HISTORIC AMERICAN ENGINEERING RECORD

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BALTIMORE & OHIO RAILROAD, LOCUST POINT TRANSFER BRIDGES
1055 Hull Street
Baltimore
Independent City
Maryland

HAER MD-180

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Jet Lowe, photographer, September 2010

MD-180-1	Perspective view of Locust Point North (L) and South (R) Transfer Bridges, looking north-northeast.
MD-180-2	South (L) and North (R) Transfer Bridges, looking south-southwest from the end of new Pier 10. Note collapsed remnants of old Pier 10 at left.
MD-180-3	East elevation of South Transfer Bridge showing corrugated-metal machinery house on top and pickup (L) and dead load (R) counterweights within the steel tower. The bridge spans slope up from the shore abutment, out of view to the left. Collapsed remnants of old Pier 10 are in foreground.
MD-180-4	Perspective view of North (L) and South (R) Transfer Bridges, looking northwest.
MD-180-5	Perspective view of North (L) and South (R) Transfer Bridges, looking northeast. Note mooring winch at bottom center and collapsed machinery house on top of the North Transfer Bridge. Its second machinery house is no longer extant.
MD-180-6	South elevation of South Transfer Bridge. The two bridge spans moved independently using symmetrical mechanisms.

MD-180-7	Detail of dual-sheave blocks and eyebars suspending the waterside end of the South Transfer Bridge's two bridge spans. Note repairs to bent eyebars.
MD-180-8	Detail of dual-sheave block and eyebars suspending a bridge span, and dead load (L) and pickup (R) counterweights for the span. The sheaves in the block are offset to match the location of sheaves on top of the bridge. The two cables through these sheaves are connected to the dead load counterweight equalizer assembly, visible just above the counterweight. The North Transfer Bridge has the same arrangement.
MD-180-9	Detail of waterside end of South Transfer Bridge bridge spans with tilting heads that rotated about the track centerlines to maintain alignment with the carfloat when it listed. The three cast fixtures at left are guides for mooring pins that slid through them to engage similar fixtures on the carfloats. Note the pinned sections of rail that moved to maintain continuous running rails as the tilting head shifted. The North Transfer Bridge has the same arrangement. Also note the eyebar connection to the bridge span at center. Its design is different from the others, suggesting a repair at some point.
MD-180-10	One of two mooring winches that pulled on cables to draw carfloats into alignment with the bridge spans of the South Transfer Bridge. The North Transfer Bridge has the same equipment. One of the bridge span's hinges is visible at right center, as is new Pier 10 in the background.
MD-180-11	Top of North Transfer Bridge, looking northwest, showing bridge span suspension cables and sheaves (R) and the upper portion of one of its two drum drives (L). The right-angle gears turn a vertical shaft that rotates the drum mounted at the base of the tower. The two sheaves mounted at an angle carry the drum-to-pickup counterweight cable. The far end of the tower supports a symmetrical duplicate of the foreground arrangement that moves the second bridge span. The South Transfer Bridge has a similar arrangement.

MD-180-12	Top of South Transfer Bridge showing its two machinery houses along with its bridge span suspension cables and sheaves. Though the dimensions are somewhat different, this design is essentially identical to that in the North Transfer Bridge.
MD-180-13	Detail view of the South Transfer Bridge's bridge span suspension cables and sheaves. Note that each of the two bridge spans has its own independent mechanism.
MD-180-14	Detail view of one of the South Transfer Bridge's bridge span suspension cables, sheaves (top), and dual-sheave block (bottom). One cable is routed around the left sheave of each upper pair and around the left sheave in the dual-sheave block. This arrangement helps maintain an equal tension on both cables. The North Transfer Bridge has a similar arrangement.
MD-180-15	Detail view, looking north, of one of the North Transfer Bridge's pickup counterweight assemblies (center) and the lower portion of one of its drum drive systems (L). The rotation of the vertical shaft, turned by an overhead motor, is transmitted to the drum (not visible behind tower base) via the small gears (L). Note the chains linking the pickup counterweight segments, and the small slabs added to each segment to compensate for increasingly heavier cars. Details of the riveted construction are also evident.
MD-180-16	Interior of one of the South Transfer Bridge's machinery houses showing some of the drum drive system gears and its motor at lower right. Note the brake assembly mounted on the far end of the motor's shaft. The motors for both transfer bridges were located on top of the towers to keep them dry regardless of the Patapsco River's water level.

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MD-180-17 (CT)	Perspective view of transfer bridges. Same view as MD-18-5.