

THE UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
COLLEGE OF AGRICULTURE, LINCOLN

Record of Official Tractor Brake Horsepower Test

Load (rated or other) Maximum Date May 22, 1928 Test No. 1506
Name, model and rating of tractor Caterpillar "20" 20-25
Serial No. Engine 1436 Serial No. Chassis 1436
Tractor equipment Eiseman "64" Mag, Ensign "AE" Carb.
Manufacturer Caterpillar Tractor Co. San Leandro, Calif.
Tractor submitted for test by "
Tractor operated by Laub Brake operated by Wallace
Brake used, Sprague. Brake arm 21 inches. Brake const. $(\frac{2nA}{33000}) = \frac{1}{3000}$
Description of belt used 6" Klingite Rubber 15" Avg. thickness
Size of engine pulley (circumference at crown) 3.063 ft.
Size of brake pulley (circumference at crown) 2.605 ft.
Kind of fuel used Gasoline Fuel test No. " Wt. per gal., lbs. 6.18
Kind and grade of oil used in engine Mob. B
Kind and grade of oil used in transmission Zeroline Trans. Oil
Humidity " per cent. Barometric pressure 28.88 inches mercury
Temperature of atmosphere 69 ° F.
Fuel consumption:
Total for test, gals. 7.385 ✓ Gals. per hour 3.693 ✓
Lbs. per H. P. hour 0.759 ✓ H. P. hours per gal. 8.14 ✓
Carburetor adjustments (degrees open) H.S. 32° open or 4 notches
less than 1 full turn open

Water consumption:

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

We, the undersigned, certify that this sheet and the log sheet attached hereto give a true and correct record of official tractor test No. 1506

F. N. Kaut Operator Law Wallace Observer
Operator Law Wallace Observer

Engineer-in-charge

Log of Official Tractor Brake Horse Power Test No. 1506

May 22, 1928

Reading No. (1)	Time (2)	Engine Crank Shaft Speed		Engine Belt Pulley Speed			Brake Speed			Belt Slippage % of Column (7) (11)	Net Brake Load Pounds (12)	B. H. P. (13)	Fuel		Water Used		Temperatures	
		Counter Reading (3)	R. P. M. (4)	Counter Reading (5)	R. P. M. (6)	Surface Speed Ft. per Min. (7)	Counter Reading (8)	R. P. M. (9)	Surface Speed Pulley Ft. per Min. (10)				Scale Reading Pounds (14)	Amount Used Pounds (15)	In Radiator Pounds (16)	In Fuel Mixture Pounds (17)	*Cooling Fluid Deg. F. (18)	Atmosphere Deg. F. (19)
**Observer				2983			9414											
1	9 ⁰⁰			1877	1106	3482	0699	1285	3457	0.72	70.0	2998	155.64				180	67
2	10			0779	1098		1975	1276			70.2		151.84	3.80			180	67
3	20			4674	1105		3259	1284			"		147.94	3.90			180	66
4	30			8678	1096		4532	1273			"		144.24	3.70			179	68
5	40			7478	1100		5811	1279			"		140.44	3.80			179	67
6	50			6372	1106		7098	1287			"		136.60	3.84			180	67
7	10 ⁰⁰			5272	1100		8376	1278			70.3		132.78	3.82			180	68
8	10			4169	1103		9658	1282			70.6	30.17	128.98	3.80			180	67
9	20			3073	1096		0933	1275			"		125.16	3.82			181	70
10	30			1962	1111		2224	1291			"		121.30	3.86			180	71
11	40			0867	1095		3496	1272			"		117.52	3.78			181	69
12	50			9763	1104		4780	1284			"		113.80	3.72			181	72
13	11 ⁰⁰			8659	1104		6063	1283					110.80	3.80			181	72
Total													45.64	0.00	0.00			
Average			1102		1102	3469		1281	3446	0.66	70.4	30.06					180	69

* 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

0.754

THE UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
COLLEGE OF AGRICULTURE, LINCOLN

Record of Official Tractor Brake Horsepower Test

Load (rated or other) Varying Date May 23/1928 Test No. 1500
Name, model and rating of tractor Caterpillar "20" 20-25
Serial No. Engine L436 Serial No. Chassis L436
Tractor equipment Eisemann "64" Mag. Ensign "AE" Carb.
Manufacturer Caterpillar Tractor Co., San Leandro, Cal
Tractor submitted for test by "
Tractor operated by Laub Brake operated by Wallace
Brake used, Sprague. Brake arm 21 inches. Brake const. $(\frac{2nA}{33000}) = \frac{1}{3000}$
Description of belt used 6" Klingite Rubber $\frac{1}{4}$ " Avg thickness
Size of engine pulley (circumference at crown) 3.063 ft.
Size of brake pulley (circumference at crown) 2.605 ft.
Kind of fuel used Gasoline Fuel test No. " Wt. per gal., lbs. 6.18
Kind and grade of oil used in engine Mob. B
Kind and grade of oil used in transmission Zeroline Trans. Oil
Humidity " per cent. Barometric pressure 28.92 inches mercury
Temperature of atmosphere 87 ° F.
Fuel consumption:
Total for test, gals. 5.016 Gals. per hour 2.508
Lbs. per H. P. hour 0.994 H. P. hours per gal. 6.22
Carburetor adjustments (degrees open) 29.3° open or 8 notches
less than one full turn open

Water consumption:

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

We, the undersigned, certify that this sheet and the log sheet attached hereto give a true and correct record of official tractor test No. 1500

F. N. Laub Operator Lew Wallace Observer
Operator Lew Wallace Observer
Engineer-in-charge

Log of Official Tractor Brake Horse Power Test No. 1502

May 23, 1928

Reading No. (1)	Time (2)	Engine Crank Shaft Speed		Engine Belt Pulley Speed			Brake Speed			Belt Slippage % of Column (7) (11)	Net Brake Load Pounds (12)	B. H. P. (13)	Fuel		Water Used		Temperatures	
		Counter Reading (3)	R. P. M. (4)	Counter Reading (5)	R. P. M. (6)	Surface Speed Ft. per Min. (7)	Counter Reading (8)	R. P. M. (9)	Surface Speed Pulley Ft. per Min. (10)				Scale Reading Pounds (14)	Amount Used Pounds (15)	In Radiator Pounds (16)	In Fuel Mixture Pounds (17)	*Cooling Fluid Deg. F. (18)	Atmosphere Deg. F. (19)
**Observer				9173			5330									105 per hr. per gal.		
1	2 10			8074	1099		6610	1280		59.0			130.10				180	87
2	20			6968	1106		7878	1288					127.00	3.10		3.029	180	86
3	2 30			5861	1107		9187	1289					123.86	3.14			182	86
4	Avg	1104		1104	3475		1286	3459	0.46	59.02	28.29		6.24	0.740	8.35		181	86
5	2 50			4669	1192		0582	1395		28			123.86				182	86
6	30			3492	1177		1961	1379					121.98	1.88		1.825	160	86
7	30												120.10	1.88			154	84
8	Avg	1184.5		1184.5	3729		1387	3231		28	1.29		3.764	744	0.71		157	85
9	2 50			2333	1159		3314	1353		29.5			120.10					
10	3 00			1180	1153		4660	1346					117.70	2.40		2.379	170	88
11	3 10												115.20	2.50			170	86
12	Avg	1156		1156	3639		13475	3630	0.25	29.51	3.37		4.90	1.107	5.58		170	87
13																		
Total																		
Average																		

* 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

Log of Official Tractor Brake Horse Power Test No.

150 e (continued)

May 23, 1928

Reading No. (1)	Time (2)	Engine Crank Shaft Speed		Engine Belt Pulley Speed			Brake Speed			Belt Slippage % of Column (7)	Net Brake Load Pounds (12)	B. H. P. (13)	Fuel		Water Used		Temperatures	
		Counter Reading (3)	R. P. M. (4)	Counter Reading (5)	R. P. M. (6)	Surface Speed Ft. per Min. (7)	Counter Reading (8)	R. P. M. (9)	Surface Speed Ft. per Min. (10)				Scale Reading Pounds (14)	Amount Used Pounds (15)	In Radiator Pounds (16)	Fuel Mixture Pounds (17)	*Cooling Fluid Deg. F. (18)	Atmosphere Deg. F. (19)
**Observer				1180			4660								165 per H.P. hr.			
1	3 ¹⁰			0083	1097		5937	1277			61.0		115.20					
2	20			8987	1096		7213	1276					112.00	3.20		3.097	180	85
3	30												108.82	3.18			181	87
4	Avg		1096.5		1096.5	3452		1276.5	3434	0.52	61.0	25.96		6.38	0.737	8.38	180.5	86
5	3 ³⁰			7804	1183		8596	1383			14.75		108.82					
6	40			6617	1187		9983	1387					106.74	2.08		2.049	166	88
7	50												104.60	2.14			166	88
8	Avg		1185		1185	3730		1385	3726	0.11	14.75	6.81		4.22	1.859	3.32	166	88
9	3 ⁵⁰			5493	1124		1290	1307			44.25		104.60					
10	4 ⁰⁰			4367	1126		2607	1317					101.82	2.78		2.670	178	88
11	4 ¹⁰												99.10	2.72			178	88
12	Avg		1125		1125	3542		1312	3524	0.36	44.25	13.35		5.50	0.853	7.25		
13																		
Total	2 hours					3586				0.31				31.00				
Average			1139		1139			1329	3575		35.22	15.60					173	87

* 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

No Water to Radiator

THE UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
COLLEGE OF AGRICULTURE, LINCOLN

Record of Official Tractor Drawbar Horsepower Test

Rated or maximum load. Rated Date May 25, 1928 Test No. 1504
Name, model and rating of tractor. Caterpillar "20" 20-25
Serial No. Engine. L436 Serial No. Chassis. L436
Manufacturer Caterpillar Tractor Co., San Leandro, Calif.
Tractor submitted for test by. " " " " " "
Tractor equipment. Eiseman "64" Mag, Ensign "AE" Carb
Style and dimension of lugs. Cast integral with shoe
Circumference of drive wheels, at face. — Point of lugs. —
Tractor operated by. Laub Dynamometer car operated by Wallace
Dynamometer used. Gulley Load used. Dyn Car
Kind of fuel. Gasoline Test No. — W.t per gal. 6.18 lbs.
Kind and grade of oil used in engine. Mob 13
Kind and grade of oil used in transmission. Paroline Trans Oil
Humidity. — per cent. Barometric pressure. 28.81 inches.
Temperature of atmosphere. 83 Temperature of engine. 181
Weather conditions. Clear
Condition of track. Good

Fuel Consumption:

Total for test, gal. 29.573 Gals. per hour 2.957
Pounds per H. P. hour. 0.828 H. P. hours per gal. 7.04

Water Consumption:

Total used in test, gal. 0.00 Gal. per hour. 0.00

We, the undersigned, certify that this and attached sheets hereto give a true and correct record of the official tractor test No. 1504

F. H. Rank Operator. Lew Wallace Observer.
Operator. Lew Wallace Observer.

Lew Wallace
Engineer-in-charge

THE UNIVERSITY OF NEBRASKA
DEPARTMENT OF AGRICULTURAL ENGINEERING
Log of Official Tractor Drawbar Horse Power Test No. 150f

Date May 29, 1928

Chart and Reading No. (1)	Time (2)	Stop Watch in 400 ft. minutes (3)	*** Engine Crankshaft R. P. M. (4)	Drive Wheel Slippage								Speed		Average Draft Pounds (15)	Drawbar Horsepower (16)	Temperature Degrees F.		Fuel Used Pounds (19)	Water Used Pounds (20)
				Left Wheel		Right Wheel		Av. Rev. Columns 6 and 8 (9)	** Distance Traveled (Feet) (10)	Distance Measured on Ground (Feet) (11)	** Slippage % Columns 10 and 11 (12)	Feet per Minute (13)	Miles per Hour (14)			Cooling Fluid (17)	Atmosphere (18)		
				Counter Reading (5)	Rev. in 400 ft. (6)	Counter Reading (7)	Rev. in 400 ft. (8)												
****Observer	6 ⁵²	start test																	
1S	8 ⁰⁰	1.495		6759 5722	1637							266.8	3.03	2584	20.72	176	65		
1N	8 ⁰⁶	1.49		3986	1636											176	65		
2S	8 ⁵⁹	1.49		1850	1636							269.1	3.06	2572	20.97	174	70		
2N	9 ⁰⁵	1.4825		0214	1636											174	70		
3S	9 ⁵⁵	1.485		8576	1638							2696	3.06	2604	21.27	178	78		
3N	10 ⁰⁰	1.4825		6945	1631											178	78		
4S	10 ⁵²	1.4875		5307	1638							2690	3.06	2592	21.13	180	86		
4N	10 ⁵⁸	1.485		3676	1631											180	86		
5S	11 ⁵⁰	1.4775		2046	1630							270.5	3.07	2492	20.43	182	84		
5N	11 ⁵²	1.48		0417	1629											182	84		
6S	12 ⁵²	1.48		8784	1633							264.8	3.07	2469	20.19	180	90		
6N	12 ⁰⁰	1.485		7153	1631											180	90		
Stop	1 ⁰⁵	Fuel		(Engine not running)															
Start	1 ¹²	7 min																	

NOTE: Record all stops by the word "Stop" and "Start" in column 1, record time and give full data.

* Taken in discharge line from engine.

** The first figure in this column is calculated at the rim of the wheel, and the second figure at point of the lugs.

*** Engine R. P. M. = $\frac{\text{Gear Ratio} \times \text{Column (3)}}{\text{Column (9)}}$

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

THE UNIVERSITY OF NEBRASKA
DEPARTMENT OF AGRICULTURAL ENGINEERING
Log of Official Tractor Drawbar Horse Power Test No. 1507

Date May 29, 1928

Chart and Reading No.	Time	Stop Watch in 400 ft. minutes	*** Engine Crankshaft R. P. M.	Drive Wheel Slippage								Speed		Average Draft Pounds	Drawbar Horsepower	Temperature Degrees F.		Fuel Used Pounds	Water Used Pounds
				Left Wheel		Right Wheel		Av. Rev. Columns 6 and 8	** Distance Traveled (Feet)	Distance Measured on Ground (Feet)	** Slippage % Columns 10 and 11	Feet per Minute	Miles per Hour			* Cooling Fluid	Atmosphere		
				Counter Reading	Rev. in 400 ft.	Counter Reading	Rev. in 400 ft.												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
****Observer				7153															
75	2 ⁰²	1.4925		5513	1640							269.4	3.06	2575	20.53	186	86		
7N	2 ⁰⁸	1.4775		3884	1629											186	86		
85	3 ⁰¹	1.4925		2248	1636							269.4	3.06	2579	21.05	184	90		
8N	3 ⁰⁷	1.4775		0620	1628											184	90		
95	4 ⁰⁰	1.50		8985	1635							268.2	3.05	2565	20.85	182	90		
9N	4 ⁰⁶	1.4825		7354	1631											182	90		
105	4 ⁴⁰	1.4925		5721	1633							267.3	3.04	2609	21.12	184	90		
10N	4 ⁴⁶	1.50		4087	1634											184	90		
	4 ⁵⁹	End of test																	
	5 ⁰⁵	stop engine																	
Avg		1.4871	1403	1633.6		24.59	4068	400	0.45			268.9	3.06	2556	20.83	181	83	172.76	00
Total	10 hrs		1099																

NOTE: Record all stops by the word "Stop" and "Start" in column 1, record time and give full data.

* Taken in discharge line from engine.

** The first figure in this column is calculated at the rim of the wheel, and the second figure at point of the lugs.

*** Engine R. P. M. = Gear Ratio x Column (8)
 Column (9)

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

THE UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
COLLEGE OF AGRICULTURE, LINCOLN

Record of Official Tractor Brake Horsepower Test

Load (rated or other) Rated Date May 23, 1928 Test No. 150d
Name, model and rating of tractor Caterpillar "20" 20-25
Serial No. Engine 1436 Serial No. Chassis 1436
Tractor equipment Eisemann "64" Mag. Ensign "AE" Carb.
Manufacturer Caterpillar Tractor Co., San Leandro, Cal.
Tractor submitted for test by "
Tractor operated by Laub Brake operated by Wallace
Brake used, Sprague. Brake arm 21 inches. Brake const. $(\frac{2\pi A}{33000}) = \frac{1}{3000}$
Description of belt used 6" Klingliffe Rubber 15/16" Avg thickness
Size of engine pulley (circumference at crown) 3.063 ft.
Size of brake pulley (circumference at crown) 2.605 ft.
Kind of fuel used Gasoline Fuel test No. " Wt. per gal., lbs. 6.18
Kind and grade of oil used in engine Mob. B
Kind and grade of oil used in transmission Zeroline Trans. 0.1
Humidity " per cent. Barometric pressure 28.92 inches mercury
Temperature of atmosphere 86 ° F.
Fuel consumption:
Total for test, gals. 3.036 Gals. per hour 3.036
Lbs. per H. P. hour 0.744 H. P. hours per gal. 8.31
Carburetor adjustments (degrees open) 29.3° open or 8 notches
less than 1 full turn open

Water consumption:

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

We, the undersigned, certify that this sheet and the log sheet attached hereto give a true and correct record of official tractor test No. 150d

F. M. Laub Operator Lew Wallace Observer
Lew Wallace Operator Lew Wallace Observer
Engineer-in-charge

Caterpillar "20" 20-25

Log of Official Tractor Brake Horse Power Test No. 150 d

May 23, 1928

Reading No. (1)	Time (2)	Engine Crank Shaft Speed		Engine Belt Pulley Speed			Brake Speed			Belt Slippage % of Column (7) (11)	Net Brake Load Pounds (12)	B. H. P. (13)	Fuel		Water Used		Temperatures	
		Counter Reading (3)	R. P. M. (4)	Counter Reading (5)	R. P. M. (6)	Surface Speed Ft. per Min. (7)	Counter Reading (8)	R. P. M. (9)	Surface Speed Pulley Ft. per Min. (10)				Scale Reading Pounds (14)	Amount Used Pounds (15)	In Radiator Pounds (16)	In Fuel Mixture Pounds (17)	*Cooling Fluid Deg. F. (18)	Atmosphere Deg. F. (19)
**Observer				3572			0206											
1	1:30			2477	1095✓	3447	1480	1274✓	3427	0.58	59.0	25.06	142.62				180	84
2	40			1377	1100✓		2763	1283✓					139.58	3.04✓			179	83
3	50			0276	1101✓		4044	1281✓					136.40	3.18✓			180	86
4	2:00			9173	1103✓		5330	1286✓					133.26	3.14✓			182	87
5	10			8074	1099✓		6610	1280✓					130.10	3.16✓			182	87
6	20			6968	1106✓		7898	1288✓					127.00	3.10✓			180	86
7	2 30			5861	1107✓		9187	1289✓					123.86	3.14✓			182	86
8																		
9																		
10																		
11																		
12																		
13																		
Total	1 HOUR												15.76✓					
Average			1102✓		1102✓	3469✓		1283✓	3451✓	0.52✓	59.0	25.23✓	18.94	0.00	0.00		181✓	86✓

* 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

p.khy 772 6-4 25

THE UNIVERSITY OF NEBRASKA
DEPARTMENT OF AGRICULTURAL ENGINEERING

Log of Official Tractor Drawbar Horse Power Test No. 1509

Date May 25 28 1928

Chart and Reading No. (1)	Time (2)	Stop Watch in 400 ft. minutes (3)	*** Engine Crankshaft R. P. M. (4)	Drive Wheel Slippage								Speed		Average Draft Pounds (15)	Drawbar Horsepower (16)	Temperature Degrees F.		Fuel Used Pounds (19)	Water Used Pounds (20)
				Left Wheel		Right Wheel		Av. Rev. Columns 6 and 8 (9)	Distance Traveled (Feet) (10)	Distance Measured on Ground (Feet) (11)	Slippage % Columns 10 and 11 (12)	Feet per Minute (13)	Miles per Hour (14)			Cooling Fluid (17)	Atmosphere (18)		
				Counter Reading (5)	Rev. in 400 ft. (6)	Counter Reading (7)	Rev. in 400 ft. (8)												

****Observer																			
5/28/28									LOW	GEAR									
3S	9 ⁵⁰	26575	1096	6568	2913							150.8	1.71	5735	26.21	176	81		
4N	10 ⁰⁰	263	1104	6749	2906							152.8	1.74	5707	26.43	179	77		
Avg		26437	1100		2909.5			2560	418.3	400	4.37	151.8	1.735	5721	26.32	177	79		
5/25/28									INT	GEAR									
5N	4 ¹³	14675	1104	6074	1635							272.6	3.10	2980	24.62	180	82		
5S	4 ⁵⁰	1475	1108	11171	1634							271.2	3.08	3032	24.92	182	82		
Avg		147125	1111		1634.5			2461	4021	400	0.52	271.9	3.09	3006	24.77	181	82		
5/28/28									HIGH	GEAR									
3N	10 ⁴⁰	0.965	1115	6464	1076							414.5	4.71	1825	22.92	168	85		
5S	11 ¹²	09825	1092	1100	1073							407.1	4.63	1895	23.38	170	90		
Avg		09737	1103		1074.5			2458	4016	400	0.40	410.8	4.67	1860	23.15	169	87.5		

NOTE: Record all stops by the word "Stop" and "Start" in column 1, record time and give full data.

* Taken in discharge line from engine.

** The first figure in this column is calculated at the rim of the wheel, and the second figure at point of the lugs.

*** Engine R. P. M. = $\frac{\text{Gear Ratio} \times \text{Column (8)}}{\text{Column (9)}}$

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

THE UNIVERSITY OF NEBRASKA
AGRICULTURAL ENGINEERING DEPARTMENT
COLLEGE OF AGRICULTURE, LINCOLN

Record of Official Tractor Brake Horsepower Test

Load (rated or other) Maximum Date May 23, 1926 Test No. 1506
Name, model and rating of tractor Caterpillar "20" 20-25
Serial No. Engine 1436 Serial No. Chassis 1436
Tractor equipment Fuse master "64" Mag. Foreign "45" Carb
Manufacturer Caterpillar Tractor Co., San Leandro, Calif
Tractor submitted for test by Lamb
Tractor operated by Lamb Brake operated by Wallace
Brake used, Sprague. Brake arm 21 inches. Brake const. $\left(\frac{2nA}{33000}\right) = \frac{1}{3000}$
Description of belt used 6" Klinghite Rubber 7/8" Eng thickness
Size of engine pulley (circumference at crown) 3.663 ft.
Size of brake pulley (circumference at crown) 2.665 ft.
Kind of fuel used Gasoline Fuel test No. 648 Wt. per gal., lbs. 6.18
Kind and grade of oil used in engine Mobil 101 B
Kind and grade of oil used in transmission Zepher Trans. Oil
Humidity 82 per cent. Barometric pressure 28.92 inches mercury
Temperature of atmosphere 82 ° F.
Fuel consumption:
Total for test, gals. 3.333 ✓ Gals. per hour 3.333 ✓
Lbs. per H. P. hour 0.699 ✓ H. P. hours per gal. 8.85 ✓
Carburetor adjustments (degrees open) 29.30 open or 8 notches
less than 1 full turn open

Water consumption:

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

We, the undersigned, certify that this sheet and the log sheet attached hereto give a true and correct record of official tractor test No. 1506

F. N. Lamb Operator Lew Wallace Observer
Operator Lew Wallace Observer
Engineer-in-charge

Log of Official Tractor Brake Horse Power Test No. 150 # b

May 23, 1928.

Reading No. (1)	Time (2)	EngineCrankShaftSpeed		Engine Belt Pulley Speed			Brake Speed			Belt Slippage % of Column (7) (11)	Net Brake Load Pounds (12)	B. H. P. (13)	Fuel		Water Used		Temperatures		
		Counter Reading (3)	R. P. M. (4)	Counter Reading (5)	R. P. M. (6)	Surface Speed Ft. per Min. (7)	Counter Reading (8)	R. P. M. (9)	Surface Speed Pulley Ft. per Min. (10)				Scale Reading Pounds (14)	Amount Used Pounds (15)	In Radiator Pounds (16)	In Fuel Mixture Pounds (17)	*Cooling Fluid Deg. F. (18)	Atmosphere Deg. F. (19)	
**Observer						1283			1233										
1	10 ⁴⁵			0185	1098		2511	1278			69.0		112.24				184	80	
2	55			9087	1098		3789	1278			69.0	29.30	108.86	3.38			181	80	
3	11:05			7983	1104		5073	1284			69.0		103.40	3.46			179	79	
4	15			6883	1100		6353	1280			"		101.94	3.46			181	83	
5	25			5778	1105		7638	1285			"		98.50	3.44			182	83	
6	35			4676	1102		8922	1284			69.0		75.10	3.40			180	81	
7	10 ⁴⁵			3572	1104		0206	1284			69.0		91.64	3.46			182	85	
8																			
9																			
10																			
11																			
12																			
13																			
Total	1 Hr.													20.60	0.00	0.00			
Average			1102		1102	3469		1282	3449	0.58	69.0	29.49					181	82	

* 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