

UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
UNIVERSITY FARM, LINCOLN

Record of Official Tractor Brake Horsepower Test

Load (rated or other) Maximum Date Sept 24, 1920. Test No. 64d
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 Nohavec
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 32 % Barometric pressure 28.6 inches mercury.
Temperature of atmosphere 88.1 ° F.
Fuel consumption:
Total for test, gals. 6.413 Gals. per hour 6.413
Gals. per H. P. hour 0.1992 H. P. hours per gal. 5.02
Carburetor adjustments (degrees open) Fuel Valve 2 1/2 turns open

Water consumption:

Total in radiator during test, gals. 0.14
Total in fuel mixture during test, gals. 0.00
Total used during test, gals. 0.14
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. 64d.

Fred N Laub Operator Fred R Nohavec Observer.
____ Operator _____ Observer.

Fred R Nohavec
Engineer-in-charge.

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

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		FRN	FRN				FRN		FNL		FNL		FNL	FNL
1				3351			3495											
2	12:20			4386	1035		4637	1142			84.0		42.44				190	88
3	:30			5428	1042		5783	1146					35.10	7.34			190	88
4	:40			6448	1020		6915	1132					27.90	7.20			192	89
5	:50			7512	1064		8090	1175					20.74	7.16			192	89
6	1:00			8566	1054		9254	1164					54.56	7.24			194	89
7	:10			9610	1044		0407	1153					47.32	7.34			194	89
8	1:20			0640	1030		1547	1140					39.98	7.34			194	89
9													32.78	7.20				
10																		
11																		
12																		
13																		
Total	1 Hr.													43.48	1.14			
Average			1041		1041	3047		1150	2995	1.77	84.03	2.20					192.3	88.7

*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

FUEL.

$$43.62 - 9.80 = 33.82$$

Water to Radiator

$$9.54 - 8.40 = 1.14$$