

Title (en)
EMERGENCY CONTROL HYDRAULIC SYSTEM FOR A CRANE

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EP 0118340 A3 19851227 (EN)

Application
EP 84400241 A 19840203

Priority
US 46345883 A 19830203

Abstract (en)
[origin: WO8403084A1] A fluid control circuit wherein said fluid is preferably a hydraulic fluid or other similar fluid, as appropriate to the application, having a variety of emergency control safety features. The fluid control system is particularly adapted for use with lifting devices, especially cranes, for loading and unloading items to or from a moving platform. The system as described is typical of that which may be used on a crane having both a main hoist and an auxiliary or whip hoist both of which are used for independent and differing load applications. The control circuit is capable of automatically setting all of the load bearing brakes (46, 47) upon an electrical or/and hydraulic power failure. In addition, the control circuit provides a means (20) for an operator to release the auxiliary or whip hoist, which is the smaller load bearing hoist, in an emergency situation where the line or hook on the auxiliary or whip hoist line becomes caught on a moving object. A valve (60) senses the load induced flow from the whip hoist motor (45) and controls the output of the hoist pump (57). When operating in an emergency mode, the main hoist motor (44) or whip hoist motor (45) operates as a pump to provide fluid to drive a motor (25a). The motor (25a) drives a pump (25b) which supplies fluid to the hoist motors to prevent cavitation.

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