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January 1971

Test 1072: Kubota L-260 Diesel 8-Speed

Nebraska Tractor Test Lab

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NEBRASKA TRACTOR TEST 1072 – KUBOTA L-260 DIESEL 8-SPEED

POWER TAKE-OFF PERFORMANCE

Hp	Crank- shaft speed rpm	Fuel Consumption Gal per hr	Lb per hp-hr	Hp-hr per gal	Temperature Degrees F Cooling medium	Air wet bulb	Air dry bulb	Barometer inches of Mercury
MAXIMUM POWER AND FUEL CONSUMPTION								
Rated Engine Speed—Two Hours (PTO Speed—587 rpm)								
24.11	2600	1.819	0.524	13.25	209	67	75	28.903
Standard Power Take-off Speed (540 rpm)—One Hour								
22.88	2391	1.692	0.514	13.52	210	67	75	28.910
VARYING POWER AND FUEL CONSUMPTION—Two Hours								
21.57	2738	1.623	0.523	13.29	206	66	74	.....
0.00	2866	0.561	.....	.....	204	66	74	.....
10.95	2778	1.045	0.663	10.48	204	65	73	.....
23.79	2600	1.783	0.521	13.34	209	66	74	.....
5.57	2822	0.842	1.050	6.62	204	65	74	.....
16.28	2754	1.278	0.545	12.74	204	66	73	.....
Av 13.03	2760	1.188	0.634	10.95	205	65	74	28.910

DRAWBAR PERFORMANCE

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

Maximum Available Power—Two Hours—7th Gear (3 Hi)											
18.98	1393	5.11	2594	7.69	1.816	0.664	10.45	196	73	86	28.870
75% of Pull at Maximum Power—Ten Hours—7th Gear (3 Hi)											
15.83	1078	5.50	2740	5.79	1.453	0.637	10.90	191	70	82	28.804
50% of Pull at Maximum Power—Two Hours—7th Gear (3 Hi)											
11.36	764	5.57	2754	5.11	1.366	0.836	8.31	193	71	81	28.720
50% of Pull at Reduced Engine Speed—Two Hours—8th Gear (4 Hi)											
11.38	766	5.57	1750	4.78	0.971	0.592	11.72	191	70	78	28.720

MAXIMUM POWER WITH BALLAST

18.17	2575	2.65	2617	14.85	5th Gear (1 Hi)			194	71	77	28.870
18.45	2007	3.45	2604	14.58	6th Gear (2 Hi)			197	65	73	28.750
19.64	1439	5.12	2599	7.67	7th Gear (3 Hi)			198	74	88	28.870
18.18	834	8.18	2602	5.99	8th Gear (4 Hi)			192	67	75	28.750

MAXIMUM PULL WITHOUT BALLAST

18.10	1874	3.62	2702	14.60	6th Gear (2 Hi)			194	79	86	28.790
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VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST 7th Gear (3 Hi)

Pounds Pull	1439	1490	1534	1561	1551	1509
Horsepower	19.64	17.92	16.17	14.32	12.23	10.08
Crankshaft Speed rpm	2599	2352	2073	1810	1555	1312
Miles Per Hour	5.12	4.51	3.95	3.44	2.96	2.51
Slip of Drivers %	7.67	10.05	10.47	10.89	10.81	10.39

TRACTOR SOUND LEVEL WITHOUT CAB dB(A)

Maximum Available Power 2 Hours	99.0
75% of Pull at Max. Power 10 Hours	97.5
50% of Pull at Max. Power 2 Hours	96.0
50% of Pull at Reduced Engine Speed 2 Hours	90.0
Bystander 8th gear (4 Hi)	83.0

TIRES, BALLAST and WEIGHT

		With Ballast	Without Ballast
Rear tires	—No, size, ply & psi	Two 11.2-24; 4; 12	Two 11.2-24; 4; 12
Ballast	—Liquid	150 lb each	None
	Cast iron	390 lb each	None
Front tires	—No, size, ply & psi	Two 5.00-15; 4; 28	Two 5.00-15; 4; 28
Ballast	—Liquid	None	None
	Cast iron	150 lb each	None
Height of drawbar		22 inches	22½ inches
Static weight with operator—rear		2760 lb	1680 lb
front		1260 lb	960 lb
total		4020 lb	2640 lb

Department of Agricultural Engineering

Dates of Test: June 4 to June 12, 1971

Manufacturer: KUBOTA LTD., Osaka, Japan

FUEL, OIL and TIME Fuel No 2 Diesel. Cetane No 53.5 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° 0.8347 Weight per gallon 6.950 lb Oil SAE 30 API service classification MS, DS To motor 1.543 gal Drained from motor 1.050 gal Transmission and final drive lubricant SAE 90 gear lube Total time engine was operated 56½ hours.

ENGINE Make Kubota Diesel Type two cylinder vertical Serial No Z1300-6390 Crankshaft Mounted lengthwise Rated rpm 2600 Bore and stroke 3.54" x 3.94" Compression ratio 21.5 to 1 Displacement 77.6 cu in Cranking system 12 volt electric Lubrication pressure Air cleaner oil washed wire screen with cyclone type precleaner Oil filter steel net and replaceable treated paper element Fuel filter replaceable paper element Muffler was used Cooling medium temperature control thermostat.

CHASSIS Type Standard Serial No. L260-15375 Tread width rear 40" to 62" front 40" to 56" Wheel base 63" 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 26.8" Vertical distance above roadway 25.0" 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 0.88 second 1.15 third 1.58 fourth 2.46 fifth 3.11 sixth 4.06 seventh 5.59 eighth 8.76 reverse 1.58 and 5.59 Clutch single plate dry disc operated by foot pedal Brakes internal expanding shoes operated by two foot pedals that can be locked together Steering mechanical Turning radius (on concrete surface with brake applied) right 98" left 98" (on concrete surface without brake) right 106" left 106" Turning space diameter (on concrete surface with brake applied) right 206" left 206" (on concrete surface without brake) right 222" left 222" Power take-off 540 rpm at 2391 engine rpm.

REPAIRS and ADJUSTMENTS: No repairs or adjustments.

REMARKS: All test results were determined from observed data in accordance with SAE and ASAE test code or official Nebraska test procedure. First, second, third and fourth gears were not run as it was necessary to limit the pull in 5th gear to avoid excessive slippage.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 1072.

L. F. LARSEN

Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman

W. E. SPLINTER

D. E. LANE

Board of Tractor Test Engineers

The University of Nebraska Agricultural Experiment Station
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