CATERPILLAR 920

FOR WHATEVER JOBS YOU DO...

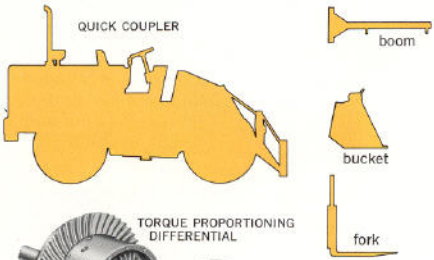
There's an attachment from your Caterpillar Dealer to do the work. And you can get attachments for protecting your 920, making your work more comfortable or safer. Because the Cat 920 is really whatever work tool you want it to be. And you select just the attachments you need to tailor it to your job.

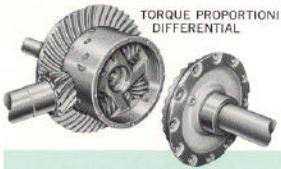
Quick couplers* let you switch from a bucket to a fork, blade, or boom, or plow, in just seconds. So one loader can do many jobs fast and easy.

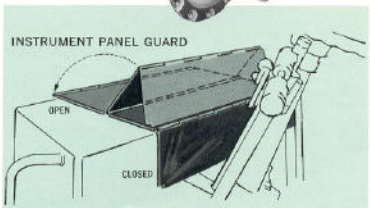
Torque proportioning differential keeps your Cat 920 moving in slippery mud and snow. It transfers more torque to the wheel with better traction. Reduces wheel spin and turning resistance.

Locking instrument panel guard and filler caps protect against vandalism. You can get locking caps for the fuel tank, hydraulic tank, oil filler, radiator, and transmission.

*Available from your Caterpillar Dealer.







Standard Equipment—Alternator, 19 amp. Blower fan. Fuel priming pump. Muffler. Fenders. Stop and tail lights. Front and rear working lights. Dry-type air cleaner. Rear drawbar. Adjustable seat. Engine jacket water temperature gauge. Ammeter. Engine oil pressure gauge. Fuel pressure gauge. Torque converter temperature gauge. Visual indicator for parking brake and low air pressure.

Optional Equipment—Air conditioning compressor. 50 amp alternator. Automatic bucket positioner. Buckets. Bucket teeth, set of 9: long tip, short tip. ROPS cab (conforms to OSHA standards). Steel cab, fully enclosed. ROPS canopy (conforms to OSHA standards). Canopy. Top clamp. Counterweight. Torque proportioning differential for front and rear. Rear drawbar. Reversible blade fan. Fenders. Lumber fork. Power train guard. Heater and defroster. Hydraulic system, third valve. Lighting system for cab. Mirror. Precleaner for prescreener. Suspension seat. Seat belt. Low temperature starting system. Supplemental steering system. Tire inflation kit. Tires, 15.5-25, 12 PR: Rock (L-3), Traction (L-2). Tool kit. Windshield wiper and washer.

LOCKING CAPS

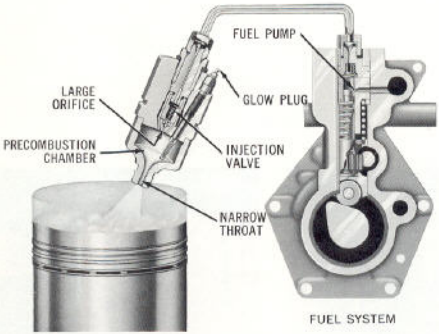
KEEPS WORKING LONGER.

Durability is built into the Cat 920 Wheel Loader. With precision-made, rugged components that save you downtime and repair costs. Here's why the 920 keeps working:

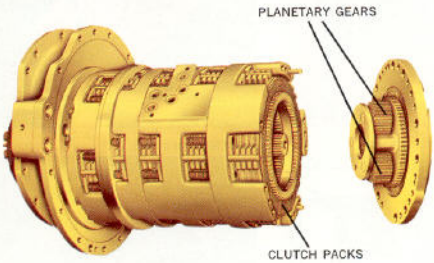
Cat Diesel power runs dependably and smoothly even after long periods of idling. You never need to make operational adjustments to the Cat fuel system. Fuel is completely vaporized in precombustion chambers before it sprays into the main cylinder. So it burns clean, even, and more completely.

The planetary power shift transmission shifts on-the-go. You can change speed and direction without decelerating. Here's why: *big* clutch packs absorb shock loads. They're oil cooled and lubricated . . . hydraulically modulated to ease together. Unlike the concentrated gear loads of countershaft designs, torque is spread evenly over three planetary gears spaced 120° apart.

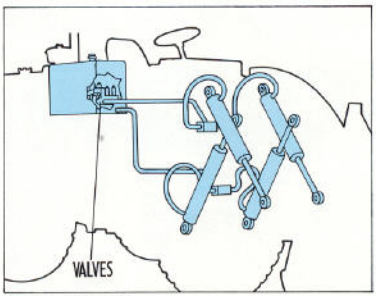
Sealed hydraulic system keeps out damaging dirt. All filters and valves are enclosed inside the tank. There are *no* external valves or breathers to let in wear-causing grit.



FUEL SYSTEM



PLANETARY POWER SHIFT



SEALED HYDRAULICS

Fuel filter spins on and off. And it's disposable; you simply toss it away and replace it with a new one. There's no filter housing to drain.

Check the transmission oil through a hinged door on the floor in front of your seat. Add oil there, too.

Check engine coolant from the handy rear bumper platform. You won't have to climb over a muddy tire.

Sealed loader linkage needs lubing only every 250 service meter units. (Lube the upper and lower bucket hinge pins every 100 SMU's due to constant exposure to dirt.) There's no need to waste time lubing every day. Seals help keep out wear-causing dirt for longer life.

Check batteries just by swinging up the seat. The metal cover protects them from bad weather.

Spin-on fuel filter

Checking transmission oil

Hydraulic oil level gauge

Rear bumper-platform

Loader linkage greased from ground

Batteries under seat

SERVICES FAST AND SIMPLE.

You'll spend less time and energy servicing your 920 Wheel Loader. For instance . . . no more changing engine oil every 100 hours. The 920 goes 500 hours between oil changes. So you save time and money. And check these other easy-maintenance features:

Engine service points are grouped together for fast, simple checks. Air cleaner service indicator, dry-type air cleaner, engine oil dipstick, oil filler pipe, and suspended oil filter housing are all on the engine's right side. And you can reach them all from the ground.

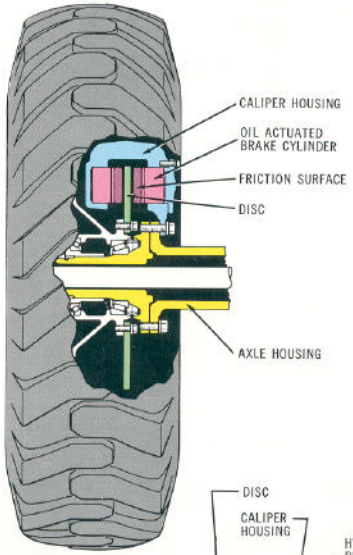
(7 lit). It's a good 20% more than that of most engines powering loaders in the 920 class—and that includes 6-cylinder models. The result: plenty of power for wheels *and* hydraulics. You can break out big loads as you crowd the bank. No waiting on the engine to catch up on power needs.

65° bucket rackback with lift arms horizontal or higher . . . 44° of rackback at carry position. It's more than most other-make units offer and means you can transport bigger loads with less spillage. Another benefit: this superior rackback brings the load closer to the machine's front wheels, increasing stability during travel.

Caliper-type disc brakes. They're mud-proof . . . weather-proof . . . fade-proof. So you get dependable stops in almost all work conditions.

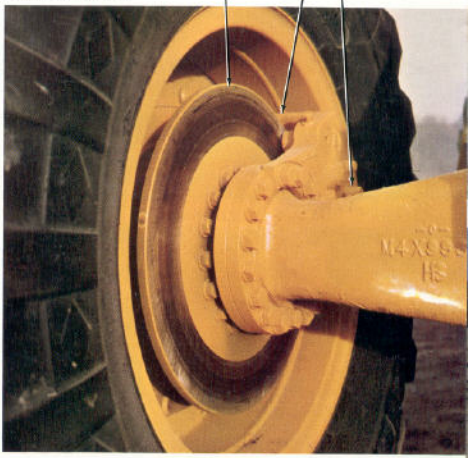
Operation is simple . . . positive. A large disc rotates with each wheel. Projecting from a caliper housing and facing the disc from either side are flat pads faced with brake lining. When the brake pedal is applied, hydraulic power forces the pads against the disc, squeezing it to slow or stop the machine.

Another safety factor in 920 braking: an emergency parking brake which acts on the front output shaft of the transmission. Should air pressure in the air-actuated hydraulic disc brake system drop below safe operating pressure, the spring operated emergency brake automatically engages to bring the machine to a controlled stop. A buzzer sounds and an indicator on the dash turns red to warn the operator.



65° bucket rackback

Caliper disc brakes



KEEPS YOUR JOB MOVING.

The Cat 920 is built to get in, out, and around the job fast. It maneuvers sharply with plenty of power for travel and hydraulics. And caliper disc brakes give you dependable stops even in mud.

Articulated steering is a real plus value when it comes to maneuvering in tight quarters. And you get it without paying a premium when you put a 920 to work. The machine can dig, maneuver and load in less than two machine lengths—turn much sharper than comparable straight-frame units. And its extra-long 100" (2540 mm) wheelbase provides excellent stability.

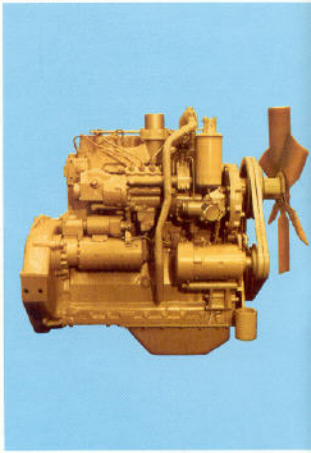
Centered hinge point—the 920 frame is hinged midway between front and rear axles for maximum benefit of articulated design. Thus rear wheels always track the front wheels. Obstacles cleared by bucket corners will be cleared by the rest of the machine. Rolling resistance is kept to a minimum in soft footings because the rear wheels follow in ruts made by the front wheels.

Rear frame mounted operator station is a big advantage during maneuvering. You know where the rear of the machine is pointing without having to look. And you have a good view of bucket corners during turns.

D330 Engine. No skimping here! Displacement of the 4-cylinder Cat-built diesel is a generous 425 cu. in.

Articulated frame steering

D330 Engine



Single lever transmission control. Here's a big step in loader design. Push the lever forward to go forward. Pull it back to reverse. Twist the lever to full power shift in four forward and three reverse speeds.

You can change speed and direction with the 920 on-the-go. No need to decelerate or pause in neutral.

But . . . the machine won't budge if you start the engine in gear. The lever must be returned to neutral before the transmission clutches will engage. It's a built-in safety measure.

Thick seat cushions isolate you from shock and vibration—provide arm chair comfort on the job. Control levers are at your fingertip, easy to use. One example: you can engage the bucket control levers without lifting your arm from the arm rest.

Adjustable seat slides backward or forward. All it takes is a nudge on a handy lever. Operators come in many sizes—it's easy to match the 920 to all.

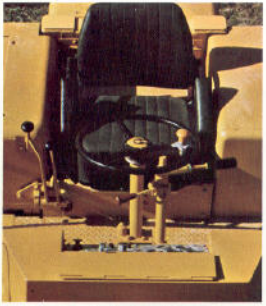
Adjustable steering wheel snaps into three fore and aft positions to further fit the machine to the man. And moving it fully forward makes it easier to get in and out of the seat.

Two lever bucket controls—the outside for lift and lower, the inside for rackback and dump—allow precise control of the bucket. A feature is an automatic bucket control mechanism which can automatically raise and hold the bucket at dump height. This frees your attention for maneuvering the machine. Optional is a control which will automatically return the lowering bucket to a preset digging angle.

Low air pressure indicator on instrument panel shows red and buzzer sounds if brake air pressure drops below safe operating limits. Should air pressure be lost while the machine is moving, the emergency brake automatically engages, bringing the loader to a stop.

Good visibility from the operator's seat promotes accurate work, safety on the job. Optional cab has wide windows, protects you from the weather without penalizing operator visibility.

Arm Chair Comfort



Seat adjusting lever

3-position steering wheel

Two lever bucket controls

Low air pressure indicator

Excellent visibility

OPERATES WITH EASE.

The loader that's easy to operate is the loader that gets things done.

That's why we make an all-out effort to match the machine to the operator. For example, Caterpillar engineers mock-up proposed operator compartments to make certain the levers are in the right place . . . that arm and leg movements will flow smoothly during the fastest job cycles.

Conveniences abound in the 920's control area. You'll find they help you take advantage of the loader's speed and power. The work gets done quickly and easily.

Climb up from either side. It's quick and convenient. Handy grab irons lead you up to the wide, flat deck. No lift arms or hoses block the way. No levers to squeeze past.

Enter from either side

Single lever shifting

CAT 920 WHEEL LOADER

VERSATILE DEPENDABLE EASY

BUCKETS FROM 1.5 to 1.75 cu. yd. (1.15 to 1.35 m³)

80 FLYWHEEL HP

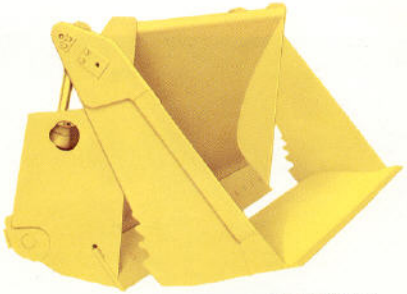
Load trucks. Feed hoppers. Backfill ditches. Load and carry sand. Work feed lots. Plow snow. The Cat 920 does all of these and more. And it keeps doing them . . . dependably. The rugged Cat diesel engine, planetary power shift, caliper disc brakes and durable buckets are built tough . . . to last.

And the Cat 920 is easy. Easy to operate, because the controls are simple and natural. Easy to work, because articulated steering, powerful sealed hydraulics and 44° bucket rack-back at carry position keep the 920 moving on the job. Easy to service, with sealed loader linkage, spin-on filters and hydraulic level sight gauge. And the 920 is easy to own because all these features keep you working. And that makes the 920 easy on your pocketbook.

PRECISION-ENGINEERED BUCKETS FOR DURABILITY AND VERSATILITY.

Because a good bucket is the start of a good loader. That's why 920 general purpose buckets have replaceable cutting edges, thru-hardened for strength. Replacement edges are available to save rebuild time and money.

And you choose from three types of buckets for your job: General purpose for most jobs; Multi-purpose for grasping, demolition, grading, and bulldozing; Side dump for close quarter work.



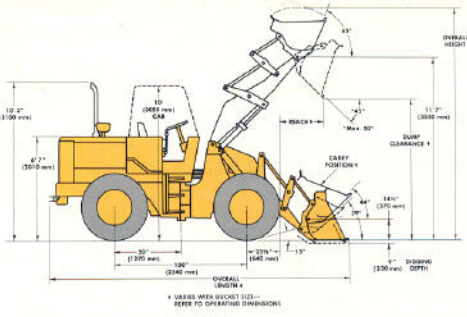
MULTI-PURPOSE

SIDE DUMP

GENERAL PURPOSE

CATERPILLAR

920 SPECIFICATIONS



CAT ENGINE

Horsepower (flywheel) @ 2200 RPM 80

The net horsepower at the flywheel of the vehicle engine operating under S.A.E. standard ambient temperature and barometric conditions 85° F. (29° C) and 29.38" (746 mm) Hg., using 35 API gravity fuel oil at 60° F. (15.6° C). Vehicle engine equipment includes blower fan, air cleaner, water pump, lubricating oil pump, fuel pump, muffler, air compressor, and alternator. Engine will maintain specified flywheel horsepower up to 2,500 feet (750 m) altitude.

DESIGN DATA

Caterpillar 4-stroke cycle diesel Model D330 with four cylinders, 4.75" bore (121 mm), 6" stroke (152 mm), and 425 cu. in. displacement (7 liters).

TRANSMISSION

Full power shift in four forward and three reverse speeds. Single stage, single phase torque converter.

SPEEDS	1st	2nd	3rd	4th
Forward, mph:	4.0	7.3	11.9	26.2
(km/h):	(6.4)	(11.7)	(19.2)	(42.2)
Reverse, mph:	4.8	8.7	14.2	—
(km/h):	(7.7)	(14.0)	(22.9)	—

MACHINE DIMENSIONS

	13.00-24 Tires	15.50-25 Tires
Tread width	71.5" (1820 mm)	73.5" (1870 mm)
Width over tires	85.0" (2160 mm)	89.0" (2260 mm)
Ground clearance	13.4" (340 mm)	13.4" (340 mm)
Grading angle	58°	58°

STEERING

Articulated frame. Rear and front wheels track at all times. Full hydraulic power with mechanical follow-up for automotive feel. Hydraulic system—Two 3" (76 mm) bore, double-acting cylinders powered by vane-type pump:

Output @ 2200 RPM and 1000 PSI (70 kg/cm²) ..... 25.4 gpm (96 liters/min)

BUCKET CONTROLS

Lift circuit—positions: raise, hold, lower, and float. Automatic kick-out at full lift height.
Tilt circuit—positions: roll back, hold and dump.
Sealed pins in bucket control arms.

LOADER HYDRAULIC SYSTEM

Sealed with valves enclosed in reservoir. Full-flow filtering.

OPERATING SPECIFICATIONS:

BUCKET TYPE	GENERAL PURPOSE	GENERAL PURPOSE	MULTI-PURPOSE	SIDE DUMP
Capacity, Rated nominal heaped	1.5 cu. yd. (1.15 m³)	1.75 cu. yd. (1.35 m³)	1.5 cu. yd. (1.15 m³)	1.5 cu. yd. (1.15 m³)
Capacity, struck	1.35 cu. yd. (1.00 m³)	1.50 cu. yd. (1.15 m³)	1.20 cu. yd. (0.90 m³)	1.25 cu. yd. (0.95 m³)
Dump clearance @ full lift and 45° discharge	9' (2740 mm)	8'10" (2690 mm)	8'6.5" (2600 mm)	8'6.5" (2600 mm)
Reach at 45° discharge, 7' (2130 mm) clearance	4'1" (1240 mm)	4'2" (1270 mm)	4'1" (1240 mm)	4'2" (1270 mm)
Reach at full lift and 45° discharge	29" (740 mm)	31" (790 mm)	31.75" (810 mm)	31" (790 mm)
Overall length	18'10" (5740 mm)	19'1" (5820 mm)	19'6" (5940 mm)	19'4" (5890 mm)
Overall height	15'2" (4620 mm)	15'5" (4700 mm)	17'2" (5230 mm)	18'11" (5770 mm)
Loader clearance circle (bucket in carry position)	36'8" (11.2 m)	37'2" (11.3 m)	36'10" (11.2 m)	37'6" (11.4 m)
Static tipping load**				
Straight	11,600 lb. (5260 kg)	11,800 lb. (5350 kg)	11,290 lb. (5120 kg)	11,100 lb. (5030 kg)
Full 35° turn	10,480 lb. (4750 kg)	10,650 lb. (4830 kg)	9,750 lb. (4420 kg)	9,600 lb. (4350 kg)
Breakout force*	16,830 lb. (7630 kg)	15,140 lb. (6860 kg)	15,390 lb. (6980 kg)	15,280 lb. (6930 kg)
Operating weight**	16,800 lb. (7620 kg)	16,800 lb. (7620 kg)	17,400 lb. (7890 kg)	17,200 lb. (7800 kg)

*Measured 4" (102 mm) behind tip of cutting edge with bucket hinge pin as pivot point in accordance with SAE J732c (1969).
**Static tipping load and operating weight shown include 810 lb. (367 kg) $CaCl_2$ solution in rear tires. Machine stability is affected by tire size, tire ballast, or attachments.
Materials and specifications are subject to change without notice.

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