

Tractor Test and Power Museum, The Lester F. Larsen

UNL Larsen Tractor Museum Archives

University of Nebraska - Lincoln

Year 1975

Test 1175: International 1568 Diesel

Tractor Museum

University of Nebraska-Lincoln, TractorMuseumArchives@unl.edu

NEBRASKA TRACTOR TEST 1175 - INTERNATIONAL 1568 DIESEL

POWER TAKE-OFF PERFORMANCE

Hp	Crank-shaft speed rpm	Fuel Consumption		Hp-hr per gal	Temperature Degrees F			Barometer inches of Mercury
		Gal per hr	Lb per hp-hr		Cooling medium	Air wet bulb	Air dry bulb	
MAXIMUM POWER AND FUEL CONSUMPTION								
Rated Engine Speed—Two Hours (PTO Speed—1146 rpm)								
150.70	2600	10.089	0.465	14.94	185	63	76	29.083
Standard Power Take-off Speed (1000 rpm)—One Hour								
147.79	2269	9.856	0.463	14.99	195	63	76	29.075
VARYING POWER AND FUEL CONSUMPTION—Two Hours								
134.50	2733	9.089	0.469	14.80	176	64	77	.....
0.00	2848	3.410	.....	.....	163	63	75	.....
69.88	2835	6.073	0.603	11.51	170	64	77	.....
152.12	2600	10.166	0.464	14.96	185	63	76	.....
34.63	2822	4.733	0.949	7.32	165	62	75	.....
103.59	2805	7.490	0.502	13.83	172	62	74	.....
Av 82.45	2774	6.827	0.575	12.08	172	63	76	29.053

DRAWBAR PERFORMANCE

Hp	Draw-bar pull lbs	Speed miles per hr	Crank-shaft speed rpm	Fuel Consumption		Hp-hr per gal	Temp Degrees F			Barometer inches of Mercury
				Slip of drivers %	Gal per hr		Lb per hp-hr	Cooling med	Air wet bulb		Air dry bulb

VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST

Maximum Available Power—Two Hours—7th Gear (1 Hi TA)											
130.17	8595	5.68	2599	5.65	10.013	0.534	13.00	186	64	76	29.015
75% of Pull at Maximum Power—Ten Hours—7th Gear (1 Hi TA)											
108.44	6615	6.15	2772	4.27	8.612	0.551	12.59	173	58	66	28.919
50% of Pull at Maximum Power—Two Hours—7th Gear (1 Hi TA)											
73.88	4392	6.31	2805	2.83	6.843	0.643	10.80	168	57	62	28.965
50% of Pull at Reduced Engine Speed—Two Hours—8th Gear (1 Hi DD)											
73.92	4403	6.30	2398	3.12	5.979	0.551	12.36	166	58	58	29.000

MAXIMUM POWER WITH BALLAST

82.74	14918	2.08	2777	14.81	2nd Gear (1 Lo DD)		172	62	73	29.040
128.55	12782	3.77	2600	9.16	3rd Gear (2 Lo TA)		179	62	73	29.061
129.51	10765	4.51	2600	7.08	4th Gear (2 Lo DD)		181	62	73	29.070
130.90	8812	5.57	2600	5.62	6th Gear (3 Lo DD)		180	62	73	29.080
133.79	8812	5.69	2601	5.54	7th Gear (1 Hi TA)		178	63	73	29.090
133.40	7440	6.72	2602	4.75	8th Gear (1 Hi DD)		181	62	73	29.050

VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST—7th Gear (1 Hi TA)

Pounds Pull	8812	9779	10288	10272	9954	9815
Horsepower	133.79	132.53	123.23	107.86	89.77	73.73
Crankshaft Speed rpm	2601	2339	2076	1821	1561	1298
Miles Per Hour	5.69	5.08	4.49	3.94	3.38	2.82
Slip of Drivers %	5.54	6.16	6.47	6.62	6.47	6.47

TRACTOR SOUND LEVEL (with cab

	dB (A)
Maximum Available Power 2 Hours	91.5
75% of Pull at Max. Power 10 Hours	90.0
50% of Pull at Max. Power 2 Hours	91.0
50% of Pull at Reduced Engine Speed 2 Hours	89.0
Bystander 12th Gear (3 Hi DD)	90.0

TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
Rear Tires	Four 20.8-38, 8; 12	Four 20.8-38, 8; 12
Ballast	Four 545 lb each	None
	None	None
Front Tires	Two 10.00-16, 6; 28	Two 10.00-16, 6; 28
Ballast	None	None
	110 lb each	None
Height of drawbar	19.5 inches	19.5 inches
Static weight with operator—rear	13700 lb	11525 lb
front	3650 lb	3425 lb
total	17350 lb	14950 lb

The Agricultural Experiment Station
Institute of Agriculture and Natural Resources
University of Nebraska - Lincoln
H. W. Ottoson, Director

Department of Agricultural Engineering

Dates of Test: May 3 to May 15, 1975

Manufacturer: INTERNATIONAL HARVESTER COMPANY, 401 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS

FUEL, OIL AND TIME Fuel No 2 Diesel Cetane No 51.7 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° 0.8336 Weight per gallon 6.941 lb Oil SAE 30 API service classification CD, CC, CB, CA, SD, SC To motor 3.981 gal Drained from motor 2.752 gal Transmission and final drive lubricant IH Ty-Tran Fluid Total time engine was operated 53.5 hours.

ENGINE Make INTERNATIONAL Type 8 cylinder Vee Serial No DV-550C42899 Crankshaft Mounted lengthwise Rated rpm 2600 Bore and stroke 4.5" x 4.3125" Compression ratio 16.6 to 1 Displacement 550 cu in Cranking system electric 12 volt Lubrication pressure Air cleaner 2 stage dry type with replaceable pleated paper primary and safety elements and automatic dust unloader Oil filter two replaceable pleated paper full flow screw-on cartridges Oil cooler engine coolant heat exchanger for crankcase oil, radiator for transmission and hydraulic oil Fuel filter two replaceable pleated paper screw-on cartridges Muffler two vertical Cooling medium temperature control one thermostat.

CHASSIS Type standard with duals Serial No 2650127U007470 Tread width rear 62" to 120" front 60.1" to 86.5" Wheel base 104.8" Center of gravity (without operator or ballast, with minimum tread, with fuel tank filled and tractor serviced for operation) Horizontal distance forward from center-line of rear wheels 24.0" Vertical distance above roadway 41.3" Horizontal distance from center of rear wheel tread 0" to the right/left Hydraulic control system direct engine drive Transmission selective gear fixed-ratio with operator controlled, partial range power shift Advertised speeds mph first 1.9 second 2.2 third 4.0 fourth 4.7 fifth 4.9 sixth 5.7 seventh 5.8 eighth 6.8 ninth 12.4 tenth 14.5 eleventh 15.1 twelfth 17.6 reverse 3.3, 3.8, 6.9, 8.1, 8.4, 9.8 Clutch single dry disc, operated by foot pedal with hydraulic power assist Brakes wet single disc, hydraulic power actuated Steering hydrostatic Turning radius (on concrete surface with brake applied) right 143" left 113" (on concrete surface without brake) right 189" left 189" Turning space diameter (on concrete surface with brake applied) right 296" left 296" (on concrete surface without brake) right 387" left 387" Power take-off 1000 rpm at 2269 engine rpm.

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

REMARKS: All test results were determined from observed data obtained in accordance with SAE and ASAE test code or official Nebraska test procedure.

First gear was not run as it was necessary to limit the pull in second gear to avoid excessive wheel slippage.

Fuel temperature at injection pump was 130°F.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 1175.

L. F. LARSEN

Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman
W. E. SPLINTER

D. E. LANE

Board of Tractor Test Engineers