

Group 25

ROCKSHAFT AND IMPLEMENT HITCHES

HOW THE ROCKSHAFT WORKS

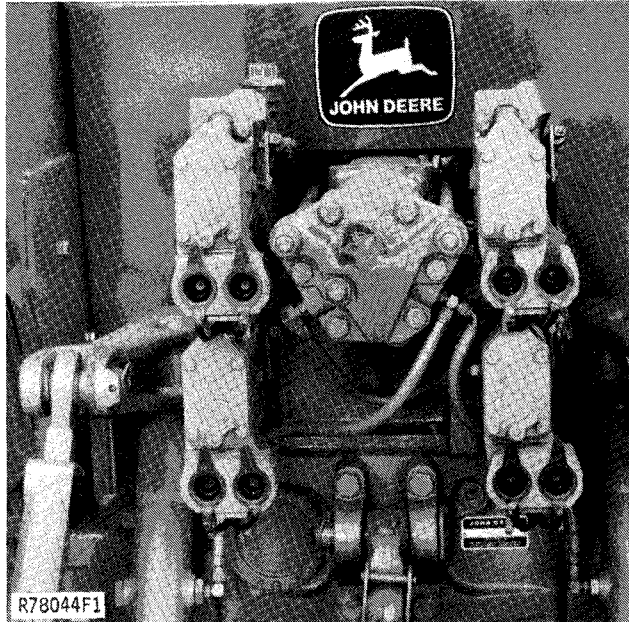


Fig. 1-Rockshaft with Lift-Assist Cylinders

The rockshaft assembly (Fig. 1) contains a single-acting cylinder and piston, rockshaft, lift arms, control valves, and load sensing mechanism.

Pressure oil moves the piston, rod, and crank arm (which is splined to the rockshaft) to rotate the rockshaft and raise the lift arms. The weight of the implement or hitch lowers the lift arms when rockshaft pressure oil is released from the cylinder to the crank arm cavity.

Control valves direct oil to and from the rockshaft piston cylinder. A flow control valve controls the rate of lift, and the throttle valve controls the lowering rate.

A thermal relief valve in the control valve housing relieves excess oil pressure due to thermal expansion of oil in the rockshaft cylinder and valve housing. A relief valve in the rockshaft piston cover relieves high oil pressure caused by transport bounce of heavy implements.

Sensing of the load on the draft links is accomplished by hydraulic and mechanical means which activate the rockshaft control valves. The degree of load sensing is set by the load selector lever, which can be varied from "MIN" (depth controlled by position of console lever only) to "MAX" (maximum sensitivity to load sensed on the draft links).

With the load selector lever in the "MIN" position, the load sensing mechanism operates at minimum sensitivity which allows the rockshaft control lever to control working depth regardless of the amount of pull required.

With the load selector lever in the "MAX" position, the load sensing mechanism operates at maximum sensitivity, allowing the rockshaft to automatically raise or lower the hitch to maintain constant load through variations in soil density or ground contour.

Dual lift-assist cylinders help in raising the rockshaft.

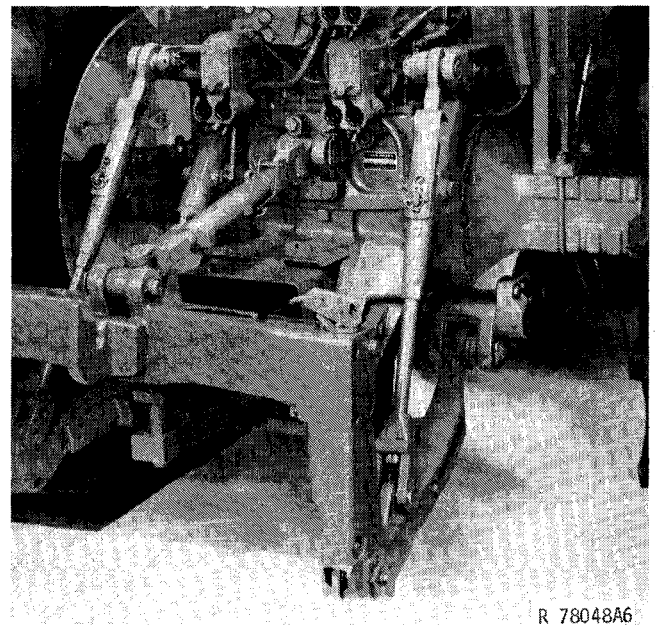


Fig. 2-Quik-Coupler Hitch

The 3-point hitch consists of center link, lift links, draft links, and Quik-Coupler (Fig. 2). It is adaptable to either Category 3 or Category 3N positions.

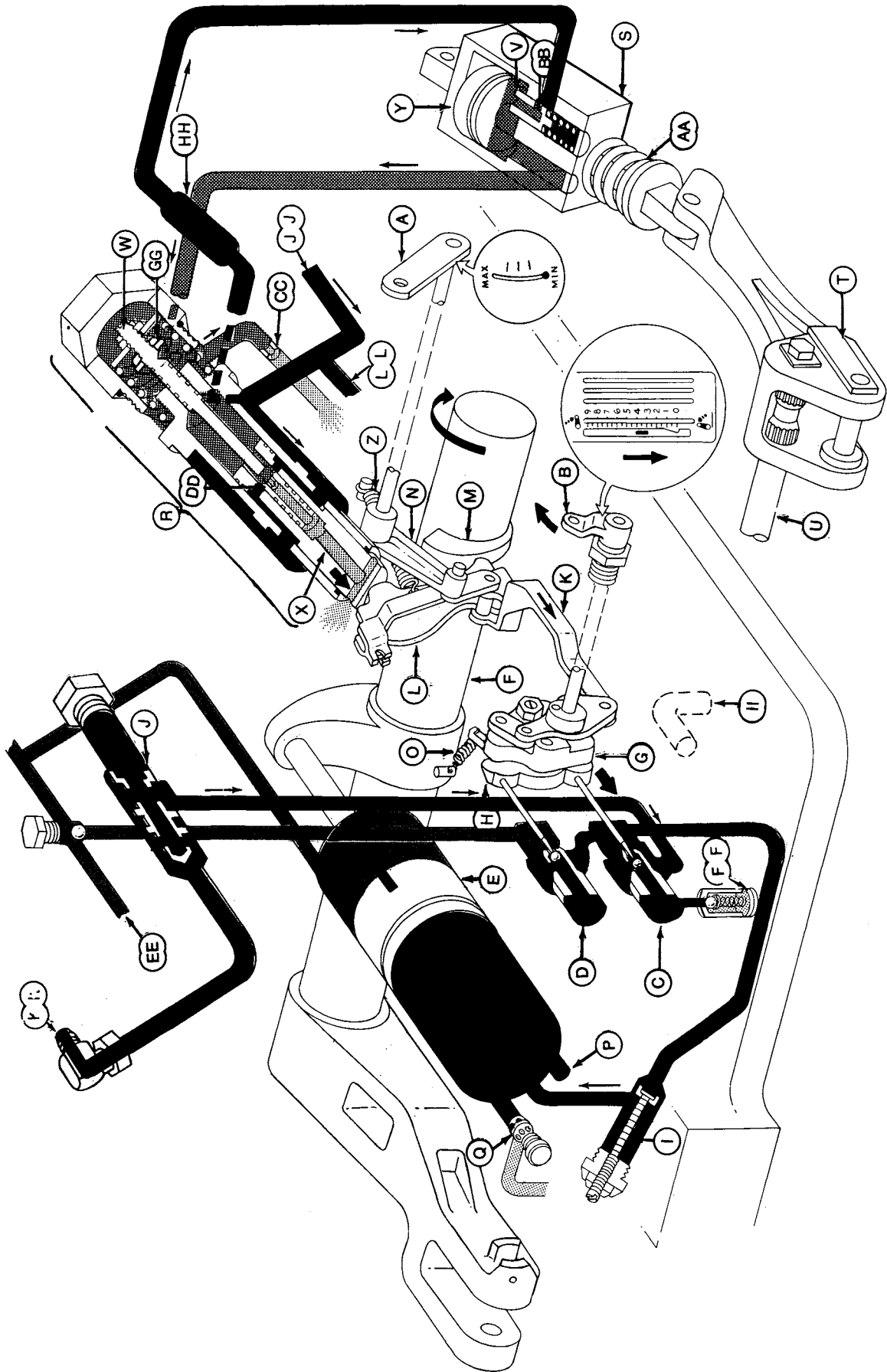


Fig. 3-Raise "MIN" Load Sensing

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