

# CAT

# 935B

## TRACK-TYPE LOADER

- **High horsepower** . . . improves machine responsiveness, cycle time and productivity.
- **Greater weight** . . . increases tractive ability for improved bucket penetration and breakout.
- **Bucket choices** . . . match machine power for greater productivity in wide range of material.
- **Operator design station** . . . pedal steering frees operator's hands for transmission and bucket controls for daylong comfort.
- **Total Customer Support System** . . . unmatched in the industry.

- Cat 3204 diesel Engine 56 kW/75 flywheel HP
- Bucket capacity . . . . . 1.0 m<sup>3</sup>/1.25 yd<sup>3</sup>
- Operating weight up to . . . . . 8391 kg/18,500 lb

Machine shown may have optional equipment.



## Power Train

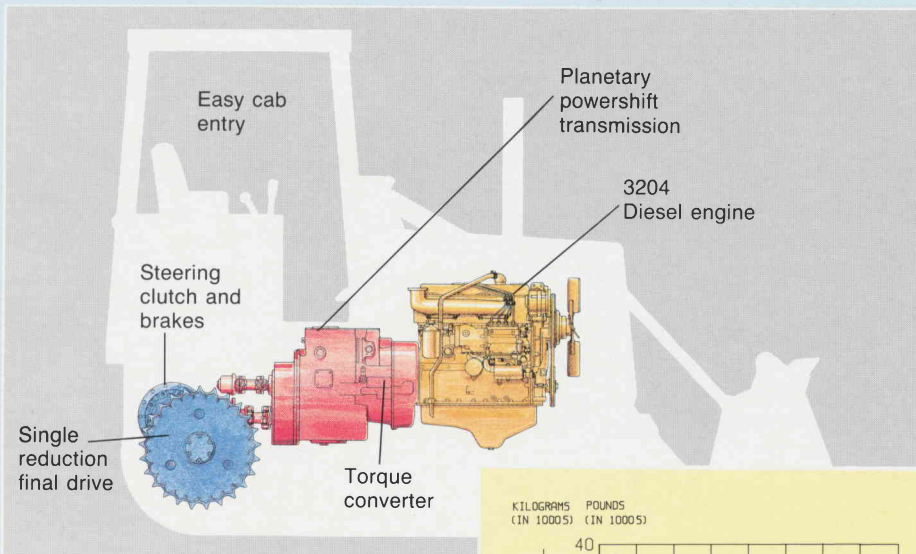
... designed and built for production, uptime and durability.

### Caterpillar 3204 Diesel Engine

- Proven power and dependability in many applications up to 82 kW/110 hp — fuel efficient, low strain, long life at this setting.
- Direct injection Cat 3204 diesel Engine with large displacement for lugging power and long service life.
- Large capacity engine oil pump, large capacity engine oil cooler and large capacity radiator with 30% larger torque converter cooler.

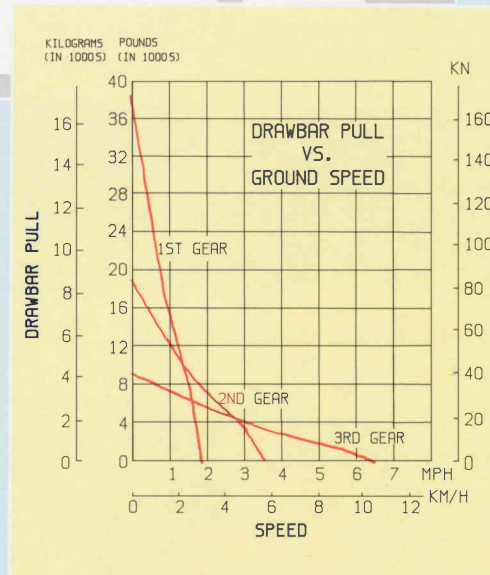
### Torque Converter

- The 935B has a single stage torque converter with a stall ratio designed for aggressive work power — day-after-day.
- “Stiffer” torque converter provides 27% more drawbar pull and crowd power at the bucket cutting edge than the 931B.



### Steering Clutches and Brakes

- Oil cooled steering clutches and brakes are standard on the 935B.
- Oil cooling will provide longer life as well as improved controllability.
- The brake has a double wrap design to assure excellent braking.



## Caterpillar Backhoes

... make this tractor even more versatile and productive.

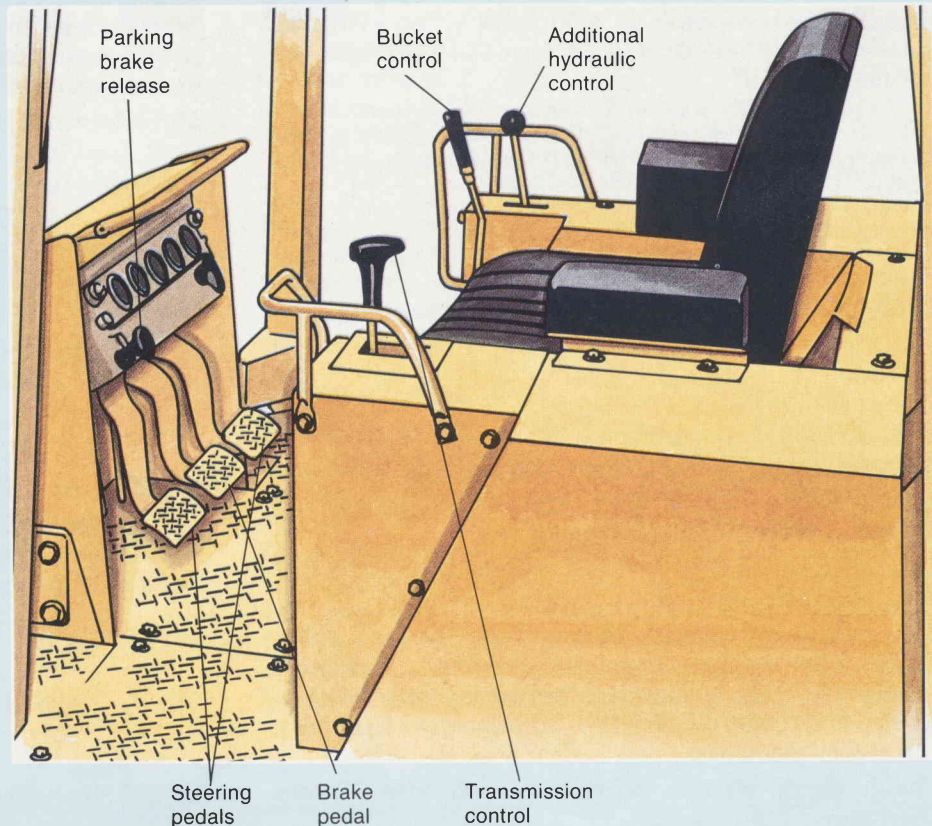
- Available in two arrangements, Fixed Pivot and Side Shift.
- Install or remove the backhoe in minutes with the pin-on mounting arrangement.
- Fast in-seat side shifting with hydraulically released shift locks.
- Improved controllability and quicker cycles than the rack and pinion swing system.
- Two levers control all digging and dumping functions.
- Restricted hydraulic flow, through 25° of swing, automatically brakes speed and reduces structural shock loading.



## Operator's Compartment

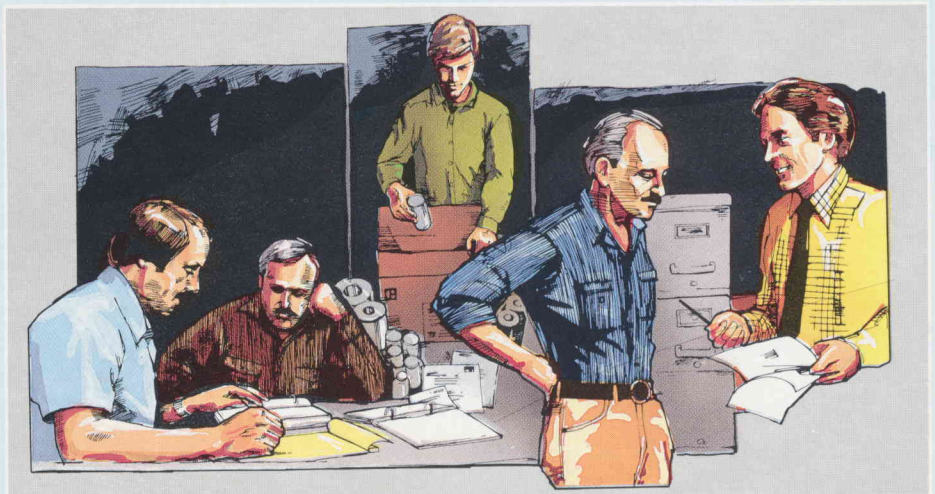
... The 935B could well be the most comfortable, convenient, easy to operate track loader in its size class.

- Well padded, adjustable suspension seat in a clean, walk-thru compartment.
- Visibility of the bucket is excellent in all positions from dig to dump.
- Low noise levels.
- Steering, clutching and braking foot pedals suspended from the dash free the operator's hands for bucket operation and transmission controls conveniently located just in front of the armrests.
- Single-lever shifting of speed and direction creates fast cycle times — high production.
- Sound-suppressed, pressurized ROPS cab is optional.



## Total Customer Support

- **Parts availability** — Most Cat parts are immediately available off the shelf. Dealer availability is backed up by Cat's computer controlled emergency search system.
- **Service capability** — Whether in the dealer's fully equipped shop or in the field service, you'll get factory trained servicemen using the latest technology, tooling and training.
- **Machine management services** — Cat dealers help manage equipment investments with:
  - Effective preventive maintenance programs.
  - Diagnostic programs like Scheduled Oil Sampling and Technical Analysis.
  - Information to make the most cost effective repair option decisions.
  - Customer meetings, training for operators and mechanics.
- **Exchange components for quick repair** — Availability of low-cost Cat Remanufactured Products and dealer rebuilt components assure maximum, cost effective uptime.
- **Literature support** — Easy-to-use operation and maintenance guides help assure long term machine value. Cat keeps in touch with you as new product support technology develops.



# SPECIFICATIONS



## Caterpillar Engine

Gross power @ 2400 RPM . . . . . 61 kW/81 hp  
 Flywheel power @ 2400 RPM . . . 56 kW/75 hp

(Kilowatts (kW) is the International System of Units equivalent of horsepower.)

*Net power at the flywheel of the vehicle engine is based on SAE J1349 standard conditions of 25°C/77°F and 100 kPa/29.61" Hg. Power is based on using 35° API (15.6°C/60°F) gravity fuel having an LHV of 42 780 kJ/kg/18,390 Btu/lb when used at 29.4°C/85°F and with a density of 838,9 g/L/7.001 lb/U.S. gal. Power rating is adjusted for vehicle equipped with fan, air cleaner, water pump, fuel pump, muffler and lubricating oil pump. No derating is required up to 1500 m/5,000 ft. altitude.*

These additional ratings also apply at 2400 RPM:

	kW	HP
ISO 1585 . . . . .	56	75
ISO 3046-1 . . . . .	55	74
EEC 80/1269 . . . . .	56	75

Caterpillar 4-stroke-cycle 3204 diesel Engine with four cylinders, 114 mm/4.5" bore, 127 mm/5.0" stroke and 5.2 liters/318 cu. in. displacement.

Caterpillar direct injection fuel system with individual adjustment-free injection pumps and valves.

Cam-ground and tapered aluminum alloy pistons, 2-ring design. Steel-backed aluminum bearings. Hardened crankshaft journals. Pressure lubrication with full-flow filtered and cooled oil. Dry-type air cleaner with primary and safety elements.

12-volt direct electric starting system with 40-amp alternator.



## Sealed and Lubricated Track

Sealed and Lubricated Track virtually eliminates internal bushing wear as a maintenance consideration by surrounding the track pin with lubricant. The lubricant is held in place by a sealing arrangement consisting of a polyurethane seal, a rubber load ring and a thrust ring. Two-piece master link and hydraulic track adjusters are standard.

Number of shoes (each side) . . . . .	37
Width of standard triple grouser shoe . . .	355 mm/14"
Length of track on ground . . . . .	1902 mm/75"
Ground contact area with	
355 mm/14" shoes . . . . .	1.35 m <sup>2</sup> /2098 sq.in.
Gauge . . . . .	1422 mm/56"



## Final Drives

Single-reduction final drive gears.



## Transmission

Planetary power shift with three speeds forward, three reverse. High-torque capacity oil clutches permit fast speed and direction changes. Single-stage torque converter integral with power shift transmission.

Three forward, three reverse transmission:

	1st	2nd	3rd
Forward: km/h . . . . .	3.0	5.7	10.5
MPH . . . . .	1.8	3.5	4.0
Reverse: km/h . . . . .	3.2	6.1	11.2
MPH . . . . .	2.0	3.7	6.8



## Track Roller Frame

Non-oscillating, box-section construction. Lifetime Lubricated rollers and idlers.

Number of rollers (each side) . . . . . 5



## Steering and Braking

(System meets SAE J1026 JUN82 standards)

Spring-actuated, hydraulically released, multiple-disc oil cooled clutches. Steering and braking controlled by a foot pedal for each track. Third pedal brakes both tracks, locks down for parking.



## Hydraulics

Single-section gear pump. System is protected to keep out dirt and includes a full-flow filter. Operating valves are spring-centered, double-spool type. Lines are steel tubing and high pressure hose with flared tube connections.

Output @ rated engine RPM and  
 6900 kPa/69bar/1000 psi . . . . . 85.9 liters/min/23 gpm  
 Relief valve setting  
 (main) . . . . . 17 225 kPa/172 bar/2500 psi

Cylinders:

Lift—bore and stroke . . . . . 102x607 mm/4.00"x23.88"  
 Tilt—bore and stroke . . . . . 82x551 mm/3.25"x21.7"  
 Hydraulic cycle time, rated load in bucket, in seconds (§):

	Float Down (Empty)	Total
Raise		
6.0		
Dump		
2.7		
	3.1	11.8



### Bucket Controls

Single lever controls bucket raise and dump functions. Move the lever forward or back to raise and lower the bucket, left or right to dump and rack back. Automatic lift kickout and bucket positioner are standard.

Lift circuit ..... Raise, lower, hold, float  
Tilt circuit ..... Tilt back, hold, dump



### Lift Arms

Sealed loader linkage extends lubrication intervals and reduces maintenance time.



### Weight

	kg	lb
Shipping weight with coolant, lubricants and 10% fuel (without bucket) . . . . .	7347	16,198
Operating (includes coolant, lubricants, full fuel tank, operator and bucket) . . .	7899	17,414



### Service Refill Capacities

	Liters	U.S. Gallons
Fuel tank . . . . .	116	30.6
Cooling system . . . . .	20	5.3
Crankcase . . . . .	12	3.2
Transmission:		
3 forward, 3 reverse . . . . .	28	7.4
Bevel gear case . . . . .	15	4.0
Final drives (each) . . . . .	8	2.1
Hydraulic tank . . . . .	26	7
Steering brake/clutch compartment (each) . . . . .	28	7.5



### ROPS

(ROPS canopy is standard in U.S.A.)

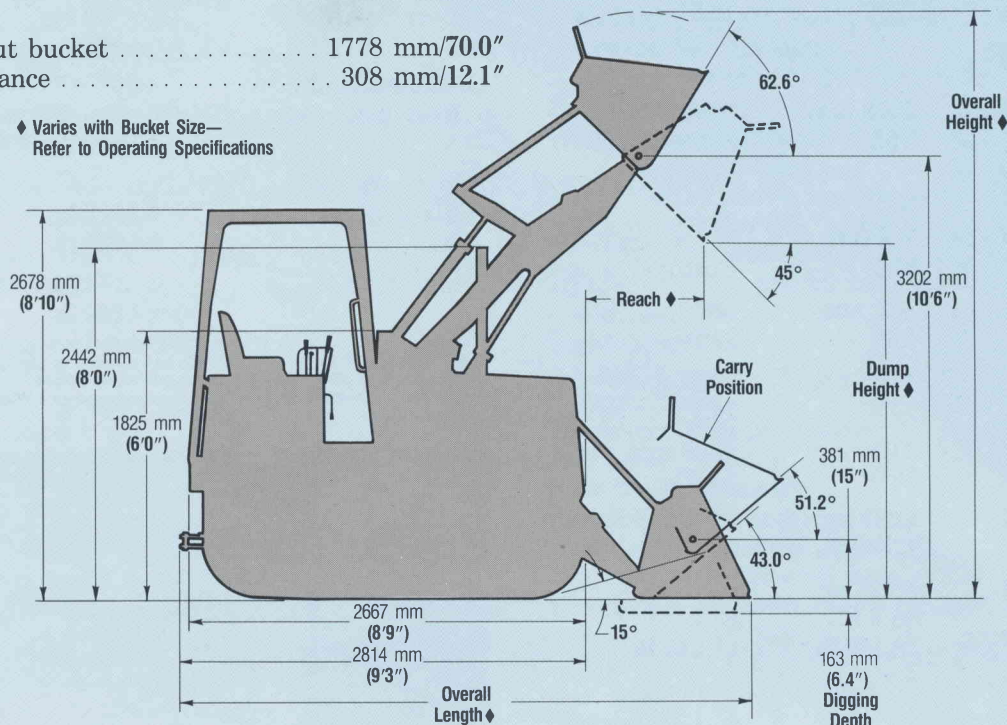
ROPS (Rollover Protective Structures) offered by Caterpillar for this machine meet ROPS criteria: SAE J395, SAE J1040c and ISO 3471-1986. They also meet FOPS (Falling Object Protective Structure) criteria SAE J231 JAN81 and ISO 3449-1984. When properly installed and maintained, cab with doors and windows closed meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture when tested according to ANSI/SAE J1166 JUN86.



### Dimensions (approximate)§

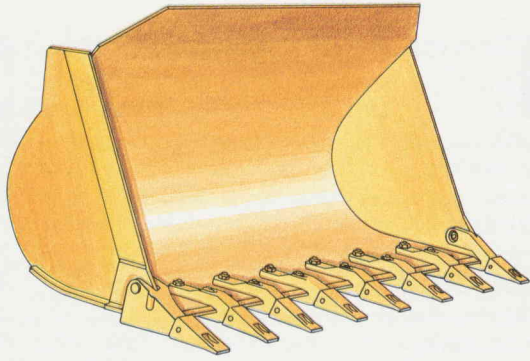
Width without bucket . . . . . 1778 mm/70.0"  
Ground clearance . . . . . 308 mm/12.1"

◆ Varies with Bucket Size—  
Refer to Operating Specifications



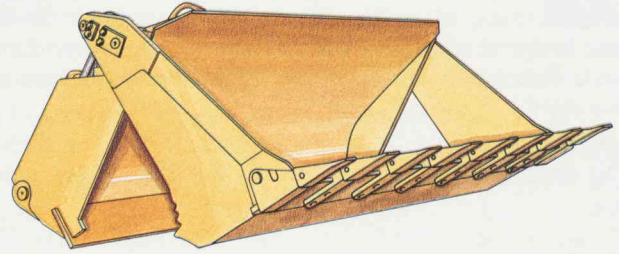
Specifications and ratings conform to all applicable standards recommended by the Society of Automotive Engineers. SAE Standard J732 FEB80 and SAE Standard J742 OCT79 govern loader ratings, denoted in the text by (§).

# SPECIFICATIONS



**General Purpose bucket** made of thick, steel plate, bracing joined by deep, continuous welds. Bolt-on Corner Guard System provides protection in wear areas. Reversible cutting edges extend wear life. Bucket capacity provides large payloads.

Bolt-on bucket teeth or cutting edges are optional.



**Multi-Purpose bucket** loads, strips, bulldozes and cleans up debris. Clamps hydraulically to grip logs, pipe or other tough-to-grasp materials. Corner, side and bottom plates combine with heat-treated, reinforced hinge guards to increase strength and reduce wear.

## Operating Specifications

Bucket Type	General Purpose	Multi-Purpose
Heaped Capacity	1.0 m <sup>3</sup> 1.25 cu. yd.	0.8 m <sup>3</sup> 1 cu. yd.
Capacity, struck §	0.83 m <sup>3</sup> 1.1 cu. yd.	0.64 m <sup>3</sup> 0.85 cu. yd.
Bucket width* without cutting edge	1962 mm 77.2"	1841 mm 72.5"
Dump clearance @ full lift and 45° discharge	2578 mm 8'5"	2492 mm/8'2" Bottom Dump
Maximum reach @ full lift and 45° discharge	868 mm 34.1"	902.8 mm/35.6" Bottom Dump
Digging depth	102 mm 4.0"	200 mm 7.9"
Overall length	4195 mm 13'9"	4286 mm 14'1"
Overall height	4196 mm 13'9"	4363 mm 14'4"
Static tipping load**	5283 kg 11,648 lb	4750 kg 10,474 lb
Breakout force***	5961 kg 58.4 kN 13,130 lb	5241 kg 51.3 kN 11,545 lb
Operating weight**	7899 kg 17,414 lb	8236 kg 18,158 lb

Machine stability can be affected by the addition of other attachments. Add or subtract the following to/from machine operating weight and static tipping load:

	Change in Operating Weight	Change in Static Tipping Load
Remove ROPS canopy	-322 kg -710 lb	-384 kg -847 lb
Cab, ROPS**	+127 kg +280 lb	+25 kg +56 lb
Ripper-Scarifier**	+46 kg +101 lb	+81 kg +179 lb
Counterweights:		
Rear mounted	+136 kg +300 lb	+211 kg +465 lb
Backhoe*:		
Fixed pivot	+1918 kg +4,229 lb	+3474 kg +7,659 lb
Side shift	+2162 kg +4,766 lb	+3851 kg +8,489 lb

\*Backhoe weights include addition of 386 kg/850 lb front counterweight, and 610 mm/24" backhoe bucket (134 kg/295 lb) and removal of standard 204 kg/450 lb rear counterweight. (See separate Backhoe spec sheet for additional backhoe information.)

\*\*Cab and ripper-scarifier weights include removal of standard 204 kg/450 lb rear counterweight.



\*With cutting edge add 10 mm/.39"; for bolt-on teeth add 42 mm/1.6" on G.P. Bucket; on Multi-Purpose bucket add 44 mm/1.7".

\*\*Includes coolant, lubricants, full fuel tank, 3 forward, 3 reverse transmission, operator, bottom guards, track end guiding guards, bucket teeth, and ROPS canopy. 256 kg/564 lb sprocket counterweight, 204 kg/450 lb rear counterweight.

\*\*\*Measured 102 mm/4" behind tip of cutting edge with bucket hinge pin as pivot point.



### Standard Equipment

**NOTE:** *Standard and optional equipment may vary. Consult your Caterpillar Dealer for specifics.*

- Air cleaner, dry-type.
- Alternator, 40-amp.
- Automatic bucket positioner and lift kickout.
- Blower fan.
- Bucket position indicator.
- Canopy, ROPS.
- \*Counterweight: Rear 204 kg/450 lb, Sprocket 128 kg/282 lb (per side).
- Crankcase guard.
- Direct electric starting, 12-volt.
- Engine enclosure.
- Ether starting aid.
- Hand decelerator.
- Heavy-duty battery.
- Horn.
- Hydraulic system, two valves.
- Instrument panel lights.
- Lifetime Lubricated rollers and idlers.
- Mirror, rear view (with cab or canopy).

- Muffler.
- Oil cooled steering brakes and clutches.
- Pedal steering.
- Precleaner.
- Retrieval hitch.
- Sealed and Lubricated Track.
- Seat, adjustable, suspension.
- Tracks, 355 mm/14" triple grouser (37-section).
- Track adjusters, hydraulic.
- Track end guiding guards.
- Track frame, 5-roller.
- Transmission, planetary power shift; three speeds forward, three reverse.
- Vandalism protection.

\*Sprocket-mounted counterweights mean rear attachments can be added to your 935B without counterweight interference. Roller frame allows easy installation and removal of counterweights.



### Optional Equipment

(with approximate change in operating weight.)

	Kg	Lb	Kg	Lb
Alternator, 75-amp (standard with cab)	7	15		
Backup alarm (required in U.S.A.)	3	6		
Backhoe (includes mounting, 610 mm/24" bucket and 386 kg/850 lb front counterweight):				
Fixed pivot*	1918	4229		
Side shift*	2162	4766		
Buckets:				
1.0 m <sup>3</sup> /1.25 cu.yd. General Purpose	342	755		
0.8 m <sup>3</sup> /1 cu.yd. Multi-Purpose	621	1370		
Bucket teeth, bolt-on, set of 8 for General Purpose and Multi-Purpose buckets	37	81		
Set of 7 for wide gauge General Purpose buckets	32	71		
Bucket cutting edge, 3 piece bolt-on for GP bucket	64.4	142		
Bucket teeth, one-piece bolt on: Set of 8 for General Purpose and Multi-Purpose buckets	44	96		
Cab, ROPS and mountings*	127	280		
Canopy, ROPS and mountings (removed)	-322	-710		
Cleaner bar	14	30		
Counterweights:				
Front mounted	390	860		
Rear mounted	136	300		
Defroster fan			2	5
Guards:				
Radiator, hinged, heavy-duty			7	16
Normal Service, hinged			1	3
Track roller guards, full length			38	83
Heater/defroster			12	26
Hydraulic arrangements:				
For Ripper-Scarifier			10	21
For Multi-Purpose bucket			22	48
For Ripper-Scarifier and Multi-Purpose bucket			46	101
Hydraulic pump piston, for use with backhoe			27	60
Lighting system:				
3 lights — 2 front, 1 rear			11	32
Logging sweep			71	156
Precleaner with prescreeener			2	4
Pull hook			7	15
Rear power take-off*			-187	-412
Ripper-Scarifier (includes three teeth and hydraulic cylinder)*			46	101
Ripper teeth, additional each			4.5	10
Screens (for use with ROPS canopy):				
Rear			50	110
Side			67	148
Seat belt (std. with ROPS)			1	3
Suction fan			0	0
Tool kit			6	13
Winch, model 53*			229	505

\*Standard 204 kg/450 lb rear counterweight is removed with these rear mounted attachments.

## The Competitive Edge

### Performance

- Higher horsepower, greater bucket capacity, greater work capacity than the 931B.
- More ground-gripping traction, stability and greater flotation.
- The ability to work faster in close quarters.
- Standard 1.0 m<sup>3</sup>/1.25 cu. yd. bucket.
- A dump clearance of 2578 mm/8'5" and a reach of 868 mm/34.1" — ample enough to load side-boarded trucks and 10-wheelers.
- 50° bucket rackback for fast loading and better load retention.

### Durable/Reliable

- Box-section track roller frames to resist bending and twisting.
- Sealed and Lubricated Track virtually eliminate pin and bushing wear.
- Planetary-type transmission for maximum resistance to operational shocks and stresses.

### Maintenance/Repair


- No daily maintenance.
- Sealed loader linkage means you only lube lift arm pins every 100 service meter hours, bucket hinge pins every 50 hours.

- Hinged doors allow easy access for routine maintenance check — reduces the time it takes to remove and install major components.

### Total Customer Support System

- Parts availability — most Cat parts on dealer's shelf when you need them — computer controlled emergency search system backup.
- Service capability — dealer's shop or fast field service — factory trained servicemen — latest tooling and technology.
- Machine management services — effective preventive maintenance programs, diagnostic programs (Scheduled Oil Sampling, Technical Analysis), cost effective repair options, customer meetings, operator and mechanic training.
- Exchange components for quick repair — choose Cat Remanufactured Products or dealer rebuilt components for maximum uptime and lower costs.
- Flexible Financing — directly with your local dealer or Cat Financial. Your dealer can offer both with attractive financing on the entire line of Cat equipment. Terms structured to meet your cash flow requirements. See how affordable and easy it is to own Cat equipment.

Materials and specifications are subject to change without notice.

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