January 1995

Test 1705: Ford 7740 Pulsecommand Diesel 16-Speed

Nebraska Tractor Test Lab
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NEBRASKA OECD TRACTOR TEST 1705—SUMMARY 193
FORD 7740 PULSECOMMAND DIESEL
16 SPEED

Location of Test: Tractor Testing Laboratory, University of Nebraska, Lincoln, Nebraska 68583-0832

Dates of Test: October 9-23, 1995

Manufacturer: New Holland N.A., 500 Diller Avenue, New Holland, PA 17557

FUEL OIL and TIME: Fuel No. 2 Diesel **Cetane No.** 50.6 **Specific gravity converted to 60°/60° F *(15°/15°C)*** 0.8435 **Fuel weight** 7.023 lbs/gal *(0.842 kg/l)* **Oil SAE** 15W-40 **API service classification** CG-4,SH **To motor** 2.216 gal *(8.390 l)* **Drained from motor** 1.954 gal *(7.395 l)* **Transmission and final drive lubricant** Ford M2C 134-D fluid **Front axle lubricant** Ford M2C 134-D fluid **Total time engine was operated** 24.5 hours.

ENGINE: Make Ford New Holland Diesel **Type** four cylinder vertical with turbocharger **Serial No.** *PA540981* **Crankshaft** lengthwise **Rated rpm** 2100 **Bore and stroke** (as specified) 4.4" × 5.0" *(111.8 mm × 127.0 mm)* **Compression ratio** 17.5 to 1 **Displacement** 304 cu in *(4987 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements and aspirator **Oil filter** one full flow cartridge **Oil cooler** radiator for crankcase oil, engine coolant heat exchanger for transmission, hydraulic and rear axle fluid **Fuel filter** one paper element and sediment bowl **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** one thermostat and variable speed fan

ENGINE OPERATING PARAMETERS: Fuel rate: 35.3-38.1 lb/h *(16.0-17.3 kg/h)* **High idle:** 2195-2275 rpm **Turbo boost** nominal 13.8 psi *(95 kPa)* as tested - 14.8 *(102 kPa)*

CHASSIS: Type front wheel assist **Serial No.** *BE04409* **Tread width** rear 60.0" *(1524 mm)* to 83.9" *(2132 mm)* front 54.7" *(1389 mm)* to 83.4" *(2132 mm)* **Wheel base** 93.0" *(2362 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (4) range operator controlled powershift **Nominal travel speeds mph *(km/h)*** first 1.40 *(2.26)* second 1.72 *(2.76)* third 2.10 *(3.38)* fourth 2.57 *(4.13)* fifth 3.32 *(5.34)* sixth 4.05 *(6.52)* seventh 4.36 *(7.01)* eighth 4.96 *(7.98)* ninth 5.32 *(8.56)* tenth 6.05 *(9.74)* eleventh 6.51 *(10.48)* twelfth 7.95 *(12.80)* thirteenth 10.28 *(16.55)* fourteenth 12.56 *(20.22)* fifteenth 15.37 *(24.74)* sixteenth 18.78 *(30.22)*, reverse 1.39 *(2.24)*, 1.70 *(2.74)*, 2.08 *(3.35)*, 2.54 *(4.09)*, 3.29 *(5.29)*, 4.01 *(6.46)*, 4.32 *(6.95)*, 4.91 *(7.90)*, 5.28 *(8.49)*, 6.00 *(9.66)*, 6.45 *(10.38)*, 7.88 *(12.68)*, 10.19 *(16.40)*, 12.45 *(20.04)*, 15.23 *(24.51)*, 18.61 *(29.95)* **Clutch** single dry disc operated by foot pedal **Brakes** wet multiple disc operated by two foot pedals which can be locked

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—1024 rpm)					
86.96 *(64.84)*	2099	5.42 *(20.50)*	0.437 *(0.266)*	16.06 *(3.16)*	
Standard Power Take-off speed (1000 rpm)					
86.41 *(64.43)*	2050	5.30 *(20.06)*	0.431 *(0.262)*	16.31 *(3.21)*	
VARYING POWER AND FUEL CONSUMPTION					
86.96 *(64.84)*	2099	5.42 *(20.50)*	0.437 *(0.266)*	16.06 *(3.16)*	Air temperature
75.95 *(56.64)*	2151	5.00 *(18.92)*	0.462 *(0.281)*	15.20 *(2.99)*	78°F *(26°C)*
56.77 *(42.33)*	2166	4.14 *(15.68)*	0.513 *(0.312)*	13.70 *(2.70)*	Relative humidity
38.36 *(28.60)*	2173	3.33 *(12.61)*	0.610 *(0.371)*	11.51 *(2.27)*	71%
19.22 *(14.34)*	2201	2.52 *(9.54)*	0.921 *(0.560)*	7.63 *(1.50)*	Barometer
0.41 *(0.31)*	2203	1.67 *(6.31)*	28.575 *(17.382)*	0.25 *(0.05)*	28.98" Hg *(98.14 kPa)*

Maximum Torque 274 lb.-ft. *(372 Nm)* at 1401 rpm
Maximum Torque Rise 26.1%
Torque rise at 1701 engine rpm 17%

DRAWBAR PERFORMANCE
(UNBALLASTED—FRONT DRIVE ENGAGED)
FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Fuel Consumption Hp.hr/gal *(kW.h/l)*	Temp.°F (°C) cool-ing med	Temp.°F (°C) Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—6th (6L) Gear									
74.15 *(55.30)*	7019 *(31.22)*	3.96 *(6.38)*	2102	5.04	0.509 *(0.310)*	13.79 *(2.72)*	198 *(92)*	72 *(22)*	28.85 *(97.70)*
75% of Pull at Maximum Power—6th (6L) Gear									
57.64 *(42.98)*	5250 *(23.35)*	4.12 *(6.63)*	2155	3.77	0.556 *(0.338)*	12.62 *(2.49)*	197 *(91)*	79 *(26)*	28.85 *(97.70)*
50% of Pull at Maximum Power—6th (6L) Gear									
39.15 *(29.19)*	3499 *(15.56)*	4.20 *(6.75)*	2170	2.63	0.664 *(0.404)*	10.57 *(2.08)*	192 *(89)*	79 *(26)*	28.84 *(97.66)*
75% of Pull at Reduced Engine Speed—10th (8L) Gear									
57.65 *(42.99)*	5250 *(23.35)*	4.12 *(6.63)*	1442	3.61	0.477 *(0.290)*	14.72 *(2.90)*	201 *(94)*	79 *(26)*	28.85 *(97.70)*
50% of Pull at Reduced Engine Speed—10th (8L) Gear									
39.20 *(29.23)*	3500 *(15.57)*	4.20 *(6.67)*	1453	2.47	0.508 *(0.309)*	13.82 *(2.72)*	190 *(88)*	79 *(26)*	28.84 *(97.66)*

DRAWBAR PERFORMANCE
(UNBALLASTED—FRONT DRIVE ENGAGED)
MAXIMUM POWER IN SELECTED GEARS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Fuel Consumption Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool-ing med	Temp.°F (°C) Air dry bulb	Barom. inch Hg (kPa)
				4th (4L) Gear					
63.21	10210	2.32	2132	13.66	0.574	12.24	193	64	28.82
(47.13)	(45.41)	(3.74)			(0.349)	(2.41)	(89)	(18)	(97.60)
				5th (5L) Gear					
72.43	8520	3.19	2100	6.51	0.521	13.48	197	69	28.84
(54.01)	(37.90)	(5.13)			(0.317)	(2.66)	(92)	(21)	(97.66)
				6th (6L) Gear					
74.15	7019	3.96	2102	5.04	0.509	13.79	198	72	28.85
(55.30)	(31.22)	(6.38)			(0.310)	(2.72)	(92)	(22)	(97.70)
				7th (1H) Gear					
73.43	6404	4.30	2097	4.49	0.514	13.66	199	74	28.85
(54.75)	(28.48)	(6.92)			(0.313)	(2.69)	(93)	(23)	(97.70)
				8th (7L) Gear					
70.65	5394	4.91	2103	3.77	0.534	13.14	200	75	28.85
(52.68)	(23.99)	(7.90)			(0.325)	(2.59)	(93)	(24)	(97.70)
				9th (2H) Gear					
73.10	5160	5.31	2101	3.69	0.517	13.58	199	76	28.85
(54.51)	(22.95)	(8.55)			(0.315)	(2.67)	(93)	(24)	(97.70)
				10th (8L) Gear					
70.79	4399	6.04	2100	3.12	0.533	13.17	199	77	28.84
(52.79)	(19.57)	(9.71)			(0.324)	(2.59)	(93)	(25)	(97.66)
				11th (3H) Gear					
70.80	4053	6.55	2101	2.88	0.535	13.14	198	78	28.84
(52.79)	(18.03)	(10.54)			(0.325)	(2.59)	(92)	(26)	(97.66)
				12th (4H) Gear					
69.39	3235	8.05	2100	2.38	0.545	12.89	199	79	28.84
(51.75)	(14.39)	(12.95)			(0.331)	(2.54)	(93)	(26)	(97.66)

DRAWBAR PERFORMANCE
(BALLASTED—FRONT DRIVE ENGAGED)
MAXIMUM POWER IN SELECTED GEARS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Fuel Consumption Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool-ing med	Temp.°F (°C) Air dry bulb	Barom. inch Hg (kPa)
				3rd (3L) Gear					
56.24	11155	1.89	2146	14.19	0.604	11.63	193	56	28.95
(41.94)	(49.62)	(3.04)			(0.367)	(2.29)	(89)	(13)	(98.04)
				4th (4L) Gear					
69.02	11016	2.35	2108	11.22	0.548	12.82	194	56	28.94
(51.47)	(49.00)	(3.78)			(0.333)	(2.53)	(90)	(13)	(98.00)
				5th (5L) Gear					
74.40	8689	3.21	2097	5.27	0.506	13.88	195	56	28.96
(55.48)	(38.65)	(5.17)			(0.308)	(2.73)	(90)	(13)	(98.07)
				6th (6L) Gear					
75.85	7182	3.96	2093	4.10	0.497	14.14	197	56	28.98
(56.56)	(31.95)	(6.37)			(0.302)	(2.78)	(91)	(13)	(98.14)
				7th (1H) Gear					
75.16	6518	4.32	2104	3.78	0.504	13.94	196	55	29.00
(56.05)	(28.99)	(6.96)			(0.306)	(2.75)	(91)	(13)	(98.21)
				8th (7L) Gear					
71.79	5484	4.91	2101	3.38	0.528	13.30	196	55	29.00
(53.54)	(24.39)	(7.90)			(0.321)	(2.62)	(91)	(13)	(98.21)
				9th (2H) Gear					
74.66	5290	5.29	2094	3.13	0.506	13.89	197	55	29.00
(55.68)	(23.53)	(8.52)			(0.308)	(2.74)	(91)	(13)	(98.21)
				10th (8L) Gear					
71.91	4468	6.04	2103	2.73	0.527	13.33	196	54	29.01
(53.62)	(19.87)	(9.71)			(0.321)	(2.63)	(91)	(12)	(98.24)
				11th (3H) Gear					
71.87	4113	6.55	2106	2.48	0.527	13.32	196	54	29.01
(53.59)	(18.29)	(10.55)			(0.321)	(2.62)	(91)	(12)	(98.24)
				12th (4H) Gear					
69.90	3262	8.04	2104	1.99	0.543	12.93	195	54	29.01
(52.13)	(14.51)	(12.93)			(0.330)	(2.55)	(91)	(12)	(98.24)

together **Steering** hydrostatic **Power take-off** 540 rpm at 1890 engine rpm and 1000 rpm at 2049 engine rpm **Unladen tractor mass** 9928 lb *(4504 kg)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. For the maximum power tests, the fuel temperature at the injection pump inlet was maintained at 149° F *(65°C)*. The performance figures on this summary were taken from a test conducted under the OECD Code II Restricted Standard Test Code procedure.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **1705**, Summary 193, December 20, 1995.

LOUIS I. LEVITICUS
Engineer-in-Charge

L.L. BASHFORD
K. VON BARGEN
M.F. KOCHER
Board of Tractor Test Engineers

DRAWBAR PERFORMANCE
(BALLASTED—FRONT DRIVE DISENGAGED)
FUEL CONSUMPTION CHARACTERISTICS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Temp.°F (°C) cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—6th (6L) Gear									
76.34 *(56.92)*	7358 *(32.75)*	3.89 *(6.26)*	2099	5.14	0.496 *(0.302)*	14.15 *(2.79)*	195 *(90)*	56 *(13)*	28.99 *(98.17)*
75% of Pull at Maximum Power—6th (6L) Gear									
59.86 *(44.64)*	5516 *(24.53)*	4.07 *(6.55)*	2158	3.57	0.533 *(0.324)*	13.17 *(2.59)*	194 *(90)*	56 *(13)*	29.02 *(98.27)*
50% of Pull at Maximum Power—6th (6L) Gear									
40.70 *(30.35)*	3675 *(16.35)*	4.15 *(6.68)*	2179	2.45	0.632 *(0.384)*	11.11 *(2.19)*	192 *(89)*	56 *(13)*	29.02 *(98.27)*
75% of Pull at Reduced Engine Speed—10th (8L) Gear									
59.83 *(44.62)*	5512 *(24.52)*	4.07 *(6.55)*	1441	3.57	0.464 *(0.282)*	15.14 *(2.98)*	194 *(90)*	56 *(13)*	29.02 *(98.27)*
50% of Pull at Reduced Engine Speed—10th (8L) Gear									
40.70 *(30.35)*	3670 *(16.32)*	4.16 *(6.69)*	1460	2.53	0.490 *(0.298)*	14.32 *(2.82)*	189 *(87)*	56 *(13)*	29.02 *(98.27)*
MAXIMUM POWER IN SELECTED GEARS									
4th (4L) Gear									
55.84 *(41.64)*	9122 *(40.57)*	2.30 *(3.69)*	2149	14.19	0.595 *(0.362)*	11.81 *(2.33)*	193 *(89)*	56 *(13)*	28.92 *(97.93)*
5th (5L) Gear									
70.75 *(52.76)*	8796 *(39.13)*	3.02 *(4.85)*	2100	10.10	0.532 *(0.324)*	13.20 *(2.60)*	195 *(90)*	56 *(13)*	28.97 *(98.10)*
6th (6L) Gear									
76.34 *(56.92)*	7358 *(32.73)*	3.89 *(6.26)*	2099	5.14	0.496 *(0.302)*	14.15 *(2.79)*	195 *(90)*	56 *(13)*	28.99 *(98.17)*
7th (1H) Gear									
75.72 *(56.46)*	6693 *(29.77)*	4.24 *(6.83)*	2098	4.52	0.499 *(0.304)*	14.07 *(2.77)*	195 *(91)*	55 *(13)*	29.00 *(98.21)*
8th (7L) Gear									
73.16 *(54.55)*	5656 *(25.16)*	4.85 *(7.81)*	2104	3.65	0.519 *(0.315)*	13.54 *(2.67)*	195 *(91)*	55 *(13)*	29.00 *(98.21)*
9th (2H) Gear									
75.88 *(56.58)*	5426 *(24.14)*	5.24 *(8.44)*	2102	3.33	0.499 *(0.304)*	14.07 *(2.77)*	196 *(91)*	54 *(12)*	29.01 *(98.21)*
10th (8L) Gear									
73.22 *(54.60)*	4607 *(20.49)*	5.96 *(9.59)*	2103	3.01	0.516 *(0.314)*	13.62 *(2.68)*	195 *(91)*	54 *(12)*	29.00 *(98.21)*
11th (3H) Gear									
73.15 *(54.55)*	4244 *(18.88)*	6.46 *(10.40)*	2103	2.77	0.516 *(0.314)*	13.61 *(2.68)*	197 *(91)*	54 *(12)*	29.01 *(98.24)*
12th (4H) Gear									
71.53 *(53.34)*	3379 *(15.03)*	7.94 *(12.78)*	2103	2.28	0.530 *(0.323)*	13.24 *(2.61)*	195 *(91)*	55 *(13)*	29.01 *(98.24)*

TRACTOR SOUND LEVEL WITH CAB	**Front Wheel Drive Disengaged dB(A)**	**Engaged dB(A)**
Maximum sound level	77.0	78.0
Transport sound level in 16th (8H) Gear	77.0	—
Bystander		—

TIRES, BALLAST AND WEIGHT		**With Ballast**	**Tested Without Ballast**
Rear Tires	—No., size, ply & psi *(kPa)*	Two 18.4R38; **; 12 *(85)*	Two 18.4R38; **; 12 *(85)*
Ballast	—Liquid (total)	428 lb *(194 kg)*	None
	—Cast Iron (total)	720 lb *(327 kg)*	None
Front Tires	—No., size, ply & psi *(kPa)*	Two 14.9-28; 10; 12 *(85)*	Two 14.9-28; 10; 12 *(85)*
Ballast	—Liquid (total)	None	None
	—Cast Iron (total)	16 lb *(7 kg)*	None
Height of Drawbar		19.5 in *(495 mm)*	22.0 in *(560 mm)*
Static Weight with Operator	—Rear	7308 lb *(3315 kg)*	6160 lb *(2794 kg)*
	—Front	3950 lb *(1791 kg)*	3934 lb *(1784 kg)*
	—Total	11258 lb *(5106 kg)*	10094 lb *(4578 kg)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: none

Maximum Force Exerted Through Whole Range:	5463 lbs	*(24.3 kN)* with (1) 45 mm lift cylinder
	7263 lbs	*(32.3 kN)* with (2) 45 mm lift cylinders
	5940 lbs	*(26.4 kN)* with (1) 50 mm lift cylinder
	8172 lbs	*(36.4 kN)* with (2) 50 mm lift cylinders
i) Opening pressure of relief valve:	NA	
Sustained pressure with pump stalled:	2760 psi	*(190 bar)*
ii) Pump delivery rate at minimum pressure and rated engine speed:	20.0 GPM	*(75.7 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	16.1 GPM	*(60.9 l/min)*
Delivery pressure:	2500 psi	*(172 bar)*
Power:	23.5 HP	*(17.5 kW)*

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed Maximum Pressure psi. *(bar)*	2760 *(190)*
Location	remote outlet
Hydraulic oil temperature °F *(°C)*	149 *(65)*
Location	rear axle sump
Category	II
Quick attach	none

As per current SAE test procedures

with (1) 45 mm lift assist cylinder

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	9072	8145	7650	7200	6395
Lift force on frame *(kN)*	*(40.4)*	*(36.2)*	*(34.0)*	*(32.0)*	*(28.4)*

with (2) 45 mm lift assist cylinders

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	11916	10782	10031	9063	8415
Lift force on frame *(kN)*	*(53.0)*	*(48.0)*	*(44.6)*	*(40.3)*	*(37.4)*

As per current ASAE test procedures

with (1) 45 mm lift assist cylinder

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	9897	8885	8345	7927	7040
Lift force on frame *(kN)*	*(44.0)*	*(39.5)*	*(37.1)*	*(35.3)*	*(31.3)*

with (2) 45 mm lift assist cylinders

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	12999	11762	10942	9887	9264
Lift force on frame *(kN)*	*(57.8)*	*(52.3)*	*(48.7)*	*(44.0)*	*(41.2)*

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed Maximum Pressure psi. *(bar)*	2760 *(190)*
Location	remote outlet
Hydraulic oil temperature °F *(°C)*	149 *(65)*
Location	rear axle sump
Category	II
Quick attach	none

As per current SAE test procedures

(with (1) 50 mm lift assist cylinder)

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	9540	8676	8087	7353	6786
Lift force on frame *(kN)*	*(42.4)*	*(38.6)*	*(36.0)*	*(32.7)*	*(30.0)*

(with (2) 50 mm lift assist cylinders)

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	13536	12042	11209	10238	9369
Lift force on frame *(kN)*	*(60.2)*	*(53.6)*	*(49.9)*	*(45.5)*	*(41.7)*

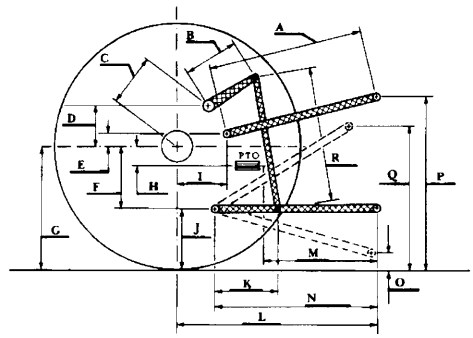
As per current ASAE test procedures

(with (1) 50 mm lift assist cylinder)

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	10600	9640	8985	8246	7682
Lift force on frame *(kN)*	*(47.2)*	*(42.9)*	*(40.0)*	*(36.7)*	*(34.2)*

(with (2) 50 mm lift assist cylinders)

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(381)*	22.0 *(559)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	15181	13505	12571	11481	10507
Lift force on frame *(kN)*	*(67.5)*	*(60.1)*	*(55.9)*	*(51.1)*	*(46.7)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	27.0	*686*
B	10.0	*254*
C	14.0	*356*
D	13.4	*340*
E	8.1	*206*
F	9.0	*228*
G	32.3	*820*
H	1.3	*330*
I	12.8	*325*
J	23.3	*592*
K	20.5	*521*
L	40.0	*1016*
M	22.0	*559*
N	36.0	*914*
O	8.0	*203*
P	47.3	*1201*
Q	33.2	*843*
R	34.0	*864*

FORD 7740 PULSECOMMAND DIESEL

Agricultural Research Division
Institute of Agriculture and Natural Resources
University of Nebraska–Lincoln
Darrell Nelson, Dean and Director