

ABSTRACT

LIFTING MACHINERY OF FOUR REEL DIFFERENTIAL TYPE FOR TWO 40 FEET CONTAINER SHORE CRANE

The invention relates to a lifting machinery of four reel differential type for two 40 feet container shore crane comprising: motors, reducers , high speed brakes, reels and reel brakes; wherein at least one motor is provided; the reducer connected at the motor output end is a planetary differential reducer having a plurality of high speed input shafts, low speed output shafts and the differential project shafts; the high speed input shaft connects to the motor output shaft, at least one high speed brake is provided on the high speed input shaft; four two-project rope reels are connected to the four low speed output shaft; at least one reel brake is provided to each reel; and a differential shaft brake consisting of at least two differential shaft brakes provided on two differential project shaft is also included; the revolution of the two differential project shaft of the planetary differential reducer is controlled by the two differential shaft brakes so that power of the planetary differential reducer may be distributed, and both the synchronous operation of two hanger tool or the separate operation of a single hanger tool can be carried out. The present invention meets the loading and unloading requirement and increases the loading and unloading efficiency of the container crane by more than 60%.