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SELF-ACTUATING, FOLDABLE OBSTACLE SYSTEM ON
HYDRAULIC LIFTING BODIES

A foldable obstacle system is provided on a hydraulic lifting body to
5 alleviate cloud cavitation and so to reduce noise and surface erosion that
might otherwise result from unsteady sheet cavitation and a re-entrant jet
produced thereby. The system includes one or more foldable obstacle
devices or plates, each of which is movable between a closed position at the
surface of the body and an open position away from the body. When a re-
10 entrant jet occurs, the jet acts to lift the plates and rotate them into the
open position in which they block the re-entrant jet so as to reduce or
prevent cloud cavitation. When cavitation does not occur, the normal fluid
flow over the body acts to close and keep closed the obstacle devices or
plates so that they do not interfere with the normal fluid flow.

(Fig. 1)