

UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
UNIVERSITY FARM, LINCOLN

Record of Official Tractor Brake Horsepower Test

Load (rated or other) Rated Date Sept. 24, 1920. Test No. 64b
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 28.5 inches mercury.
Temperature of atmosphere 89.8 ° F.
Fuel consumption:
Total for test, gals. 12.685 Gals. per hour 6.342
Gals. per H. P. hour 0.2062 H. P. hours per gal. 4.85
Carburetor adjustments (degrees open) Fuel Valve 2 3/8 turns open

Water consumption:

Total in radiator during test, gals. 0.50
Total in fuel mixture during test, gals. 0.00
Total used during test, gals. 0.50
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. 64b.

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

Fred R Nohavee
Engineer-in-charge.

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

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	E. 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 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	2:55			2702			3824				81.5		49.28				182	91
2	3:05			3740	1038		4971	1147					42.08	7.20			182	90
3	:15			4781	1041		6120	1149					34.82	7.26			182	90
4	:25			5817	1036		7264	1144					27.60	7.22			182	90
5	:35			6851	1034		8405	1141					20.38	7.22			182	90
6	:45			7880	1029		9541	1136					54.06	7.22			182	90
7	:55			8901	1021		0668	1127					46.90	7.16			182	90
8	4:05			9941	1040		1816	1148					39.68	7.22			182	90
9	:15			0952	1011		2933	1117					32.58	7.10			182	90
10	:25			1952	1000		4037	1104					25.40	7.18			180	90
11	:35			2988	1036		5181	1144					18.40	7.00			180	89
12	:45			4007	1019		6305	1124					52.00	7.22			180	89
13	4:55			5021	1014		7424	1119					44.78	7.00			180	89
Total	2 Hr.			6028	1007		8536	1112					37.78	7.24			180	89
Average			1025		1025	3000		1132	2948	1.73	81.5	30.75		86.02	4.18		181.2	89.8

*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

8.34 - 4.16 = 4.18

Fuel

43.12 - 9.44 = 33.68

43.00 - 9.40 = 33.60