

HERR INDUSTRIAL

Reliability. Affordability. Value.
Why great companies choose HERR.

- ▶ Turnkey Paint Finishing Systems
- ▶ Powder, E-Coat, Liquid
- ▶ Equipment Components
- ▶ System Relocation, Retrofits
- ▶ Service & Maintenance
- ▶ Spare Parts

DESIGN ▼ FABRICATION ▼ INSTALLATION ▼ START-UP



View of paint system building interior showing the part moving into the convection oven.

Caterpillar Conek, S.A. de C.V.

MONTERREY, MEXICO - Caterpillar Conek manufactures construction equipment, primarily "Monster" dump trucks used in surface mines and quarries. Increased worldwide demand for the trucks, as well as a desire to improve paint quality, fueled an improvement project that included replacement of the existing painting facilities. The extremely large size of the trucks posed an equally large challenge to the paint system designers. One of the newest models, the 797, is so large that it requires five tons of fluids to operate and sits on tires that measure 13 feet in diameter. The truck dwarfs most other land vehicles and when fully loaded will outweigh a 747 jet by 40%.

HERR, based in Pennsylvania, was contracted by Caterpillar to design,

manufacture, and install a 3-Stage Batch Paint System constructed as a completely independent facility.

Parts are brought from the fabrication buildings to the paint system on 40' trailers. Once towed inside the first stage



bay, the parts are pressure washed, rinsed, phosphated, and dried. The "hanger" size wash bay is lined with stainless steel panels and provides several operators with high pressure, recirculated, hand-wands as well as a bridge-type telescoping manlift. Two additional manlifts are provided in the down-draft paint spray booth following the wash

bay. Following paint application, the parts are towed into a gas-fired, convection oven to dry. The system is automatically controlled and monitored with a PLC located in a main control room. ■

CATERPILLAR

SYSTEM COMPONENTS

The following equipment was incorporated into the design of the 3-Stage Batch Paint System. The part size was 23' wide x 20' high x 42' long, with a part weight of 99,400 lbs :

- ▶ 65' x 43' x 42' SS Surface Preparation Enclosure featuring a recirculated, high pressure, heated, 3-stage Hand-Spray System, an automatic Chemical Injection System, a 10,000 psi Water Blast System for rust removal, and an Air Make-Up System with a drying cycle.
- ▶ 65' x 43' x 42' dry-filter, downdraft Paint Spray Booth in which the part was masked, primed, flashed, and finished coated.
- ▶ Two (2) bridge type Telescoping Manlifts installed to provide accessibility to the product from the sides, top and interior.
- ▶ 56' x 34' x 32' natural gas, direct-fired, convection Curing Oven



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