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January 1927

Test 141: Oil Pull Model W 20-30

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

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Copy of Report of Official Tractor Test No. 141.

DRAWBAR HORSE POWER TESTS.

H. P. Dev.	: Draw	: Speed	: Crank	: Slip	: Fuel Consumption			: Water	: Temp. Deg. F.			: Height of Barometer In Inches
	: Bar	: Miles	: Shaft	: on	: Amt.	: H. P.	: Used	: Cooling	: Air	: Average	: Humidity	
	: Pull	: Per	: Speed	: Drive	: Kind	: per	: hrs.	: per	: Fluid			
	: Pounds	: Hour	: R.P.M.	: Wheels	: Used	: hour	: per	: Hour	: * :		%	
	:	:	:	: %	:	: Gals.	: Gal.	: Gals.	:	:	:	:

RATED LOAD TEST. TEN HOURS

20.96	:	2455	:	3.20	:	844	:	6.93	:	Kero.	:	3.459	:	6.06	:	2.29	:	183	:	63	:	79	:	28.85
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MAXIMUM LOAD TEST

26.10	:	3007.5	:	3.25	:	857	:	7.71	:	Kero.	:	-- NOT RECORDED --	:	183	:	74.5	:	34	:		:	28.92
24.89	:	3995	:	2.34	:	849	:	13.31	:	Kero.	:	-- NOT RECORDED --	:	183	:	81	:	34	:		:	28.92
25.04	:	2315	:	4.06	:	851	:	5.93	:	Kero.	:	-- NOT RECORDED --	:	164	:	80	:	28	:		:	28.87

Taken in discharge line from engine.

REMARKS: The rated load and first maximum tests were made in intermediate gear. The second maximum load test was made in low gear. The third maximum load test was made in high gear.

The distance advanced by the tractor without load on level ground for several complete revolutions of the drive wheels was taken as a basis for calculating the slippage.

OIL CONSUMPTION: During the complete test consisting of about 41 hours running the following oil was used:

For the engine, 28 quarts of Mob. B & Oil Pull Extra heavy. 12 qts. Mob. B & 16 qts. Oil Pull Extra heavy. 2 qts. to fill crankcase, 26 qts. added during test.

For the transmission, none gallons of 600 W. None added during test.

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REPAIRS AND ADJUSTMENTS

After the limber up run was finished and before the official belt tests were made, the lubricator could not be regulated properly. It was disassembled and cleaned out thoroughly. During the drawbar tests the compression on number one cylinder was found to be somewhat less than number two cylinder and there was also considerable leakage by the rings on the compression stroke. The piston on number one cylinder was removed, the carbon cleaned out from around the rings and all valves on both cylinders were ground. Both spark plugs were replaced with new plugs, the porcelains were found to be defective. The fuel valve and water valve required frequent adjustment during the drawbar tests.

At the end of the test the tractor was in good running order and there were no indications of undue wear nor of any weakness which might require early repair.

BRIEF SPECIFICATIONS

MOTOR: Own, two cylinder, horizontal, valve-in-head, mounted crankshaft crosswise. Bore, 5-13/16". Stroke 7". Rated speed 850 R.P.M.

Magneto: American Bosch "DU4/2Ed26".

Carburetor: Own make.

Air cleaner: Donaldson, dry centrifugal type.

Governor: Own make, fly-ball type.

Lubricator: Manzel.

Spark plugs: A.C.

CHASSIS: Four wheels, two drivers, enclosed gear drive, clutch own make, double disc. Advertised speeds: Low, 2.2 miles per hour; Intermediate, 2.9 miles per hour; High, 3.5 miles per hour; Reverse, 2.7 miles per hour.

Total weight as tested (with operator) 6776 pounds.

REMARKS

In the advertising literature submitted with the specifications and application for test of this tractor, we find some claims and statements which cannot be directly compared with results of this test as reported above. It is our opinion that none of these are excessive or unreasonable.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 141.

Lew Wallace
Engineer-in-Charge

Oscar W. Sjogren

E. E. Brackett

C. W. Smith

Board of Tractor Test Engineers