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Test 1197: Allis-Chalmers 7060 PS Diesel

Nebraska Tractor Test Lab

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NEBRASKA TRACTOR TEST 1197 — ALLIS-CHALMERS 7060 PS DIESEL

POWER TAKE-OFF PERFORMANCE

Hp	Crank- shaft speed rpm	Fuel Consumption		Hp-hr per gal	Temperature °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—1021 rpm)									
161.42	2300	10.172	0.435	15.87	190	57	76	28.787	
Standard Power Take-Off Speed (1000 rpm)—One Hour									
161.65	2252	10.051	0.429	16.08	189	56	75	28.750	
VARYING POWER AND FUEL CONSUMPTION—Two Hours									
143.82	2413	9.437	0.453	15.24	186	57	76	.....
0.00	2570	3.015	.....	.....	172	57	75	.....
74.60	2503	6.291	0.582	11.86	178	57	75	.....
162.55	2302	10.214	0.434	15.91	190	58	76	.....
37.84	2540	4.675	0.853	8.09	174	57	74	.....
110.18	2465	7.833	0.491	14.07	182	58	77	.....
Av	88.16	2465	6.911	0.541	12.76	180	57	75	28.732

DRAWBAR PERFORMANCE

Hp	Draw- bar pull lbs	Speed miles per hr	Crank- shaft speed rpm	Slip of drivers %	Gal per hr	Fuel Consumption Lb per hp-hr	Hp-hr per gal	Cool- ing med	Temp. °F Air wet bulb	Air dry bulb	Barometer inches of Mercury
VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST											
Maximum Available Power—Two Hours—5th (1-H) Gear											
141.67	10755	4.94	2301	4.77	10.264	0.500	13.80	190	52	64	28.760
75% of Pull at Maximum Power—Ten Hours—5th (1-H) Gear											
116.25	8198	5.32	2442	3.35	8.954	0.532	12.98	183	54	58	28.880
50% of Pull at Maximum Power—Two Hours—5th (1-H) Gear											
78.11	5325	5.50	2499	2.31	7.241	0.640	10.79	178	37	42	29.140
50% of Pull at Reduced Engine Speed—Two Hours—7th (2-H) Gear											
77.52	5285	5.50	1811	2.23	6.101	0.543	12.71	179	32	37	29.190
MAXIMUM POWER WITH BALLAST											
114.04	17851	2.40	2437	14.59	2nd Gear (2-L)			178	24	24	29.240
137.89	15410	3.36	2300	7.96	3rd Gear (3-L)			189	51	63	28.770
140.19	12089	4.35	2301	5.43	4th Gear (4-L)			190	51	63	28.770
144.13	10975	4.92	2299	4.80	5th Gear (1-H)			190	51	63	28.770
141.54	7673	6.92	2299	3.27	7th Gear (2-H)			190	51	64	28.750
136.36	5304	9.64	2301	2.10	9th Gear (3-H)			191	53	66	28.730
VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST											
5th (1-H) Gear											
Pounds Pull				10975	11972	11734	12150	11592	10374		
Horsepower				144.13	140.24	122.30	110.25	90.82	66.84		
Crankshaft Speed rpm				2299	2061	1833	1599	1378	1124		
Miles Per Hour				4.92	4.39	3.91	3.40	2.94	2.42		
Slip of Drivers %				4.80	5.43	5.43	5.43	5.28	4.64		

Department of Agricultural Engineering

Dates of Test: November 5 to 19, 1975

Sound Retest: March 20, 1978

Manufacturer: Allis-Chalmers Corporation Milwaukee, Wisconsin 53201

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° 0.8293 Weight per gallon 6.905 lb Oil SAE 30 API service classification SE-CD To motor 4.181 gal Drained from motor 3.059 gal Transmission and final drive lubricant Allis-Chalmers Power Fluid 821 Total time engine was operated 51 hours

ENGINE: Make Allis-Chalmers Diesel Type 6 cylinder vertical with turbocharger and inter-cooler Serial No 3D-34027 Crankshaft Mounted lengthwise Rated rpm 2300 Bore and stroke 4.25" x 5.0" Compression ratio 16 to 1 Displacement 426 cu in Cranking system 12 volt Lubrication pressure Air cleaner two stage dry with pleated paper primary and safety elements and centrifugal precleaner Oil filter two full flow cartridges and one by-pass element Oil cooler engine coolant heat exchanger for crankcase oil and radiator for transmission and hydraulic fluid Fuel filter one cartridge Muffler vertical Cooling medium temperature control two thermostats

CHASSIS: Type standard with duals Serial No 2484S Tread width rear 66" to 122" front 63" to 91" Wheel base 106" 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 28.2" Vertical distance above roadway 37.1" Horizontal distance from center of rear wheel tread 0" to the right/left Hydraulic control system direct engine drive Transmission selective gear fixed ratio with partial (six 'gears-on-the-go') power shifting Advertised speeds mph first 1.9 second 2.6 third 3.6 fourth 4.5 fifth 5.1 sixth 5.6 seventh 7.0 eighth 7.1 ninth 9.7 tenth 12.2 eleventh 15.1 twelfth 19.1 reverse 3.1 and 8.2 Clutch multiple wet disc hydraulically actuated by foot pedal Brakes wet multiple discs operated hydraulically by two foot pedals that can be locked together Steering hydrostatic Turning radius (on concrete surface with brake applied) right 142.5" left 142.5" (on concrete surface without brake) right 174" left 174" Turning space diameter (on concrete surface with brake applied) right 303.5" left 303.5" (on concrete surface without brake) right 376.5" left 376.5" Power take-off 1000 rpm at 2252 engine rpm

TRACTOR SOUND LEVEL WITH CAB		Acousta I dB(A)	Acousta II dB(A)
Maximum Available Power—Two Hours		79.5	79.5
75% of Pull at Maximum Power—Ten Hours		80.0	80.5
50% of Pull at Maximum Power—Two Hours		80.0	79.0
50% of Pull at Reduced Engine Speed—Two Hours		79.5	77.0
Bystander in 12th (6-H) Gear		89.5	
TIRES, BALLAST AND WEIGHT			
Rear Tires		With Ballast	Without Ballast
—No., size, ply & psi		Four 20.8-38; 10; 14	Four 20.8-38; 10; 14
Ballast	—Liquid (each)	664 lb	None
	—Cast Iron (each)	630 lb	None
Front Tires		Two 14-L-16.1, 6; 24	Two 14-L-16.1, 6; 24
Ballast	—Liquid (each)	None	None
	—Cast Iron (each)	370 lb	None
Height of Drawbar		22 inches	22 inches
Static Weight with Operator—Rear		15890 lb	10715 lb
	—Front	4670 lb	3930 lb
	—Total	20560 lb	14645 lb

REPAIRS AND ADJUSTMENTS: No repairs and 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 return was 145°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 1197.

LOUIS I. LEVITICUS
Engineer-in-Charge

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



Allis-Chalmers 7060 PS Diesel