

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 a
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. 64a.

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

Operator _____ Observer.

Fred R. Nohaves
Engineer-in-charge.

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

Sept. 24, 1920.

Reading No.	Time	Engine Crank Shaft Speed		Engine Belt Pulley Speed			Brake Speed			Belt Slippage % of Column (7)	Net Brake Load Pounds	B. H. P.	Fuel		Water Used		Temperatures	
		Counter Reading	R. P. M.	Counter Reading	R. P. M.	Surface Speed Ft. per Min.	Counter Reading	R. P. M.	Surface Speed Pulley Ft. per Min.				Scale Reading Pounds	Amount Used Pounds	In Radiator Pounds	In Fuel Mixture Pounds	*Cooling Fluid Deg. F.	Atmosphere Deg. F.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(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			6201						32.66	3.06			186	83
				7082	1045		7660	1159										
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.																	
Average			1053		1053	3082		1167	3039	1.39	39.0	15.17		17.80	1.94		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

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Record of Official Tractor Drawbar Horsepower Test.

Rated or maximum load Rated Date Sept. 28, 1920. Test No. 64f
Name, model and rating of tractor Uncle Sam Model C-20 20-30
Serial No., Engine 226-2JB, Serial No. Chassis 1152
Manufacturer U.S. Tractor & Machinery Co., Menasha, Wis.
Tractor submitted for test by " " " " " "
Tractor equipment Dixie Mod. 46C Mag., Bennett Carb.
Style and dimensions of lugs Spade 3 1/2" high
Size of drive wheels (circumference at face) (50 + 7) $\frac{\pi}{12}$ = 14.92'
Tractor operated by Booth & Laub Dynamometer car operated by Nohavec & Wallace
Dynamometer used Gulley Load used Dyn. Car, Avery & Rollers

Kind of fuel Kerosene Test No. 119 Wt. per gal. 6.78 lbs.
Kind and grade of oil used in engine Mobiloil BB
Kind and grade of oil used in transmission " C
Fuel consumption:
Total for test, Gal. 57.431 Gals. per hour 5.743
Gal. per H. P. hour 0.2613 H. P. hours per Gal. 3.83
Water consumption:
Total used in test, Gal. 2.33
Gal. per ~~H.P.~~ hour 0.23
H. P. hours per Gal. _____
Weather conditions Partly cloudy until 10:00 A.M., clear and light
wind after 10:00
Condition of track Wet in spots until 10:00 then dried out, in very
good condition the rest of the test.

We the undersigned certify that this sheet and sheets Nos. 64f attached
hereto give a true and correct record of the official tractor test No. 64.

W.H. Booth Operator Fred R Nohavec Observer.
Fred N Laub Operator Lew Wallace Observer.

Fred R Nohavec

Engineer-in-charge.