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Test 1216: International 4568 and 4586 Diesel

Nebraska Tractor Test Lab

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NEBRASKA TRACTOR TEST 1216 — INTERNATIONAL 4568 DIESEL

ALSO INTERNATIONAL 4586 DIESEL

(SOUND RETEST)

DRAWBAR PERFORMANCE

Hp	Draw-bar pull lbs	Speed miles per hr	Crankshaft speed rpm	Slip of drivers %	Fuel Consumption Gal per hr	Lb per hp-hr	Hp-hr per gal	Temp Cool-ing med	Degrees F Air wet bulb	Air dry bulb	Barom. inches of Merc.
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VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST

Maximum Available Power—Two Hours 5th (L-3) Gear											
228.01	12648	6.76	2600	3.27	17.691	0.541	12.89	191	64	79	28.725
75% of Pull at Maximum Power—Ten Hours 5th (L-3) Gear											
184.93	9816	7.06	2690	2.26	15.680	0.591	11.79	188	67	82	28.588
50% of Pull at Maximum Power—Two Hours 5th (L-3) Gear											
126.29	6474	7.32	2769	1.78	12.977	0.717	9.73	178	57	66	28.740
50% of Pull at Reduced Engine Speed—Two Hours 7th (L-4) Gear											
128.09	6538	7.35	1677	1.31	8.765	0.477	14.62	184	65	87	28.680

MAXIMUM POWER WITH BALLAST

174.67	27995	2.34	2708	14.82	1st Gear (L-1)			178	49	55	28.930
213.28	26900	2.97	2600	11.26	2nd Gear (H-1)			182	55	66	28.730
230.17	21209	4.07	2599	6.11	3rd Gear (L-2)			180	55	66	28.720
230.53	16408	5.27	2599	4.31	4th Gear (H-2)			184	55	65	28.710
235.72	13081	6.76	2600	3.35	5th Gear (L-3)			188	60	70	28.740
229.39	9923	8.67	2601	2.44	6th Gear (H-3)			186	55	65	28.700

VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST 5th (L-3) GEAR

Pounds Pull	13081	14587	15997	16757	17077	15010
Horsepower	235.72	235.41	226.84	207.50	182.60	133.67
Crankshaft Speed rpm	2600	2341	2066	1809	1565	1294
Miles Per Hour	6.76	6.05	5.32	4.64	4.01	3.34
Slip of Drivers %	3.35	3.67	4.31	4.63	4.63	3.99

TRACTOR SOUND LEVEL WITH CAB	4568 dB(A)	4586 dB(A)
Maximum Available Power 2 Hours	82.0	80.5
75% of Pull at Max. Power 10 Hours	82.0	81.0
50% of Pull at Max. Power 2 Hours	82.0	80.5
50% of Pull at Reduced Engine Speed 2 Hours	79.0	76.0
Bystander in 9th (L-5) gear	100.5	—

TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
Rear Tires		
—No., size, ply & psi (kPa)	Four 20.8-38; 8; 12	Four 20.8-38; 8; 12
Ballast	1020 lb	None
—Liquid (each inner)	None	None
—Cast Iron	None	None
Front Tires		
—No., size, ply & psi (kPa)	Four 20.8-38; 8; 12	Four 20.8-38; 8; 12
Ballast	1040 lb	None
—Liquid (each inner)	None	None
—Cast Iron	None	None
Height of Drawbar	22 inches	22 inches
Static Weight with Operator—Rear	11900 lb	9860 lb
—Front	17970 lb	15890 lb
—Total	29870 lb	25750 lb

Department of Agricultural Engineering

Dates of Test: June 11 to 19, 1976

Sound Retest: March 22, 1978

Manufacturer: International Harvester Company, 401 North Michigan Avenue, Chicago, Illinois 60611

FUEL, OIL AND TIME: Fuel No. 2 Diesel Cetane No. 51.8 (rating taken from oil company's typical inspection data) **Specific gravity converted to 60°/60°** 0.8376 **Weight per gallon** 6.974 lb **Oil SAE 30 API service classification** CA CB CC CD SC SD SE **To motor** 6.498 gal **Drained from motor** 5.522 **Transmission and final drive lubricant** IH Hy-Tran fluid **Total time engine was operated** 39 hours.

ENGINE Make International Diesel Type V-800 8 cylinder Vee with turbocharger **Serial No.** 800TT2U002239* **Crankshaft Mounted** lengthwise **Rated rpm** 2600 **Bore and Stroke** 5.3125 x 4.5 **Compression ratio** 15.6 to 1 **Displacement** 798 cu in **Cranking system** 12 volt **Lubrication pressure** **Air cleaner** 2 stage dry type pleated paper primary and safety elements and automatic dust unloader **Oil filter** two pleated paper full flow screw-on cartridges **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for transmission and hydraulic oil **Fuel filter** one primary and one final screw-on paper cartridges **Muffler** not used **Cooling medium temperature control** thermostat.

CHASSIS: Type four-wheel drive **Serial No.** 2980002U008542* **Tread width** rear 69" to 123" front 69" to 123" **Wheel base** 118" **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 72.8" Vertical distance above roadway 46.1" Horizontal distance from center of rear wheel tread 0" to the right/left **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Advertised speeds mph** first 2.6 second 3.3 third 4.2 fourth 5.4 fifth 6.8 sixth 8.7 seventh 11.2 eighth 14.4 ninth 18.0 tenth 22.8 reverse 2.6 and 3.3 **Clutch** double dry disc operated by foot pedal **Brakes** dual caliper disc brake on drive line operated hydraulical by foot pedal **Steering** hydrostatic and articulated **Turning radius** (on concrete surface without brake) right 237" left 237" **Turning space diameter** (on concrete surface without brake) right 522" left 522"

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. Temperature at injection pump was 135°F. Six gears were chosen between 15% slip and 15 mph.

We, the undersigned, certify that this is a true and correct report of official Tractor Test **1216**.

L. I. LEVITICUS
Engineer-in-Charge

G. W. STEINBRUEGGE
W. E. SPLINTER
K. VON BARGEN
Board of Tractor Test Engineers



International 4568 DIESEL