UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
UNIVERSITY FARM, LINCOLN

Record of Official Tractor Brake Horsepower Test

Load (rated or other) Half Date Sept. 24, 1920. Test No. 64 e

Name, model and rating of tractor Uncle Sam Model C-20 20-30

Serial No. Engine 226-2JB Serial No. Chassis 1152

Tractor equipment Dixie Mod. 46C Mag., Bennett Carb.

Manufacturer U.S. Tractor & Machinery Co., Menasha, Wis.

Tractor submitted for test by " " " " " .

Tractor operated by Laub Brake operated by Booth

Brake used Sprague Brake arm ft. Brake const. $(\frac{2\pi A}{33000})$ = 1/3000

Description of belt used 8" Klingtite

Size engine pulley (circumference at crown) 2.927' in.

Size brake pulley (circumference at crown) 2.604' in.

Kind of fuel used Kerosene Fuel test No. 119. Wt. per gal., lbs. 6.78

Kind and grade of oil used in engine Mobiloil BB

Kind and grade of oil used in transmission " C

Humidity 42 %. Barometric pressure 28.6 inches mercury.

Temperature of atmosphere 83.8 ° F.

Fuel consumption:

Total for test, gals. 2.625 Gals. per hour 2.625

Gals. per H. P. hour 0.1730 H. P. hours per gal. 5.78

Carburetor adjustments (degrees open) Fuel Valve 3/4 turns open.

Water consumption:

Total in radiator during test, gals. 0.23

Total in fuel mixture during test, gals. 0.00

Total used during test, gals. 0.23

Gals. per H. P. hour H. P. hours per gal.

We, the undersigned, certify that this sheet and the log sheet attached hereto give a true and correct record of official tractor test No. 64e.

Fred N. Laub Operator W.H. Booth Observer.

Operator Observer.

Fred R Nohavec
Engineer-in-charge.

Log of Official Tractor Brake Horse Power Test No. 64e

Sept. 24.1920.

	Reading No. (1)	Time (2)	Engine Crank Shaft Speed: Counter Reading (3)	Engine Crank Shaft Speed: R. P. M. (4)	Engine Belt Pulley Speed: Counter Reading (5)	Engine Belt Pulley Speed: R. P. M. (6)	Engine Belt Pulley Speed: Surface Speed Ft. per Min. (7)	Brake Speed: Counter Reading (8)	Brake Speed: R. P. M. (9)	Brake Speed: Surface Speed Pulley Ft. per Min. (10)	Belt Slippage % of Column (7) (11)	Net Brake Load Pounds (12)	B. H. P. (13)	Fuel: Scale Reading Pounds (14)	Fuel: Amount Used Pounds (15)	Water Used: In Radiator Pounds (16)	Water Used: In Fuel Mixture Pounds (17)	Temperatures: *Cooling Fluid Deg. F. (18)	Temperatures: Atmosphere Deg. F. (19)
** Observer					FNL			WHB				WHB		FNL		FNL		FNL	FNL
	1				4910			4137											
	2	10:40			5969	1059		5312	1175			39.0		38.58				186	83
	3	:50			7020	1051		6476	1164					35.72	2.86			186	83
	4	11:00			7037 7082	1045		6501 7660	1159					32.66	3.06			186	83
	5	:10			9128	1046		8819	1159					29.66	3.00			186	84
	6	:20			0187	1059		9992	1173					26.66	3.00			188	84
	7	:30			1244	1057		1163	1171					23.72	2.94			190	85
	8	:40			2297	1053		2331	1168					20.78	2.94			190	85
	9																		
	10																		
	11																		
	12																		
	13																		
Total		1 Hr.													17.80	1.94			
Average				1053		10533082			1167	3039	1.39	39.0	15.17					187.4	83.8

*Taken in discharge line from engine.

**Each observer will place his initials at the head of each column in which he records his observations.

Remarks WATER

9.40- 7.60 = 1.94