

SUMMARY OF OECD TEST 2570-NEBRASKA SUMMARY 779

TYM T603 DIESEL

24 SPEED

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—583 rpm)					
46.0 (34.3)	2600	3.51 (13.30)	0.533 (0.324)	13.10 (2.58)	
Standard Power Take-off Speed(540 rpm)					
47.1 (35.1)	2408	3.39 (12.84)	0.503 (0.306)	13.88 (2.73)	
Maximum Power (1 hour)					
47.1 (35.1)	2408	3.39 (12.84)	0.503 (0.306)	13.88 (2.73)	

VARYING POWER AND FUEL CONSUMPTION

46.0 (34.3)	2600	3.51 (13.30)	0.533 (0.324)	13.10 (2.58)	Air temperature
40.9 (30.5)	2726	3.24 (12.28)	0.554 (0.337)	12.61 (2.48)	77°F (25°C)
30.8 (23.0)	2747	2.63 (9.97)	0.595 (0.362)	11.73 (2.31)	Relative humidity
20.7 (15.4)	2767	2.13 (8.07)	0.720 (0.438)	9.70 (1.91)	50%
10.6 (7.9)	2801	1.71 (6.47)	1.126 (0.685)	6.19 (1.22)	Barometer
--	2839	1.27 (4.80)	--	--	30.1" Hg (101.9 kPa)

Maximum torque - 118 lb.-ft. (160 Nm) at 1700 rpm

Maximum torque rise - 27.0%

Torque rise at 2100 engine rpm - 19%

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 lb/hp.hr (kg/kW.h)	Consumption Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power—20th(M-4) Gear									
37.2 (27.7)	2425 (10.79)	5.75 (9.25)	2601	7.5	0.659 (0.401)	10.57 (2.08)	189 (87)	81 (27)	30.1 (101.9)
75% of Pull at Maximum Power—20th(M-4) Gear									
30.5 (22.7)	1815 (8.07)	6.31 (10.15)	2734	4.9	0.679 (0.413)	10.26 (2.02)	189 (87)	79 (26)	30.1 (101.9)
50% of Pull at Maximum Power—20th(M-4) Gear									
21.0 (15.7)	1215 (5.40)	6.49 (10.45)	2760	3.1	0.768 (0.467)	9.09 (1.79)	187 (86)	79 (26)	30.1 (101.9)
75% of Pull at Reduced Engine Speed—21st(H-1) Gear									
30.4 (22.7)	1815 (8.06)	6.28 (10.11)	2503	4.6	0.607 (0.369)	11.51 (2.27)	189 (87)	81 (27)	30.0 (101.7)
50% of Pull at Reduced Engine Speed—21st(H-1) Gear									
20.9 (15.6)	1210 (5.38)	6.47 (10.41)	2532	2.9	0.687 (0.418)	10.15 (2.00)	187 (86)	79 (26)	30.1 (101.9)

Location of tests: Foundation of Agricultural Tech. Commercialization and Transfer 211-2 Seodun-dong, Gwonseon-gu Suwon-si Gyeonggi, Republic of Korea

Dates of tests: January - May, 2010

Manufacturer: Tong Yang Moolsan Co. Ltd 604-9, Namsan-dong, Changwon-si, Gyeongnam Republic of Korea

FUEL and OIL: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.838 Fuel weight 6.98 lbs/gal (0.836 kg/l) Oil SAE 10W30 API service classification CH-4 Transmission and hydraulic lubricant TYM THF 500 fluid Front axle lubricant TYM THF 500 fluid

ENGINE: Make Perkins Diesel Type four cylinder vertical with turbocharger Serial No. 800121T Crankshaft lengthwise Rated engine speed 2600 Bore and stroke 3.307" x 3.937" (84.0 mm x 100.0 mm) Compression ratio 23.5 to 1 Displacement 135 cu in (2216 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil Fuel filter one paper element Muffler underhood Exhaust horizontal-forward Cooling medium temperature control thermostat

CHASSIS: Type front wheel assist Serial No. 60STC1200446 Tread width rear 53.4" (1348 mm) to 65.1" (1654 mm) front 57.5" (1460 mm) to 67.8" (1722 mm) Wheelbase 82.8" (2103 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio Nominal travel speeds mph (km/h) first 0.19 (0.31) second 0.30 (0.48) third 0.46 (0.74) fourth 0.58 (0.93) fifth 0.61 (0.98) sixth 0.63 (1.01) seventh 0.96 (1.55) eighth 1.00 (1.61) ninth 1.48 (2.38) tenth 1.53 (2.47) eleventh 1.84 (2.96) twelfth 1.91 (3.07) thirteenth 1.99 (3.20) fourteenth 2.01 (3.24) fifteenth 3.15 (5.07) sixteenth 3.19 (5.13) seventeenth 4.85 (7.80) eighteenth 4.91 (7.90) nineteenth 6.03 (9.70) twentieth 6.10 (9.82) twenty-first 6.61 (10.63) twenty-second 10.46 (16.84) twenty-third 16.09 (25.90) twenty-fourth 20.01 (32.21) reverse 0.19 (0.31), 0.31 (0.50), 0.47 (0.76), 0.59 (0.95), 0.62 (1.00), 0.65 (1.04), 0.98 (1.58), 1.03 (1.65), 1.52 (2.44), 1.57 (2.53), 1.88 (3.03), 1.96 (3.15), 2.04 (3.28), 2.06 (3.32), 3.23 (5.19), 3.27 (5.26), 4.96 (7.99), 5.03 (8.09), 6.18 (9.94), 6.25 (10.06), 6.77 (10.90), 10.73 (17.26), 16.50 (26.55), 20.51 (33.01) Clutch single dry disc operated by foot pedal Brakes multiple wet disc operated by two foot pedals that can be locked together Steering hydrostatic Power take-off 540 rpm at 2408 engine rpm or 1000 rpm at 2529 engine rpm Unladen tractor mass 4885 lb (2216 kg)

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)	Consumption Hp.hr/gal (kW.h/l)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
16th(M-2)Gear									
26.0 (19.4)	3360 (14.94)	2.90 (4.68)	2742	15.1	0.750 (0.456)	9.30 (1.83)	189 (87)	82 (28)	30.1 (102.0)
18th(M-3)Gear									
35.9 (26.8)	3305 (14.71)	4.07 (6.55)	2430	13.7	0.658 (0.400)	10.61 (2.09)	190 (88)	82 (28)	30.1 (102.0)
20th(M-4)Gear									
39.0 (29.1)	2835 (12.60)	5.16 (8.31)	2409	10.4	0.603 (0.367)	11.57 (2.28)	192 (89)	82 (28)	30.1 (102.0)
21st(H-1)Gear									
38.8 (28.9)	2580 (11.47)	5.64 (9.09)	2408	9.7	0.607 (0.369)	11.51 (2.27)	194 (90)	81 (27)	30.1 (102.0)
22nd(H-2)Gear									
38.1 (28.4)	1510 (6.71)	9.46 (15.22)	2407	4.9	0.619 (0.376)	11.28 (2.22)	192 (89)	81 (27)	30.1 (102.0)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's claims of 10.5 GPM (39.6 lpm) hydraulic flow at the remote outlets, 3 point lift capacity of 4270 lbs (1937 kg) at link ends nor 2528 lbs (1147 kg) at 24" behind link ends. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2570**, Nebraska Summary 779, July 7, 2011.

Roger M. Hoy
 Director

M.F. Kocher
 D.R. Keshwani
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 Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Disengaged dB(A)	Engaged dB(A)
At no load in 17th (H-3-On) gear	82.0	82.0
Bystander	--	--

TIRES AND WEIGHT

Rear tires - No., size, ply & psi(kPa)
Front tires - No., size, ply & psi(kPa)
Height of Drawbar
Static Weight with operator- Rear
 - Front
 - Total

Tested without ballast

Two 14.9-28; 8; 17(120)
 Two 9.5-20; 6; 17(120)
 15.2 in (385 mm)
 2785 lb (1264 kg)
 2265 lb (1027 kg)
 5050 lb (2291 kg)

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 2175 lbs (9.67 kN) (at 24" behind hitch points)

3410 lbs (15.17 kN) (at hitch points)

i) Sustained pressure of the open relief valve: 2350 psi (162 bar)

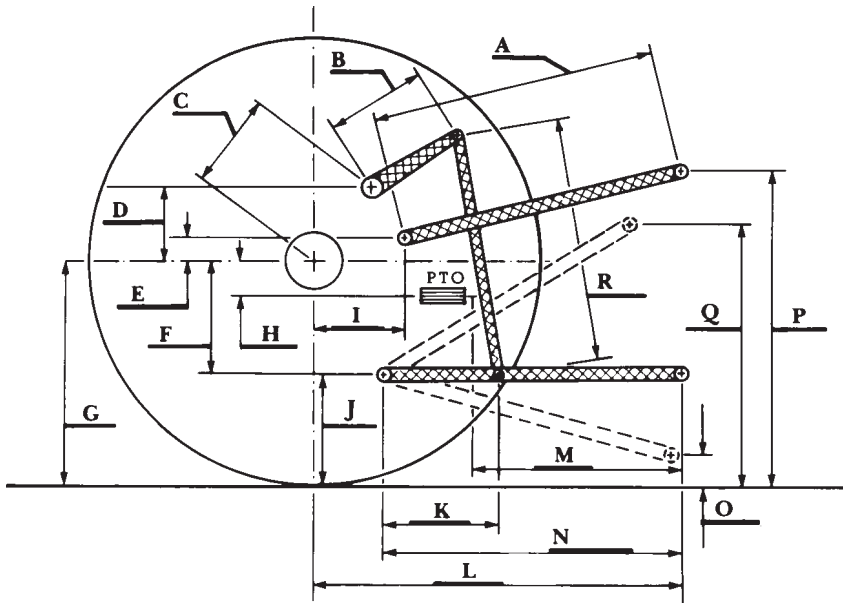
ii) Pump delivery rate at minimum pressure: 9.3 GPM (35.1 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 9.1 GPM (34.5 l/min)

Delivery pressure: 2030 psi (140 bar)

Power: 10.8 HP (8.1 kW)



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	24.0	610
B	10.2	260
C	13.8	351
D	9.7	247
E	12.8	326
F	5.3	135
G	25.2	640
H	4.2	106
I	13.4	341
J	19.9	505
K	13.8	350
L	34.8	883
M	13.7	349
N	28.1	715
O	7.1	180
P	43.9	1115
Q	34.0	863
R	19.9	505