

904B

Compact Wheel Loader



Engine

Model	MHI S402 Turbo
Rated Power @ 2400 rpm	
Net Power – SAE J1349 (6/95)	39 kW/52 hp
Net Power – ISO 9249 : 1997	39 kW/52 hp
Net Power – 80/1269/EEC	39 kW/52 hp
Operating Weight	4450 kg/9810 lb
Nominal Bucket Capacity	0.6 m³/0.8 yd³

904B Compact Wheel Loader

Designed, built and backed by Caterpillar to deliver exceptional performance and versatility, ease of operation, serviceability and customer support.

Operator Station

Operator comfort and easy operation are designed into every aspect of the cab. The short hood provides excellent rear visibility. Combined with its compact size, the operator can easily see the work being done. Ergonomically designed joystick and low effort pilot hydraulics reduce operator fatigue and increase comfort. Cab or canopy options are available. **pg. 4**

Power Train

Two-speed closed loop hydrostatic transmission delivers smooth transition from full rimpull to runout. Precise inching control and smooth acceleration and deceleration minimize operator fatigue. **pg. 4**

Z-Bar Loader Linkage and Choice of Couplers

The Z-bar loader linkage delivers high breakout force. Wide lift arm spacing provides high strength and maximum visibility throughout the production cycle. The 904B is available with a mechanical quick coupler or optional hydraulic quick coupler. **pg. 5**

Built for tough work

The 904B Compact Wheel Loader is built to the same high standards as the larger Cat wheel loaders. This machine delivers Cat reliability, durability and efficient operation, even in the toughest working conditions.



Serviceability

The 904B is designed for quick and easy maintenance. The tilt-up engine enclosure permits excellent access to routine maintenance points. A removable panel provides additional access for oil cooler and radiator cleaning. Vertically mounted, Cat spin-on filters are easy to reach for fast maintenance. S•O•SSM oil analysis port for hydraulic fluid, and hydraulic test ports are standard. **pg. 5**

Work Tools

A broad range of Cat Work Tools, developed specifically for Compact Wheel Loaders, deliver exceptional versatility, performance and serviceability. The universal quick coupler allows easy hook up and operation with a wide range of standard flow Cat Skid Steer Loader Work Tools. **pg. 5-6**

Reliability and Durability

Quality and reliability is built into every part of the machine. The same standards and component quality used in larger machines are also found in the 904B Compact Wheel Loaders. **pg. 7**

Customer Support

Caterpillar dealers offer unmatched customer support, excellent warranty programs and fast parts availability, resulting in maximum uptime and minimum repair costs. Equipment management services help optimize machine performance and reliability. Services include:

- Customer Support Agreements
- S•O•SSM oil analysis
- Maintenance contracts
- Scheduled technical inspections

Dealer services include:

- Machine and work tool selection
- Rental and leasing
- Purchasing and financing
- Owning and operating cost management

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Operator Station

Comfortable, operator environment for ease of operation

Viewing. Large, floor length windows, a compact dash, and sloped hood provide excellent viewing in all directions.

Pilot Hydraulics and Joystick.

Low effort pilot hydraulics and an ergonomically designed joystick with right hand wrist rest minimizes fatigue and maximizes operator comfort.

Operator Station. Spacious operator station is equipped with with many convenience features:

- Fully adjustable suspension seat
- Flat floor for ease of cleaning
- Ground level door release
- Two-speed fan with temperature control
- Front and rear wet wipers
- Cup holder
- Auxiliary power socket
- Storage area
- Air conditioning (optional)

Dash. Easy to read dash has long life LED display and sealed switches for years of dependable service. Gauges include fuel level and coolant temperature.

Cab Options. Cab or canopy options available to suit all applications.



1 Pilot operated joystick with Forward/Neutral/Reverse switch and proportional auxiliary hydraulic control mounted on the joystick.

Power Train

Caterpillar hystat power train delivers aggressive performance and easy operation.

Hydrostatic Transmission. Two-speed, closed-loop hydrostatic transmission delivers smooth transition from full rimpull to runout. Precise inching control and smooth acceleration and deceleration minimize operator fatigue.

Limited Slip Differential (optional). Limited slip front and rear differential option allows the machine to stay productive even in challenging underfoot conditions.

Creep Control (optional). A creep control option provides excellent inching capabilities. Creep Control is recommended for use with hydro-mechanical work tools.

Rear Axle. Rear axle oscillation provides superior machine control, stability and traction for operation in all conditions.

Z-Bar Loader Linkage and Choice of Quick Couplers

Robust design for superior performance and visibility.

Z-Bar Design. Wide lift arm spacing and unique linkage geometry maximizes visibility throughout the production cycle.

Loader End Bearings. High performance loader end bearings are used throughout the front linkage. Provides long service intervals of 500 hours or three months.

Quick Coupler. Two skid steer loader compatible quick couplers are available to optimize machine performance and versatility. The standard mechanical quick coupler and optional hydraulic quick coupler allow the 904B to operate a wide range of standard flow Cat Skid Steer Loader Work Tools.

Auxiliary Hydraulic Flow. The standard auxiliary hydraulic flow of 83 L/min (22 gal/min) optimizes performance and productivity with standard flow work tools.



Serviceability

Quick access and superior design make the 904B Compact Wheel Loader easy to service.

Ground Level Access. The 904B allows unmatched access with the high opening tilt-up engine enclosure. All major components and service points can be easily accessed from the ground.

- Vertically mounted, spin-on hydraulic oil filter, fuel filter with water separator, and engine oil filter.
- Heavy duty braided wiring harness protects the electrical system.
- Removable panel for oil cooler and radiator cleaning.
- Hydraulic oil sight gauge and vented hydraulic system.
- Air cleaner service indicator is easy to use and reliable.

S•O•S Valve. Standard S•O•S valve for easy sampling of hydraulic oil to help protect the power train.

Lube Points. Centralized lube points for easy lubrication.

Hydraulic Oil Service. 2000-hour hydraulic oil service interval under normal working conditions.



Work Tools

Choose from a wide variety of Cat Work Tools and choice of quick couplers designed specifically for the 904B Compact Wheel Loader.

Work Tools. Caterpillar designed work tools extend the versatility of the 904B Compact Wheel Loader. Built for performance and durability, the full range of compact wheel loader work tools deliver high productivity, long service life and excellent return on investment. Cat Work Tools are designed specifically to match machine performance.

Universal Skid Steer Loader Style Coupler.

The 904B is designed with a Cat Skid Steer Loader compatible quick coupler. The quick coupler allows easy hook up with the following Cat Work Tools:

- General Purpose Bucket
- Multi Purpose Bucket
- Light Material Bucket
- Class II Carriage plus Pallet Forks

In addition, the quick coupler option offers compatibility with the following standard flow skid steer loader work tools:

- Angle Blade
- Angle Broom
- Auger
- Cold Planer
- Landscape Rake
- Material Handling Arm
- Pick-up Broom
- Snow Blower
- Stump Grinder
- Landscape Tiller
- Trencher
- Utility Broom
- Vibratory Compactor
- Industrial Grapple Buckets/Forks



Reliability and Durability

High quality components and assembly techniques combine to ensure optimum machine lifetime productivity.

Wiring. Heavy duty wiring harnesses are braided for exceptional protection and color coded for simple component identification. Electrical connectors are designed to prevent entry of moisture for maximum reliability.

Hoses. XT-3™ high pressure hoses are rated at 2.5 times the industry recommendation for reliable operation in severe conditions.



Customer Support

Complete services provided by the world's largest dealer network.

Purchase. Consider the financing options your Cat dealer offers as well as day-to-day operating costs. Dealer support services can be included in the cost of the machine to yield lower equipment owning and operating costs over the life of the machine.

Maintenance. Choose from a wide range of maintenance services at the time of machine purchase. Repair option programs guarantee the cost of repairs up front and help avoid unscheduled repairs that can cost unnecessary time and money. Your dealer offers a range of Equipment Management Services to meet your needs.

Replacement. Repair, rebuild or replace? Your Cat dealer can help you evaluate the cost involved to make the right choice.

Product Support. You will find nearly all parts at our dealer parts counter. Cat dealers utilize a worldwide computer network to find in-stock parts to minimize downtime. Additionally, Caterpillar offers a line of genuine remanufactured components which can help lower repair costs.



Dealer Services.

- Machine and work tool selection.
- Rental and leasing.
- Purchasing and finance options.
- Extended warranties.
- Best operating techniques to increase productivity.

Engine

Engine Model	MHI S4Q2 Turbo	
Rated Power @ 2400 rpm	kW	hp
Gross power – SAE J1995 (6/95)	41	55
Net power – SAE J1349 (6/95)	39	52
Net power – ISO 9249:1997	39	52
Net power – 80/1269/EEC	39	52
Dimensions	mm	in
Bore	88	3.5
Stroke	103	4.0

- The power ratings are tested at the reference conditions for the specified standard.
- Net power advertised is the power available at the flywheel when the engine is equipped with alternator, air cleaner, muffler, and fan.
- Net Torque Rise meets SAE J1349.
- Compliant with U.S Environmental Protection Agency Tier 2 and European Union off-highway emission regulations.

Power Train, Axles and Brakes

Closed-loop, two-speed hydrostatic single path transmission. Variable displacement pump and variable displacement motor, driving frame-mounted, fixed gear box.

Travel speed	km/h	mph
Forward/reverse		
Low	7	4
High	20	12

Features

- Brake meets ISO 3450:1996 standards.
- Service and Parking brake are combined and discs are immersed in oil.

Hydraulic System

3rd valve flow (standard)	83 L/min	22 gpm
Main relief	207 bar	3000 psi
Hydraulic cycle time		
Lift		4.5 sec
Dump		0.8 sec
Lower, float (engine at high idle, full bucket) with rated load		3.2 sec

Service Refill Capacities

	L	gal
Cooling System	8	2
Fuel tank	83	22
Hydraulic System	43	11
Engine oil	7.5	2

Cab

- ROPS (Rollover Protective Structure) for cab offered by Caterpillar meets SAE J1040 May94 and ISO 3471:1994 ROPS criteria.
- FOPS (Falling Objects Protective Structure) meets SAE J/ISO 3449 April98, Level I and II and ISO 3449:1994 Level I and II FOPS criteria.
- Cab meets OSHA, MSHA and EU regulations for operator sound exposure in effect at the time of manufacture with doors and windows closed.
- Operator sound pressure level is 85 dB(A) when measured per ISO 6396 or 95/27/EC (dynamic).

Operating Specifications

Machine with full fuel tank, ROPS cab, 75 kg (165 lb) operator and 12 x 16.5 standard tires.

Operating weight (ISO 6016:1982)	4450 kg	9,810 lb
Rated bucket capacity (ISO 7546:1983)	0.6 m ³	0.78 yd ³
Hydraulic lift capacity, maximum	33.2 kN	7,464 lb
Breakout force, bucket	35.6 kN	8,003 lb
Rated operating load at full turn, bucket (ISO 5998:1986)	1250 kg	2,756 lb
Straight tipping load, bucket (ISO 8313:1989)	2980 kg	6,568 lb
Full turn static tipping load, bucket (DIN 24094)	2500 kg	5,511 lb
Rackback, transport position	45°	
Rated operating load at full turn, forks (EN 474-3, firm and level ground, 1.25 stability and 500 mm/20 in load center)	1600 kg	3,527 lb
Tipping load at full turn, forks (transport 100 mm/4 in above ground)	2000 kg	4,409 lb

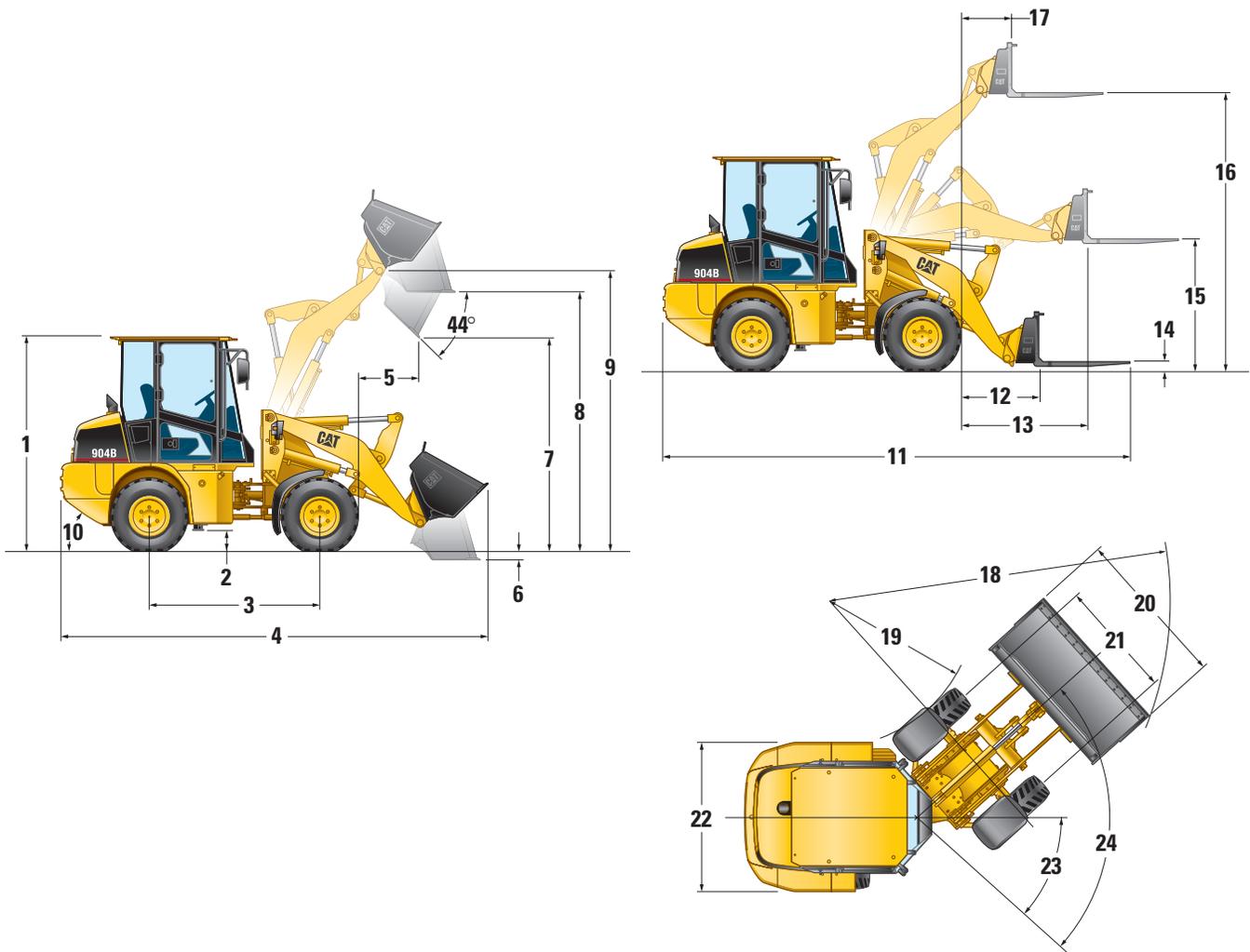
Maximum Material Densities

Based on ISO 7546:1983, SAE J742 Feb85 and rated operating loads at full turn.

	Rated Capacity		Dump Height		Maximum Material Density		Bucket Width	
	m ³	yd ³	mm	in	kg/m ³	lb/yd ³	mm	in
General Purpose	0.6	0.8	2380	94	2095	3,531	1780	70
Multi Purpose	0.6	0.8	2380	94	1995	3,362	1770	70
Light Material	1.0	1.3	2205	87	1195	2,014	1880	74

Dimensions

Dimensions shown are based on the machine equipped with 12 x 16.5 standard tires, mechanical quick coupler and general purpose bucket. All dimensions are approximate.



	1	2	3	4	5	6	7	8	9	10	11	12
(mm)	2390	245	1900	4730	658	80	2390	2900	3120	37°	5300	865
(ft/in)	7'10"	10"	6'3"	15'6"	2'2"	3"	7'10"	9'6"	10'3"	37°	17'5"	2'10"

	13	14	15	16	17	18	19	20	21	22	23	24
(mm)	1390	60	1460	3085	570	3850	1675	1780	1330	1700	42°	84°
(ft/in)	4'7"	2"	4'9"	10'1"	1'10"	12'8"	5'6"	5'10"	4'4"	5'7"	42°	84°

Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for specifics.

Air Filter, radial seal, with visual indicator

Alternator, 90-amp (Cab)

Alternator, 55-amp (Canopy)

Antifreeze, extended life (-36°C/-33°F)

Battery, 12-volt, 750 CCA

Cab, ROPS, sound suppressed and pressurized:

- digital service hour meter
- fuel gauge
- engine coolant temperature gauge
- Warning Indicators for major systems:
- heater/defroster
- power supply 12V
- right-hand wrist rest
- seatbelt, retractable
- wet wiper, front and rear

Engine hood, lockable

Differentials front and rear standard

Hydraulic oil level sight gauge

Proportional auxiliary hydraulic circuit

Quick coupler, mechanical (Skid Steer Loader compatible)

Roading lights

Scheduled oil sampling, S•O•SSM port for hydraulic system

Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for specifics.

Air conditioning

Back-up alarm

Battery, 12-volt, 900 CCA, heavy duty

Canopy, ROPS

Creeper control

Eco drain valves

Engine block heater

FOPS Guard, Level II

No front fenders

Limited slip differential, front and rear

Quick coupler, hydraulic (Skid Steer Loader compatible)

Return To Dig

Tire options (see price list)

Tool kit

Tow pin – rear

Warning beacon

Wiring for radio ready kit and rotary beacon

Work-lights, two front, two rear (cab mounted)

Work tool wiring harness

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