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Test 1167: Allis-Chalmers 7060 Diesel

Tractor Museum

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NEBRASKA TRACTOR TEST 1167 - ALLIS-CHALMERS 7060 DIESEL

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—1021 rpm)								
161.51	2300	10.179	0.436	15.87	190	63	75	28.790
Standard Power Take-off Speed (1000 rpm)—One Hour								
160.44	2252	10.036	0.432	15.99	191	62	75	28.780
VARYING POWER AND FUEL CONSUMPTION—Two Hours								
142.73	2391	9.333	0.452	15.29	186	63	76	.....
0.00	2552	3.150	.....	.....	172	62	74	.....
74.06	2484	6.247	0.583	11.86	179	63	75	.....
161.78	2300	10.197	0.436	15.87	191	62	75	.....
37.57	2521	4.688	0.862	8.01	174	62	75	.....
109.28	2439	7.731	0.489	14.14	183	62	75	.....
Av 87.57	2448	6.891	0.544	12.71	181	62	75	28.750

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
VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST											
Maximum Available Power—Two Hours—8th Gear (4SL)											
136.12	10073	5.07	2300	5.33	9.984	0.507	13.63	183	54	60	29.015
75% of Pull at Maximum Power—Ten Hours—8th Gear (4SL)											
111.93	7784	5.39	2424	4.43	8.776	0.542	12.75	179	47	48	28.895
50% of Pull at Maximum Power—Two Hours—8th Gear (4SL)											
75.54	5058	5.60	2475	2.81	7.162	0.655	10.55	178	45	48	29.068
50% of Pull at Reduced Engine Speed—Two Hours—12th Gear (2FL)											
75.69	5065	5.60	1706	2.72	5.770	0.527	13.12	180	49	53	29.045
MAXIMUM POWER WITH BALLAST											
89.60	17370	1.93	2427	14.86	2nd Gear (1SH)	179	40	47	29.030		
140.06	11689	4.49	2300	6.19	6th Gear (1FH)	184	56	58	29.000		
140.08	10364	5.07	2301	5.40	8th Gear (4SL)	184	56	60	29.000		
138.25	9188	5.64	2300	4.69	9th Gear (3SH)	183	54	56	29.000		
140.59	7595	6.94	2299	3.72	11th Gear (5SL)	182	54	57	29.000		
133.91	5793	8.67	2302	2.81	13th Gear (5SH)	183	52	59	29.000		

VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST—8th Gear (4SL)

Pounds Pull	10364	11354	12541	12791	12386	11215
Horsepower	140.08	137.62	133.25	118.90	98.56	75.66
Crankshaft Speed rpm	2301	2076	1836	1610	1375	1157
Miles Per Hour	5.07	4.55	3.98	3.49	2.98	2.53
Slip of Drivers%	5.40	5.95	6.73	7.04	6.88	6.27

TRACTOR SOUND LEVEL (with cab)

	db (A)
Maximum Available Power 2 Hours	78.5
75% of Pull at Max. Power 10 Hours	78.5
50% of Pull at Max. Power 2 Hours	79.0
50% of Pull at Reduced Engine Speed 2 Hours	76.5
Bystander 20th Gear (5FH)	88.0

TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
Rear Tires	—No., size, ply & psi	Four 20.8-38;10;14
Ballast	—Liquid	787 lb each
	Cast Iron	629 lb each
Front tires	—No., size, ply & psi	Two 14L-16.1;6;24
Ballast	—Liquid	None
	Cast Iron	418 lb each
Height of drawbar	22 inches	22½ inches
Static weight with operator—rear	15790 lb	10125 lb
front	4700 lb	3865 lb
total	20490 lb	13990 lb

Department of Agricultural Engineering

Dates of Test: October 30, to November 11, 1974

Manufacturer: ALLIS CHALMERS CORPORATION, MILWAUKEE WISCONSIN

FUEL, OIL AND TIME Fuel No 2 Diesel

Cetane No 51.9 (rating taken from oil company's typical inspection data)

Specific gravity converted to 60°/60° 0.8300

Weight per gallon 6.911 lb

Oil Allis-Chalmers Power Lube 7000

SAE 30 API service classification SE-CD

To motor 3.820 gal

Drained from motor 3.149 gal

Transmission and final drive lubricant Allis-Chalmers Power Fluid 821

Total time engine was operated 49.5 hours.

ENGINE Make Allis-Chalmers Diesel Type 6 cylinder with turbocharger and intercooler

Serial No 3D 27139 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 electric (four 12 volt batteries)

Lubrication pressure Air cleaner two stage dry type with replaceable pleated paper primary and safety elements and precleaner

Oil filter two full flow replaceable cartridges and one by-pass type with replaceable element

Oil Cooler engine coolant heat exchanger for crankcase oil and radiator for transmission and hydraulic fluid

Fuel filter replaceable cartridge

Muffler vertical

Cooling medium temperature control two thermostats.

CHASSIS Type standard Serial No 7060-1001

Tread width rear 112" to 128" front 65.6" to 89.5"

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 28.4"

Vertical distance above roadway 36.6"

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 range operator controlled power shifting

Advertised speeds mph first 1.7 second 2.1 third 3.4 fourth 3.8 fifth 4.2 sixth 4.7 seventh 4.7 eights 5.2 ninth 5.8 tenth 6.5 eleventh 7.1 twelfth 7.6 thirteenth 8.7 fourteenth 9.4 fifteenth 10.4 sixteenth 11.7 seventeenth 12.9 eighteenth 14.4 nineteenth 15.7 twentieth 19.4 reverse 3.2, 3.9, 7.1 and 8.7

Clutch multiple plate 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 144" left 144" (on concrete surface without brake) right 197" left 197"

Turning space diameter (on concrete surface with brake applied) right 293" left 293" (on concrete surface without brake) right 417" left 417"

Power take-off 1000 rpm at 2252 engine rpm and 1021 at 2300 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.

Third, fourth, fifth, seventh, tenth, twelfth, fourteenth, fifteenth, sixteenth, seventeenth, eighteenth, nineteenth and twentieth gears were not run as test procedure requires only six travel speeds.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 1167.

L. F. LARSEN

Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman

W. E. SPLINTER

D. E. LANE

Board of Tractor Test Engineers