

### ENGINE

Perkins turbocharged 1004.40T engine

- 4 in-line cylinders.
- Compression ratio of 17.25:1.
- Bore 3.94in (100mm).
- Stroke 5in (127mm).
- Displacement 244 cu in (3.99 litres).
- Utilizes the latest advanced design technology for low fuel consumption, low noise, high torque and high power output for excellent performance and reliability.
- Emissions compliant to US EPA Stage 1.
- Dry easily replaceable cylinder liners.
- Two stage dry air cleaner.
- Key stop/start with thermostat feature.
- Phosphated cylinder head guides.

Engine Power @2000 rpm	hp	79
Net	kW	59
Max Torque	lbft	246
@1400 rpm	Nm	333

Hp ratings per SAE J1349

### TRANSMISSION

Soft-shift Powershuttle transmission featuring large capacity, fully modulated, oil cooled hydraulic clutch packs, 4 speed fully synchromesh gearbox and single stage torque converter having a high 2.87:1 stall ratio for shock free transition of power, ensuring maximum traction and excellent bucket penetration.

- Direction changes solenoid operated via foot or hand controls.
- Conventional "H" pattern single gear lever.
- 4WD provided via a side mounted transmission drive pod, engaged on the move in all 4 gears via an instrument console mounted switch.
- Creeper gearbox is available as an option, with a 4:1 reduction (increases the machine overall wheel base by a nominal 6"/152mm) (Cab and platform only).

Travel speeds @2200 rpm with following tires:

Gear	16.9 x 24		16.9 x 28	
	mph	kph	mph	kph
1 st	3.4	5.4	3.7	6.0
2 nd	5.9	9.5	6.6	10.6
3 rd	17.5	19.5	13.5	21.7
4 th	17.5	28.2	19.1	30.1

Power take off:

Type	2 speed independent
Speed	540 rpm @ 1807 engine rpm 1000 rpm @ 1900 engine rpm
Shaft	Interchangeable 6 or 21 spline 1.375" (35 mm) diameter
Power	62hp

### AXLE LOAD RATINGS

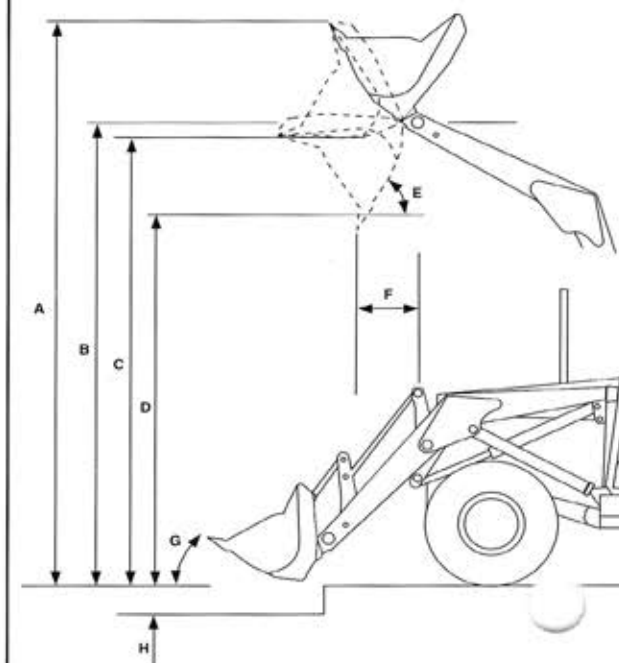
		Front	Rear
Static	lb	30,305	25,000
	kg	13,750	11,343
SAE J43	lb	13,997	13,422
	kg	6,348	6,090

### BRAKES AND AXLES

- In-board, multi-plate wet disc on rear axle for fade free performance and a long life.
- Hydraulically actuated through self equalizing pedals to ensure straight line braking.
- Independent, split brake facility for full power turns.
- Large 347in<sup>2</sup> (2,235cm<sup>2</sup>) braking area.
- Tangentially mounted hydraulic slave cylinders activated via twin master cylinders for low effort operation.
- Conventional hand operated ratchet type parking brake lever working through balanced cable operating on main service brakes.
- Heavy duty outboard planetary final drive ensuring smooth effective transfer of the excellent tractive effort irrespective of ground conditions
- Electro/hydraulic diff lock engaged by a dash mounted rocker switch for ease of operation.
- Cast front axle beam for all machines with 22° oscillation, ensuring maximum ground contact and traction in the most arduous conditions.
- Exceptional 48° steer angle providing tight turning radius for superior maneuverability.

**SPECIFICATION WITH STANDARD TIRES**

Dimensions	4WD	
	in	mm
A Overall operating height	163.8	4161
B Max. hinge pin height	134.3	3411
C Loadover height	123.8	3145
D Dump clearance @ 45°	106.5	2705
E Dump angle	50°	
F Dump reach @ 45°	28	711
G Roll back angle	48°	
H Digging depth	1.4	36
I Wheelbase	81.4	2068
J Min. ground clearance	13.4	340
K Overall length		
- Tractor less loader	124.4	3160
- Tractor loader	183	4648
L Height over exhaust	95.6	2428
M Height over steer wheel		
- Footstep model	69.9	1768
- Cab / Platform	73.8	1875
N Height over operator compartment		
- Footstep model	96	2438
- Cab / Platform	96	2438

**DIMENSIONAL DRAWING**

 ALL DIMENSIONS BASED ON 16.9 X 2  
 LONG WHEEL BASE ADD 6IN (152MM)

**CYLINDER DATA**

		Beam	Bucket	Steering
Bore	ins (mm)	3.15 (80)	2.56 (65)	2.48 (63)
Rod	ins (mm)	1.77 (45)	1.57 (40)	0.98 (25)
Stroke	ins (mm)	29.49 (749)	19.37 (492)	8.98 (228)

**STEERING WITH STANDARD TIRES**

Equipped with full hydrostatic steering for low operator effort, with manual override when engine is idle or stationary.

		Between Walls	Between Curbs
Without brakes	ins (m)	452 (11.47)	341 (8.66)
With Brakes	ins (m)	422 (10.72)	311 (7.9)

 Figures above are for short wheel base.  
 Tractors with long wheel base add - 15" (380 mm)

**Add/delete the following**

Multi-purpose bucket + 573 lb (260)

Unladen counterweight box

 - 3 point linkage + 573 lb (260)  
 - Fixed + 463 lb (210)

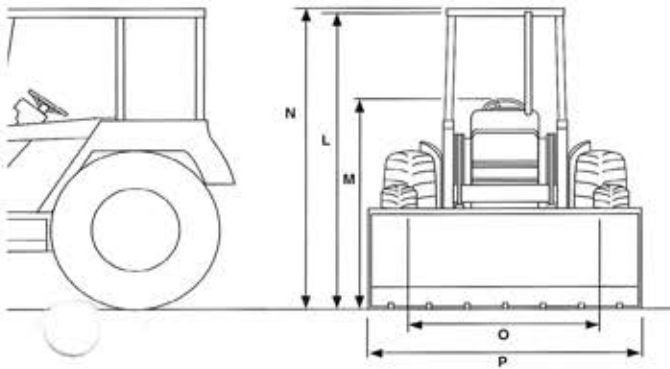
Ballast (Required for CWT box).

 - 3 point linkage + 2,073 lb (+920)  
 - Fixed + 2,138 lb (+970)  
 28" inner wheel weights (pair) +1,636 lb (742)  
 24" inner wheel weights (pair) +1,024 lb (464)

**BUCKET**

	width
Standard	84 ins (2134 mm)
Multi-Purpose	84 ins (2134 mm)

## DIMENSIONS - WEIGHT



3 REAR TIRES AND SHORT WHEEL BASE, FOR ALL HORIZONTAL DIMENSIONS

## Weights to the base machine

(g)	24" outer wheel weights (pair)	+454 lb	(206 kg)
	Multipurpose bucket		
(g)	1.0yd <sup>3</sup> (0.76m <sup>3</sup> )	+ 639 lb	(290 kg)
(g)	0.95yd <sup>3</sup> (0.72m <sup>3</sup> )	+ 573 lb	(260 kg)
	0.9yd <sup>3</sup> (0.69m <sup>3</sup> )	+ 510 lb	(230 kg)
(g)	Standard loader bucket		
(g)	1.05yd <sup>3</sup> (0.80m <sup>3</sup> )	- 36 lb	(-16 kg)
(g)	1.0yd <sup>3</sup> (0.76m <sup>3</sup> )	- 70 lb	(-32 kg)
(g)			

## LOAD CAPACITY DATA

	Capacity	Weight
(m)	1 yd <sup>3</sup> (0.76 m <sup>3</sup> )	714 lb (324 kg)
(m)	0.95 yd <sup>3</sup> (0.72 m <sup>3</sup> )	1323 lb (600 kg)

## CAPACITIES

	US Gals	Litres
Fuel Tank	28	102
Engine oil (inc. filter)	1.9	7
Engine coolant	4.8	17.5
Rear axle (inc. steering)	14.3	52
Hydraulic system	15.1	55

## TIRES (Standard)

Front	12.5 x 18
Rear	16.9 x 28

## 4 WD MACHINE WEIGHTS

Configuration	650
Tractor loader with standard loader bucket, auxiliary hydraulics, standard tires, all levels full, less operator	10566 lb (4794 kg)

## PERFORMANCE DATA

• Max lift capacity to full height	5,510 lb	(2,500 kg)
• Breakout force	8,838 lb	(4,010 kg)
Cycle times		
Beams:		
Raise	secs	4.3
Lower (power down)	secs	3.4
Lower (in float)	secs	5.5
Bucket:		
Crowd @ full height	secs	1.5
Dump	secs	1.1

## ELECTRICS (Rops Model)

- Single battery 12 volt electrical system with 55 amp alternator and engine thermostart.
- Optional twin battery.
- Sealed connectors against water and dirt ingress.
- 4 main power fuses & 13 independent fuses.
- Low maintenance batteries with 840 amp cold start capacity.
- Optional key actuated battery isolation switch.

### EQUIPMENT

#### LOADER

Heavy duty industrial loader with mechanical self levelling and single lever operation of beam raise/lower, float, crowd and dump. Third spool standard for operating multipurpose bucket or other attachments. Equipped with loader beam safety strut.

#### OPTIONS

- Fixed cwt box recommended ballast 2138lb (970kg).
- 3 pt linkage cwt box (recommended ballast 2073lb (920kg)).
- Multi-purpose loader bucket.
- Swinging drawbar.
- Stabilizer chains.
- Wheel weights.
- Rotating beacon.
- Battery isolation switch.
- Loader attachment quick attach.
- Creeper gearbox (Cab and platform).
- Auxiliary hydraulics (Footstep only).

#### STANDARD ALL MODELS

Turbocharged engine with Powershuttle transmission, hydrostatic steering, heavy duty drive axle with outboard epicyclics, inboard wet brakes and electro/hydraulic differential lock. Full instrumentation, suspension seat and ergonomic control layout.

#### GLAZED CAB MODELS

2 door deluxe heated safety cab with twin front and rear work lights, front rear wash/wipe, hinged opening rear window, rear view mirrors and full road lighting. Hand operated forward/reverse direction control with left foot braking and right foot throttle control. Access from left hand side. Right hand emergency exit only.

#### PLATFORM MODELS

Deglazed safety cab for hot climates, fitted with twin front and rear working lights, rear view mirror, and full road lighting. Hand operated forward/reverse direction control with left foot braking and right foot throttle control. Access from left hand side. Right hand emergency exit only.

#### FOOTSTEP MODELS

4 post rops canopy fitted with twin front and rear worklights. Foot operated forward/reverse direction controls, suspension seat with turntable.

For a comprehensive list of optional features and options refer to your local distributor.

### HYDRAULIC SYSTEMS

Loader	
Pump type	Single gear pump
Flow	29.7 US gals/min (108 litres/min)
Pressure	2,750 psi (190 bar)
Filtration	Full flow 125 micron suction strainer with 13 micron full flow return line filter element
Tractor (3 point hitch)	
Pump type	4 piston scotch yoke
Flow	7.4 US gals/min (27 litres/min) @2200 rpm
Pressure	3000 psi (207 bar)
Functions	Draft, position, response and constant pumping
Max lift capacity @ lower link ends horizontal	4,764 lbs (2,161 kg)
Auxiliary Hydraulics	
Pump type	Single Gear Pump
Flow	10.45 US gals/min (38 litres/min)
Pressure	2,475 psi (170 bar)

*Fermec reserves the right to change specifications without notice. Illustrations shown and described may include optional equipment, accessories or product specifications which may vary from country to country. See your local agent for details.*

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