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Test 482: Case LA

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NEBRASKA TRACTOR TEST NO. 482

Department of Agricultural Engineering
Dates of test: August 21 to September 6, 1952
Manufacturer: J. I. CASE COMPANY, RACINE,
WISCONSIN

Manufacturer's rating: Not rated.

BELT HORSEPOWER TES	STS
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	Cra	nk	Fuel Consumption			Water	Temp Deg F		1	Barometer	
Нр		aft eed m	Gal per hour	Hp-hr per gal	Lb per hp-hour	used gal per hour	Cooling med	Air		inches of mercury	
		TES	T B-10	00% MA	XIMUM LO	DAD—TW	о но	JRS		7	
59.60	11	150	6.662	8.95	0.466	0.00	177	62	2	28.860	
PATEL I		TEST	C-OPEI	RATING	MAXIMUN	M LOAD-	-ONE	HOUR			
57.89	11	50	6.146	9.42	0.443	0.00	177	66	5	28.875	
	In in the		TEST	D-RAT	ED LOAD	ONE H	IOUR				
52.67	11	150	5.607	9.39	0.444	0.00	176	67	7	28.900	
TES	T E-V	VARYIN	NG LOA	D—TWC	HOURS	(20 minut	e runs;	last li	ne ave	erage)	
52.70	1 11	52	5.583	9.44	0.442		176	68	3		
1.28	12	241	1.719	0.74	5.602	10/10/10	166	67	7	****	
27.86	12	212	3.748	7.43	0.561		175	67	7		
54.85	10	94	5.835	9.40	0.444		178	68	3		
14.19	12	230	2.590	5.48	0.761	200	172	68	3		
40.95	11	89	4.698	8.72	0.478	1	175	68	3	*****	
31.97	11	86	4.029	7.93	0.525	0.00	174	6	8	28.910	
	712			TORQUE	(at dynan	nometer)			THE		
Eng R	RPM	1150	1100	1050	997 950	902	850	802	750	699	
Lb-ft		410.9	410.2	410.6 4	10.9 414.2	2 416.7	417.7	419.3	418.3	3 413.0	
-IIII			DP	AWRAR	HORSEDON	WED TES	TC				
	DRAWBAR HORSEPOWER TESTS							Tama	Dec F	e	
Нр	Draw bar	Speed	Speed Crank miles shaft per speed hr rpm	of drive wheels	Fuel Consumption Gal Hp-hr Lb		used gal	Temp Deg F		Barometer inches of	
	pull lb				per po	er per	per	ing	Air	mercury	
-979	10	1	EST F-	-100% N	AAXIMUM	I OAD		med			
51.73	4181	4.64	1151	5.39	A SHADOW SHOW SHOW	Recorded	H HOLY HIT COLLEGE	177	81	28,940	
31.73	1101	7.07	TEST C		ATING MA	CONTRACTOR OF STREET		11//	01	20.940	
41.68	6874	2.27	1151	15.47		Recorded		174	83	28.930	
50.12	5558	3.38	1150	8.32		Recorded	Contract	177	83	28.930	
49.75	4022	4.64	1151	5.45		Recorded	- CON - CALLED	177	81	28.940	
48.26	1801	10.05	1151	1.76		Recorded		176	82	28.945	
10.20	1001	TEST	- Company	100000000000000000000000000000000000000	OAD—TEN				1 02	20.945	
40.90	3274	4.68	1151	4.49	5.023 8.1		0.03	174	72	28.910	
10.20	1 32/4	TES	1,000,000	-	G MAXIMI				172	20.910	
49.64	4129	4.51	11151	9.56		Recorded	78784110	179	90	28.920	
17.04	1129			The state of the s	G MAXIM			-	1 90	20.920	
44.53	4232	3.95	11 52	16.34		t Recorded		175	88	28.915	
11.55	1232	3.33	111 32	10.54	No	Recorded		11/2	00	40.717	

TIRES, WHEELS and WEIGHT

	Tests F, G, & H	Test J	Test K	
Rear wheels Type	Cast iron	Cast iron	Cast iron	
Liquid ballast	936 lb each	None	None	
Added cast iron	690 lb each	None	None	
Rear tires No. and size	Two 15-30	Two 15-30	Two 14-30	
Ply	8	8	6	
Air pressure	14 lb	12 lb	12 lb	
Front wheels Type	Cast iron	Cast iron	Cast iron	
Liquid ballast	None	None	None	
Added cast iron	None	None	None	
Front tires No. and size	Two 7.50-18	Two 7.50-18	Two 7.50-18	
Ply	4	4	4	
Air pressure	28 lb	28 lb	28 lb	
Height of drawbar	16½ inches	17 inches	15½ inches	
Static weight Rear end	8560 lb	5308 lb	5181 lb	
Front end	2280 lb	2282 lb	2275 lb	
Total weight as tested with operator	11015 lb	7765 lb	7631 lb	

CASE LA

FUEL, OIL and TIME Commercial Propane octane No 100 (rating taken from oil company's typical inspection data); weight per gallon 4.170 lb Oil SAE 20 to motor 4.174 gal; drained from motor 2.543 gal Total time motor was operated 53 hours.

CHASSIS Type Standard Serial No 5522054LA Tread width rear 59 ½" front 62" Wheel Base 82" Hydraulic control system driven through transmission Advertised speeds mph first 2½ second 3½ third 4½ fourth 10 reverse 2½ Belt pulley diam 13" face 8½" rpm 814 Belt speed 2770 fpm Clutch single plate wet disc operated by hand lever Seat pressed steel with sponge rubber cushion which can swing from side to side and tilt upward Brakes double disc on differential shaft operated by two foot pedals Equalized by locking brake pedals together Power take-off standard type.

ENGINE Make J. I. Case Type 4 cylinder vertical Serial No 5522054LA Crankshaft mounted lengthwise Head I Lubrication pressure Bore and Stroke 4\%" x 6" Rated rpm 1150 Compression ratio 7.58 to 1 Displacement 403.2 cu in Port Diameter Valves inlet 1 26/32" exhaust 1 21/32" Governor variable speed centrifugal Carburetor Size 1\%" Ignition System magneto Starting System 6 volt battery Air Cleaner oil washed metal mesh Muffler was used Oil Filter replaceable treated paper element Cooling medium temperature control thermostat.

REPAIRS AND ADJUSTMENTS No repairs or adjustments.

REMARKS All test results were determined from observed data and without allowances, additions or deductions. Tests B and F were made with carburetor set for 100% maximum belt horsepower and data from these tests were used in determining the horsepower to be developed in tests D and H, respectively. Tests C, D, E, G, H, J and K were made with an operating setting of the carburetor (selected by the manufacturer) of 97.4% of maximum belt horsepower.

HORSEPOWER SUMMARY

	Draw- bar	Belt
 Sea level (calculated) maximum horsepower (based on 60° F a 29.92" Hg) 		61.91
2. Observed maximum horsepov (tests F & B)	ver 51.73	59.60
3. Seventy-five per cent of calcula maximum drawbar horsepower a eighty-five per cent of calcula maximum belt horsepower (for erly ASAE and SAE ratings)	and ited rm-	52.62
We, the undersigned, certify that correct report of official tractor tes		ue and

L. F. LARSEN Engineer in Charge

C. W. SMITH F. D. YUNG L. W. HURLBUT Board of Tractor Test Engineers