

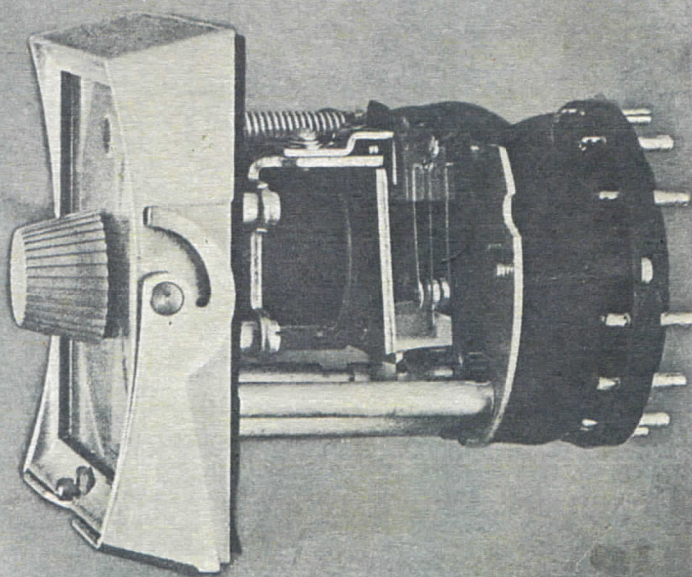
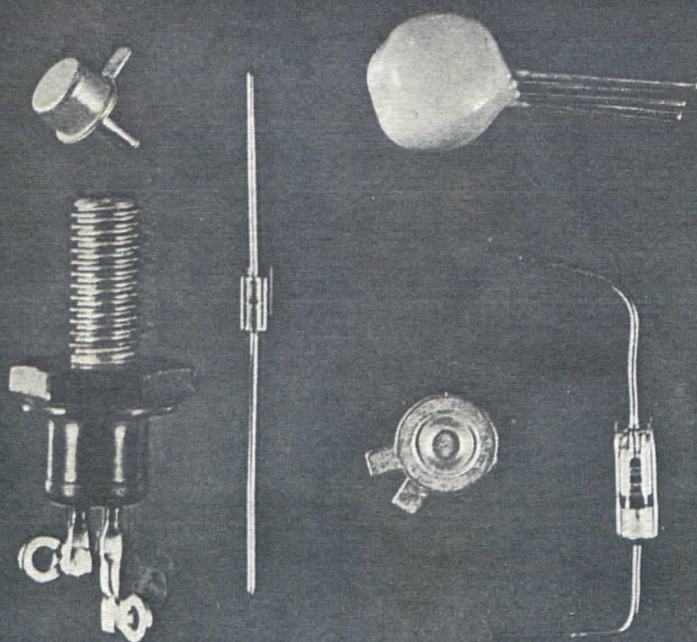
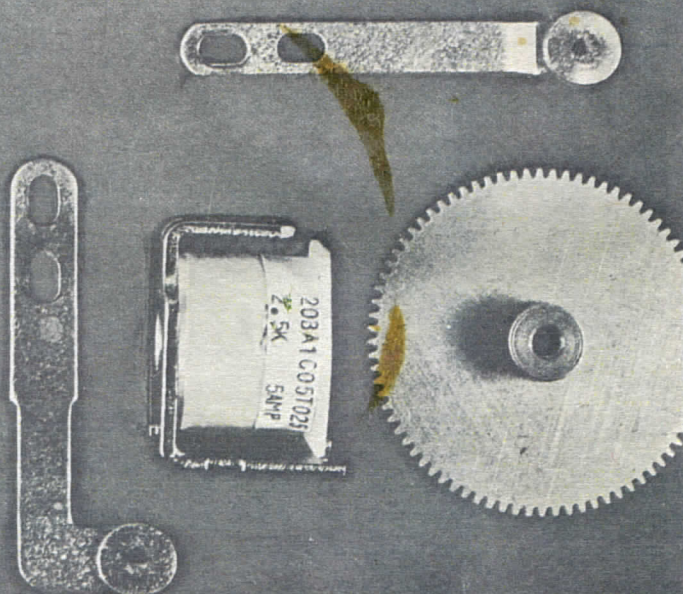
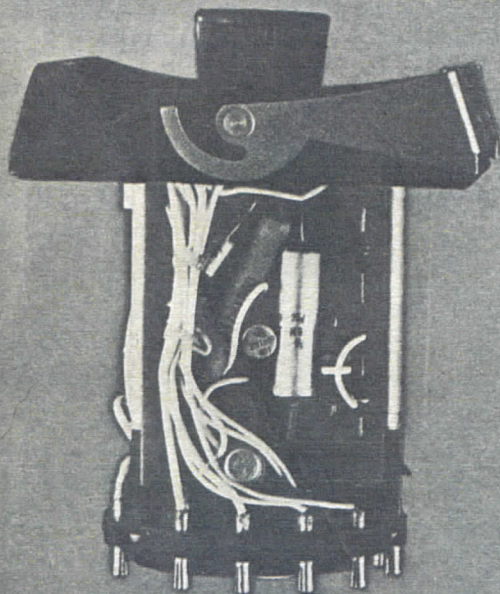


# The Colt Hydra-Drive Story

reprinted from the

March 2, 1966 issue of . . . . .

## Design News



**ELECTROMECHANICAL CONTROLS - Solid state coming up fast**





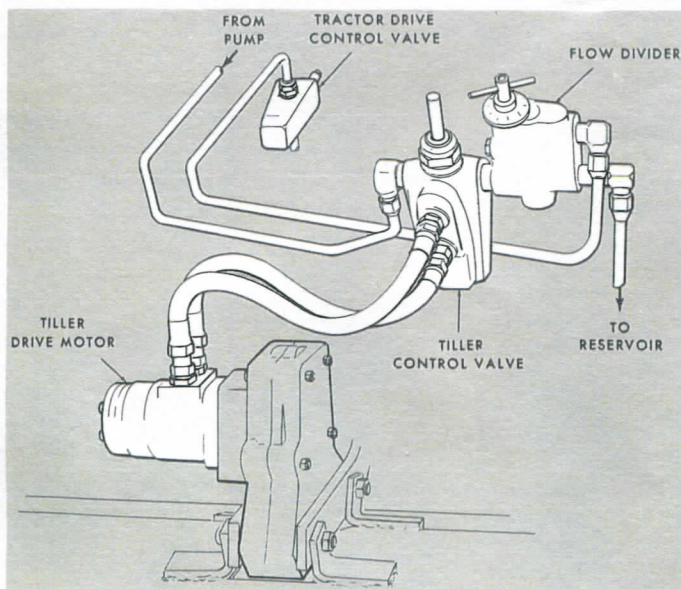
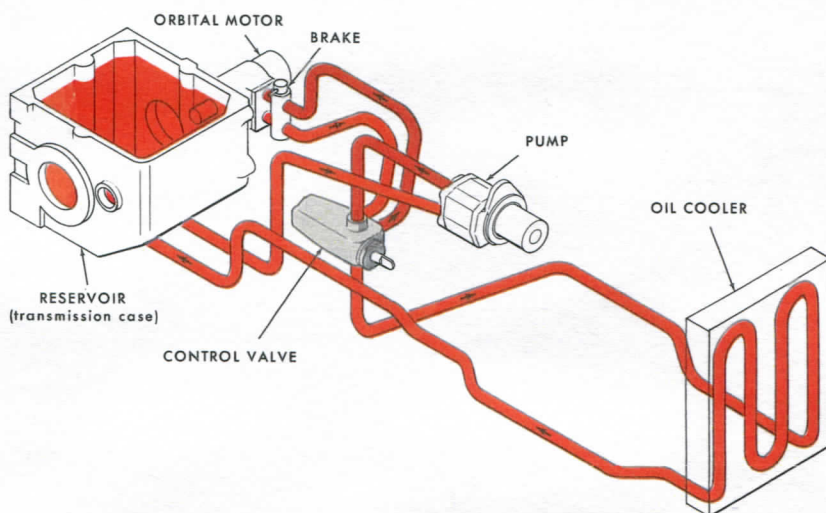
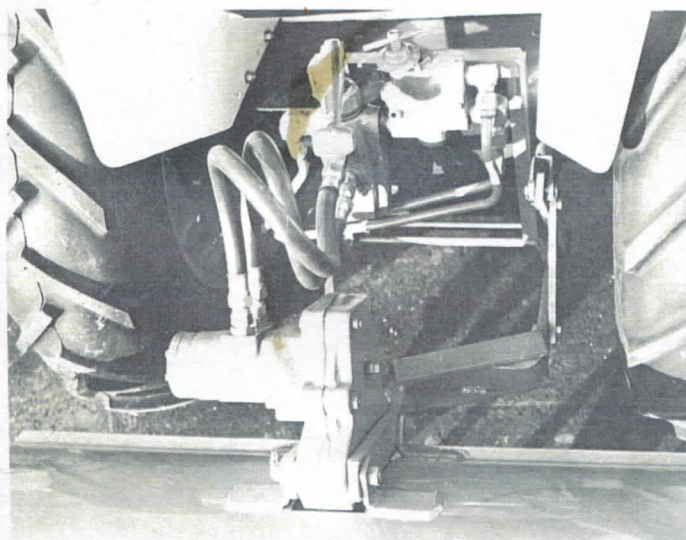
## Hydraulic Drive on Garden Tractor

LARS G. SODERHOLM, MIDWEST EDITOR

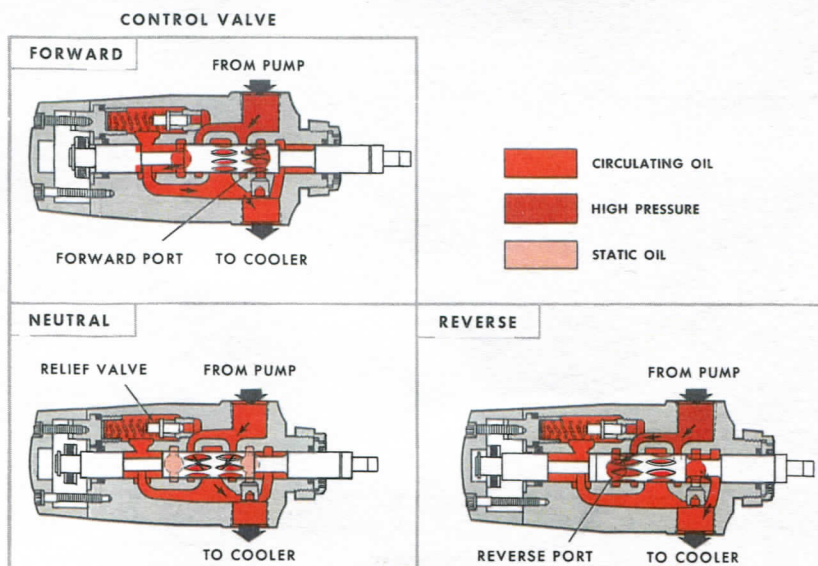
The drive unit of a garden tractor consists of a gasoline-engine-driven gear pump and a hydraulic motor. A single valve, connected to the operator's control lever, provides directional control and infinite speed range in both directions and braking in its neutral position. A two-speed transmission in the transaxle assembly

is manually positioned for high- or low-speed operation.

The 2712 Compact Tractor, manufactured by Colt Mfg. Co., Inc., Winneconne, Wis., is powered by a 12-hp gasoline engine, governed at 3200 rpm to drive a 6-gal/min gear pump. The gear pump delivers oil to a control valve, the spool of which is mechanically connected to the oper-



Circuit for optional hydraulically driven tiller gives tiller first priority on power. Output from tiller is split by flow divider to drive tractor at creeping speed.





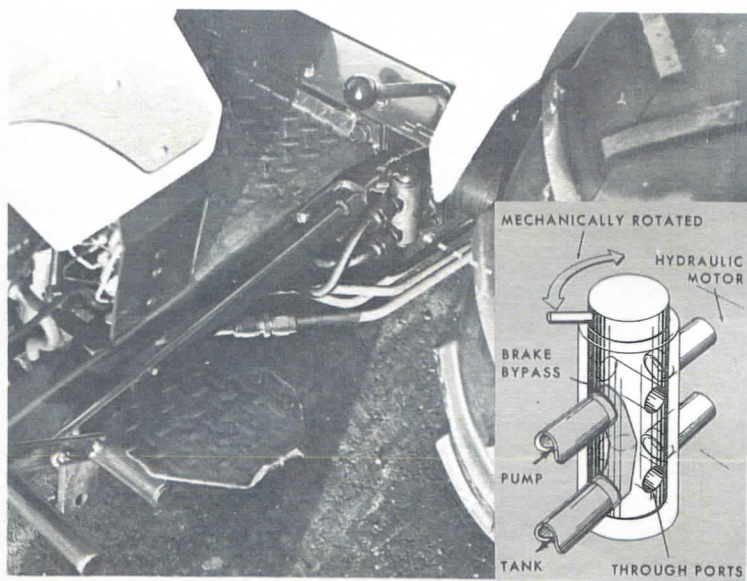
## Results in Simplified Controls

ator's control lever. In neutral position the oil is bypassed and flows back to the reservoir in the transaxle via the heat exchanger. In forward or reverse direction the fluid is metered to the proper port to select direction and speed.

The tractor drive wheels are driven from a Char-Lynn Orbital Motor of 23.8-cu-in displacement that is

mounted directly to the transaxle housing. Power is directed through one of the two gear reduction sets for high or low range and then through a differential to the rear axles of the tractor.

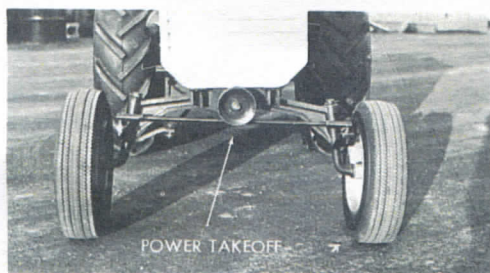
To vote for this Design Idea, circle V08 on the Reader-Service Card.



Brake-lock valve is mechanically actuated by foot pedal. Valve diverts low back through oil cooler to permit operation of implements while brakes are set.

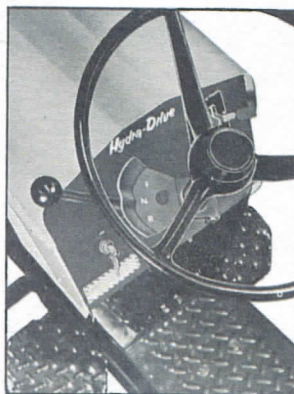
Power take off is centered, provides power for front-mounted implements.

Tractor drive circuit is shown in forward position. Transmission case doubles as hydraulic reservoir. In neutral position, control valve blocks flow to motor and serves as brake.



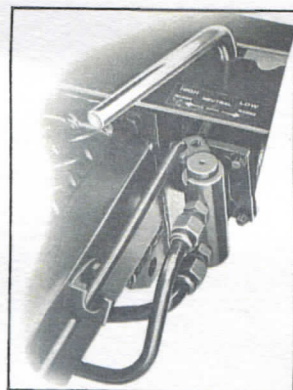
 **COLT**

## "TOUCH and GO" CONTROLS



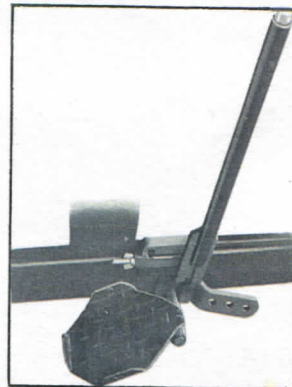
Controls within easy reach of operator: Ignition key-starter; engine choke and throttle control; sealed-beam headlight switch; push/pull Hydra-Drive control with "feathering" feature for velvet-smooth starts and stops.

High-Low, 2-speed range of the COLT Trans-Axle design permits instant selection of the proper ground speed range to meet job requirements. Selector control lever is easily reached with its under seat location.



Colt Hydra-Brake — built into the hydraulic system — assures instant power stops with light foot pedal pressure; parking brake latch. No brake mechanism to adjust, linings to repair or replace.

Implement lever, easily reached, provides infinite adjustment for float or hold position. An exclusive COLT design for operating the dual-lift arms; thumb-release for carry-lock position.





# Hydra

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