MANITOWOC

at WORK

MANITOWOC ENGINEERING CORP. MANITOWOC, WISCONSIN

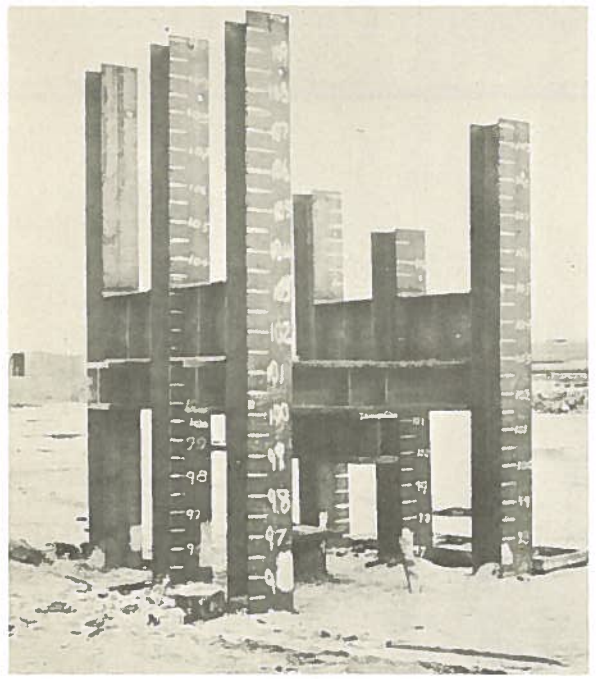
Bedrock 90 Feet . . . Straight Down

JOB REPORT No. 6

Thatcher Engineering . . .Top Pile Driving Outfit . . .

Thatcher Engineering Company of Waukegan, Illinois, is counted among the top outfits in the nation in the business of using crawler cranes to drive piling. Pictured on this and following pages are Thatcher's rigs on a new generating station project for Northern Indiana Public Service near Gary.

Equipment on the Thatcher project includes a Manitowoc Model 3000 Speedcrane and a Manitowoc Model 2000 rig. Thatcher is using the Model 3000 to drive pile and the Model 2000 for odd jobs. The 3000 is equipped with 100' boom supporting a 115' lead and has a 12' reach over the cats and 15' over the side. Beams being driven for foundations of the immense structure are 90' to 110' in length and weight 73 pounds to the foot. Start of the project involved delivery of 58 carloads of steel H beams to provide piling enough to begin construction.

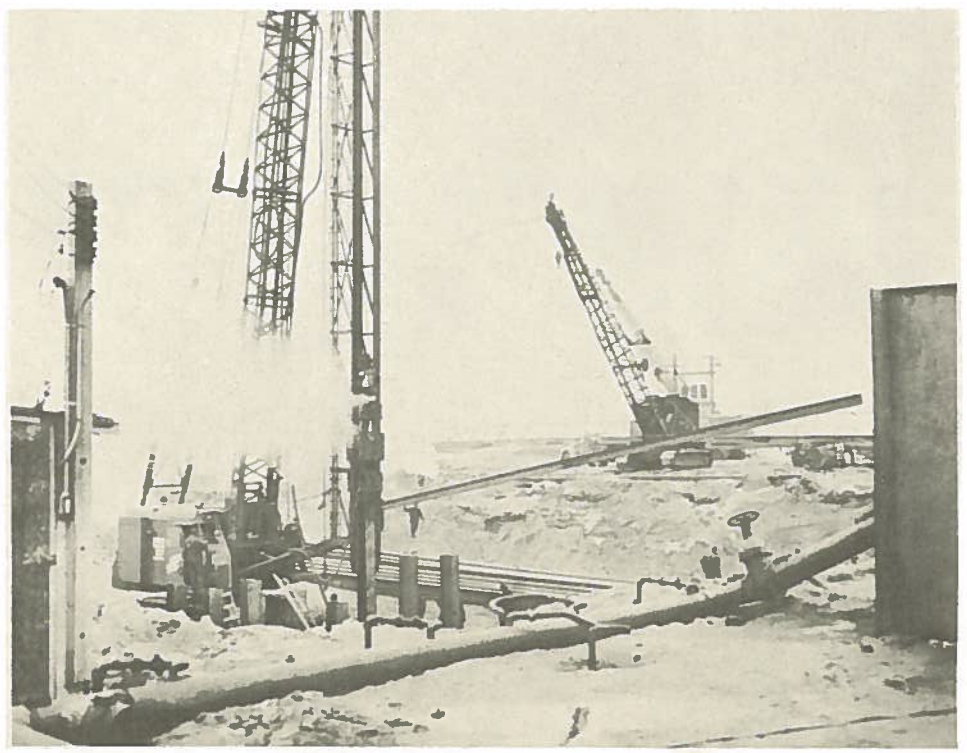


Thatcher is averaging 20 piles a day driving 90' to bedrock. At times in the past this rig has driven as high as 90 - 50' piles in a normal 8-hour shift. In a project accomplished for Sinclair Oil Company in East Chicago, Thatcher was able to drive fifty-four 10'' x 72' pipes in an 8 - hour shift and on a project for the FHA used this same rig to drive ninety 60' wood piles during a normal 8-hour shift.

The present construction will add another generating station to the facilities of Northern Indiana Public Service. Prime contractor on the big job is Sumner and Sollit of Chicago. Probable cost will run in the neighborhood of 50 million dollars with completion date about October, 1957.

Contractor Makes Pile Bearing Test

Graphic testimonial to the efficiency of the Thatcher pile driving methods. . . . . The cluster pictured consists of six steel piles which Thatcher drove 95' to refusal. The group of piles was then welded together to form a square around a seventh pile driven in the exact center of the group. When the six had been welded together Thatcher mounted a jack which exerted pressure upward against them and downward against the seventh or center pile. Two hundred tons of pressure was exerted and held against the center pile for a period of 24 hours. Measurements taken at the end of that period indicated that the pile had sunk a spare 1/4''. Removal of the jack allowed the pile to rebound about 1/16'' and gave the contractors an accurate indication of the stability of the piles they will drive for the foundation of this giant structure.



Cranes Work as Team

Thatcher's Model 3000 busies itself driving one immense beam while the Manitowoc Model 2000 stock piles 110' H beams to be used later in the day. Steam for the Vulcan hammer used on the driving rig is provided by two Cleaver-Brooks oil fired 25HP mobile boilers.

Positioning Pile is Important

Thatcher Engineering's Manitowoc Model 3000 strikes the first blows as it begins driving a 110' steel pile. The Thatcher Company constructs its own leads. The lead shown is 115' long and is held 7½' above the ground by the Manitowoc's 100' boom. Top of the lead sets 122½' above the surface and is equipped with crows nests for the safety of crew members who must maneuver about within the lead to assist in positioning each pile prior to striking the first blow. The project pictured is being accomplished behind giant sea walls constructed to resist the waters of Lake Michigan. The Model 3000 used here is working in a 21' excavation which is constantly dewatered to provide a dry working site. A sidelight on procedures used in this operation stemmed from the discovery that it was necessary to weld two long steel piles together in order to get long enough sections for the job. Welding the two gigantic lengths accurately and in a stout manner involved ingenuity on the part of the contractor who created a perfectly level ground area near the job and built a jig to accomodate two sections of pile laid end to end. With this simple, effective form the welder is able to work comfortably and accurately in fabricating lengths sufficient for the job.