



Model 5100 Forklift

- Tractor/attachments built by Waldon for a totally integrated unit
- High output/low cost operation in multi-shift abusive material handling environments
- Extremely high gradability and traction
- High drawbar power



NOT JUST ANOTHER FORKLIFT

The Waldon 5100 Forklift is not just another forklift. It's 4,000 lb. capacity, compact articulating 4-wheel drive lift truck was designed for large capacity industrial and rough terrain material handling in confined areas. It is the most compact forklift of its capacity available in its class. It is Waldon's most powerful, productive lift truck.

S P E C I F I C A T I O N S

ENGINE - 4 STROKE - NATURALLY ASPIRATED

Make & model	Nissan H25	Deutz F3L912D	Cummins 4B3.9
Cu. In. (liters)	153 (2.5)	153 (2.5)	172 (2.81)
No. of cylinders	4	4	3
Fuel	Gasoline	LP	Diesel
Cooling system	Liquid	Liquid	Air
Net HP @2500 RPM	57	54	52
Max. ft. lbs. torque	137	133	122
	@1600 RPM	@1600 RPM	@1500 RPM
			@1400 RPM

Gross operating Weight to HP ratio
Lbs./HP* 124/1 131/1 136/1 154/1

* Measured in Ft./Lbs. @1300 ft. (396 m) altitude, 85° F (29° C). Net power is rated at SAE J816 standard ambient temperature and barometric conditions 85° F (29° C) and 29.38 in. hg. (99kPa)

Air Cleaner	Two element dry type with pre-cleaner
Electrical System	12 Volt system protected by fused breakers One battery - BCI group size 31, Cold cranking, 625 AMPS @0° F (-18° C)
Governor type	Gasoline - Electronic Diesel - Diesel injection pump control

HYDRAULIC SYSTEM

Lift cylinders, bore	. . . . .8 ft., 12 ft. and 14 ft. - Primary (one only) 3.2" (81 mm) 15 ft.- Primary (one only) 3.23" (82 mm) Secondary (two only) 2.24" (57 mm)
Tilt cylinder, bore & stroke	. . . . .2.5" X 25.25" (63.5 mm x 641.3 mm)
Pump description	. . . . .Gear Type
Drive pump capacity @2250 RPM	. . . . .31 GPM (109.7 lit./min.)
Steering and mast @2250 RPM	. . . . .14.5GPM (54.88 lit./min.)
Priority flow to steering	. . . . .4 GPM (15.14 lit./min.)
Control valve	. . . . .Standard - 3 spool sectional valve
Auxiliary hydraulics	. . . . .Standard 3rd valve for additional untractor attachments. Power beyond available.
Filtration	. . . . .10 Micron spin-on
Relief valve setting	. . . . .Drive train - 1950 PSI (13443 kPa) Mast raise and tilt - 1900 PSI (13098 kPa) Steering - 1800 PSI (12409 kPa)

SERVICE CAPACITIES

Radiator	. . . . .15 Quarts (14.2 lit.)
Fuel tank	. . . . .18.0 U.S. Gal. (68.14 lit.)
Hydraulic system	
Reservoir only	. . . . .18.0 U.S. Gal (68.14 lit.)
Complete system	. . . . .24.0 U.S. Gal. (90.85 lit.)
Engine Crankcase	
Deutz with filter	. . . . .9.5 Quarts (9.0 lit.)
Differentials (each)	. . . . .6.2 Pints (2.9 lit.)
Transmission	. . . . .4.7 Pints (2.1 lit.)

TRANSMISSION

Type	. . . . .Low pressure, hydraulic 4-wheel drive with 2 speeds, forward and reverse control
Control	. . . . .Hand lever engine throttle, foot powered directional and tractor speed control pedal mechanical high-low range lever
Description	. . . . .Vane type pump - 31 GPM (109.7 lit./min.) @1950 PSI (1344 kPa) Gear type motor - Fixed displacement Transmission - Two speed gear box, hi or low
Travel speeds @2250 RPM with 12.00 X 16.5 tires, 12-Ply	
Low range, forward or reverse	. . . . .0-2.6 MPH (0-4.2 Km/h)
High range, forward or reverse	. . . . .0-8.5 MPH (0-13.7 Km/h)

STEERING

Type	. . . . .Articulation
Description	. . . . .Center pivot articulating with hydraulic power steering. Front and rear tires always track.
Steering angle (left or right)	. . . . .37°
Minimum turning radius, inside	. . . . .54.0 in. (1371 mm)
Steering cylinders, bore & stroke	. . . . .3" X 8" (76.2 X 203.2 mm)

BRAKES

Type	. . . . .Four-wheel hydraulic
Description	. . . . .Wheel drum wear shoes hydraulically actuated
Total braking area	. . . . .265 in. ² (1709 cm ²) (Service and parking)
Parking brake	. . . . .Mechanical

AXLES & HUBS

Type	. . . . .Front and rear full floating Dana Model 60 axle
Description	. . . . .Automotive type differential axles, (hubs with limited slip optional)
Torque increase	. . . . .6.17/1 Ratio
Oscillation, frame	. . . . .22°

MAX. GRADEABILITY & DRAWBAR PULL

Condition	Maximum % Grade	
	Low Gear	High Gear
Empty	35%	11%
Loaded (4,000 lb. payload)	25%	7%
Drawbar pull	Max. Low Gear 3,500 lbs. (15575 N)	Max. High Gear 1,100 lbs. (4895N)

VEHICLE & MAST WEIGHTS

Empty weight w/ 8ft. mast	. . . . .8,500 lbs. (3859 kg)
Empty weight w/12 ft. mast	. . . . .8,700 lbs. (3950 kg)
Empty weight w/14 ft. mast	. . . . .8,900 lbs. (4040 kg)
Empty weight w/15 ft. mast	. . . . .9,900 lbs. (4494 kg)

MAST DESCRIPTION

8 ft., 12 ft. and 14 ft. - 2 Rail

Type Two stage roller, 4" dia. sealed roller bearings
Lift cylinder, primary (one only) 3.5 in. effective dia.

15 ft. - 3 Rail

Type Triple stage roller, 4" & 5" dia. sealed roller bearings
Lift cylinder Primary (one only) - 3.23 in. effective dia.
Secondary (two only) - 2.24 in. effective dia.

Lift chain (5 to 1 safety factor) 2 Rail = 2 used, Type RC85
3 Rail = 4 used, Type BL 634

Mast rails 2 Rail & 3 Rail = channel & I-beam, specially rolled sections of V1027 - SAE 1045 fine grained steel

Frame mount Mounts to tractor frame with 1-1/2" dia. pin

MAST SPECIFICATIONS

Mast	MFH	O AHL	FFH	Fwd Tilt	Bkd Tilt
8 ft., 2 Rail	96" (2438 mm)	76.5" (1943 mm)	0" (0 mm)	14°	11°
12 ft., 2 Rail	144 in. (3657 mm)	101 in. (2565 mm)	0 in. (0 mm)	14°	11°
14 ft., 2 Rail	168 in. (4267 mm)	115.5 in. (2934 mm)	0 in. (0 mm)	14°	11°
15 ft., 3 Rail	180 in. (4572 mm)	88.5 in. (2248 mm)	59 in. (1498 mm)	14°	11°

HYDRAULIC CYCLE TIME

NOTE: Engine @2250 RPM	2 RAIL 8 ft.	2 RAIL 12 ft.	2 RAIL 14 ft.	3 RAIL 15 ft.
Raise (empty to full height)	6.0 sec.	10.0 sec.	11.0 sec.	10.0 sec.
Lower (empty from full height)	11.0 sec.	16.0 sec.	19.0 sec.	18.0 sec.
Tilt (vertical to backward)	1.0 sec.	1.0 sec.	1.0 sec.	1.0 sec.
Tilt (backward to vertical)	1.6 sec.	1.6 sec.	1.6 sec.	1.6 sec.

CARRIAGE/FORK DESCRIPTION

Type 2 Rail = ITA Class II hook

Bearings - Four 4" radial, two 4" thrust, two 2" thrust

3 Rail = ITA Class II hook

Bearings - Six 4" radial, four 3-1/2" thrust

Forks, Type ITA Class II hook, 48 in. (1219 mm)

FORKLIFT CAPACITIES

	Load Lift Height @24" load center	Rough Terrain	In Plant
8 ft. 2 Rail mast & Tractor	0-8 ft. 0-8 ft.	4,000 lbs.	4,000 lbs.
12 ft. 2 Rail mast & Tractor	0-12 ft. 0-12 ft.	4,000 lbs.	4,000 lbs.
14 ft. 2 Rail Mast & Tractor	0-12 ft. 12-14 ft. 0-14 ft.	4,000 lbs. 3,000 lbs.	4,000 lbs.
15 ft. 3 Rail Mast & Tractor	0-12 ft. 12-13 ft. 13-14.5 ft. 14.5 - 15 ft. 0-15 ft.	4,000 lbs. 3,000 lbs. 2,000 lbs. 1,500 lbs.	4,000 lbs.

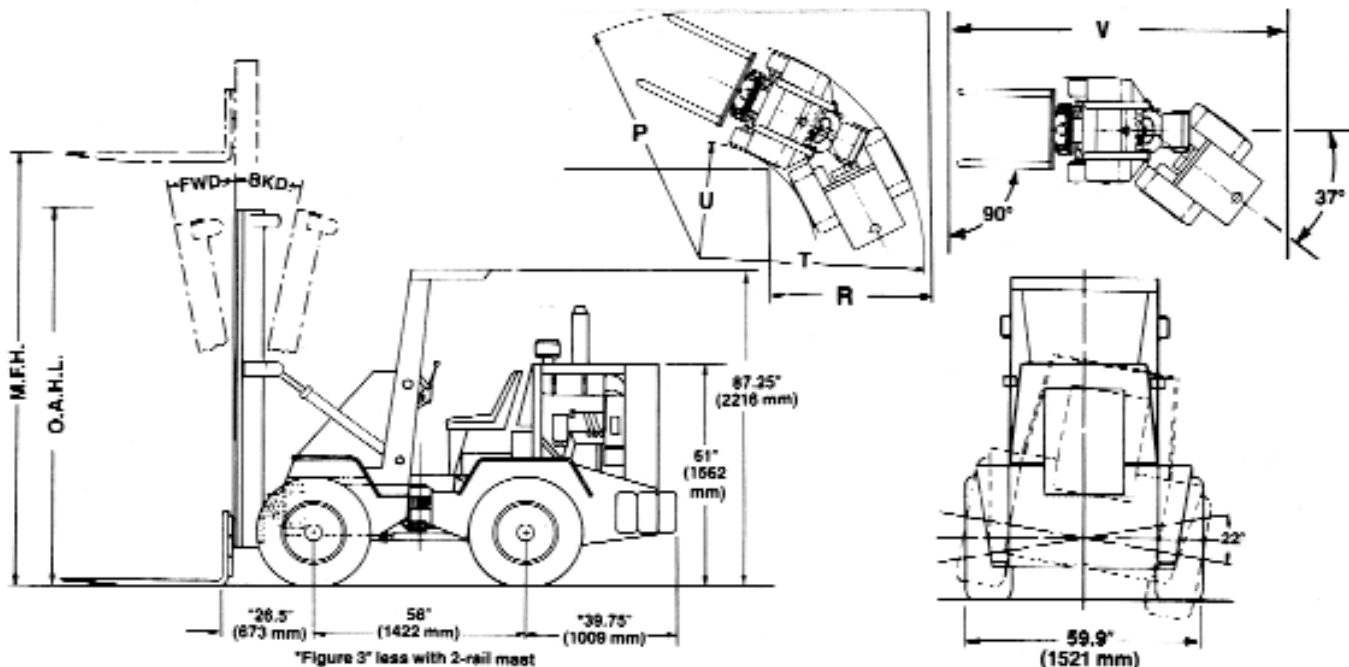
Rating based on U.S.A. Standards

ANSI B56.1 - 1975 in plant

ANSI B56.6 - 1978 rough terrain

DIMENSIONS

P	48" X 48" Payload	131.0 in. (3312 mm)
R	Intersecting aisles	95.0 in. (2413 mm)
T	Outside turning radius	113.9 in. (2893 mm)
U	Inside turning radius	54.0 in. (1371 mm)
V	Between aisles	
	48" fork, vehicle 90° to stacking bin	190 in. (4826 mm)



STANDARD EQUIPMENT

- 12 x 16.5 pneumatic tires
- Power assist steering
- ROPS/FOPS guard
- Plastic molded, steel base adjustable seat
- 107 dba reverse alarm
- 10 Micron dual hydraulic filtration
- SAE J386 seat belt
- Hour meter
- Two 400 amp 12V batteries
- Auxiliary hydraulic kit
- Horn, single note
- Antifreeze to - 40° F. (-40°C)
- Gauges: Engine temperature, hydraulic oil temperature, fuel level, ammeter, oil pressure, hydraulic filter service indicator light
- Dual element air filter with pre-cleaner
- Emergency brake, manual set
- Keyed switch and starter
- Industrial yellow enamel paint
- 4-Wheel hydraulic disc brakes
- 4-Wheel drive hydrostatic drivetrain

OPTIONAL EQUIPMENT

- Cab with defroster and wiper - air conditioner available for Cummins
- 7:50 x 16 solid tires and wheels
- Stop, turn and tail lights
- Other mast sizes available
- Cold start
- Driveline protection
- Fire resistant fuel cap

UNITRACTOR ATTACHMENTS FOR MULTI-JOB USE

- Rail coupler
- Pipe clamp-down
- Load retainers
- Side shifter
- Rotating oil clamps
- Rotating fork clamps
- Dumper/Upender
- Drop bottom box dumper
- 2 or 1 pallet handler
- Rotary snow blower
- Hydraulic die handler
- Hydraulic scoops
- Telescopic boom
- Hydraulic plows
- Model 700 sweeper
- Contact factory for other applications

Note: All specifications are in accordance with SAE and ANSI Standards where applicable. Under our policy of improvement, Waldon reserves the right to modify specifications at any time without prior notice or obligation.



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