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## Test 1355: Steiger Panther III PTA-325 and Panther IV CS-325 Diesel 10-Speed

Nebraska Tractor Test Lab

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# NEBRASKA TRACTOR TEST 1355 STEIGER PANTHER III PTA-325 DIESEL ALSO STEIGER PANTHER IV CS-325 DIESEL 10 SPEED

## DRAWBAR PERFORMANCE

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption			Temp. °F (°C)			Barom. inch Hg (kPa)
					gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Cool- ing med	Air wet bulb	Air dry bulb	
Maximum Available Power—Two Hours 6th (5 L) Gear											
263.70 (196.64)	14573 (64.82)	6.79 (10.92)	2099	3.46	18.497 (70.018)	0.495 (0.301)	14.26 (2.808)	196 (90.8)	70 (21.1)	88 (31.4)	28.835 (97.371)
75% of Pull at Maximum Power—Ten Hours 6th (5 L) Gear											
* 219.04 (163.34)	11315 (50.33)	7.26 (11.68)	2230	2.67	16.284 (61.643)	0.525 (0.319)	13.45 (2.650)	184 (84.2)	58 (14.3)	66 (18.8)	29.025 (98.013)
50% of Pull at Maximum Power—Two Hours 6th (5 L) Gear											
151.89 (113.26)	7536 (33.52)	7.56 (12.16)	2296	1.56	13.151 (49.783)	0.611 (0.372)	11.55 (2.275)	186 (85.3)	70 (20.8)	88 (30.8)	28.815 (97.304)
50% of Pull at Reduced Engine Speed—Two Hours 8th (3 H) Gear											
151.54 (113.00)	7555 (33.61)	7.52 (12.10)	1574	1.90	10.266 (38.862)	0.478 (0.291)	14.76 (2.908)	180 (82.2)	58 (14.4)	64 (17.5)	29.020 (97.996)

## MAXIMUM POWER IN SELECTED GEARS

149.29 (111.33)	31876 (141.79)	1.76 (2.83)	2277	14.91	1st (1L) Gear			182 (83.3)	64 (17.8)	65 (18.3)	28.820 (97.321)
251.17 (187.30)	30581 (136.03)	3.08 (4.96)	2099	12.19	2nd (2L) Gear			187 (86.1)	65 (18.3)	66 (18.9)	28.820 (97.321)
259.42 (193.45)	23734 (105.58)	4.10 (6.60)	2100	6.43	3rd (1H) Gear			187 (85.8)	58 (14.4)	61 (16.1)	28.980 (97.861)
266.90 (199.03)	24144 (107.40)	4.15 (6.67)	2100	6.58	4th (3L) Gear			187 (85.8)	58 (14.4)	61 (16.1)	28.960 (97.794)
274.88 (204.98)	19305 (85.87)	5.34 (8.59)	2100	4.81	5th (4L) Gear			186 (85.6)	58 (14.4)	61 (16.1)	28.930 (97.692)
272.55 (203.24)	15089 (67.12)	6.77 (10.90)	2101	3.62	6th (5L) Gear			186 (85.6)	58 (14.4)	60 (15.6)	28.880 (97.523)
273.56 (204.00)	13081 (58.19)	7.84 (12.62)	2102	3.05	7th (2H) Gear			186 (85.6)	58 (14.4)	62 (16.7)	29.010 (97.962)
269.98 (201.32)	10141 (45.11)	9.98 (16.07)	2101	2.39	8th (3H) Gear			187 (86.1)	59 (15.0)	64 (17.8)	29.030 (98.030)

## LUGGING ABILITY IN 6th (5 L) GEAR

Crankshaft Speed rpm	2101	1884	1680	At 1500 RPM the automatic transmission shifted down to 5th (4L) gear and the test was terminated
Pull—lbs (kN)	15089 (67.12)	17210 (76.55)	18426 (81.96)	
Increase in Pull %	0	14	22	
Power—Hp (kW)	272.55 (203.24)	276.69 (206.33)	263.03 (196.14)	
Speed—Mph (km/h)	6.77 (10.90)	6.03 (9.70)	5.35 (8.61)	
Slip %	3.62	4.26	4.73	

## TRACTOR SOUND LEVEL WITH CAB

	dB(A)
Maximum Available Power—Two Hours	75.5
75% of Pull at Maximum Power—Ten Hours	75.5
50% of Pull at Maximum Power—Two Hours	75.5
50% of Pull at Reduced Engine Speed—Two Hours	75.5
Bystander in 10th (5H) gear	100.0

<b>Rear Tires</b>	—No., size, ply & psi (kPa)	Four 23.1-34; 8; inner 14 (95) outer 12 (85)	Four 23.1-34; 8; inner 14 (95) outer 12 (85)
<b>Ballast</b>	—Liquid (each) —Cast Iron (each)	None None	None None
<b>Front Tires</b>	—No., size, ply & psi (kPa)	Four 23.1-34; 8; inner 14 (95) outer 12 (85)	Four 23.1-34; 8; inner 14 (95) outer 12 (85)
<b>Ballast</b>	—Liquid (each inner) —Cast Iron (each)	1370 lb (712 kg) None	None None
<b>Height of Drawbar</b>		14.5 in (370 mm)	14.5 in (370 mm)
<b>Static Weight with Operator—Rear</b>		12960 lb (5879 kg)	12960 lb (5879 kg)
<b>—Front</b>		21000 lb (9525 kg)	17860 lb (8101 kg)
<b>—Total</b>		33960 lb (15404 kg)	30820 lb (13980 kg)

Department of Agricultural Engineering

Dates of Test: June 16-23, 1980

**Manufacturer:** STEIGER TRACTOR, INC.,  
3101 First Avenue North, Fargo, North Dakota  
58102

**FUEL, OIL AND TIME:** Fuel No. 2 Diesel  
Cetane No. 47.9 (rating taken from oil company's  
inspection data) **Specific gravity converted to  
60°/60° (15°/15°)** 0.8482 **Fuel weight** 7.062 lbs/gal  
(0.846 kg/l) **Oil SAE 30 API service classifica-  
tion SB/SE-CA/CD To motor** 7.554 gal (28.592 l)  
**Drained from motor** 6.193 gal (23.441 l) **Trans-  
mission lubricant** hydraulic transmission fluid  
type C-3 (Dexron) **Dropbox lubricant** 303 or  
equivalent **Hydraulic oil** SAE 10 hydraulic fluid,  
303 or equivalent **Final drive lubricant** SAE  
80W90 **Total time engine was operated** 35.5  
hours.

**ENGINE:** Make Caterpillar Diesel **Type** six  
cylinder vertical with turbocharger **Serial No.**  
90U11096 **Crankshaft** lengthwise **Rated rpm**  
2100 **Bore and stroke** 5.4" × 6.5" (137 mm × 165  
mm) **Compression ratio** 14.5 to 1 **Displacement**  
893 cu in (14634 ml) **Starting system** 12 volt **Lub-  
rication** pressure **Air cleaner** two paper elements  
with aspirator **Oil filter** one full flow paper car-  
tridge **Oil cooler** engine coolant heat exchangers  
for crankcase and transmission oil, radiators for  
hydraulic and dropbox oil **Fuel filter** one paper  
cartridge and prestrainer **Muffler** none **Cooling  
medium temperature control** one thermostat.

**CHASSIS:** **Type** four wheel drive with duals  
**Serial No.** 150-00076 **Tread width** rear 79" (2007  
mm) to 136.4" (3464 mm) front 79.0" (2007 mm) to  
136.4" (3464 mm) **Wheel base** 132.5" (3366 mm)  
**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 76.8"  
(1950 mm) Vertical distance above roadway 45.5"  
(1156 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 with automatic power  
shift and torque converter lockup **Advertised  
speeds mph (km/h)** first 1.8 (2.9) second 3.4 (5.4)  
third 4.2 (6.7) fourth 4.2 (6.8) fifth 5.4 (8.6) sixth  
6.7 (10.8) seventh 7.7 (12.4) eighth 9.8 (15.7) ninth  
12.3 (19.8) tenth 15.4 (24.9) reverse 2.3 (3.6), 5.2  
(8.4) **Clutch** none **Brakes** multiple dry disc hydra-  
ulically operated by foot pedal or mechanically  
by hand lever **Steering** hydrostatic and articu-  
lated **Turning radius** (on concrete surface with-  
out brake) right 257" (6.53 m) left 261.5" (6.64  
m) **Turning space diameter** (on concrete surface  
without brake) right 537" (13.64 m) left 546" (13.87  
m) **Power take-off** none.

**REPAIRS and ADJUSTMENTS:** No repairs or adjustments.

**REMARKS:** All test results were determined from observed data obtained in accordance with SAE and ASAE test codes or official Nebraska test procedure. Temperature at injection pump was 163°F (72.8°C) Eight gears were chosen between 15% slip and 10 mph (16.1 km/h). During preliminary drawbar tests an air conditioner line developed a leak and freon was lost.

**Report reissued.** Supplemental sales permit for Steiger Panther IV CS-325, January 18, 1985.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 1355.

LOUIS I. LEVITICUS  
Engineer-in-Charge

K. VON BARGEN  
L. L. BASHFORD  
T. L. THOMPSON  
Board of Tractor Test Engineers



**Steiger PTA-325 Diesel**