

CAPE HATTERAS LIGHTHOUSE MOVE

Cape Hatteras, North Carolina USA

1999

The historic and famous lighthouse that stood on the shores of the Atlantic Ocean and guided mariners to safety for more than 100 years was threatened to destruction by an encroaching sea.

The contractor had the task of engineering a way to move the 4,800 ton historic structure to a safer resting place and to one that would still maintain the landmark as an historical site for the National Park Service. The new site was located 2,900 feet from its current resting place and back 1,600 feet from the sea. The new site was also at a slightly higher elevation which meant the move would be slightly up hill.

It was decided to roll the lighthouse to its new resting place in order to preserve the structure and to eliminate substantial reconstruction costs. A total of 100 modified Hilman rollers, each with a capacity of 100 tons and equipped with Accu-Roll guidance, were used. In addition, the roller top plates were equipped with a ball socket plate to accept a hydraulic jack which was part of the unified jacking system.

The rollers traveled on steel I-beams and carried a support assembly consisting of twin I-beams. The twin I-beams were parallel to the travel beams and on top of them were cross beams which carried the lighthouse base. Hydraulic jacks anchored to the travel beams pushed against the twin I-beams provided motive force for the move.

