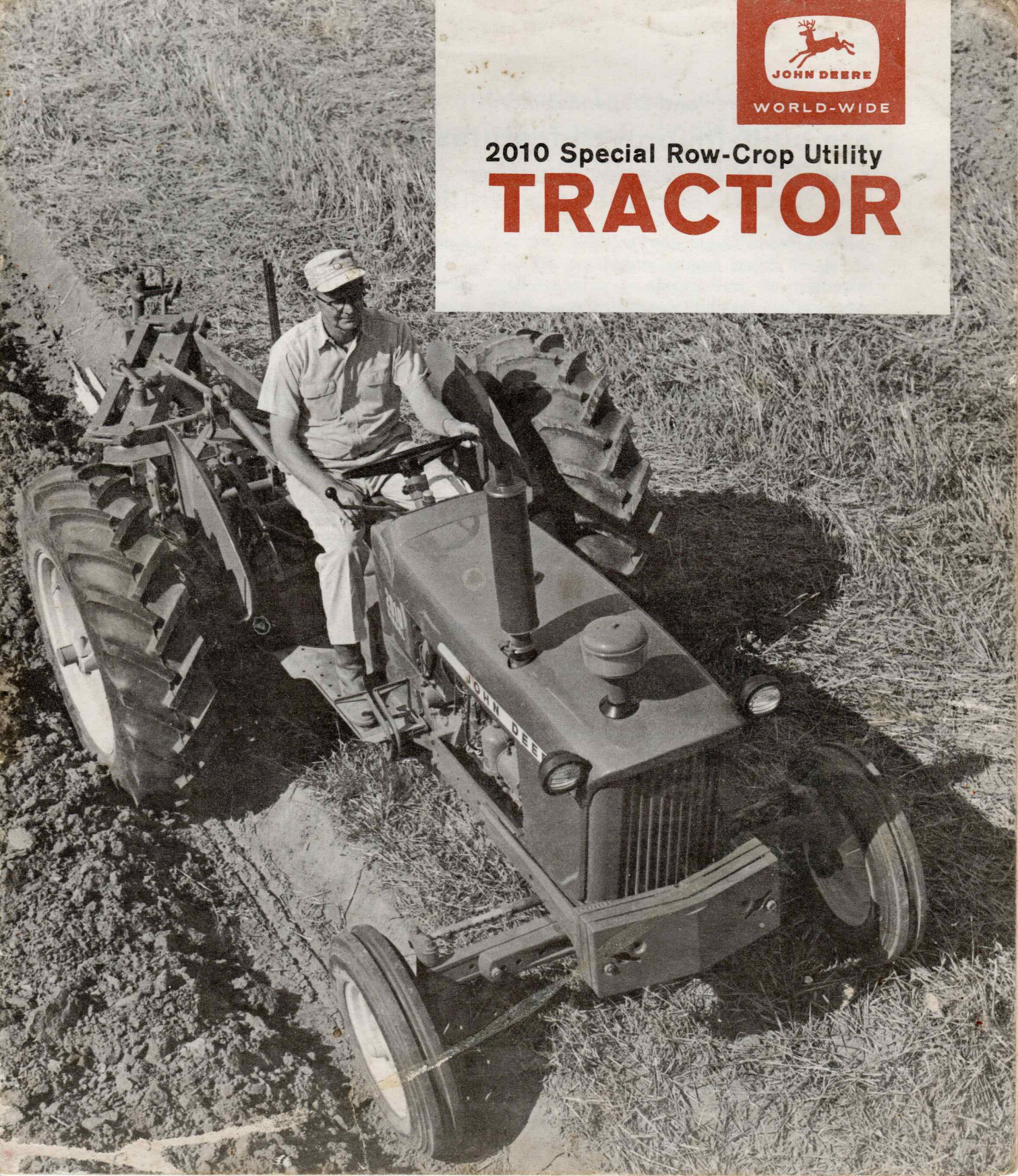
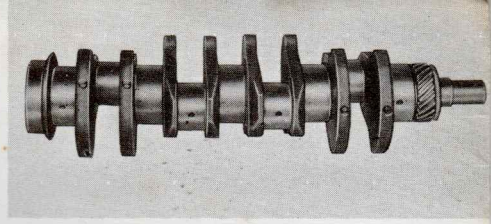

JOHN DEERE
WORLD-WIDE
2010 Special Row-Crop Utility
TRACTOR



"2010" crankshaft combines precision, strength, weight.

Lugging Power and Dependability

are built-in, proved features of this 53 h.p. Diesel Engine

John Deere *53 horsepower "2010" variable-speed Diesel engine provides a skillful blending of traditional advantages—dependability, durability, performance, and value—with modern design for smoother, more-controllable power that provides more efficiency and higher work output.

This "2010" engine has a governed range of 600 to 2500 rpm. The recommended working range is 1500 to 2500 rpm, which delivers a broad choice of efficient working speeds and power.

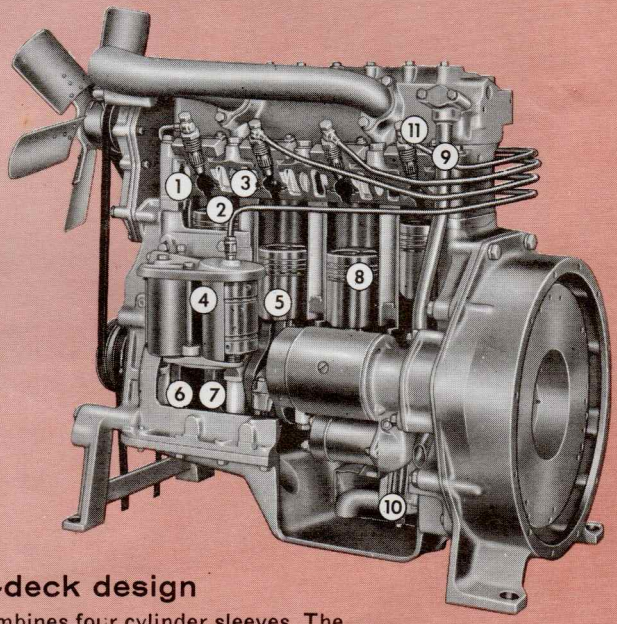
On light jobs, throttle back, and the engine loafs along with fuel-saving thrift. But it has power for the heavy pull, too. On demand, with the throttle advanced, the "2010" will hustle a 3-bottom plow or heavy disk harrow through stubborn soil, hour after hour. It gives immediate response to the throttle, instant governor response to varying loads at any throttle setting in the governed range.

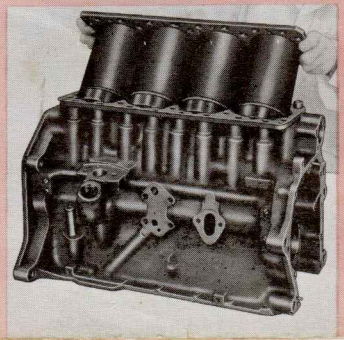
Engines are valve-in-head, 4-cycle, 4-cylinder-in-line type. Bore and stroke are 3-7/8 x 3-1/2 inches. Displacement is 165 cubic inches and the compression ratio is 19 to 1.

*Manufacturer's rating, engine with standard accessories (29.92 in. Hg.—60° F.).

Outstanding features of "2010" Diesel engine

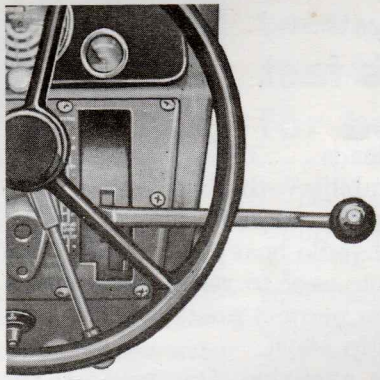
1. Glow plugs for easy starting
2. Swirl cups for efficient combustion
3. Turbulence chamber; fuel injector
4. Double fuel filters
5. Aluminum alloy pistons for durability and efficient heat dissipation
6. Crankshaft located high in block for rigidity; has 5 main bearings
7. Replaceable, precision bearing inserts
8. Chrome-plated top piston ring
9. Efficient engine ventilator
10. Pump for full-pressure lubrication
11. Screw-in nozzles and wrap-around injection lines for easy servicing.





Sleeve-and-deck design

One insert unit combines four cylinder sleeves. The benefits: extreme compactness, good heat dissipation, easy cleaning of the water system. Alloy sleeves are centrifugally cast, long-lived.



Throttle and shift lever put you in complete command of the "2010" Tractor's full range of flexible power. These two controls meter power and speed efficiently for all jobs.

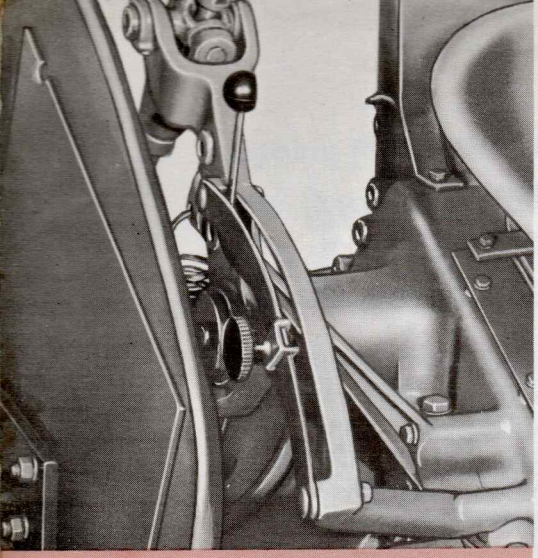
Constant-Mesh Transmission and Variable-Speed Engine **offer speed and power combinations for best use of h.p.**

No longer do you choose a gear, then run the engine "wide open" to get top efficiency and thrift. With the "2010," on light jobs such as mowing, you throttle down and shift up for great fuel economy. On heavy tillage jobs, use a lower gear, and speed up the engine for great lugging capacity. For top transport speed, get in high gear and open the throttle. Each shift position offers a wide spread of working speeds; gears are easily shifted within ranges, to give even more flexibility. Range 2, for example, provides speeds of 1.9 to 4.6 mph, depending on engine rpm. You can match any job and any tool with an exact ground speed for greatest efficiency.

The table below shows the overlapping ground speeds provided by the variable-speed engine and Syncro-Range Transmission of a "2010" Special Row-Crop Utility.

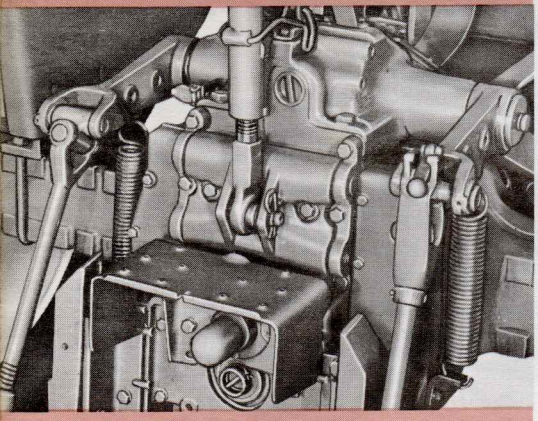
This table shows ground speeds of the "2010" Special Row-Crop Utility Tractor with 13.6-28 rear tires. One column shows ground speeds when the engine is at 1900 rpm—the correct speed to turn the PTO at 1000 or 540 rpm. A detent locates the hand throttle at the 1900 rpm speed.

Transmission	Engine Speeds			
	Operating range (1500 to 2500 rpm) Miles per Hour		PTO (1900 rpm) MPH	
Range 1				
First	1.1 to 1.9		1.4	
Second	1.6 to 2.6		2.0	
Reverse	1.2 to 2.0		1.6	
Range 2				
Third	1.9 to 3.2		2.5	
Fourth	2.8 to 4.6		3.5	
Reverse	2.2 to 3.6		2.7	
Range 3				
Fifth	3.4 to 5.7		4.3	
Sixth	4.8 to 8.1		6.1	
Reverse	3.8 to 6.3		4.8	
Range 4				
Seventh	5.7 to 9.5		7.2	
Eighth	8.1 to 13.5		10.2	

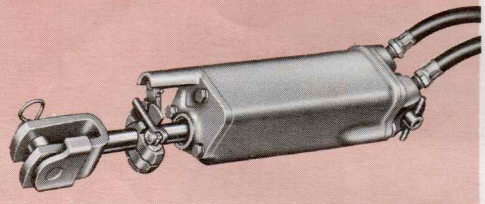


This handy lever instantly raises or lowers equipment handled by the rockshaft. Working depth may be preset by a stop, adjusted by a thumbscrew.

Below is pictured the sturdy single rear rockshaft which is available for hydraulic control of a wide selection of rear-mounted working equipment.



An optional hydraulic lever gives easy, positive control of a powerful double-action remote cylinder (photo below), which has many useful applications.



Versatile Hydraulic System
handles big jobs fast

In capacity to lift heavy loads . . . in swift, easy operation . . . and in wide adaptability—the hydraulic system of the "2010" Special sets high standards.

Lifting force is ample to handle heavy equipment with ease. Controls are convenient, easy to reach and easy to operate. Design of the system permits precise and smooth adjustment with only fingertip effort.

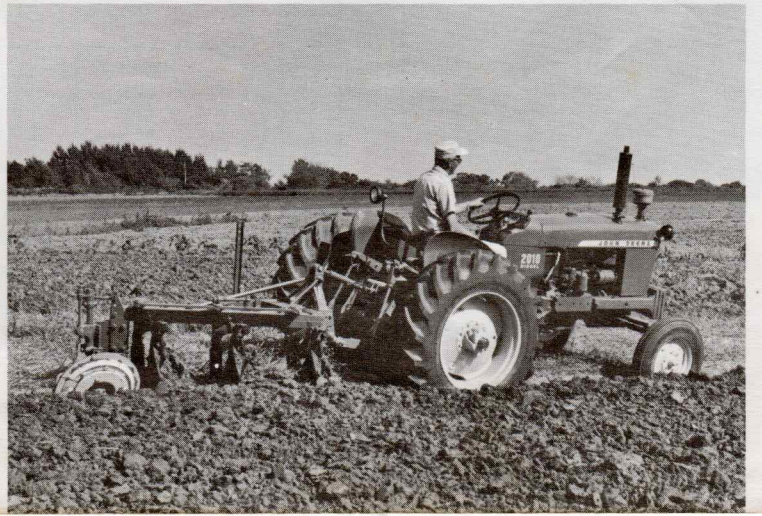
Two separate circuits are available. One controls the rear rockshaft, the other, a single remote cylinder. The rockshaft operates the Universal 3-Point Hitch, with Load Control, Depth Control, and Load-and-Depth Control.

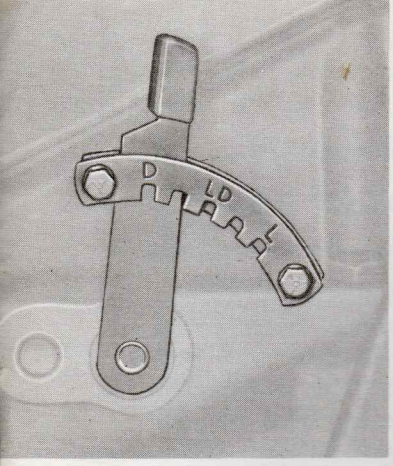
The rockshaft lever is mounted at the right of the seat. Move the lever to the rear to raise, and forward to lower equipment. A lever stop may be set at the working depth desired; it is easily bypassed to lower a tool farther.

A single gear-type hydraulic pump has plenty of capacity to take care of all demands, and the reservoir stores more than ample oil. The oil serves three purposes—lubricating the transmission and the differential, and also supplying the hydraulic system. Hydraulic force is available whenever the engine is running.

To make starting easier in cold weather, a handy pedal is provided to disengage the hydraulic pump. The "drag" of cold oil is eliminated; then, when the engine starts, the hydraulic pump is easily engaged.

Here's the "2010" Special with F225-H Integral Disk Plow



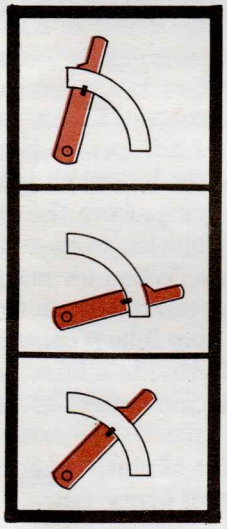


This convenient selector lever, located at the left of the seat mounting makes it easy to pick the exact hydraulic response you want for any job and for all types of field conditions.

Load . . . Depth . . . Load-and-Depth Control

use the correct rockshaft response for best tillage in any soil condition

There's nothing equal to John Deere exclusive Load-and-Depth Control for choosing the hydraulic hitch response that is exactly right for turning out topnotch work with a 3-point tool in any soil condition. Simply adjust the handy selector lever at the side of the seat (see photo at left) when the tractor is moving or standing still—and get full manual or automatic control of implement working depth and load. This feature, developed by John Deere, makes possible higher efficiency and better job quality with 3-point equipment than ever before. Action of 3-point tools under the various settings of the hydraulic selector lever are explained below.



Depth Control

The hydraulic sensing system is locked out; working depth of an implement is completely controlled by the hydraulic lever at the side of the tractor seat. This selector lever position is used when constant working depth is wanted such as in precision cultivating.

Load Control

Automatic hydraulic action changes the working depth of an implement to maintain uniform load on the tractor. When the load increases or decreases, the tool is raised or lowered until preselected load limits are reached. This setting is suited for light soils or where the load is fairly constant.

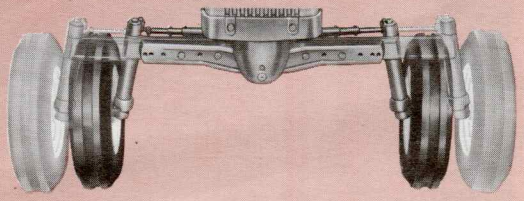
Load-and-Depth Control

Put the lever in the center notch of the quadrant to maintain the greatest possible uniformity in working depth and load. This setting is well suited for soils which vary in toughness and texture; rolling land with ridges and dips; and most general field work.

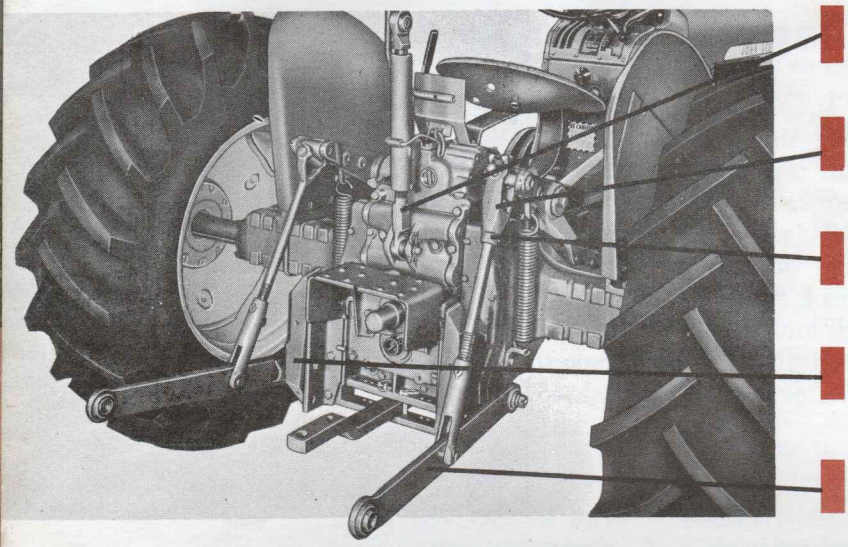
Adjustable Wheel Treads

Front and rear wheels may be adjusted for work in a wide range of row-crop spacings. The adjustable front axle offers treads of 50 to 74 inches in 2-inch steps; reverse the wheels, and the maximum tread is about 79 inches. With the adjustable rear axle, spacings range from 53 to 96 inches.

A series of holes provides a wide choice of treads, and heavy bolts hold sturdy axle sections securely.



3-point hitch **with built-in extras**



Adjustable center link—transmits signals to hydraulic system.

Lift link, adjustable from seat; lift arms provide 70-degree range.

Easily adjustable two-position collars provide "floating" action.

Exclusive sway blocks positively lock out or permit sway action.

Draft links—adaptable for Category 1 and 2 equipment.

Every advantage of "pick up and go" farming you ever enjoyed—as well as EXTRA features for time-gaining versatility and high-quality work—are yours in a "2010" with the Universal 3-Point Hitch.

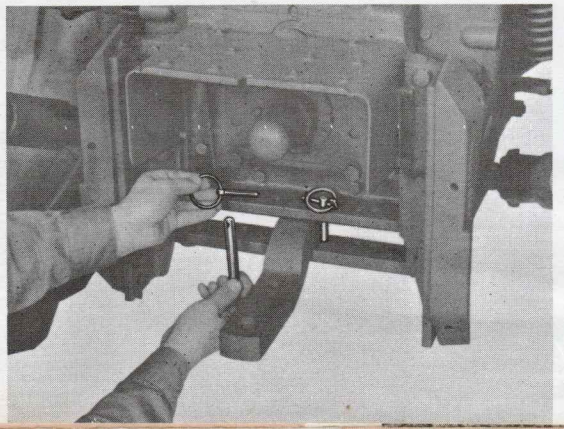
You'll handle all types, all makes of standard 3-point equipment—both Category 1 and 2—with plenty of "beef" and power for big-capacity tools.

With this hitch, you can change working tools in a few minutes. You can make spin turns, work in close quarters with extra-short coupling. Lift tools high for transport, drop them fast for deep penetration with wide operating angle of lift arms. Easily regulate rate of drop. Make lateral and fore-and-aft adjustments quickly, from the seat.

The convenient sway blocks, when swung down, lock out all sway. When swung up, they permit lateral movement so a tool, such as a pickup plow, may follow contours. Easily adjusted collars provide a float position, permitting vertical movement of tools with gauge wheels.

And—there's a full line of matched equipment for top efficiency on every job.

Adjustable drawbar



The drawbar adjusts quickly to long or short, high or low position. It is held in place with a self-locking pivot pin, quickly removed to permit adjustment. The photo shows handy locking pins which may be removed to let the drawbar swing, or placed to lock the drawbar in position.

Live, independent 540-1000 rpm power takeoff

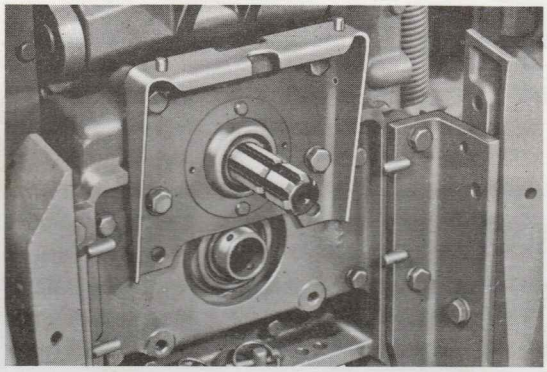
drives today's and tomorrow's PTO machines

With live, completely independent, dual-speed power take-off—the "2010" opens the way for you to handle either your present 540 rpm tools or the new, smoother, more efficient 1000 rpm power take-off equipment.

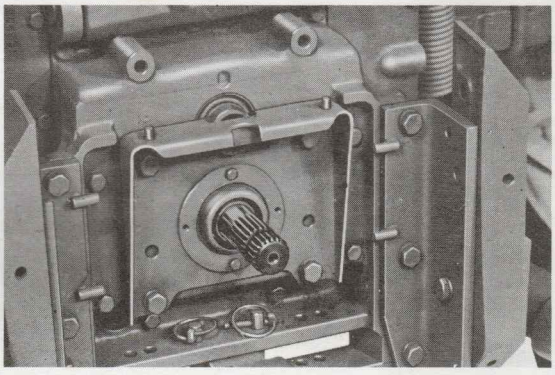
The tractor may be started or stopped, the transmission shifted, or hydraulic system used without affecting PTO operation.

The power take-off assembly includes splined outlets for a reversible stub shaft, to provide both speeds, as shown in photos at the right The 540 outlet is directly above the 1000 rpm outlet. Changing from one speed to the other takes but a few minutes. Safety equipment, including a snap-on master shield and PTO cover, is provided.

The transmission provides eight different ground speeds for PTO operation, assuring a speed that's correct for any crop or PTO machine. The speed-hour meter gives you an exact check on PTO speed, at a glance.



Above is pictured the power takeoff with stubshaft in position for 540 rpm work; below, 1000 rpm PTO.



Below: You can stop or start the power takeoff on the "2010" instantly with this handy clutch lever.

You can stop and start this PTO any time with independent hand-lever clutch

Here's a feature you're sure to like, for its safety and convenience. A handy clutch lever, at the left side of the seat, positively and instantly engages or disengages the PTO at any time. If an implement starts to load up, tractor travel may be stopped while the machine clears itself. The independent PTO is stopped only by moving the lever to the rear. A safety factor permits the clutch to slip in case of a sudden overload. This prevents damage to equipment, but does not occur in normal operation.

SPECIFICATIONS

2010 Special Row-Crop Utility Tractor

(Specifications and design subject to change without notice)

PERFORMANCE..... 53 horsepower—manufacturer's rating, engine with standard accessories (29.92 in. Hg.—60° F.).

ENGINE..... Vertical, 4-cylinder, valve-in-head, 4-stroke cycle, Diesel; maximum torque, 115 ft.-lb. at 1400 rpm; lubrication, pressure system with bypass-type oil filter; cooling, pressurized with water pump, thermostat, and fixed bypass; air cleaner, oil bath type. (Additional data, page 2.)

TRANSMISSION..... Constant-mesh, collar-shift, 8 forward, 3 reverse, and "park" positions.

GROUND SPEEDS..... 1.1 to 13.5 mph (See page 3.)

ENGINE CLUTCH..... Foot operated, spring loaded, 10-inch single dry disk.

BRAKES..... Self-energizing disk type, foot-operated individually or simultaneously.

ELECTRICAL SYSTEM..... 12-volt battery with generator and starter.

HYDRAULIC SYSTEM..... Optional equipment: single rockshaft; single remote cylinder; power steering. 7gpm @ 1475psi

TIRES AND WHEELS..... Front: 5:00-15, 4-ply; 6:00-16, 4-ply; or 7:50-16, 6-ply.
Rear: 12.4-28, 4-ply; 13.6-28, 4-ply; 14.9-28, 6-ply; or 16.9-30, 6-ply.

WHEEL TREADS..... Front: With straight axle—50 to 74 inches in 2-inch steps (79-1/8 inches, maximum with wheels reversed). Rear: With reversible steel disk drive wheels, either 64 inches or 84 inches; with sliding hub rear axle, 53 to 96 inches.

POWER TAKEOFF..... Standard equipment. Live, engine-driven, rear; provides dual speeds of 540 and 1000 rpm, at 1900 engine rpm. Conforms to ASAE-SAE standards. (See page 7.)

DRAWBAR..... Standard equipment; conforms to ASAE-SAE standard for hitch location.

DIMENSIONS..... Height to top of hood, 54 inches; over-all height, 74-5/8 inches; over-all width, 71 inches; over-all length, 125-5/8 inches; length with 3-point hitch, 138-1/8 inches; wheelbase, 86-7/8 inches; clearance (front axle), 18 inches.

CAPACITIES..... Cooling system, 3 U. S. gal.; fuel tank, 16 U. S. gal.; engine lubrication, 5 U. S. qt., including filter; transmission-hydraulic system, 8 U. S. gal.

STANDARD EQUIPMENT... Diesel engine; heavy-duty collar-shift transmission; manual steering; reversible disk drive wheels and adjustable front axle; spring-cushion seat; vertical muffler; dish-type fenders; swinging drawbar live PTO 540 and 1000 rpm.

OPTIONAL EQUIPMENT.... Single rockshaft hydraulic system; single remote cylinder control, less cylinder; hydraulic remote cylinder with hoses; 3-point hitch with non-adjustable draft links; sliding hub rear axles, 53 to 96 in. tread; 90-ampere dry battery; front lights and rear combination red warning and work light; foot throttle; cigarette lighter; fuel gauge, speed-hour meter (MPH); pre-cleaner.