

Ernest F. Lyons Bridge

Stuart, Florida

Bridge erected with the "Florida Lifter"

owner ... Florida Department
... of Transportation
client ... PCL

SOMERSET designed, built and tested a purpose-built segment lifter for the erection of precast bridge segments for the Ernest Lyons Bridge, Stuart, Florida and later the Tampa Hillsborough Expressway

The lifter had a maximum capacity of 85 tons and its structure could accommodate different geometries of segments. The spreader truss was also designed for handling segments of varying geometry

This versatile lifter was equipped with its own self-powered hydraulics system, controlling all its capabilities. With this single lifter, the client could travel it from pier to pier, set outriggers, hoist segments off of a trailer, shuttle them beyond the pier, rotate the segment, make necessary lateral adjustments and set segments on erection girders. It was also outfitted with an auxiliary hoist for lighter loads



The self-powered hydraulic control centre ran the wheels, steering, outriggers, hoist, trolley and transverse adjustments



The "Florida Lifter" picking up to 85 ton pre-cast segments and setting them on rollers on under-slung assembly girders

