Terex diesel-electric trucks (their only source of manufacture) until February, 1985. In 1981 the brand name changed from Terex to Titan, mainly to distinguish themselves from the upheaval caused by IBH taking over Terex, and also because manufacturing components and electric drive trains aligned themselves with GM locomotives being built in the same factory. The 170-ton 33-15B received upgrades in 1981 to the 33-15C with cosmetic, electrical, hydraulic and other minor system upgrades. Engine and truck capacity remained the same.

TEREX 33-15B HAULER



- 16V-149TI Diesel
- 1600 HP (1194 kW) Gross Power
- 170 Ton (154 t) Payload

Upgraded 33-15B specification dated January, 1977, shows steps placed at an angle to improve operator safety.



Terex 33-15B hauler, 170 tons capacity.

In 1985, GM parted company with the electric truck line when Marathon-LeTourneau Company purchased it, along with plans, drawings, patents and tooling. Manufacturing was transferred to LeTourneau's main plant in Longview, Texas. The trucks included the Terex 33-15C and the world record-beating 350-ton 33-19, but since only one of the latter was actually built, only the former was continued by LeTourneau. Upgrades and revisions followed, and

Help Bring the Titan to Bowling Green!

By National Director Joe Kotkowski

On December 4, 2019, an auction listing from the firm 4theSELLOfit appeared online. The machine being sold was a Terex 33-15 end dump located in Stroud, Oklahoma, and it went to a scrapper for \$4,900. (At press time, the original listing was still viewable by searching for "Terex 3315 Auction.") HCEA members Eddy Larson and Rick Vosika got wind of the deal, and got in touch with National Director Larry Kotkowski. After a conversation with the buyer, Larry was able to purchase the truck for the HCEA for \$9,000, and he solicited other Board members to help underwrite the purchase price.

This truck is the early design 33-15, serial number C-2329, with vertical steps by the radiator. According to HCEA member Eric Orlemann's records, the machine had production schedule designation E-204A#1, one of five trucks in build lot C-2329-33. It was shipped from the London, Ontario, plant in February, 1974, to Kennecott Copper Corporation's Bingham Canyon Mine near Salt Lake City, Utah. Body size is listed as 108 cubic yards. It was sold to a mine in Canada, and when it was retired a family in Oklahoma purchased it to keep it from being scrapped.

When it had to be sold, the family requested that it be moved offsite for scrapping, and then Larry eliminated the issue by purchasing it from the scrapper. When the family found it that it was going to the National Construction Equipment Museum, they were more than happy, to put it mildly.

Unlike putting something in the back of a pickup or winching it onto a tilt trailer, it's not going to be simple for a non-profit to move a truck 26 feet wide and weighing just over 117 tons approximately 900 miles to Ohio. Multiple truck loads are involved, and donated trucking is being arranged. But disassembly, loading, unloading and reassembly are going to cost money. A fundraising drive for the project has already been launched through social media, and now the appeal is being extended to all our members. You can help **BRING THE TITAN TO BOWLING GREEN** by making a donation of any amount and designating it for this purpose.

West Mineral, Kansas, has *Brutus*; thank you in advance for helping Bowling Green, Ohio, have a Titan!

Quip-Cal

The Heavy Equipment Decal Experts

aftermarket equipment decal sets
for all your antique equipment

Phone: 215-536-5339 Fax: 215-536-6923

Email: info@customerservicescompany.com
www.QUIPCAL.com

"if we don't have it...we can make it!"



A 33-15B receives a load from a Poclair 1000CK at the Balmer Mine, Sparwood, British Columbia, in 1978. The Drott name on the boom stems from both brands being owned by Tenneco.

LeTourneau's T-series appeared in 1987 with capacities ranging from 170 to 200 tons. In 1990, the 240-ton model T-2240 was added with options of either MTU or Detroit engines rated up to 2,250 horsepower.

Diminishing sales caused LeTourneau to discontinue its hauler line in 1995 and allow the company to concentrate on its large wheel loader line. The last hauler, a 200-ton T-2200, was shipped to Iron Ore Company of Canada in February, 1996. In 2006, Marathon-LeTourneau Company changed its name to LeTourneau Technologies,

Inc.; then, in 2011, the company was purchased by Joy Global. In 2016 Komatsu purchased Joy Global; the deal also included the P&H line of electric mining shovels, blast hole drills (formerly Gardner-Denver), and walking draglines (formerly Page). This conglomerate is known today as Komatsu Mining Corporation.

The author gives thanks and credit to Eric C. Orleman for use of his book Euclid & Terex Earth-Moving Machines, from which certain facts and data were taken. This book is recommended for further reading. 📖



A GM Titan 33-15C dumps a load at Luscar's Coal Valley Mine, Alberta, in 1982.



This LeTourneau-built Titan hauler is at Mission Mine, Arizona, in 1996.