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Test 1397: Allis-Chalmers 6060 Diesel Also Deutz-Allis 6060 Diesel 8-Speed

Nebraska Tractor Test Lab

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NEBRASKA TRACTOR TEST 1397—ALLIS CHALMERS 6060 DIESEL ALSO DEUTZ ALLIS 6060 DIESEL 8 SPEED

POWER TAKE-OFF PERFORMANCE

Power Hp (kW)	Crank shaft speed rpm	Fuel Consumption		Temperature °F (°C)				Barometer inch Hg (kPa)	
		gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Cooling medium	Air wet bulb	Air dry bulb		
MAXIMUM POWER AND FUEL CONSUMPTION									
Rated Engine Speed—Two Hours (PTO Speed—558 rpm)									
63.83 (47.60)	2300	4.035 (15.274)	0.443 (0.270)	15.82 (3.116)	183 (84.1)	65 (18.6)	75 (23.7)	28.823 (97.332)	
Standard Power take-off Speed (540 rpm)—One Hour									
64.90 (48.40)	2226	3.992 (15.111)	0.431 (0.262)	16.26 (3.203)	184 (84.3)	66 (18.9)	75 (23.9)	28.775 (97.169)	
VARYING POWER AND FUEL CONSUMPTION—Two Hours									
57.56 (42.92)	2440	3.915 (14.820)	0.477 (0.290)	14.70 (2.896)	180 (81.9)	66 (18.9)	75 (23.9)	..... .....
0.00 (0.00)	2542	1.421 (5.379)	..... .....	..... .....	170 (76.7)	67 (19.4)	76 (24.2)	..... .....
29.47 (21.98)	2499	2.674 (10.122)	0.636 (0.387)	11.02 (2.172)	176 (80.0)	67 (19.4)	76 (24.2)	..... .....
63.98 (47.71)	2300	4.035 (15.274)	0.442 (0.269)	15.86 (3.124)	184 (84.4)	67 (19.4)	75 (23.9)	..... .....
14.87 (11.09)	2521	2.011 (7.612)	0.948 (0.577)	7.39 (1.457)	171 (77.2)	67 (19.2)	75 (23.9)	..... .....
43.76 (32.63)	2472	3.312 (12.537)	0.531 (0.323)	13.21 (2.603)	179 (81.7)	66 (18.9)	75 (23.9)	..... .....
Av Av	34.94 (26.05)	2462	2.895 (10.959)	0.581 (0.353)	12.07 (2.377)	177 (80.3)	67 (19.2)	75 (24.0)	28.813 (97.298)

DRAWBAR PERFORMANCE

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption gal/hr (l/h) lb/hp.hr (kg/kW.h) Hp.hr/gal (kW.h/l)			Temp. °F (°C) Cool- ing med Air wet bulb Air dry bulb			Barom. inch Hg (kPa)
Maximum Available Power—Two Hours 5th (1-H) Gear											
50.87 (37.93)	3949 (17.57)	4.83 (7.77)	2298	6.28	3.833 (14.510)	0.528 (0.321)	13.27 (2.614)	185 (84.7)	60 (15.6)	81 (27.2)	28.935 (97.709)
75% of Pull at Maximum Power—Ten Hours 5th (1-H) Gear											
42.67 (31.82)	3041 (13.53)	5.26 (8.47)	2453	4.32	3.559 (13.471)	0.585 (0.356)	11.99 (2.362)	182 (83.4)	61 (16.1)	79 (26.1)	28.803 (97.263)
50% of Pull at Maximum Power—Two Hours 5th (1-H) Gear											
29.34 (21.88)	2031 (9.03)	5.42 (8.72)	2489	2.83	2.906 (11.001)	0.694 (0.422)	10.10 (1.989)	178 (81.1)	63 (17.2)	75 (23.9)	28.810 (97.287)
50% of Pull at Reduced Engine Speed—Two Hours 6th (2-H) Gear											
29.42 (21.93)	2031 (9.03)	5.43 (8.74)	1729	2.72	2.157 (8.166)	0.514 (0.313)	13.63 (2.686)	180 (81.9)	63 (17.2)	80 (26.7)	28.810 (97.287)
MAXIMUM POWER IN SELECTED GEARS											
34.39 (25.64)	6846 (30.45)	1.88 (3.03)	2468	14.94	2nd (2-L) Gear			178 (80.8)	61 (16.1)	71 (21.7)	28.800 (97.253)
47.57 (35.48)	6662 (29.63)	2.68 (4.31)	2299	12.99	3rd (3-L) Gear			181 (82.5)	60 (15.6)	67 (19.4)	28.770 (97.152)
50.23 (37.46)	5179 (23.04)	3.64 (5.85)	2300	8.63	4th (4-L) Gear			185 (84.7)	58 (14.4)	76 (24.4)	28.950 (97.760)
52.24 (38.96)	4054 (18.03)	4.83 (7.78)	2300	6.32	5th (1-H) Gear			185 (85.0)	58 (14.4)	75 (23.9)	28.960 (97.794)
51.83 (38.65)	2722 (12.11)	7.14 (11.49)	2300	3.88	6th (2-H) Gear			184 (84.4)	58 (14.4)	77 (25.0)	28.940 (97.726)
LUGGING ABILITY IN 5th (1-H) GEAR											
Crankshaft Speed rpm				2300	2072	1844	1611	1384	1150		
Pull—lbs (kN)				4054 (18.03)	5013 (22.30)	5241 (23.32)	5458 (24.28)	5467 (24.32)	5075 (22.57)		
Increase in Pull %				0	24	29	35	35	25		
Power—Hp (kW)				52.24 (38.96)	57.05 (42.55)	52.74 (39.33)	47.62 (35.51)	40.89 (30.49)	31.90 (23.79)		
Speed—Mph (km/h)				4.83 (7.78)	4.27 (6.87)	3.77 (6.07)	3.27 (5.27)	2.80 (4.51)	2.36 (3.79)		
Slip %				6.32	8.13	8.63	9.38	9.63	8.51		

Department of Agricultural Engineering

Dates of Test: June 9-22, 1981

Cab Sound Test: August 31, 1982

Manufacturer: ALLIS CHALMERS CORPORATION, P.O. Box 512, Milwaukee, Wisconsin 53201

FUEL, OIL AND TIME: Fuel No. 2 Diesel Cetane No. 46.3 (rating taken from oil company's inspection data) Specific gravity converted to 60°/60° (15°/15°) 0.8420 Fuel weight 7.011 lbs/gal (0.840 kg/l) Oil SAE 15W40 API service classification SE-CD To motor 2.498 gal (9.456 l) Drained from motor 2.297 gal (8.695 l) Transmission and final drive lubricant Allis Chalmers Power Fluid 821 Total time engine was operated 37.5 hours

ENGINE: Make Allis Chalmers Diesel Type four cylinder vertical with turbocharger Serial No. 33-09171 Crankshaft lengthwise Rated rpm 2300 Bore and stroke 3.876" × 4.250" (98.4 mm × 107.9 mm) Compression ratio 14.1 to 1 Displacement 200 cu in (3287 ml) Starting system 12 volt Lubrication pressure Air cleaner one paper element with centrifugal precleaner Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil Fuel filter one paper cartridge Muffler vertical Cooling medium temperature control one thermostat.

CHASSIS: Type standard Serial No. 6060 1336 Tread width rear 56.9" (1445 mm) to 88.9" (2258 mm) front 56" (1422 mm) to 79" (2006 mm) Wheel base 92.6" (2352 mm) Center of gravity (without operator or ballast, with minimum tread, with fuel tank filled and tractor serviced for operation) Horizontal distance forward from centerline of rear wheels 31.2" (792 mm) Vertical distance above roadway 34.8" (883 mm) Horizontal distance from center of rear wheel tread 0" (0 mm) to the right/left Hydraulic control system direct engine drive Transmission selective gear fixed ratio Advertised speeds mph (km/h) first 1.5 (2.4) second 2.1 (3.4) third 3.2 (5.1) fourth 4.1 (6.6) fifth 5.4 (8.6) sixth 7.7 (12.4) seventh 11.5 (18.5) eighth 14.9 (23.9) reverse 1.9 (3.0), 6.9 (11.1) Clutch dry single disc operated by foot pedal Brakes multiple wet disc hydraulically operated by two foot pedals which can be locked together Steering hydrostatic Turning radius (on concrete surface with brake applied) right 131.5" (3.34 m) left 135.0" (3.43 m) (on concrete surface without brake) right 146.0" (3.71 m) left 149.7" (3.80 m) Turning space diameter (on concrete surface with brake applied) right 278.0" (7.06 m) left 286.0" (7.26 m) (on concrete surface without brake) right 307.0" (7.80 m) left 314.5" (7.99 m) Power take-off 540 rpm at 2226 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

TRACTOR SOUND LEVEL		with cab dB(A)	without cab dB(A)
Maximum Available Power—Two Hours		79.0	92.0
75% of Pull at Maximum Power—Ten Hours		78.5	91.0
50% of Pull at Maximum Power—Two Hours		77.5	91.0
50% of Pull at Reduced Engine Speed—Two Hours		78.0	88.5
Bystander in 8th (4-H) gear		84.5	85.5

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	—No., size, ply & psi (kPa)	Two 15.5-38; 6; 18 (125)	Two 15.5-38; 6; 18 (125)
Ballast	—Liquid (each)	638 lb (289 kg)	None
	—Cast Iron (each)	550 lb (249 kg)	None
Front Tires	—No., size, ply & psi (kPa)	Two 7.50-16; 6; 36 (250)	Two 7.50-16; 6; 36 (250)
Ballast	—Liquid (each)	None	None
	—Cast Iron (each)	52 lb (24 kg)	None
Height of Drawbar		20.5 in (520 mm)	20.5 in (520 mm)
Static Weight with Operator—Rear		6700 lb (3039 kg)	4325 lb (1962 kg)
	—Front	2245 lb (1018 kg)	2140 lb (971 kg)
	—Total	8945 lb (4057 kg)	6465 lb (2933 kg)

procedure. Temperature at injection pump return was 136°F (57.6°C). Five gears were chosen between 15% slip and 10 mph (16.1 km/h).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 1397.

LOUIS I. LEVITICUS
Engineer-in-Charge

K. VON BARGEN
W. E. SPLINTER
L. L. BASHFORD
Board of Tractor Test Engineers



Allis Chalmers 6060 Diesel