

# MANIPULATOR REPAIRS



**Problem:** Three track mounted manipulators located at a forging facility in Houston, Texas were in desperate need of repairs and upgrades. Mechanical wear and tear over the years had jeopardized performance and reliability to such a degree, that if not corrected, production output would suffer.

**Solution:** The PTS approach was to provide support by means of scope development, bid specifications, procurement, scheduling/planning and construction management.

With owner input and previous manipulator experience, PTS developed a scope of work that met the owner's repair requirements, improved manipulator reliability and could be completed during the shutdown period. The scope consisted of replacing: couplings, bearings, trolley wheels, rails, drive shafts and hydraulic hoses. Additionally, NDT testing, repairs to the frame, and a conversion to VAC drives were included in the scope.

During the shutdown, the PTS team successfully managed the completion of the initial repair scope as well as addressed new issues as they occurred.

The effort required constant communication and planning between PTS project managers, sub-contractors, plant personnel and plant management. During the outage PTS provided 24-hour seven day a week construction management coverage. As a result of PTS pre-construction planning, scheduling and construction management, the project was successfully completed on time.