MARINE LIFTING EQUIPMENT

CRANES / DERRICKS
A-FRAMES

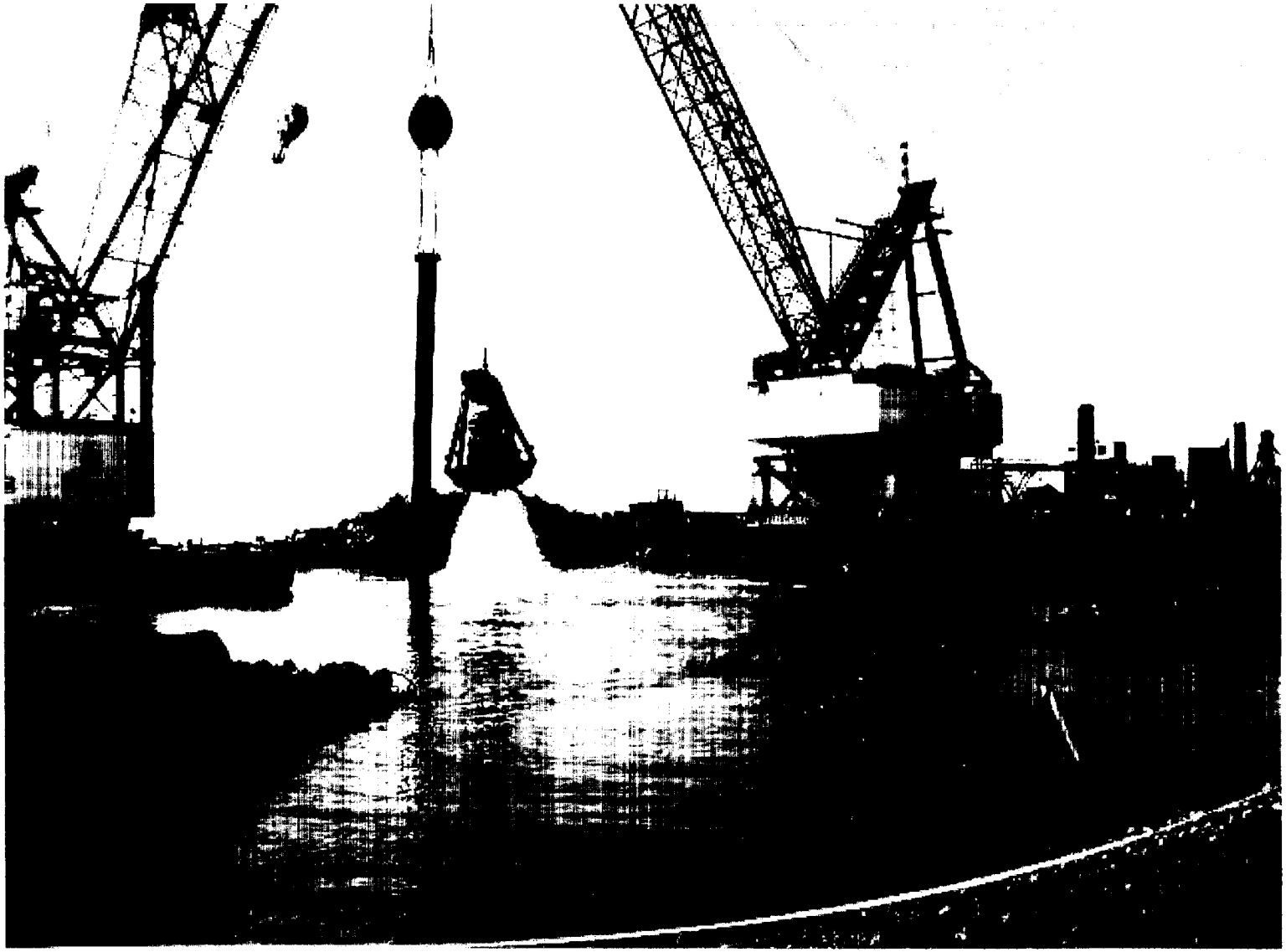
FLOATING CRANES/DERRICKS

- Used for clamshell dredging, piledriving, demolition, rock work, heavy lifts, sewer outfall installation, salvage and general construction.
- Work performed for Corps of Engineers, U.S. Navy, Port Owners, State and Municipal Owners and Oil Companies.

FLOATING CRANES/DERRICKS

- INSPECTION CRITERIA
  - Daily inspections of boom, sheaves, wire rope, hoists/winches, turntable, rollers, rail, safety alarms and overrides, etc.
  - Monthly Derrick Barge Safety Inspection Checklist.
  - Monthly Derrick Reports.
  - Safety Tours
  - Annual Crane inspections that include boom, wire, gantry, sheaves, trucks, rollers, center pin, etc.
  - Quadrennial Crane inspections that include all of above, plus 110% fully revolving load test.
  - For vessels carrying USCG Certificates of Inspection and ABS Loadlines, perform annual inspections with ABS and USCG to inspect hull integrity. Also drydock vessels 2X every 5 years for USCG and 1X every 4 years for ABS inspections.
  - Change out boom and hoist wires a minimum every 2 years.
  - Holding and closing wires on clamshells changed out about every 2 months.

CLAMSHELL DREDGING

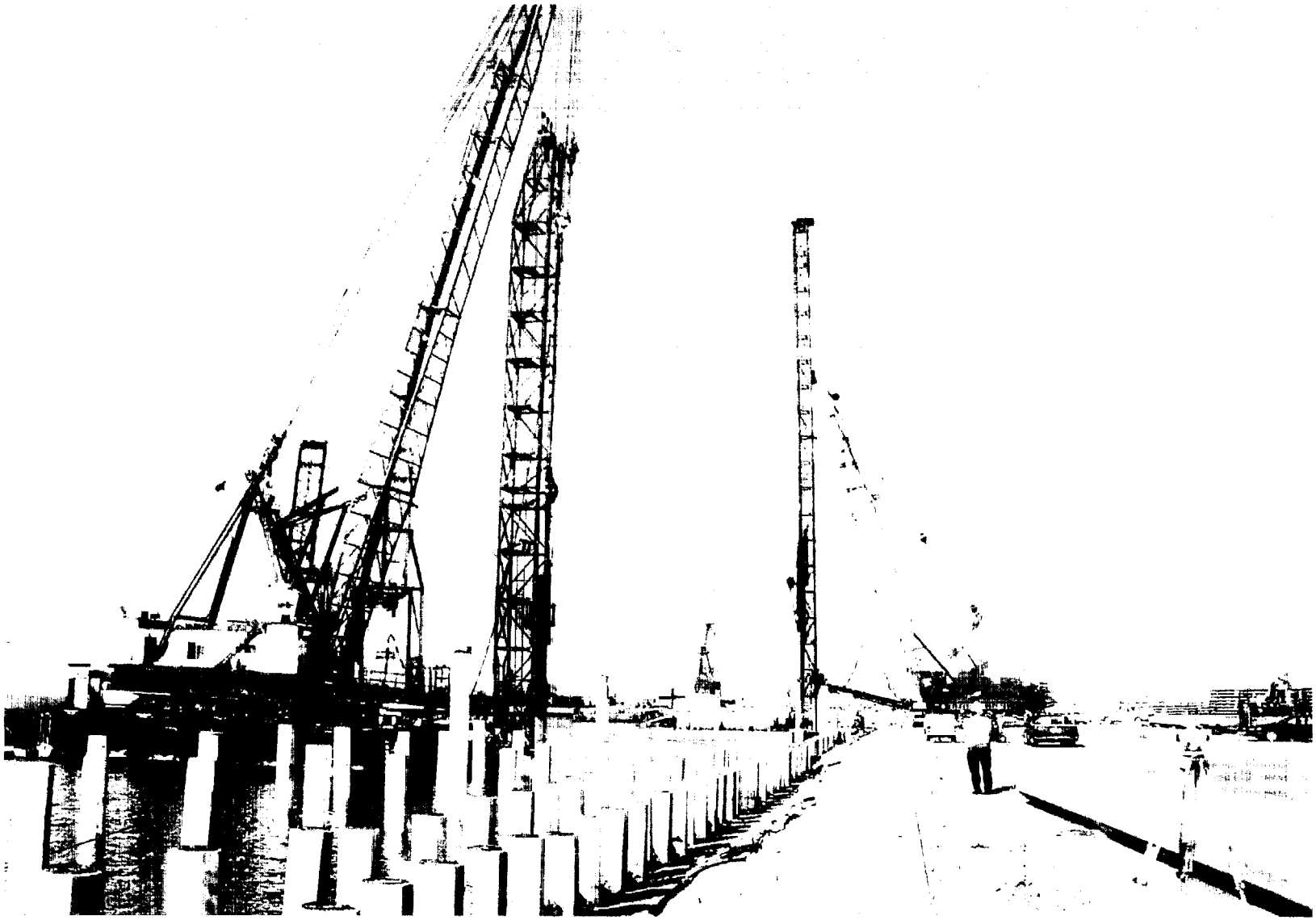


- Clamshell in background is removing rock to dress a slope for eventual dock construction. Rock is being placed on a flat barge tied alongside clamshell.

CLAMSHELL DREDGING

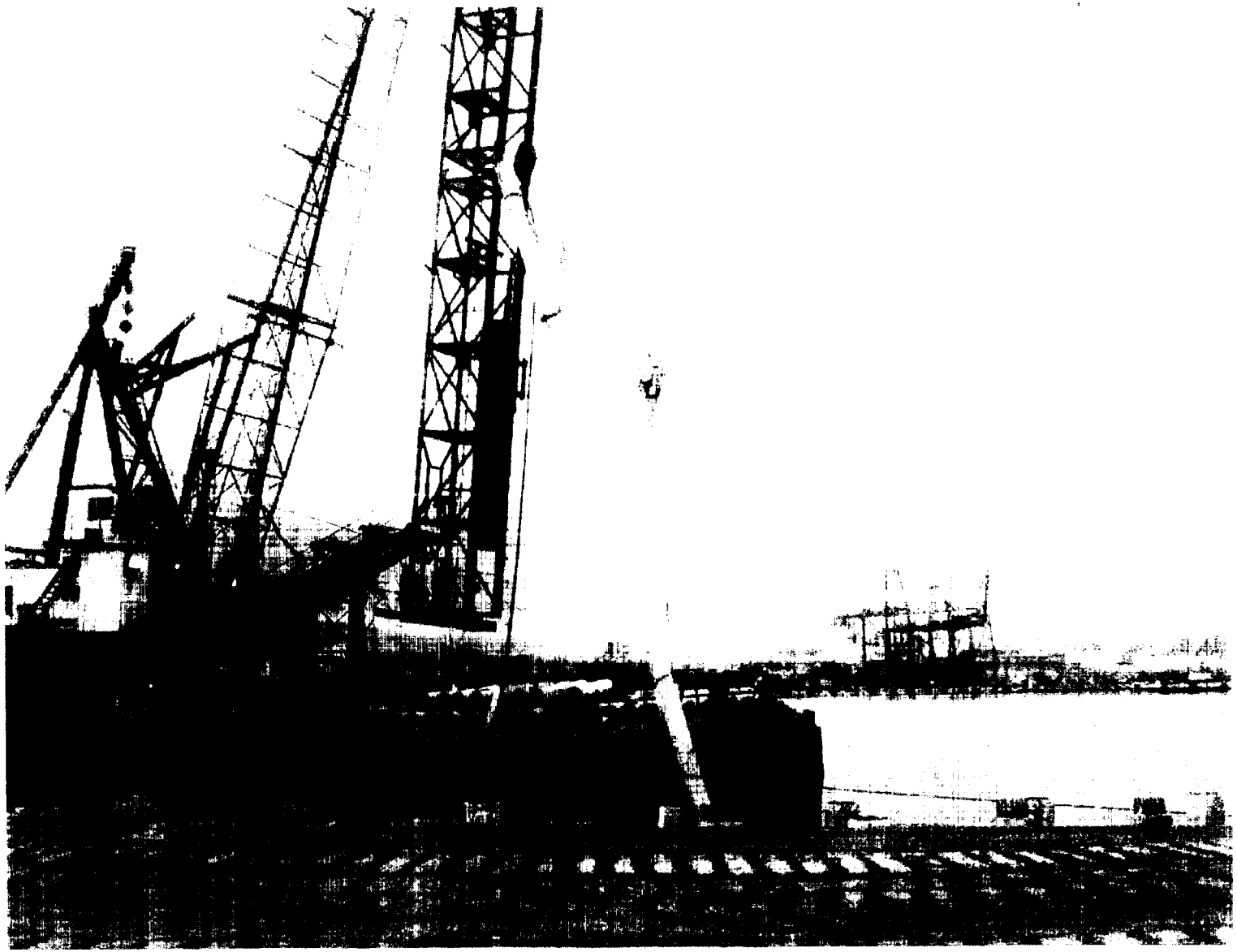
- Clamshell dredge using 24 cy bucket for placement of dredge fill in a split hull dump scow.

PILEDRIVING



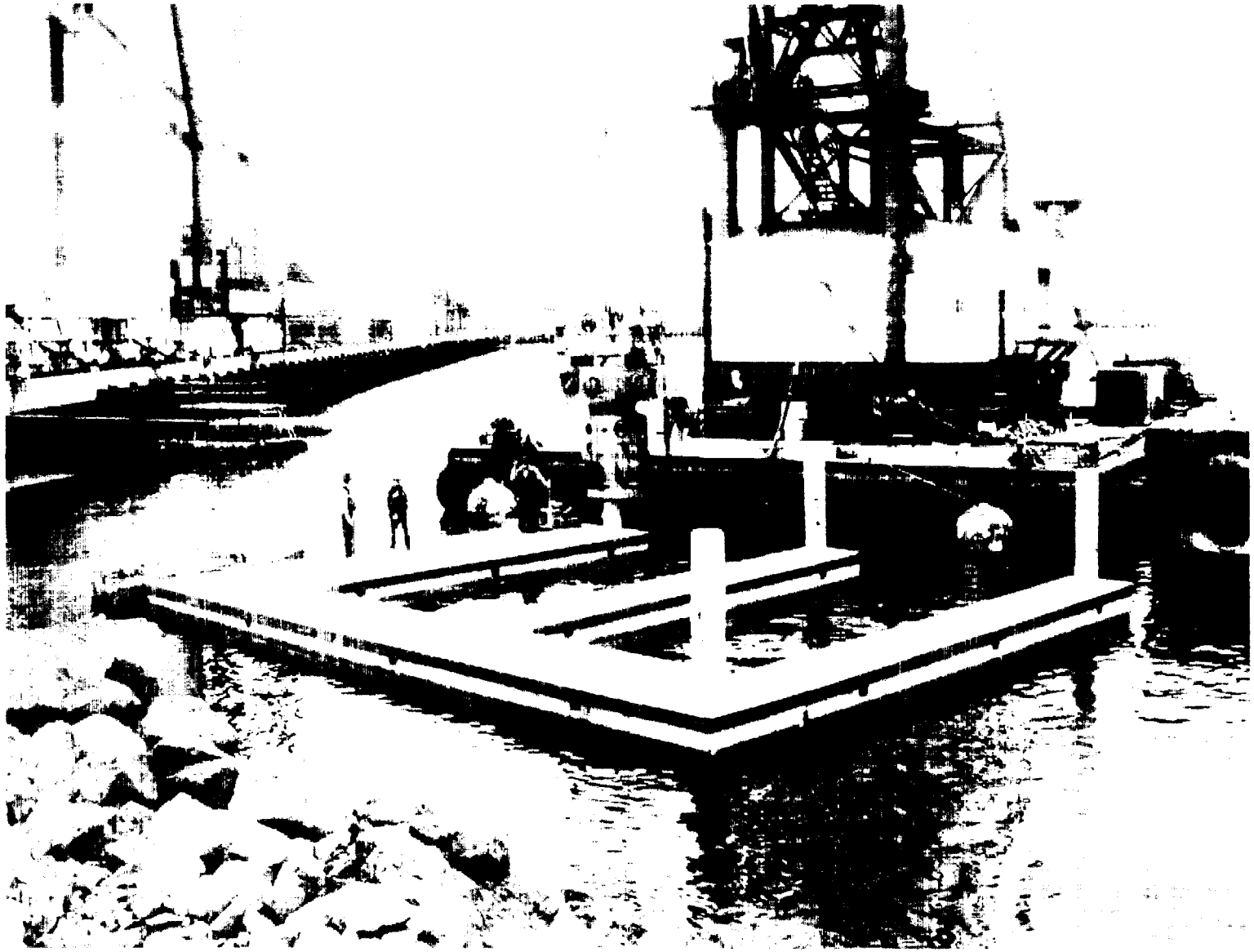
Twenty-four inch octagonal piles being driven on water and land to support dock.

PILEDRIVING



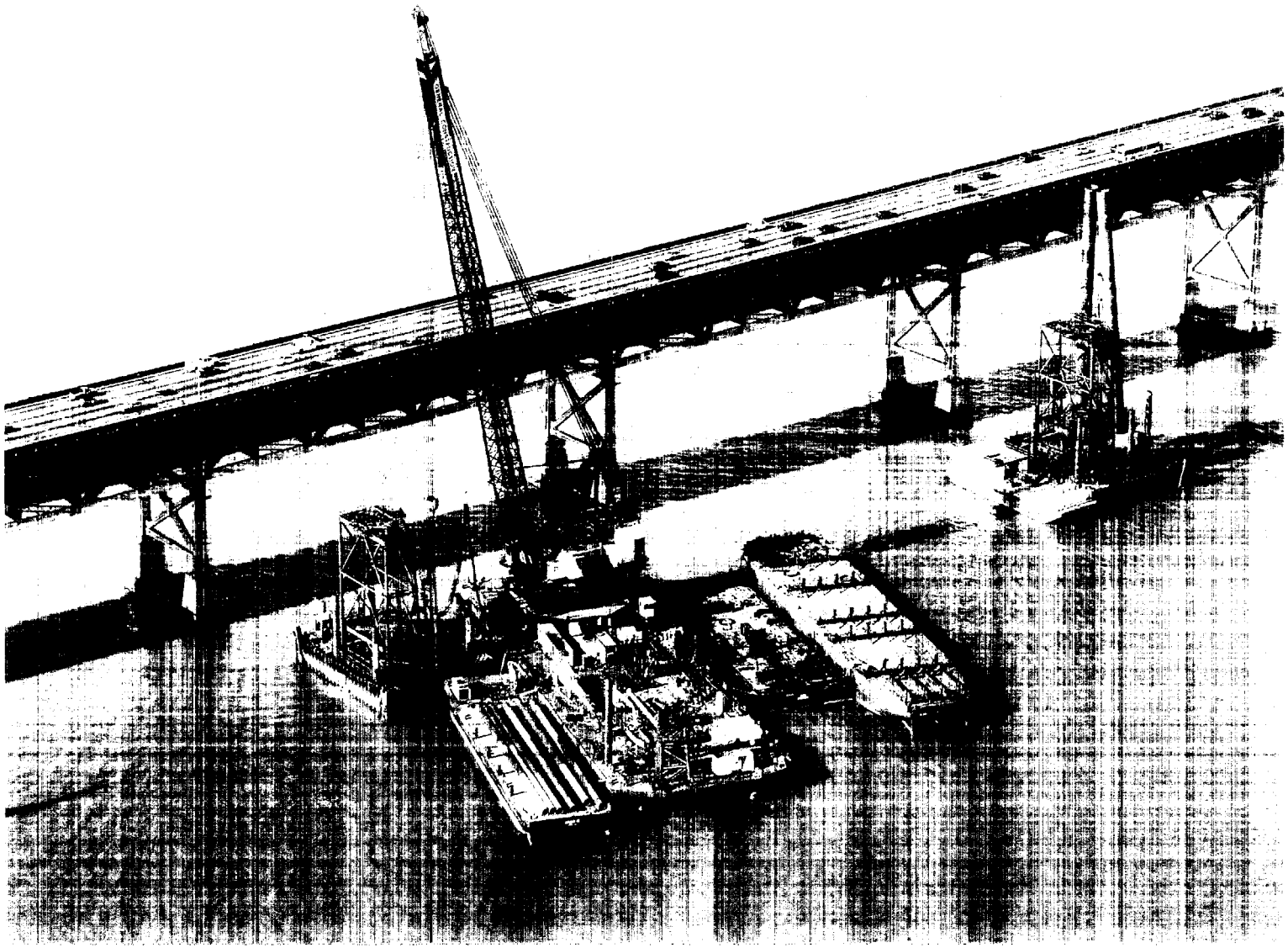
- Lofting 24- inch octagonal pile.

PILEDRIVING



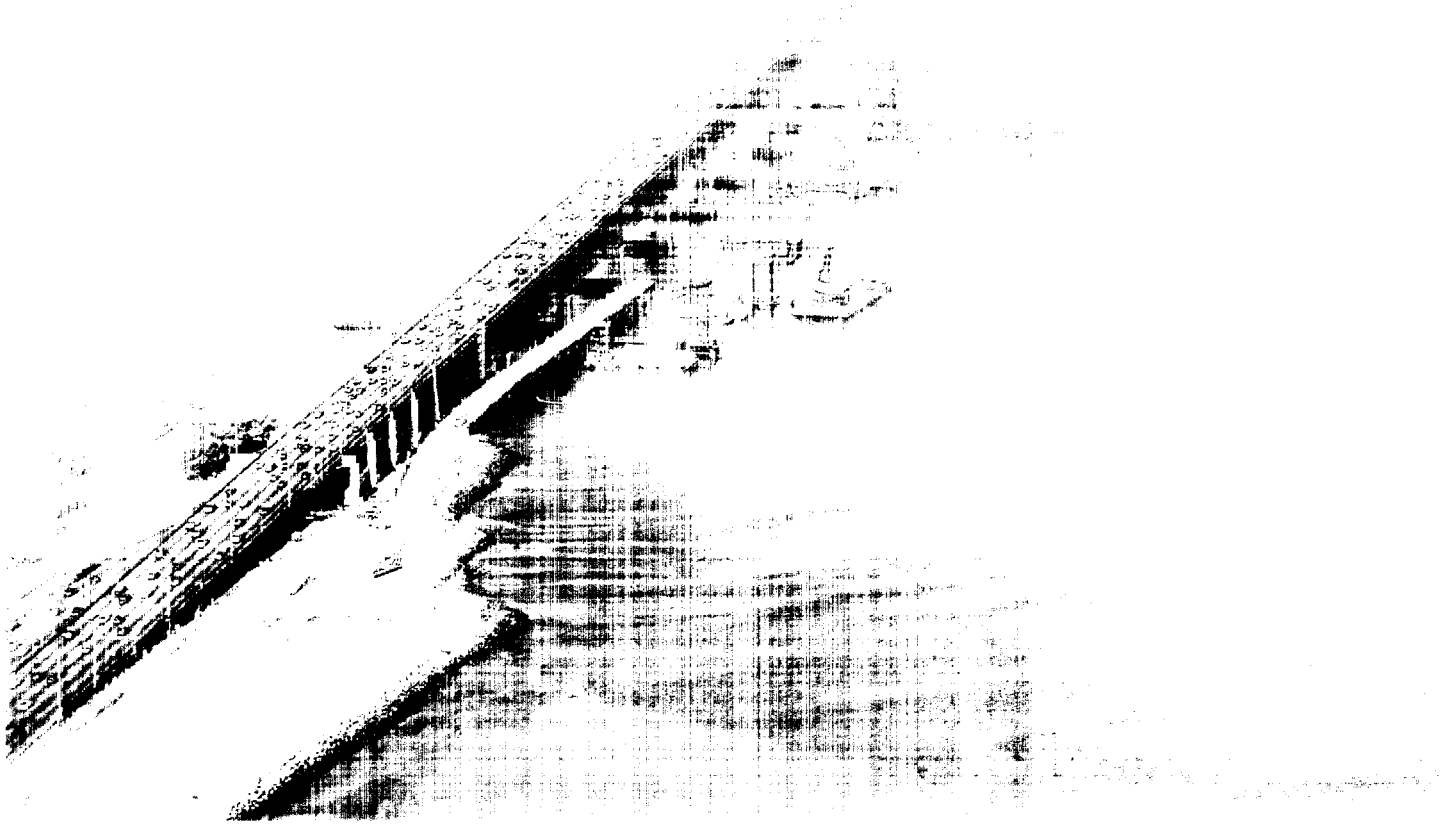
- Hydraulic vibratory pile driver.

PILEDRIVING



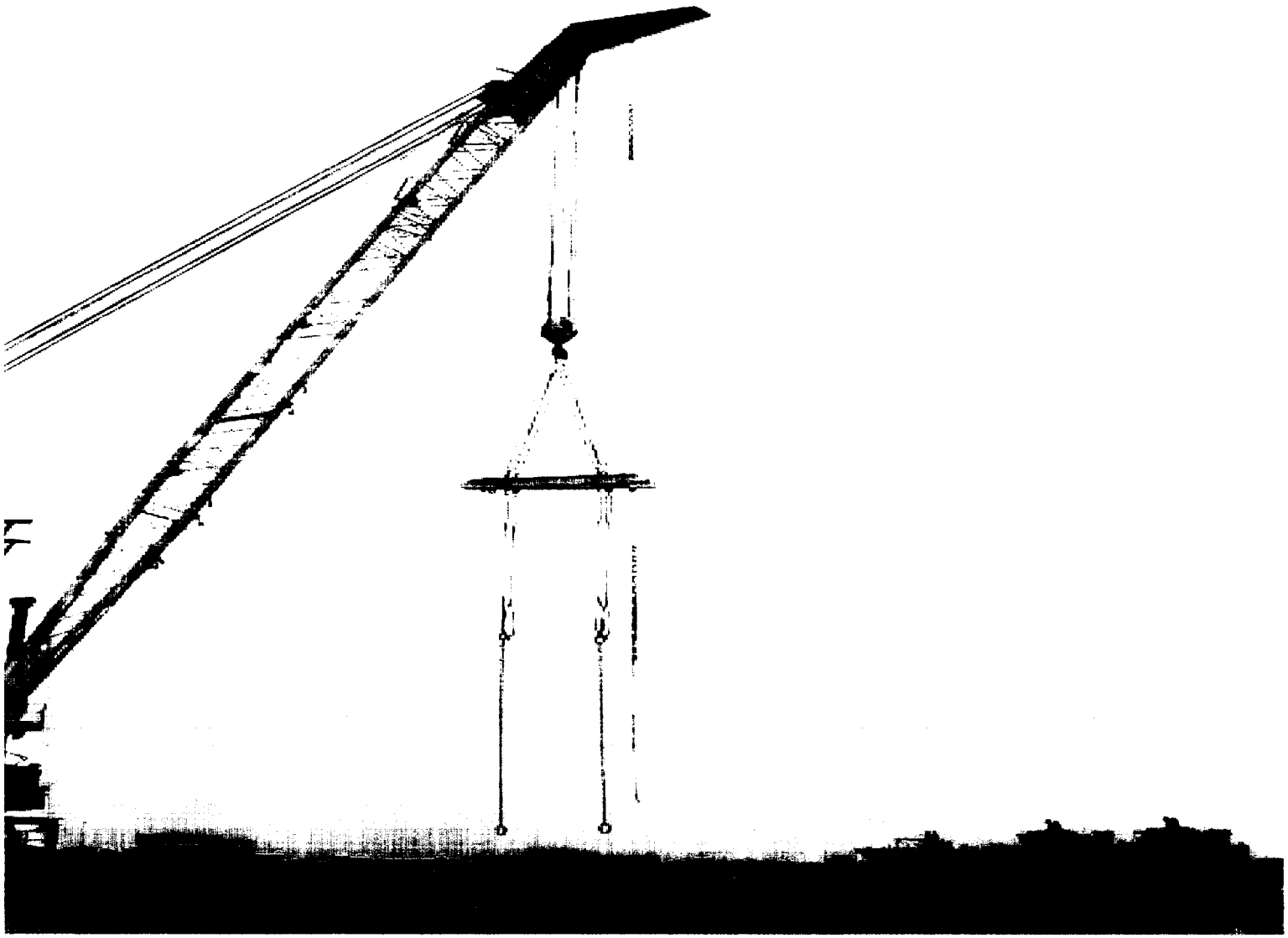
Hydraulic pile driver on bridge construction. Installing 96-inch steel pipe pile.

PILEDRIVING



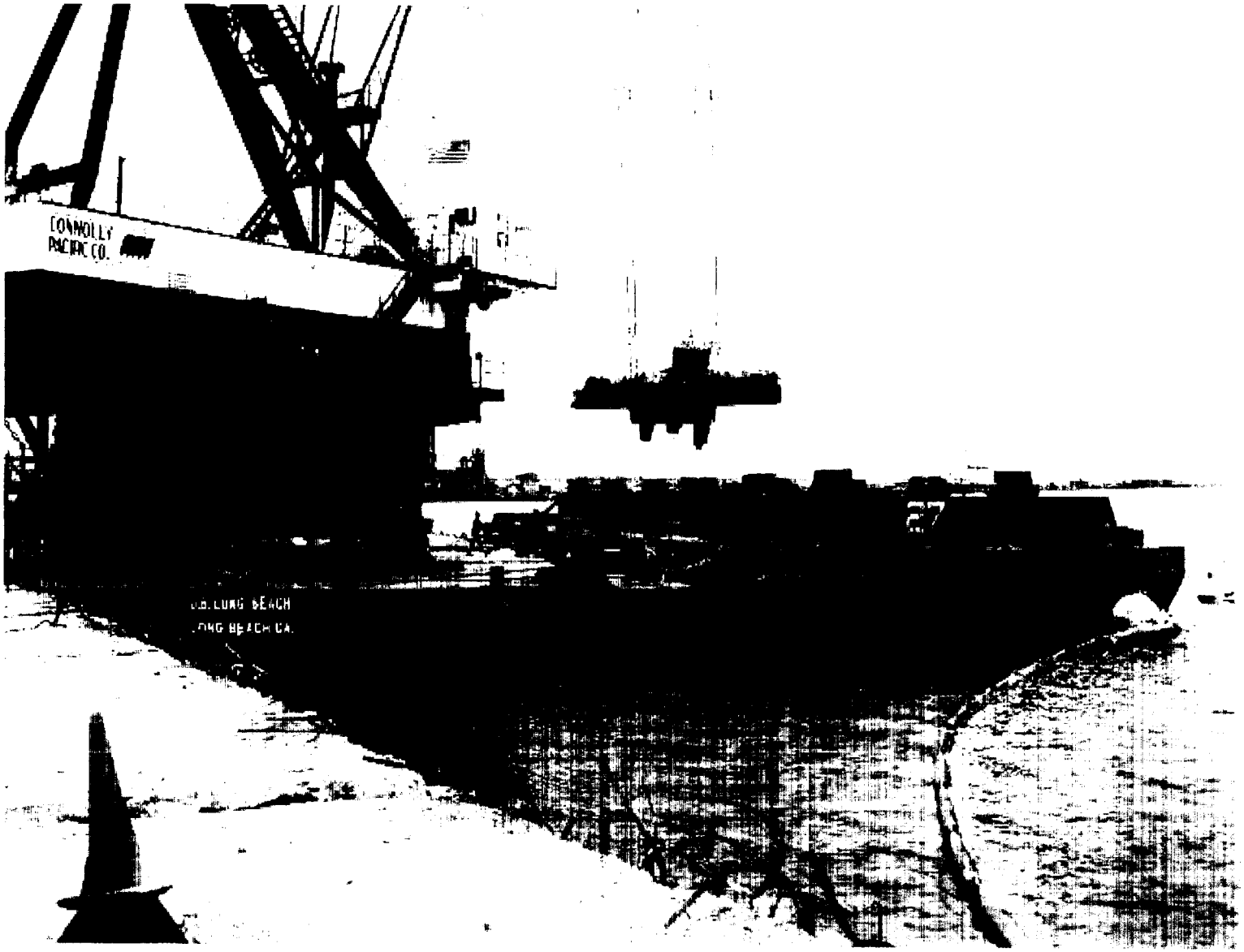
- Overview of bridge job.

DEMOLITION



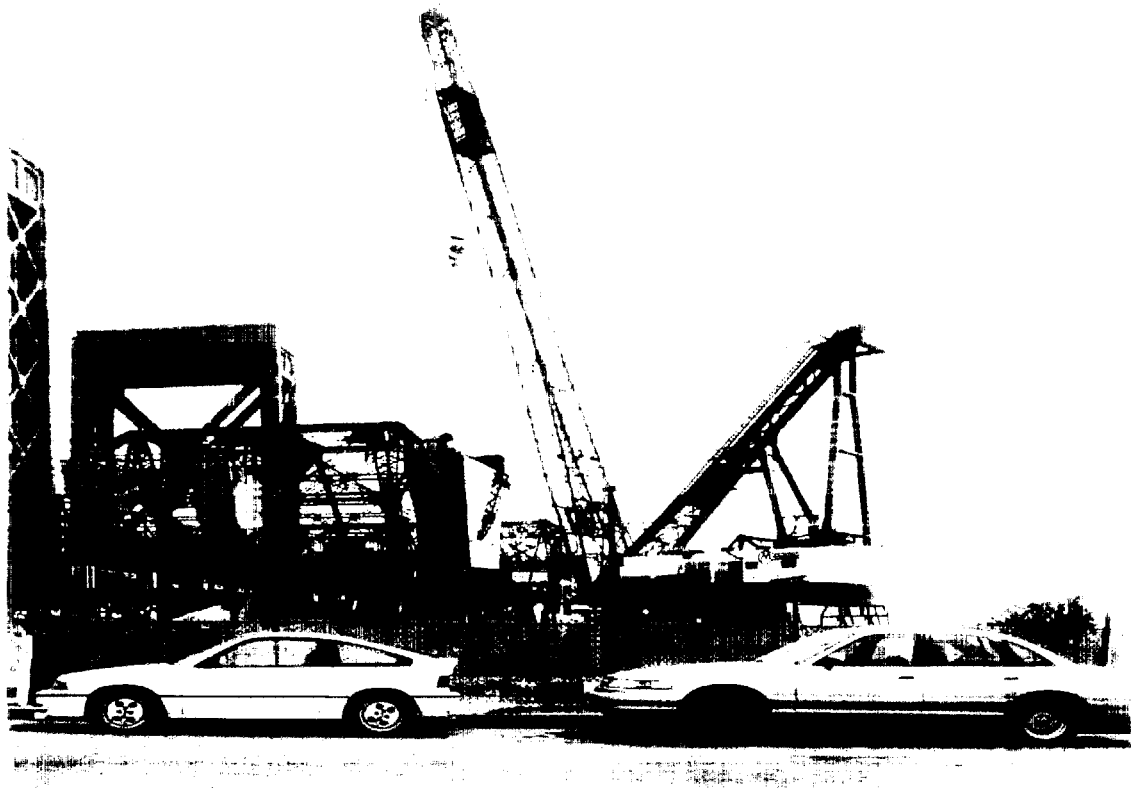
Rigging to remove 100-200 ton deck sections during pier demolition.

DEMOLITION



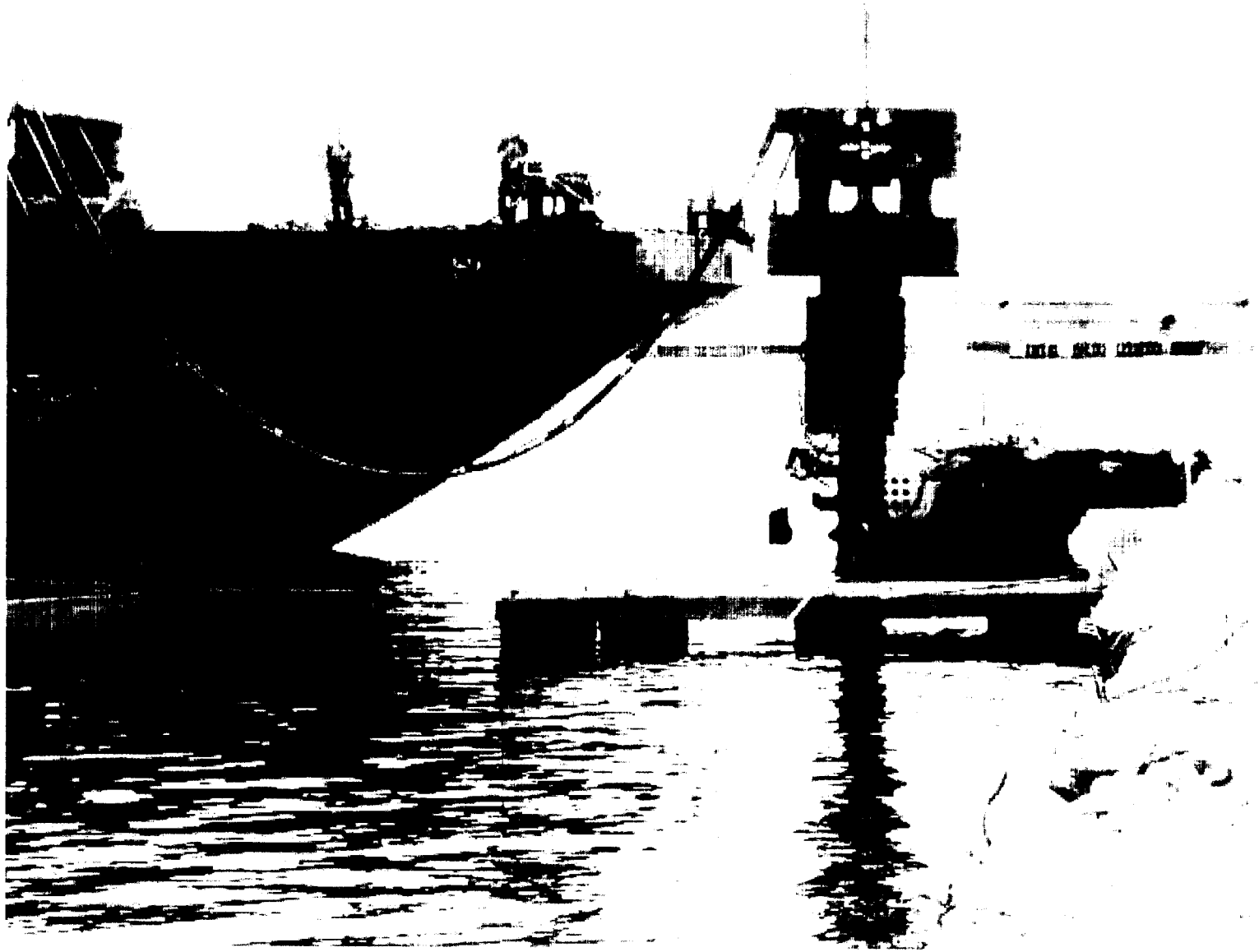
- Moving deck section during pier demolition.

DEMOLITION



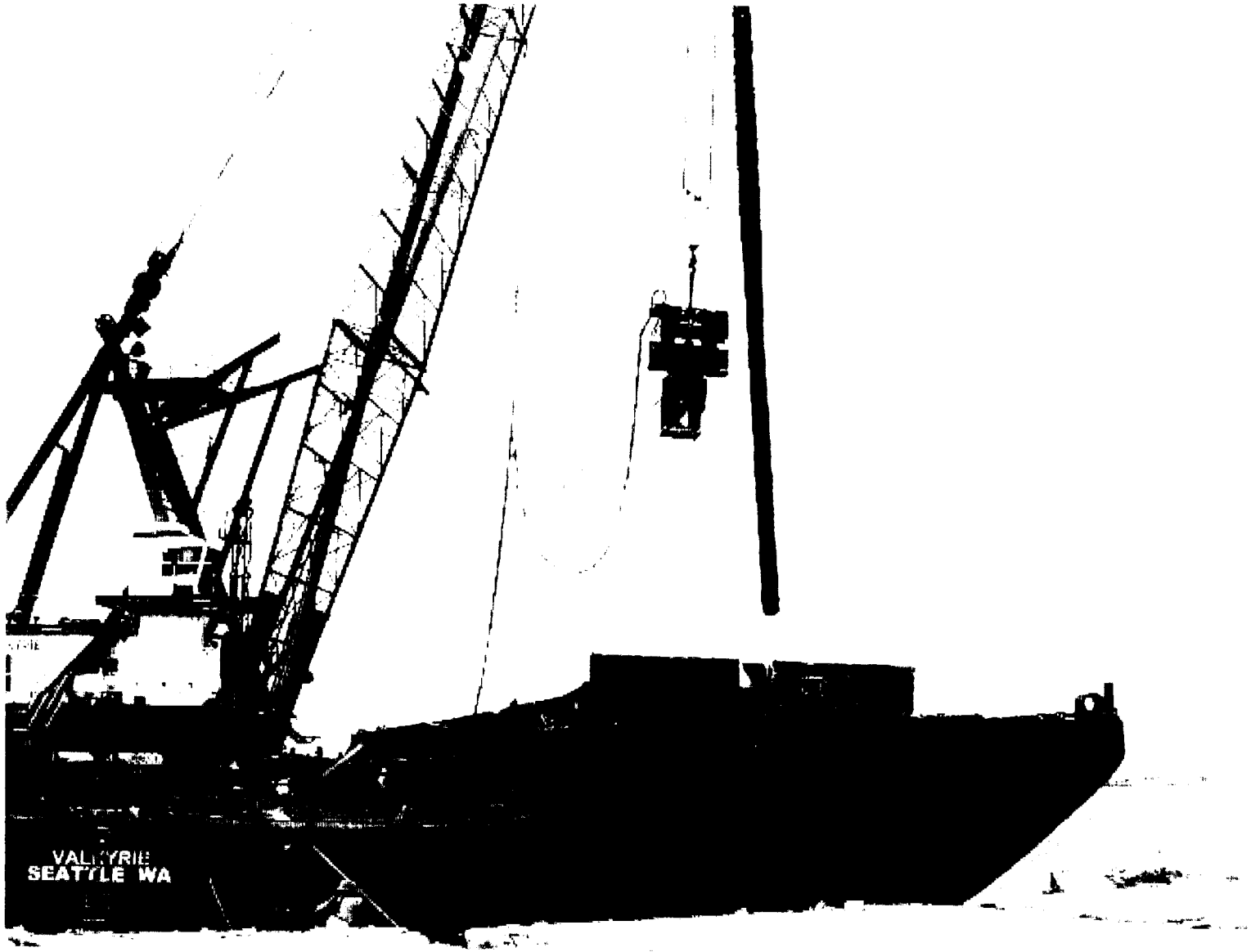
Removing 350 ton counterweight during bascule bridge demolition.

DEMOLITION



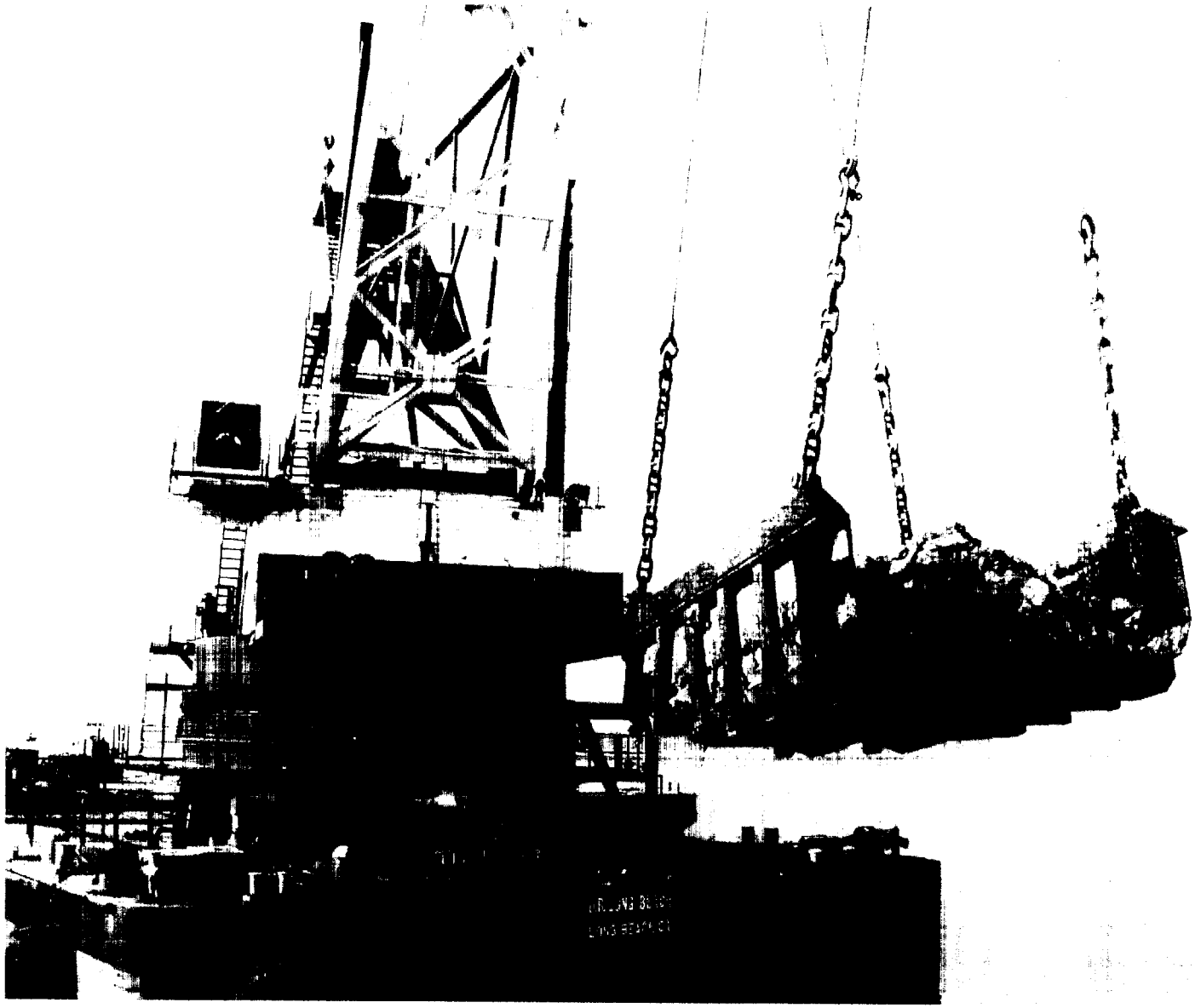
Removing piles with vibratory hammer during pier removal.

DEMOLITION



Placing pile into dump scow during pier removal.

ROCK PLACEMENT

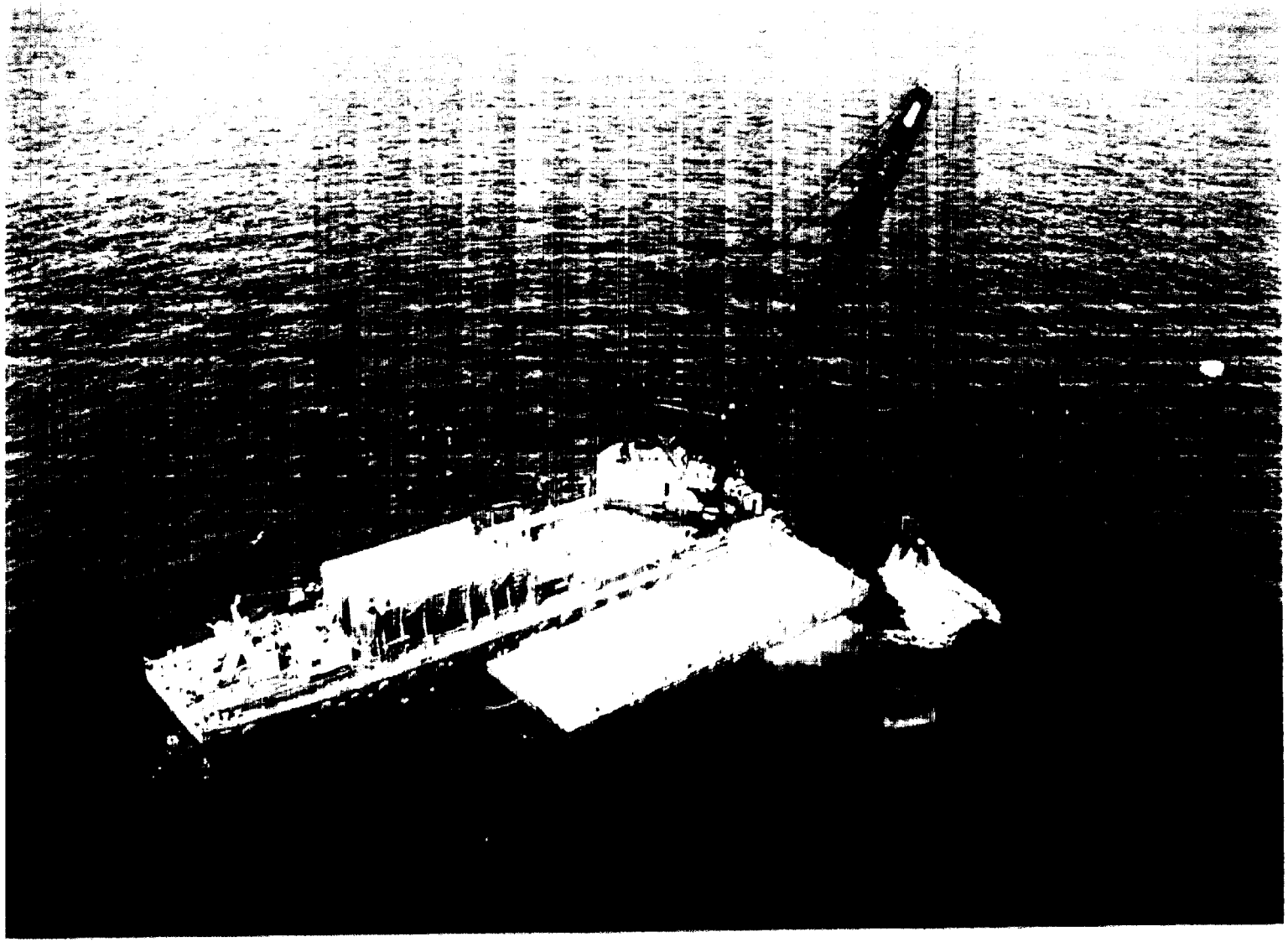


- Placing rock for slope stabilization.

ROCK PLACEMENT

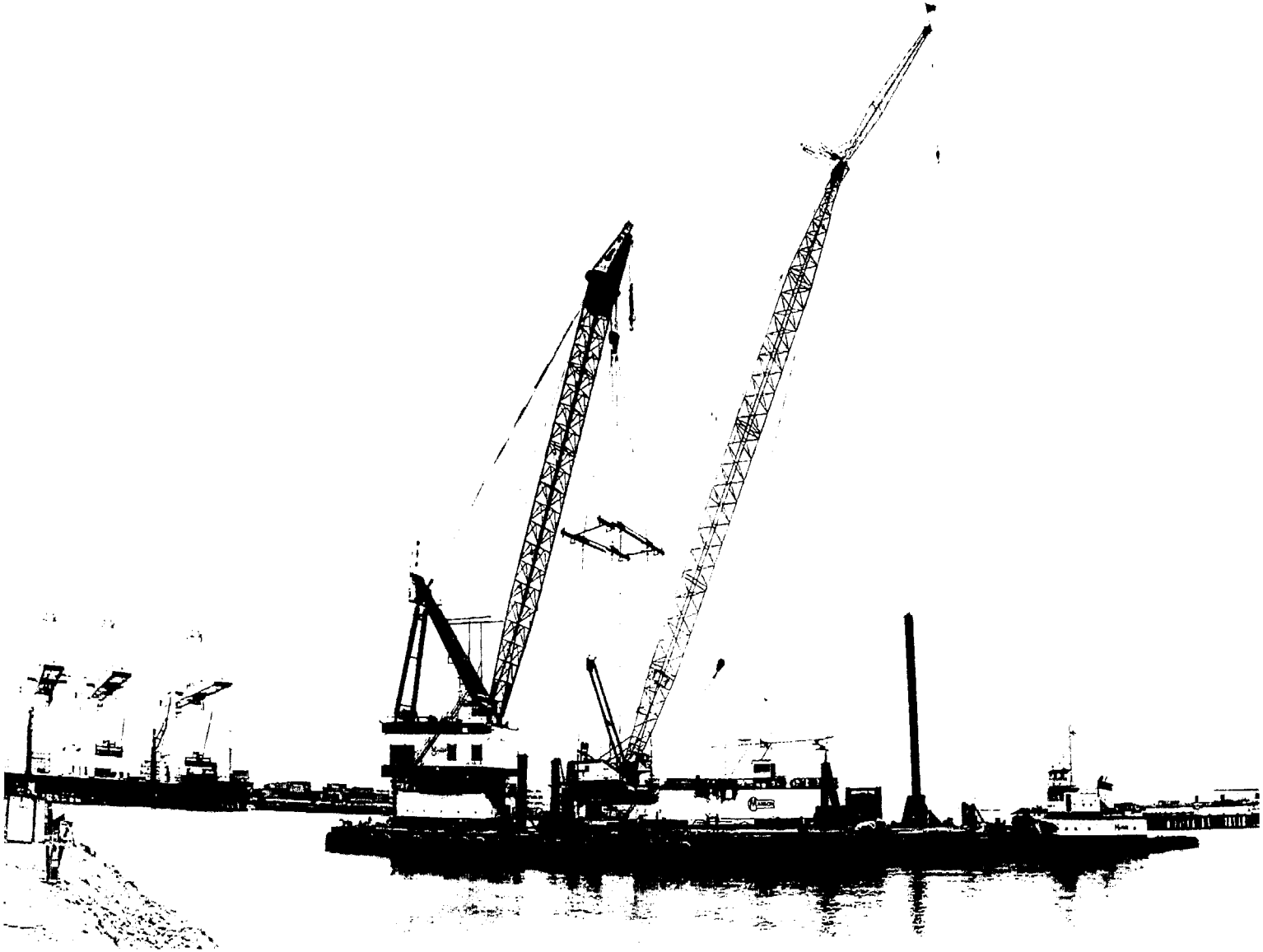
- Placing rock for slope stabilization.

ROCK PLACEMENT



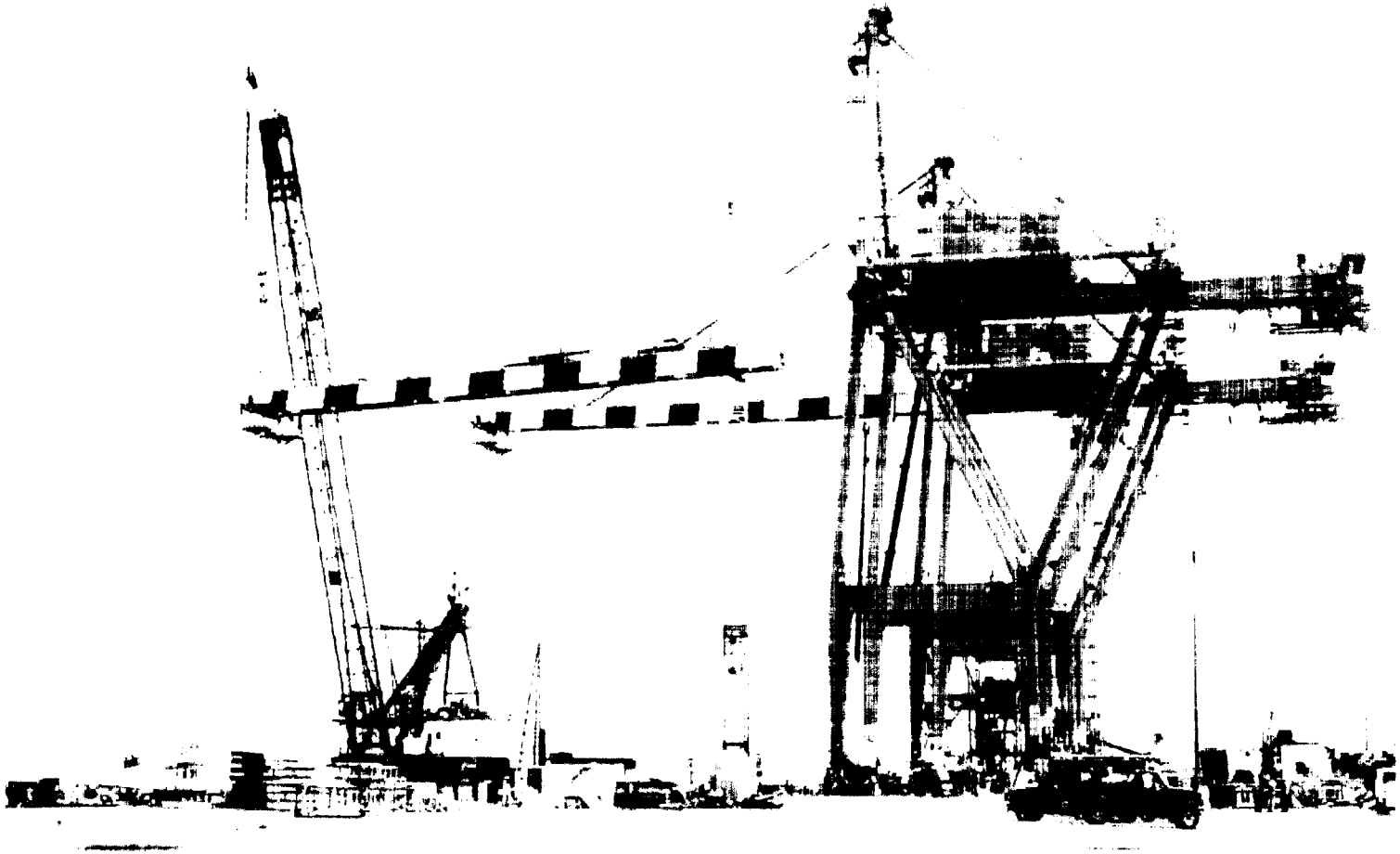
- Vessel being used for overlaying rock on sewer outfall.

MISCELLANEOUS WORK



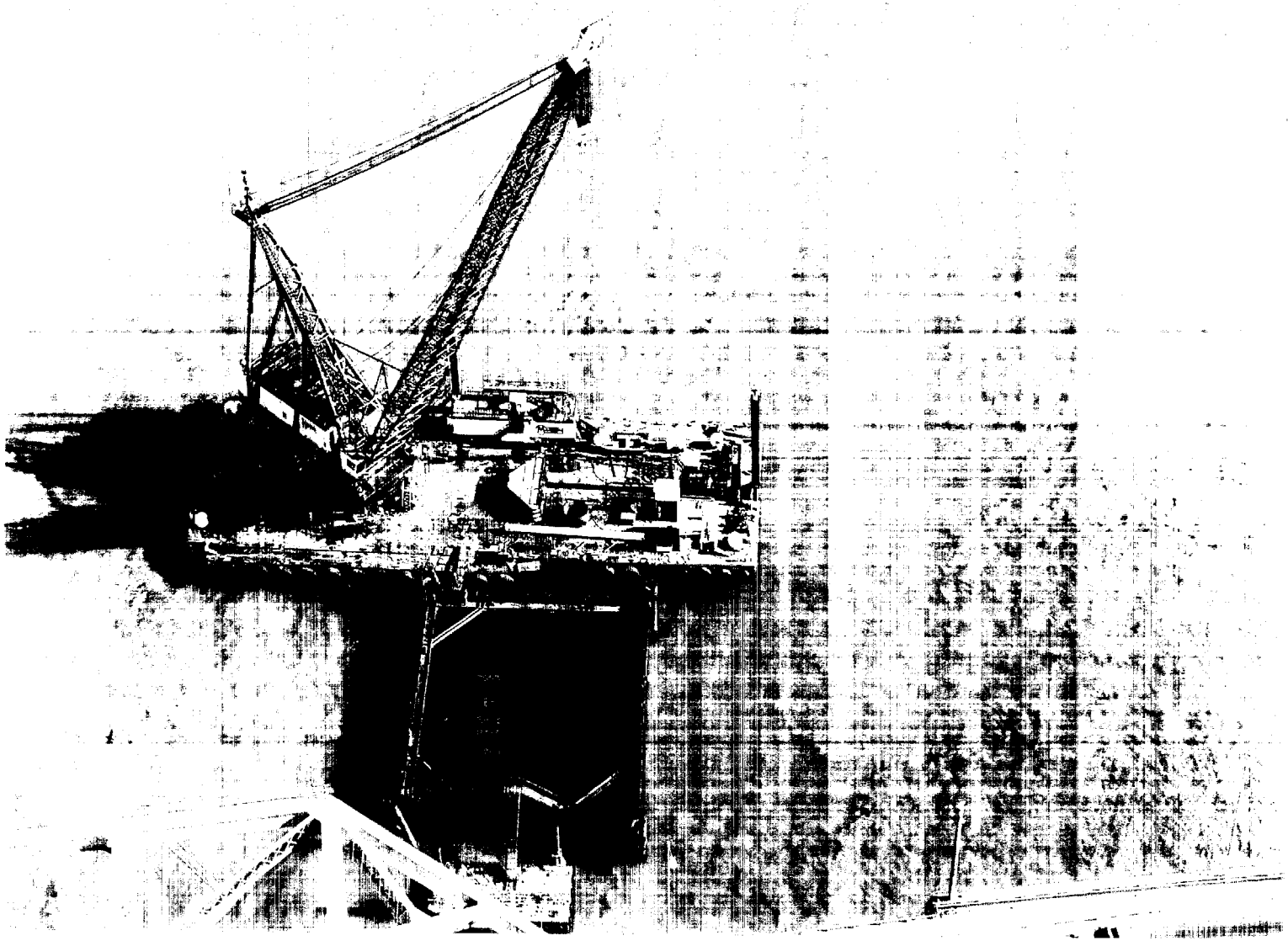
- Transferring Linkbelt crawler crane to a jobsite.

MISCELLANEOUS WORK



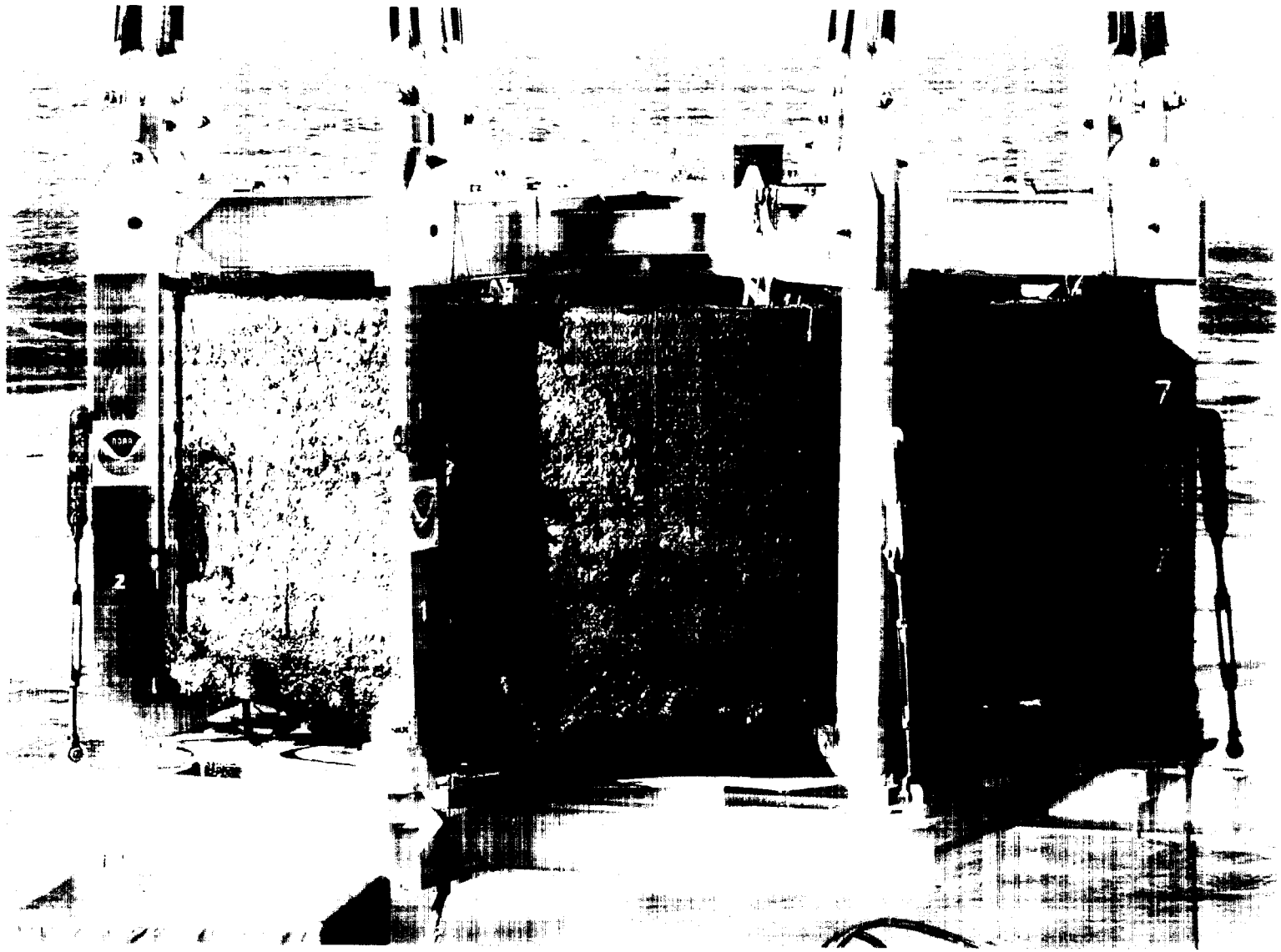
- Tandem pick, installing boom for cargo container crane.

MISCELLANEOUS WORK



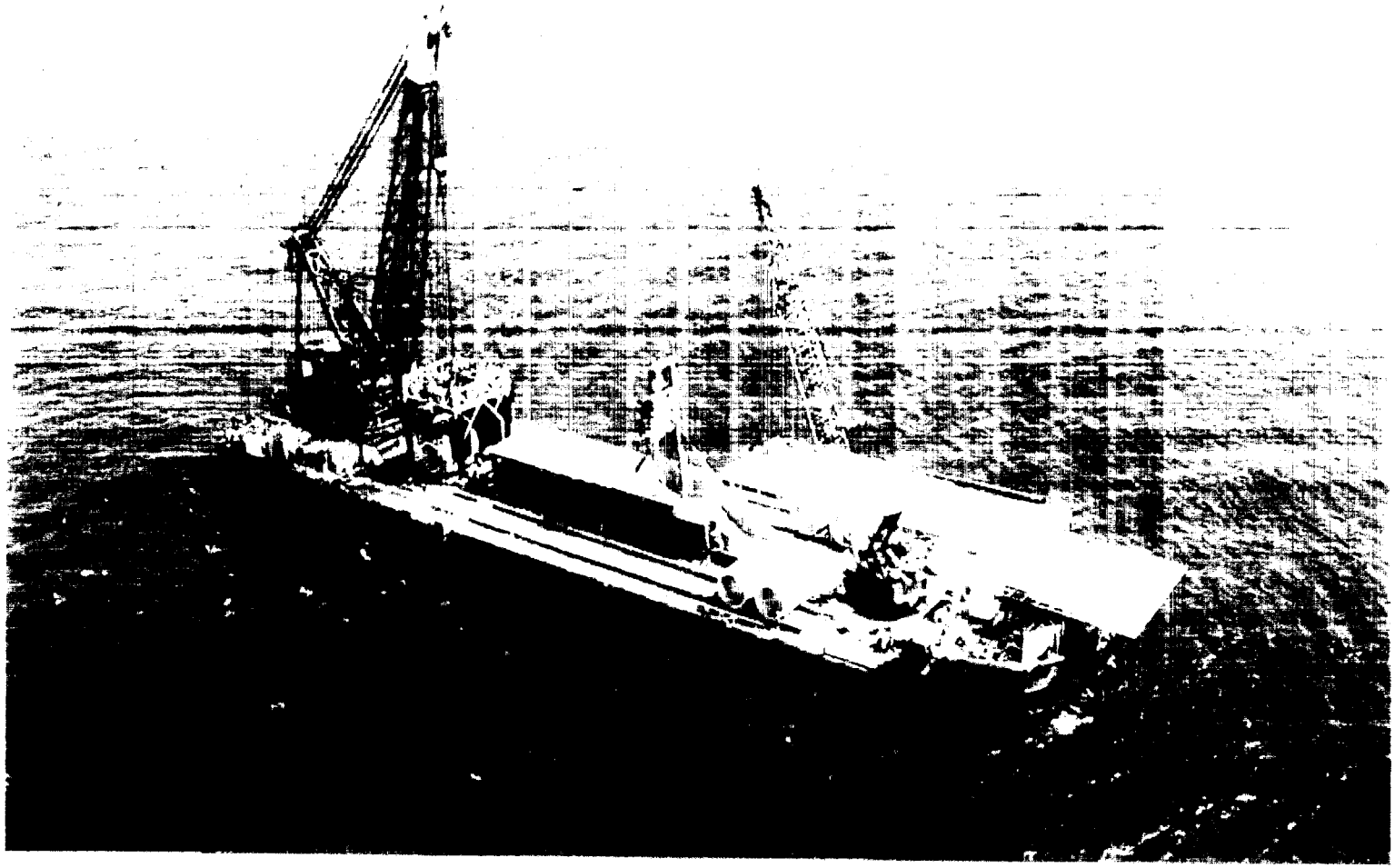
- Completed cofferdam for bridge foundation.

MISCELLANEOUS WORK



- Rigging to remove turret from U.S.S. Monitor off Cape Hatteras, N.C.

MISCELLANEOUS WORK

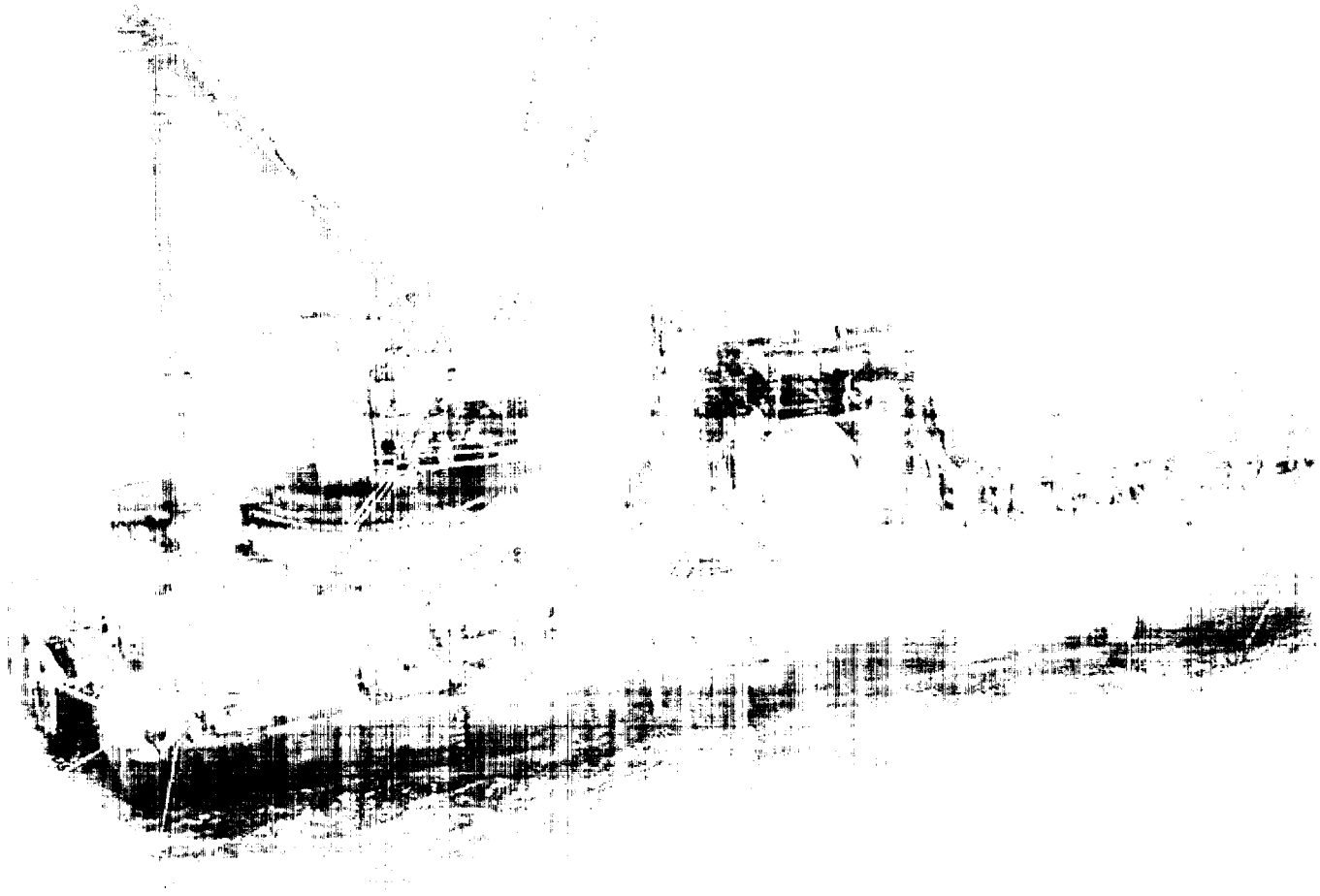


Sewer outfall construction, Clyde 42 places pipe and 4600 Manitowoc places rock in hopper for outfall pipe bed.

MISCELLANEOUS WORK

- Preparing 10-12 ft. diameter sewer outfall pipe for placement in water at depths to 300 feet.

MISCELLANEOUS WORK

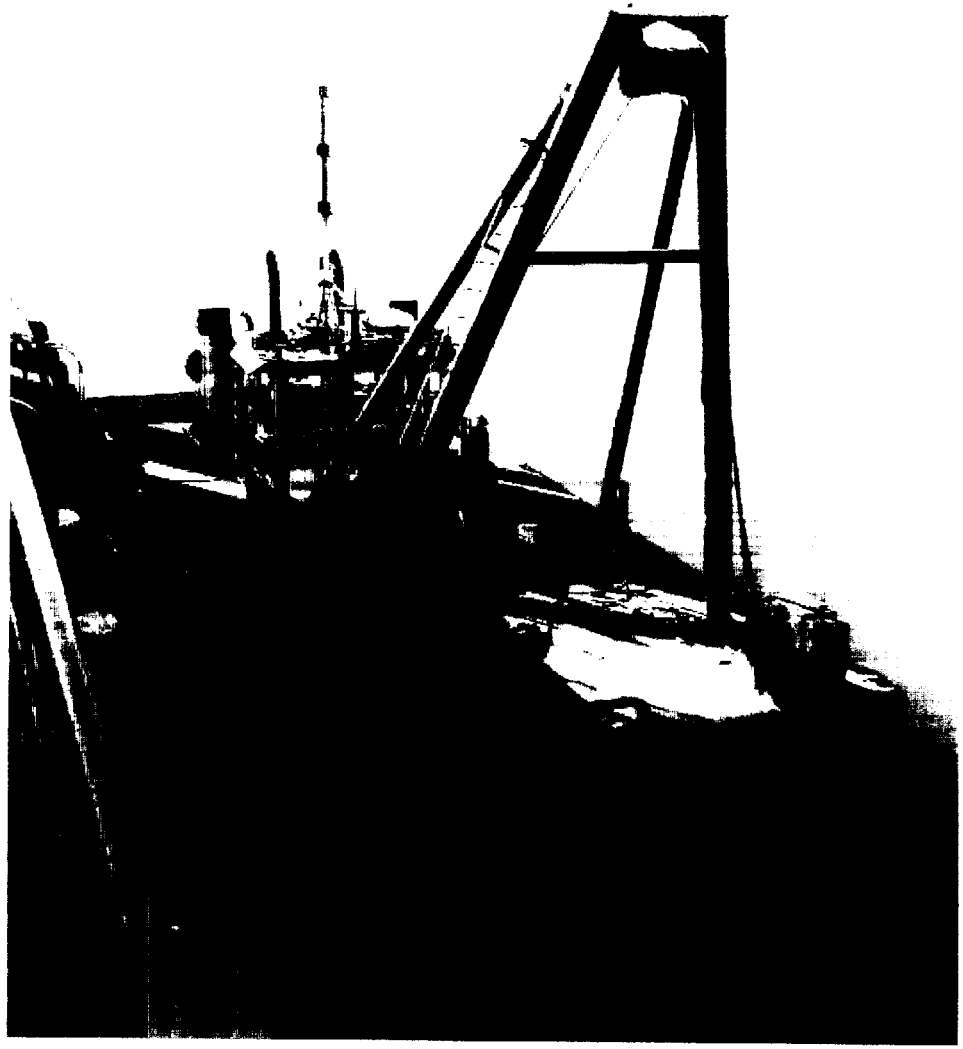


- Preparing to place and install 40 feet of sewer outfall pipe on ocean bottom.

A-FRAMES

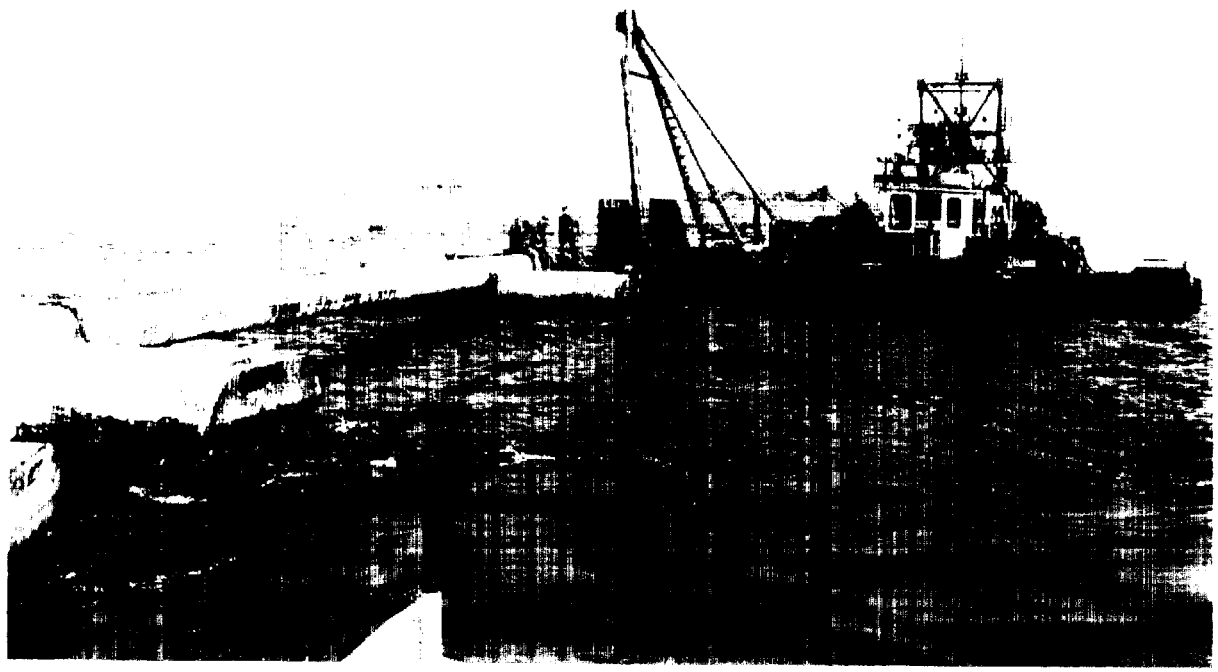
- Used for lifting anchors, dredge pipe and ancillary items such as oxy-acetylene bottles, bins, etc.
- Inspection criteria:
  - Check hoist wire, pulling wires, A-frame integrity, sheaves, bow rollers and hydraulic winch on a daily basis.
  - Use domestic XIP 625 wire for lifting and pulling.
  - Change out wire on an as needed basis.

A-FRAME WORK



- Dredge tender with A-frame (33-50K line pull) used for moving anchors, making up floating dredge pipe and miscellaneous items.

A-FRAME WORK



- Dredge tender with A-frame (33-50K line pull) used for moving anchors, making up floating dredge pipe and miscellaneous items.

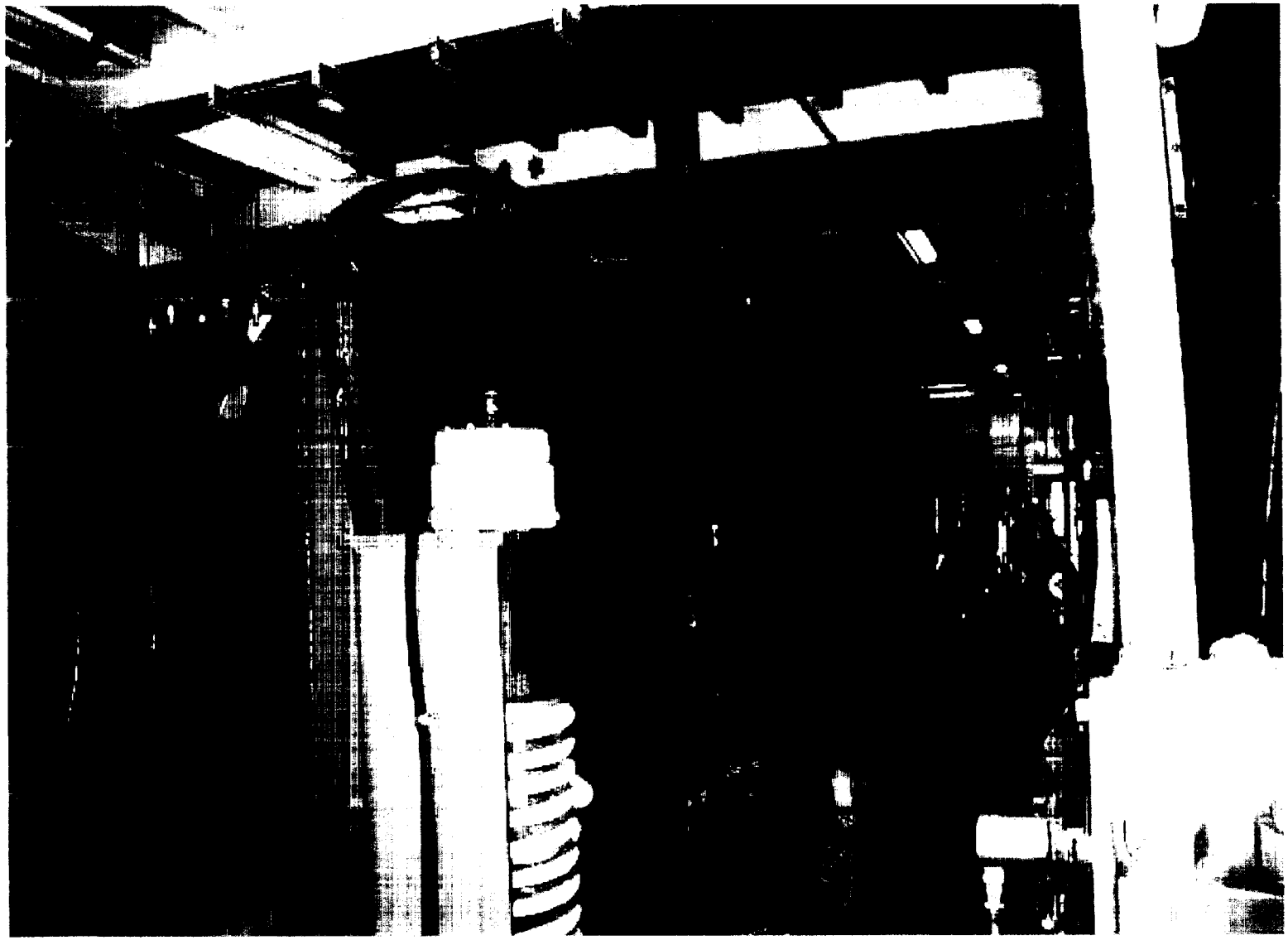
MISCELLANEOUS EQUIPMENT

- Hydraulic crane mounted on hydraulic cutter suction dredge.

MISCELLANEOUS EQUIPMENT

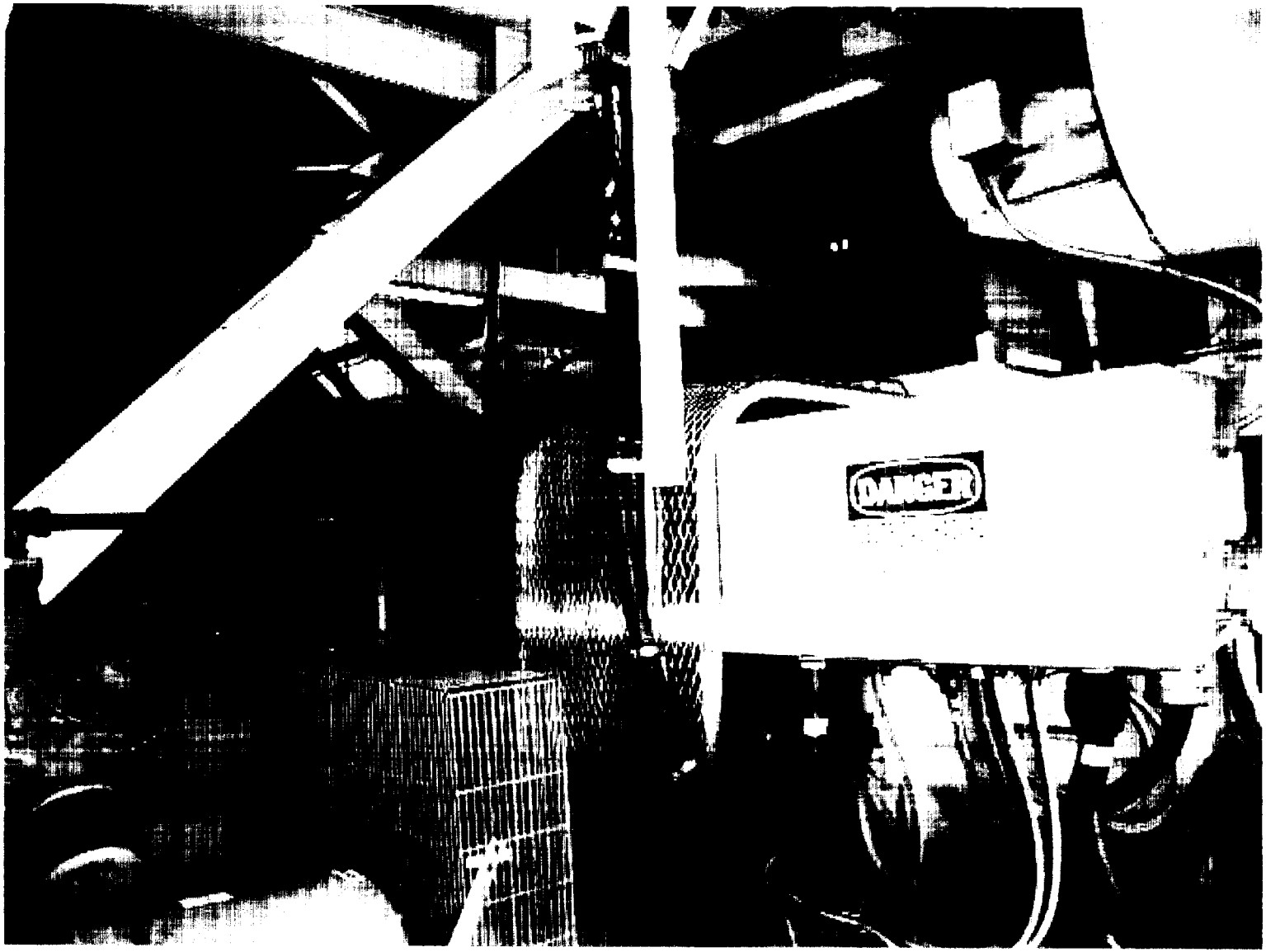
- Walking spud on clamshell dredge.

MISCELLANEOUS EQUIPMENT



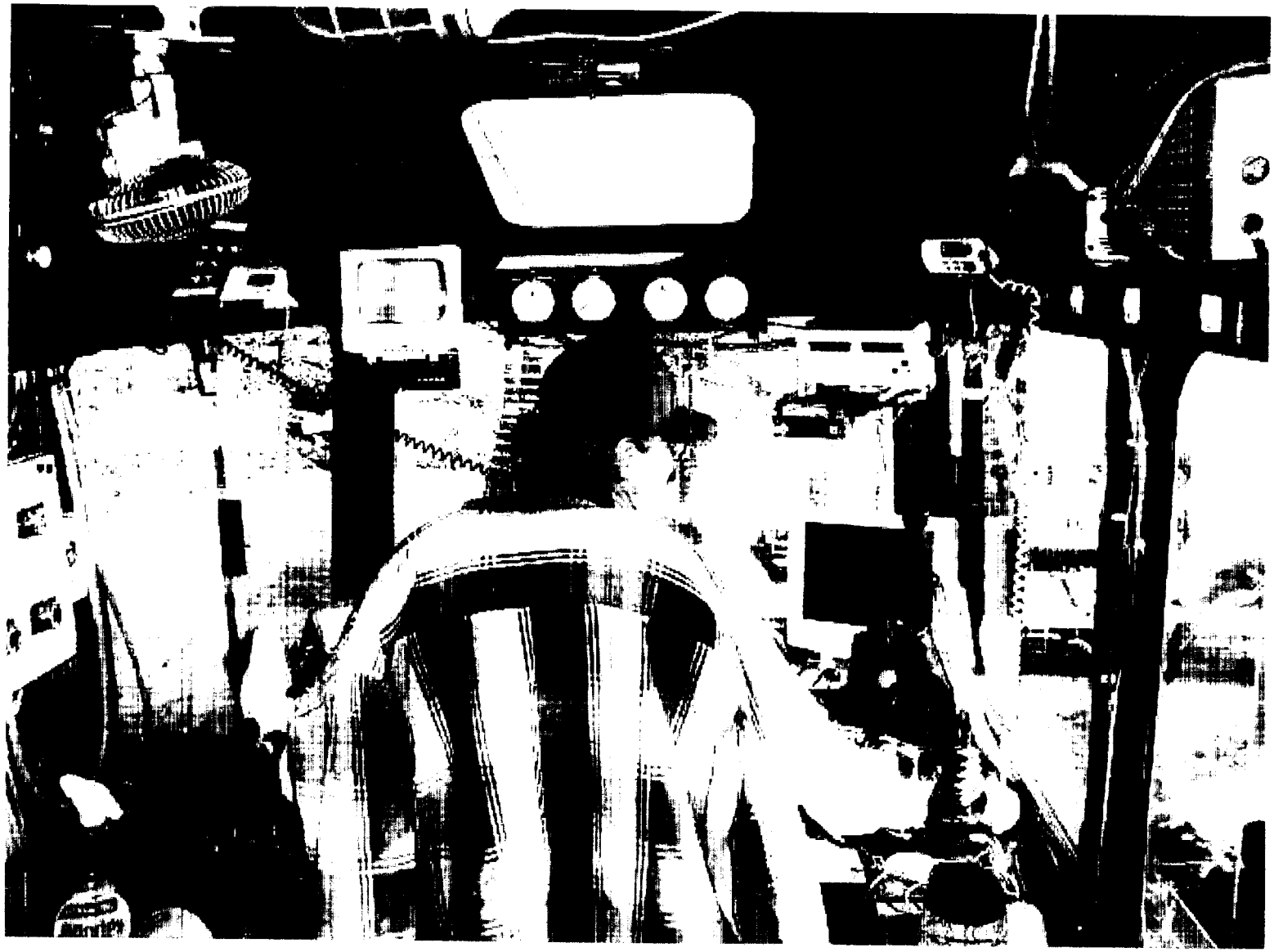
- Anchor/spud winches in clamshell winch house

MISCELLANEOUS EQUIPMENT



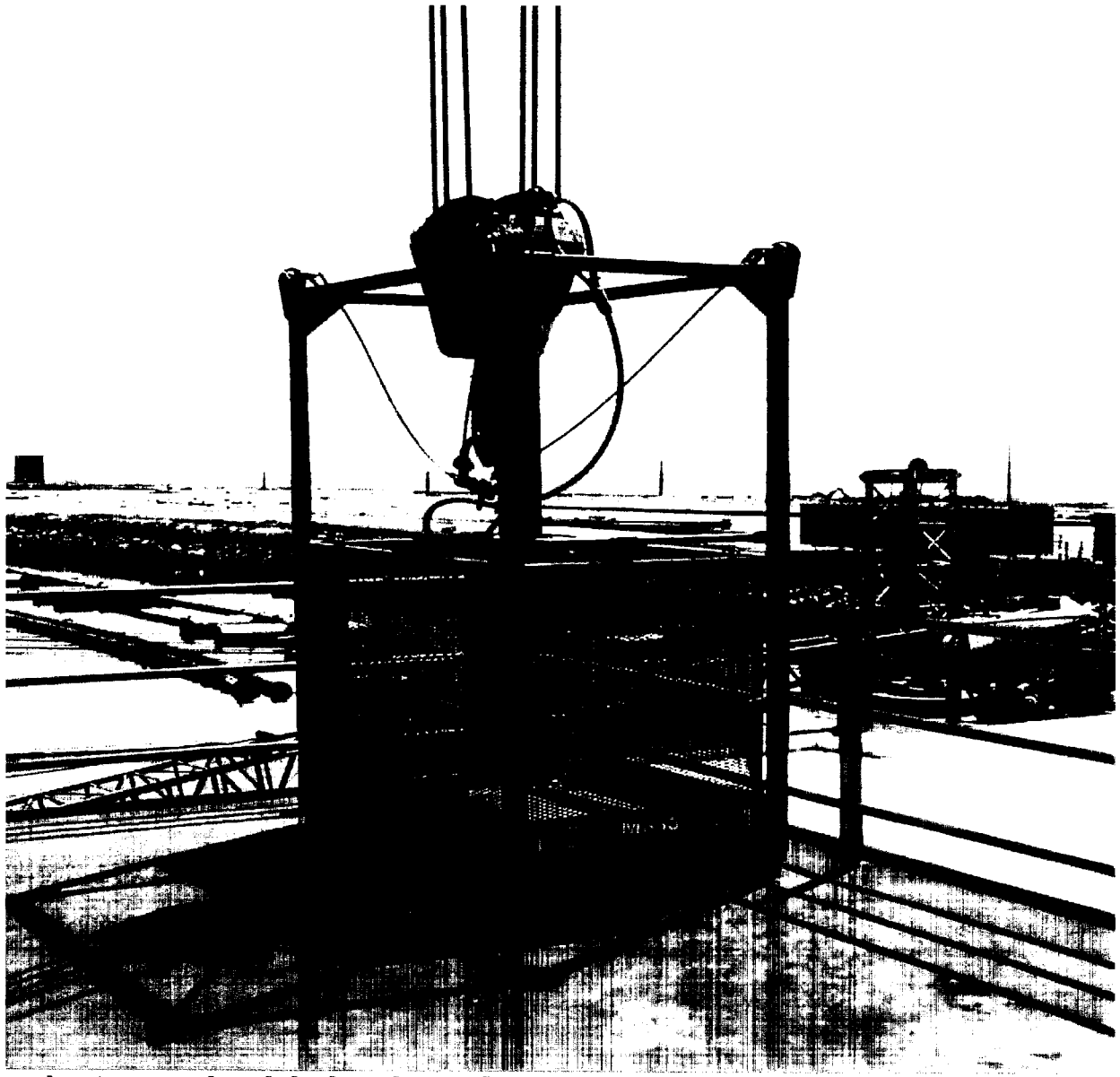
- Machine guarding in winch house.

MISCELLANEOUS EQUIPMENT



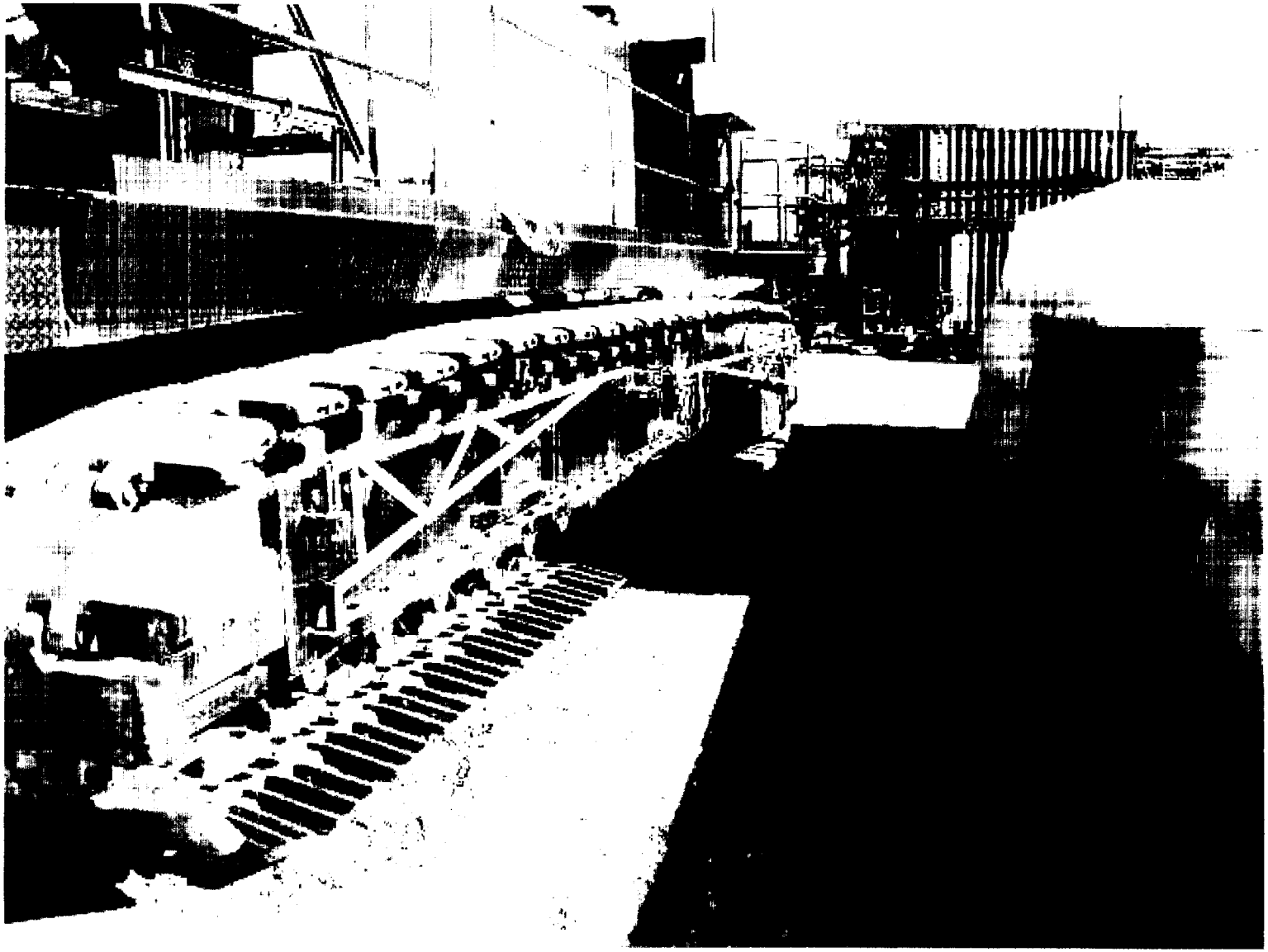
- Operator's cab on clamshell dredge.

MISCELLANEOUS EQUIPMENT



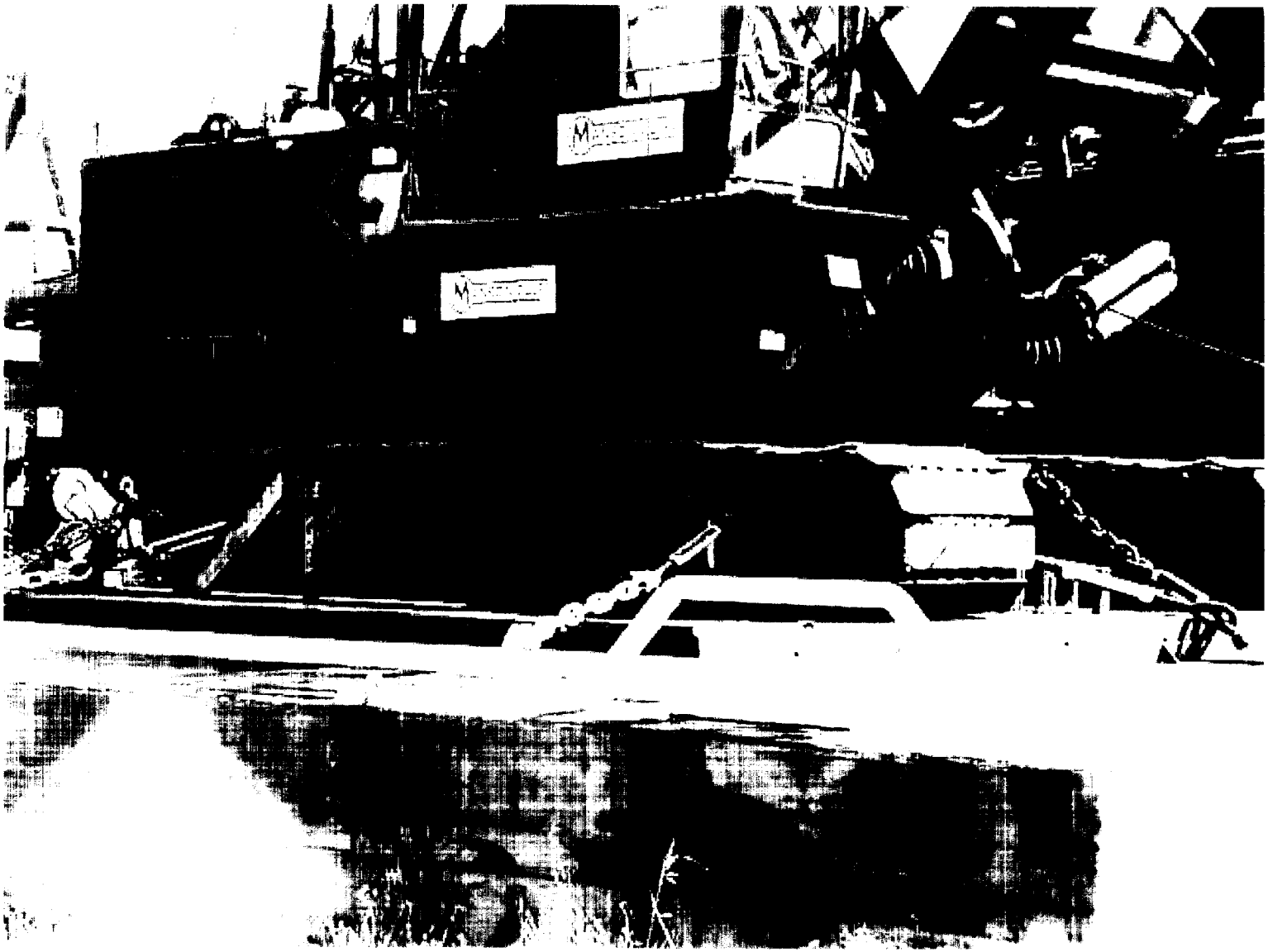
- Man basket used with hydraulic crane on hydraulic cutter suction dredge.

MISCELLANEOUS EQUIPMENT



- Swinging barricades for counterweight swing radius protection.

MISCELLANEOUS EQUIPMENT



- Crawler crane tie downs on barge.

MISCELLANEOUS EQUIPMENT

- Swing radius safeguards on derrick barge.

37