



Wheel Loader

921

SPECIFICATIONS



Best in Class

The powerful 921 offers unrivaled performance with outstanding engine efficiency, superior hydraulic capacities and maximum loader productivity. No other machine comes close to the 921...not one.

This heavy-duty wheel loader can take on your toughest jobs under the most demanding conditions...whether you're digging into a bank of rock or dirt or hauling logs from truck to pile.

Take command of the controls and you'll know that the 921 carries on in the tradition of the 21 Series...it's the right choice for you.





When it comes to backing up product, nobody does it better than Case. That's because we build quality and performance into everything we make. It's our philosophy, our way of doing business. And we prove it by offering a one-year, unlimited hour warranty.

Total product support is available at any of the hundreds of Case dealerships across the country. Case has one of the best dealer support services in the industry. You're assured of fast, reliable service with genuine Case replacement parts for less downtime and increased productivity. That's our commitment to you.

For increased productivity and total cycle efficiency,
the panoramic rear visibility is a clear winner.



OPERATOR ENVIRONMENT

Best in class... for all-around operator comfort and control. Bottom line... you'll be highly productive, and walk away feeling good.

A sloped rear hood offers greater visibility of the work area than traditional square hoods. The wide-open cab design makes for exceptional visibility when loading trucks or hoppers.

A suspension seat maximizes operator comfort by allowing adjustments for individual height and weight. The position of the armrests can also be regulated.

- Easy-to-reach servo loader controls require low effort and short throw, fingertip operation. A wrist rest is standard, providing day-long operating comfort. Five loader control options are available from 2 spool/1-lever to 4 spool/2-lever.



- The transmission shifter features lever-controlled forward/reverse, with twist grip range selection. For improved power into the pile, use the downshift feature when loading in second gear. After depressing the button, the transmission automatically shifts to 1st gear for maximum tractive power, and then automatically shifts back to 2nd gear when the direction is reversed.

- Instrumentation monitors all individual machine functions such as alternator, parking brake, brake supply pressure, hydraulic oil temperature, hydraulic oil filter, air filter, coolant temperature, fuel level, hourmeter and operating lights. Analog gauges include the tachometer, voltmeter, engine oil pressure, and transmission oil temperature.





- An audible alarm, multi-level warning lights, analog gauges and liquid crystal bar graphs alert the operator to the status of individual functions.
- A padded steering wheel with steering knob offers low effort, comfortable operation.
- A low noise cab enhances the working environment to make it even more comfortable.





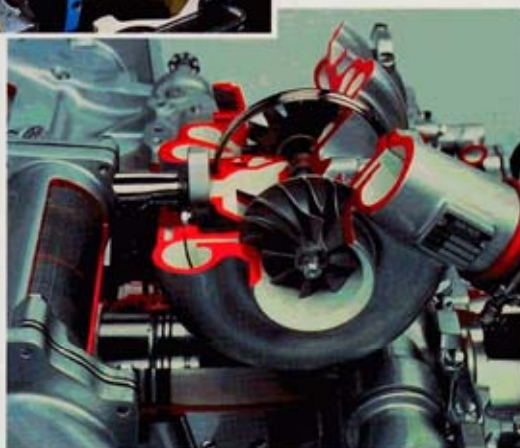
ENGINE

The advanced LTA-10C 6-cylinder diesel is proven to be the most fuel-efficient engine in its class. This compact, heavy-duty engine is the result of the latest technology, with thousands of application hours and over 100,000 engines on the job to demonstrate its reliability and durability.

- The LTA-10C is up to 15% more fuel efficient than competitive engines in the same size range.



- The camshaft is located near the top of the block to allow the use of short push and connecting rods. This results in a stiffer overhead valve and injector train to increase injection pressures for precision fuel metering and more complete combustion.



- Turbocharger and aftercooler are standard equipment. Both are designed specifically for the LTA-10C to optimize fuel efficiency. Intake and exhaust systems are on the same side of the engine to eliminate the need for external air crossover.

- The LTA-10C, with its compact size and uncluttered design, provides more space in the engine compartment for easier service access to reduce maintenance time and cost.
- 1 year, unlimited hours with 3 year, 10,800 hour extended protection on selected components at no additional cost. Cummins parts and labor warranty backs the performance and durability of this outstanding engine.

Model	Cummins LTA-10C
Cylinders	6
Bore/Stroke-in	4.92 x 5.35 (125 x 136 mm)
Displacement-in³	611 (10.01 L)
Horsepower*	
Gross.....	270 (201 kW) @ 2100 rpm
SAE Net.....	248 (185 kW) @ 2100 rpm
Maximum torque ft-lb*	
SAE Net.....	929 (1260 Nm) @ 1300 rpm

Engine horsepower and torque at flywheel per SAE Standard J1349, FFC 80/1269, DIN 6271.



DRIVELINE

Powertrains can really take a beating when shifting back and forth in wheel loader applications. That's why we equipped the 921 with a driveline built to perform under the toughest conditions...with ease.

- 4 forward/3 reverse speed full powershift transmission is equipped with hydraulically actuated multi-disc clutches. An electric twist-grip range selector lever is located on the steering column. Both allow quick response to changing conditions in either direction of travel.
- Range-sensing forward/reverse shift modulation in 1st and 2nd gear produces smooth directional changes and faster cycle times to improve productivity.
- Transmission disconnect feature activates when the left brake is engaged to allow for faster hydraulic response.



TRAVEL SPEEDS mph (km/h)

	1st	2nd	3rd	4th
Forward	5.1 (8.2)	8.5 (29.4)	18.0 (29.0)	25.2 (40.6)
Reverse	5.1 (8.2)	8.5 (29.4)	18.0 (29.0)	—

Note: Engine at full throttle, 26.5 x 25 tires.

- Semi-automatic shifting for upshifts and downshifts – starting out in one gear and selecting another gear causes the transmission to automatically shift through the gears until the selected gear is reached – can be manually shifted as well.

- Downshift button allows the operator to downshift instantly from 2nd to 1st gear for greater push power into the pile – then automatically upshifts into 2nd gear when backing out of the pile.

- Single stage integral torque converter with 3 to 1 stall ratio reduces shockloads to the powertrain by automatically adjusting torque to job requirements.

- Outboard-mounted planetary drive axles.

- Torque-proportioning differentials automatically provide ground gripping traction in adverse conditions. Optional no-spin rear axle available.

- Self-adjusting, fade-resistant outboard mounted wet disc brakes are located at the ends of each axle. Five friction brake discs between metal discs have a total of 903 in² stopping power for each wheel.

- Separate hydraulic brake valves for front and rear actuation provide independent system security. The left pedal applies brakes and electrically neutralizes power flow to the wheels or brake against power. This system is controlled by an on/off switch on the instrument panel so that the left pedal transmission disconnect can be deactivated to brake against power. The right pedal applies brakes only.



- Spring-applied, hydraulically-released disc parking brake on the transmission output shaft is electrically actuated by a switch – and automatically applies with the loss of engine power.



STEERING/ ARTICULATION

A full 40° turn each side of center allows precise maneuvering in tight quarters or wide-open spaces. You'll be able to shorten your cycle time and move more load in a day's time.

- Hydrostatic power steering lets you change direction with minimal effort. The stop-to-stop turning ratio is 4.1 turns.
- Heavy-duty top and lower plates on the center-pivot articulation have double-tapered roller bearings with 1,000 hour lube intervals. Two 4" (102 mm) diameter double-acting cylinders steer the 921 so that the front and rear wheels always track. The outside turning radius of the tires is 20'2" (6.15 m).

- Hydraulic hoses are routed through harnesses, preventing wear.



LOADER

A front-end loader moves a variety of materials in a wide range of working conditions...so you need a machine that maximizes maneuverability, operator efficiency and performance. The 921 does just that.

- An SAE rated breakout force of 48,400 lb (21 954 kg) puts the 921 at the front of its class.
- A 34,533 lb (15 664 kg) full turn tipping load means that the 921 can easily handle 3,635 lb. (1649 kg) per cubic yard of material.
- Servo loader controls with electromagnetic detents give you precision metering when you need it. Five different loader control lever options let you match the right pattern to your operating needs.
- Automatic "return-to-dig", "return-to-travel" and height control let you concentrate on maneuvering rather than positioning the loader.
- Automatic self-leveling throughout the raise cycle keeps the material in the bucket.
- Forward/reverse modulated shift shortens overall cycle time for maximum productivity in loader applications. Automatic upshift from 1st to 2nd when backing out of the pile speeds up the cycle time even more.



- 2.5' wide loader arms are flame-cut for strength and durability. The Z-bar linkage features a cast ductile iron bellcrank and bucket link powered by an 8.0" diameter cylinder.



CYCLE TIMES

	Seconds
Raise (with rated bucket load)	6.2
Dump (with rated bucket load)	1.5
Lower (empty, power down)	4.9
Lower (empty, float down)	3.7





CYLINDERS

	Diameter	Stroke	Rod
Loader Lift (2)	7.0" (178 mm)	34.16" (868 mm)	4.0" (102 mm)
Dump(1)	8.0" (203 mm)	29.34" (745 mm)	4.0" (102 mm)
Steering Articulation (2)	4.0" (102 mm)	20.34" (517 mm)	2.0" (51 mm)



HYDRAULICS

Providing you with more breakout force, operating load capacity and faster cycle times is what the 921 is all about...with an "open" center hydraulic system designed to give you the most power and speed in its class.

- Gear pump provides reliable system flow to parallel circuits.
- Positive pressure on the hydraulic reservoir assures a constant flow of oil to the pumps. A sight gauge placed on the reservoir lets you conveniently check the oil level on a regular basis.
- High-pressure hydraulic hoses and steel hydraulic lines are routed for easy accessibility. O-ring face seals provide trouble-free connections.
- Located alongside of the engine radiator for easy accessibility, a hydraulic oil cooling system maintains the optimum operating temperatures for maximum component life.

Filtration: (2) 10-micron, full-flow, replaceable, spin-on cartridges on the return line. Condition indicator light for the filter. 100 mesh wire screen on the inlet side.

LOADER HYDRAULIC SYSTEM

Pump capacity.....106 gpm @ 2100 rpm @ 2850 psi
(401 L/min @ 2100 r/min @ 19 650 kPa)

System relief pressure.....2850 psi (19 650 kPa)

Loader control valve: Sectional, open center with positive low-pressure regeneration for bucket dump. Two, three or four-spool with one, two, or three loader control lever options for lift, dump and auxiliary.

STEERING HYDRAULIC SYSTEM

Pump capacity.....68 gpm @ 2100 rpm @ 2850 psi
(257 L/min @ 2100 r/min @ 19 650 kPa)

System relief pressure.....2750 psi (18 960 kPa)

SERVICEABILITY

Serviceability is an important consideration when buying any piece of equipment...and you can depend on Case to make servicing easy.

- Outboard planetaries and brakes provide easy access for maintenance to minimize downtime and simplify service.
- Upper and lower pivot points are sealed to protect the tapered roller bearings from external contamination. The machine can run 1,000 hours between lubes.
- All pivot pins on the loader are secured by a bolted teardrop retainer for positive hold and easy serviceability.
- The aspirator uses exhaust vacuum to minimize airborne dirt and reduce routine air filter maintenance requirements.
- The bucket and lift cylinders have bolt-on cylinder heads for reliability and easy servicing.
- Convenient sight gauges allow instant groundline status checks of the transmission and hydraulic oil as well as the radiator coolant level.
- U-joints are lubed for life
- Bolted loader cylinder design and conveniently located groundline accessible grease zerks make servicing easy. Sealed loader linkage pins and bushings have a 100 hour service interval.

SERVICE CAPACITIES

	U.S.	Metric
Cooling System	10.5 gal	39.7 L
Fuel Tank	104.0 gal	393.6 L
Engine Crankcase	9.0 gal	34.1 L
Crankcase and filter	9.75 gal	36.9 L
Transmission and Torque Converter		
Total in system	11.5 gal	43.5 L
Service (w/filter)	7.5 gal	28.4 L
Total Hydraulic System	60.3 gal	228.0 L
Hydraulic Reservoir	32.0 gal	12.1 L
Axles (each)		
Differential (1)	9.6 gal	36.3 L
Each Hub (2)	3.6 gal	13.6 L
Total	16.8 gal	63.6 L

ELECTRICAL

Voltage	24 volts, negative ground
Alternator	70 amp
Batteries	600 cold-cranking amps @ 0° F (-18° C)





PERFORMANCE DATA

Spec loader is a fully serviced unit that includes all standard equipment, 26.5 x 25, L3 20PR tires, ROPS cab, standard 4,800 lb (2177 kg) counterweight, optional lighting package and 175 lb (79 kg) operator.

EXCAVATING BUCKETS

BUCKET CONFIGURATION	Bucket only	Bucket w/teeth	Bucket w/bolt-on edge	Bucket w/teeth & segments	Bucket only	Bucket w/teeth	Bucket w/bolt-on edge
SAE heaped capacity	4.75 yd ³ (3.63 m ³)	4.75 yd ³ (3.63 m ³)	5.0 yd ³ (3.82 m ³)	5.0 yd ³ (3.82 m ³)	5.0 yd ³ (3.82 m ³)	5.0 yd ³ (3.82 m ³)	5.25 yd ³ (4.01 m ³)
SAE struck capacity	3.81 yd ³ (2.91 m ³)	3.81 yd ³ (2.91 m ³)	4.02 yd ³ (3.07 m ³)	4.02 yd ³ (3.07 m ³)	4.38 yd ³ (3.35 m ³)	4.38 yd ³ (3.52 m ³)	4.6 yd ³ (3.35 m ³)
Bucket weight	3,630 lb (1647 kg)	3,950 lb (1792 kg)	4,200 lb (1905 kg)	4,410 lb (2000 kg)	3,819 lb (1732 kg)	4,135 lb (1876 kg)	4,388 lb (1990 kg)
Bucket width	120 in (3.05 m)	122.3 in (3.11 m)	120 in (3.05 m)	122.3 in (3.11 m)	120 in (3.05 m)	122.3 in (3.11 m)	120 in (3.05 m)
Loader clearance circle, bucket at carry	44'8" (13.61 m)	45'7" (13.89 m)	44'10" (13.67 m)	45'7" (13.89 m)	44'9" (13.63 m)	45'5" (13.84 m)	44'11" (13.70 m)
SAE breakout force	48,400 lb (21 954 kg)	48,050 lb (21 795 kg)	44,550 lb (20 208 kg)	44,400 lb (20 140 kg)	47,250 lb (21 432 kg)	46,900 lb (21 273 kg)	43,550 lb (19 754 kg)
SAE tipping load straight*	42,167 lb (19 127 kg)	41,752 lb (18 938 kg)	41,436 lb (18 795 kg)	41,176 lb (18 677 kg)	42,270 lb (19 173 kg)	41,852 lb (18 9847 kg)	41,531 lb (18 838 kg)
SAE tipping load at 40° turn*	34,533 lb (15 664 kg)	34,128 lb (15 480 kg)	33,806 lb (15 334 kg)	33,553 lb (15 219 kg)	34,522 lb (15 659 kg)	34,115 lb (15 474 kg)	33,788 lb (15 326 kg)
Operating load	17,267 lb (7832 kg)	17,064 lb (7740 kg)	16,903 lb (7667 kg)	16,776 lb (7609 kg)	17,261 lb (7829 kg)	17,058 lb (7737 kg)	16,894 lb (7663 kg)
SAE operating weight*	49,784 lb (22 582 kg)	50,100 lb (22 725 kg)	50,353 lb (22 840 kg)	50,560 lb (55 934 kg)	49,971 lb (22 666 kg)	50,287 lb (22 810 kg)	50,540 lb (22 924 kg)

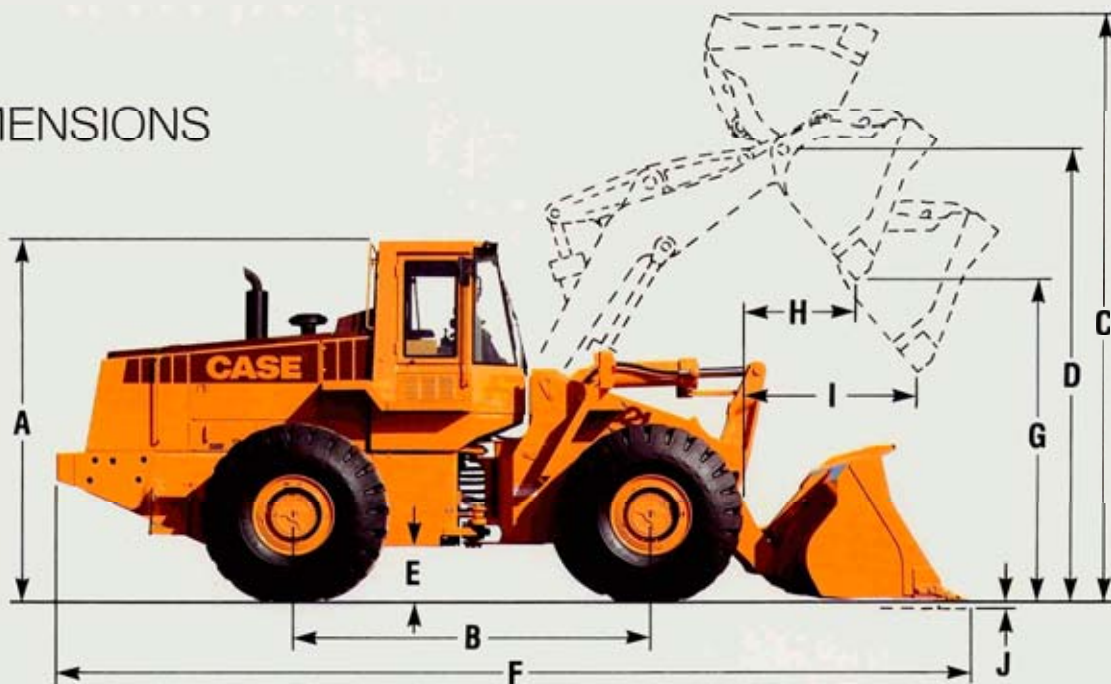
* For selected option changes, adjust operating weight and tipping loads as shown in the following table.

SELECTED OPTIONS	Operating Weight Adjustments		Tipping Load Adjustments	
	Straight	40° Turn	Straight	40° Turn
26.5 x 25 L2 20PR	-60 lb (-22 kg)	-43 lb (-20 kg)	-33 lb (-15 kg)	
26.5 x 25 L3 20PR	NC	NC	NC	NC
26.5 x 25 L4 20PR	+1,412 lb (+640 kg)	+1,003 lb (+455 kg)	+744 lb (+337 kg)	
26.5 x 25 L5 20 PR	+2,156 lb (+977 kg)	+1,636 lb (+742 kg)	+1,903 lb (+863 kg)	
26.5 x R25 XRD1A	+1,528 lb (+693 kg)	+1,085 lb (+492 kg)	+805 lb (+365 kg)	
26.5 x R25 XHAT 1*	+560 lb (+254 kg)	+398 lb (+181 kg)	+295 lb (+134 kg)	
3,300 lb (1496 kg) counterweight	-1,500 lb (-680 kg)	-3,692 lb (-1675 kg)	-2,570 lb (-1166 kg)	
ILO 4,800 lb (2177 kg) counterweight				
ROPS canopy	-295 lb (-134 kg)	-236 lb (-107 kg)	-203 lb (-92 kg)	

NOTE: Ballast is not recommended.



DIMENSIONS



Tread width	87" (2.21m)
Width over tires	115" (2.92 m)
A- Height to top of cab/canopy	11'7" (3.53 m)
B- Wheel base	134" (3.40 m)
C- Overall height	18'5" (5.61 m)
D- Hinge pin height	13'11" (4.24 m)
E- Ground clearance	17.5" (445 mm)

(The following dimensions are affected by bucket configuration)

BUCKET CONFIGURATION	4.75 yd ³ bucket only	Bucket w/teeth	Bucket w/bolt-on edge	Bucket w/teeth & segments	5.00 yd ³ bucket only	Bucket w/teeth	Bucket w/bolt-on edge
F- Overall length	27'7" (8.41 m)	28'2" (8.58 m)	27'10" (8.48 m)	28'2" (8.58 m)	27'8" (8.43 m)	28'3" (8.61 m)	27'11" (8.51 m)
G- Dump clearance @ full height - 45°	10'3" (3.12 m)	9'8" (2.95 m)	9'11" (3.02 m)	9'8" (2.95 m)	10'2" (3.10 m)	9'8" (2.95 m)	9'11" (3.02 m)
H- Bucket reach @ full height - 45°	43.9" (1.12 m)	47.8" (1.21 m)	45.2" (1.15 m)	47.8" (1.21 m)	44.6" (1.13 m)	48.5" (1.23 m)	46.0" (1.17 m)
I- Bucket reach @ 7' (2.13 m) - 45°	68.9" (1.75 m)	70.1" (1.78 m)	68.9" (1.75 m)	70.1" (1.78 m)	69.4" (1.76 m)	70.5" (1.79 m)	69.3" (1.76 m)
J- Dig depth below groundline	2.6" (66 mm)	2.6" (66 mm)	3.9" (99 mm)	3.9" (99 mm)	2.6" (66 mm)	2.6" (66 mm)	3.9" (99 mm)

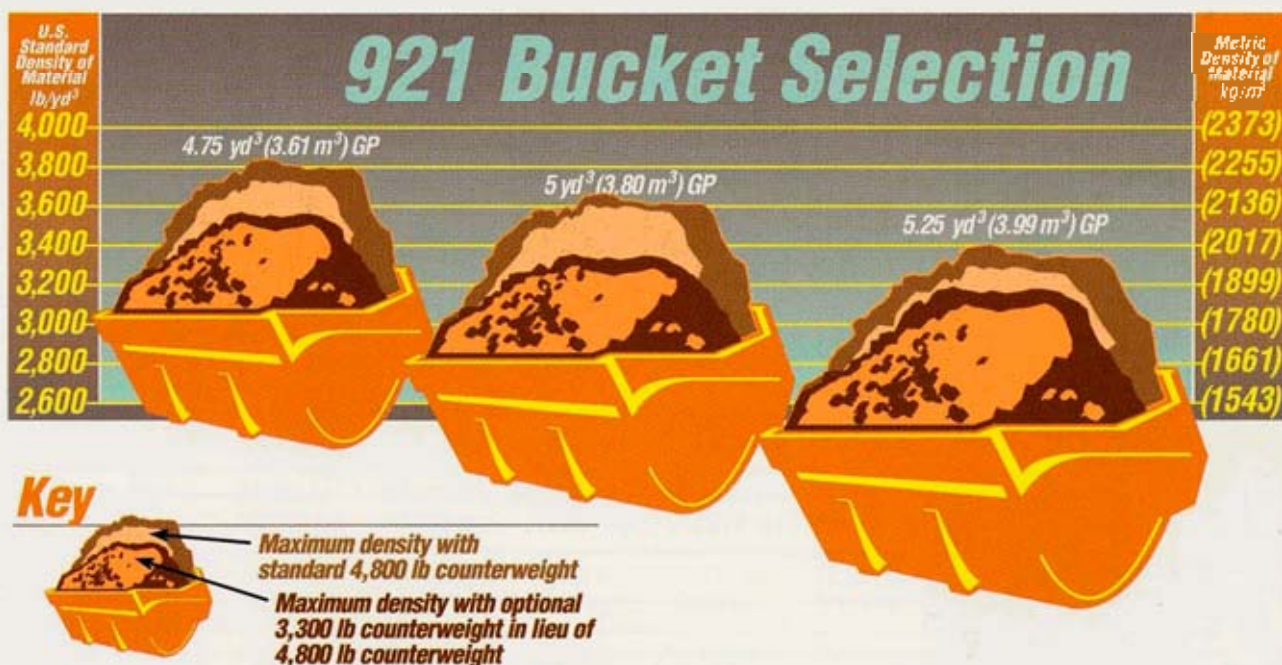


BUCKET SELECTION

Productivity and performance characteristics are maximized when the 921 is properly equipped and applied. The following chart is a guide to sizing buckets based on material density. Bucket recommendations are based on average working conditions. Additional factors, such as tires, counterweight, terrain, weather and options must be considered in bucket selection.

To determine optimum bucket size:

1. Determine density of material being handled using the Material Density Chart below.
2. Locate density in the column (U.S. or Metric) next to the 921 Bucket Selection Illustration.
3. Follow density along its horizontal line to find which bucket(s) can be used for that material density.



MATERIAL DENSITY CHART

Material	Density (Loose)	Material	Density (Loose)
Caliche.....	2,100 lb/yd ³ (1250 kg/m ³)	Gravel	
Clay		Dry.....	2,550 lb/yd ³ (1510 kg/m ³)
Natural bed.....	2,800 lb/yd ³ (1600 kg/m ³)	Pit run (graveled sand).....	3,250 lb/yd ³ (1930 kg/m ³)
Dry.....	2,500 lb/yd ³ (1480 kg/m ³)	Dry 1/2" to 2" (13 to 50 mm).....	2,850 lb/yd ³ (1690 kg/m ³)
Wet.....	2,800 lb/yd ³ (1660 kg/m ³)	Wet 1/2" to 2" (13 to 50 mm).....	3,400 lb/yd ³ (2020 kg/m ³)
With gravel, dry.....	2,400 lb/yd ³ (1420 kg/m ³)	Limestone, broken or crushed.....	2,600 lb/yd ³ (1540 kg/m ³)
With gravel, wet.....	2,600 lb/yd ³ (1540 kg/m ³)	Sand	
Coal		Dry.....	2,400 lb/yd ³ (1420 kg/m ³)
Anthracite, broken.....	1,850 lb/yd ³ (1100 kg/m ³)	Wet.....	3,100 lb/yd ³ (1840 kg/m ³)
Bituminous, broken.....	1,400 lb/yd ³ (830 kg/m ³)	With gravel, dry.....	2,900 lb/yd ³ (1720 kg/m ³)
Earth		With gravel, wet.....	3,400 lb/yd ³ (2020 kg/m ³)
Dry, packed.....	2,550 lb/yd ³ (1510 kg/m ³)	Sandstone, broken.....	2,550 lb/yd ³ (1510 kg/m ³)
Wet, excavated.....	2,700 lb/yd ³ (1600 kg/m ³)	Shale.....	2,100 lb/yd ³ (1250 kg/m ³)
Loam.....	2,100 lb/yd ³ (1250 kg/m ³)	Slag, broken.....	2,950 lb/yd ³ (1750 kg/m ³)
Granite, broken or large crushed.....	2,800 lb/yd ³ (1660 kg/m ³)	Stone, crushed.....	2,700 lb/yd ³ (1600 kg/m ³)
		Topsoil.....	1,600 lb/yd ³ (950 kg/m ³)

921 EQUIPMENT DATA

Standard Equipment

- Articulation lock
- Air precleaner
- Aspirated air cleaner (two element dry-type)
- Auto downshift
- Automatic "return-to-dig", height control, "return-to-travel", self-leveling
- Backup alarm
- Brakes - 4-wheel, outboard, wet disc
- Bucket position indicator
- Canopy - ROPS
- Counterweight package - 4,800 lb (2177 kg)
- Diesel engine
- Drawbar
- Electronic instrument cluster/analog gauges
- Engine side doors
- Fenders: front and rear
- Fuse circuit protection
- Horn
- Hydraulic oil cooler

Lights

- Front and rear halogen flood lights
- Combined tail and stop lights
- Driving lights
- Turn signals
- Warning flashers - 4-way
- Loader control levers with hydraulic power assist and electromagnetic detents
- Master electrical disconnect
- Operator convenience package (steering knob, wrist rest)
- Parking brake
- Power steering
- Pusher fan
- Suspension seat (deluxe) w/ 3" retractable seat belt
- Tilt steering column
- Transmission oil cooler
- Vandal protection lockup package
- 4F/3R powershift transmission
- 70 amp alternator

Optional Equipment

- Air conditioner (cab)
- Beacon: rotating
- Buckets
 - 4.75 yd³ (3.63 m³)
 - 5.0 yd³ (3.82 m³)
 - 5.25 yd³ (4.01 m³)
- Bucket accessories
 - Teeth (2-piece, set of 8)
 - Teeth w/edge segments
 - Bolt-on edge
- Cab (pressurized)
 - w/heater, defroster, front and rear wipers and front washer
 - all of the above w/air conditioner

- Counterweight
 - 3,300 lb (1497 kg) ILO 4,800 lb (2177 kg)
- Cold start aid (ether)
- Lights: highway/driving
- Mirrors (2 exterior)
- No-spin rear axle
- Lift and tie-down brackets





TIRE OPTIONS

Size	Kind
26.5 x 25 20 PR L2	Bias ply dirt (all soil conditions)
26.5 x 25 20 PR L3	Bias ply rock (normal rock conditions)
26.5 x 25 20 PR L4	Bias ply rock (abrasive rock conditions)
26.5 x 25 20 PR L5	Bias ply rock (hard, rough blasted rock)
26.5 x R25 XRDIA	Radial rock (abrasive rock conditions)
26.5 x R25 XHAT 1*	Radial (normal rock conditions)

ALLIED EQUIPMENT

The 921 is a prime mover for a wide range of attachments. Meet today's market demand with the versatility and productivity of the Case 921 using these allied supplied attachments.

Contact your Case dealer regarding the use and availability of the right attachment for your application.

- Asphalt cutters
- Blades
- Booms (jib crane)
- Buckets
 - grapple
 - light material
 - rock
 - trash
 - demolition
 - woodchip
- Forks
 - log and lumber
 - pipe and pole
 - car body
- Grapples
 - scrap
 - log
- Rakes
- Snow equipment
 - blowers
 - plows
 - blades
- Specialty tires

The dealer who sells and services your Case equipment is also your source for Case Credit financing. Case Credit offers financial products you can count on, including finance plans, leases, insurance and repair financing.

Case Credit...bringing people and product together.™

Sold and serviced by:

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

IMPORTANT: J I Case reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Units shown may be equipped with non-standard equipment.

J I Case
A Tenneco Company



700 State Street, Racine, WI 53404 U.S.A.