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January 1923

Test 095: McCormick-Deering 10-20

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT

AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 95

Dates of test: September 25th to October 3rd, 1923.
 Name, model and rating of tractor: McCormick-Deering 10-20
 Serial No. Engine: KC 1356 Serial No. Chassis: KC 1356
 Manufacturer: International Harvester Company, Chicago, Illinois.
 Tractor equipment used: Dixie 46-C-Aero No. 883311 Magneto, Ensign "JH" Carburetor
 Style and dimensions of wheel lugs: Spade 4" high - 3-3/4" wide.

BRAKE HORSE POWER TESTS

			Fuel Consumption		Water Consump.		Temp.			
H.P.	Crank	Time	Gals. Per hour.		Gals. Per hour.		Deg. F.			
DEV.	Shaft	of								
	Speed	Test	Kind	Gals.	H. P.	Cool-	In	Total	Cool-	Air
	R.P.M.	Min.	of	@	Hrs.	@	ing	Fuel	ing	
			Fuel	Hour	Gal.			Fluid	Average	Humidity
									%	Height of
										Barometer
										Inches

RATED LOAD TEST

20.09 : 1008 : 120 : Kero : 1.978 : 10.15 : 0.476 : 10.91 : 0.567 : 208 : 82 : 76 : 28.55
 Belt Slippage 0.99%

VARYING LOAD TEST ***

20.09 : 1006 : 10 : Kero : : : : : : : : : :
 20.10 : 1000 : 10 : " : : : : : : : : : :
 0.79 : 1095 : 10 : " : : : : : : : : : :
 5.27 : 1053 : 10 : " : Average Belt Slippage 0.60% : : : : : :
 10.34 : 1032 : 10 : " : : : : : : : : : :
 15.23 : 1018 : 10 : " : : : : : : : : : :
 12.22 : 1034 : 60 : Kero : 1.565 : 7.81 : 0.490 : 0.066 : 0.556 : 207 : 81 : 76 : 28.55

MAXIMUM LOAD TEST

21.84 : 1000 : 60 : Kero : 2.274 : 9.61 : 0.854 : 0.115 : 0.969 : 209 : 71 : 86 : 28.65
 Belt Slippage 0.96%

HALF LOAD TEST

10.70 : 1068 : 60 : Kero : 1.465 : 7.30 : 0.254 : 0.110 : 0.365 : 208 : 71 : 86 : 28.66
 Belt Slippage 0.54%

* Taken in discharge line from engine.

*** The last line is an average for the hour.

REMARKS: The kerosens used as fuel in this test weighed 6.80 pounds per gallon.

DRAWBAR HORSE POWER TESTS

RATED LOAD, TEN HOURS

MAXIMUM LOAD TEST

* Taken in discharge line from engine.

*** The first figure denotes slippage at the rim of the wheel. The second figure denotes slippage at the points of the lugs.

REMARKS: The rated load and first maximum tests were run in second gear. The second maximum test was run in low gear.

OIL CONSUMPTION:

During the complete test consisting of about 30 hours running the following oil was used:

For the engine, 3-1/2 gallons of Mobiloil "A", 2 gallons to fill crank case and 1-1/2 gallons were added.

For the transmission, none.

Copy of Report of Official Tractor Test No. 95.

REPAIRS AND ADJUSTMENTS

There were no adjustments or repairs necessary during the test of this tractor.

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

McCormick-Deering 1C-20

Motor: Own, four cylinder, vertical, valve-in-head. Bore - 4-1/4", stroke - 5". Rated speed 1000 r.p.m. at maximum load, 1100 r.p.m. no load, speed on intermediate loads as controlled by governor. Rating: belt, 20 H.P. - drawbar, 10 H.P.

Chassis: Four wheel, disc clutch. Rated speeds: low - 2.17 miles per hour, second - 3.21 miles per hour, high - 4.25 miles per hour.

Total weight - 4010 pounds.

REMARKS

In the advertising literature submitted with the applications for test of this tractor, we find some statements and claims which cannot be directly compared with the 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. 95.

E. E. Brackett
Engineer in Charge

Oscar W. Sjogren

C. W. Smith

Fred R. Nohavec

Board of Tractor Test Engineers