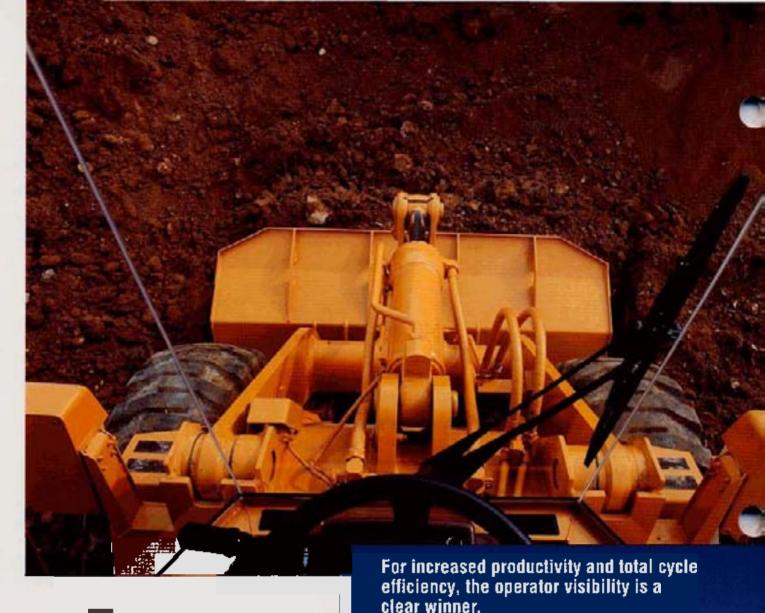
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Wheel Loader 621B









OPERATOR ENVIRONMENT

For all-around operator comfort and control, choose the 621B. The bottom line is that you'll be highly productive while minimizing operator fatigue.

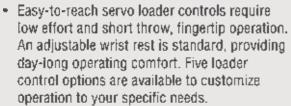
- The front cab glass area is maximized to enhance forward visibility for all loading jobs. A sloped rear hood offers greater visibility of the work area than traditional square hoods.
- A suspension seat and adjustable steering wheel increases operator comfort by allowing adjustments for individual height and weight.
- The quiet cab enhances the working environment to make it comfortable for the operator.

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

when the direction.

is reversed.

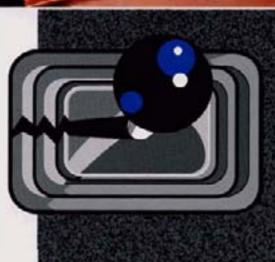




 A padded steering wheel with steering knob offers low effort, comfortable operation.

- 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. An audible alarm, multi-level warning lights and liquid crystal bar graphs alert the operator to the status of each function.
- Optional analog gauges include the tachometer, voltmeter, engine oil pressure and transmission oil temperature.







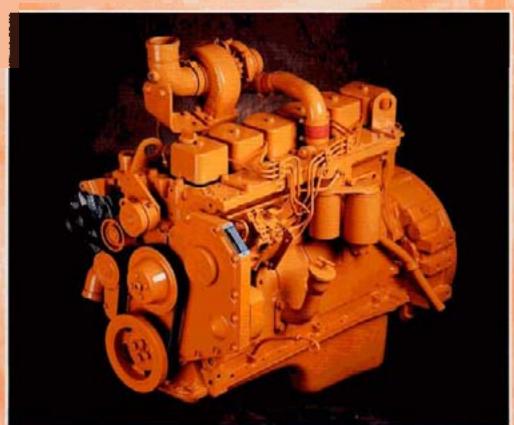
The powerful 6T-590 6-cylinder diesel is designed for productivity and durability. Engineered and built with the tought the construction industry in mind, this proven workhorse will keep you working no matter what the conditions.

- The turbocharged 67-590 engine offers increased horsepower and high altitude compensation for outstanding particular in all applications.
- Integral design incorporates external engine components into the block. This results in reduced wear and heat build-up. There are fewer moving parts for increased reliability, low operating cost and reduced maintenance.
- In overall work cycle productivity, including digging, backfilling and stockpilling, the 6T-590 proves to be an efficient engine.
- One-piece cast iron parent metal bore block allows closer tolerances for added durability.

- Integral oil purp for pressurized lubrication with oil cooler and under-piston oil nozzles provide positive cylinder wall lubrication.
- One of the best warranties in the industry backs the performance and durability of this outstanding engine.

Model	6T-590
Cylinders	6
Bore/Stroke-in	4.02 x 4.72
	(102 mm x 120 mm)
Displacement-in ³	
Horsepower*	
SAE Net 123 h	o (93.9 kW) @ 2200 rpm
	(102.9 kW) @ 2200 rpm
Maximum torque ft-lb*	`
	9 (581 Nm) @ 1400 rpm
	3 (600 Nm) @ 1400 rpm
Engine horsepower and furgue at My EEC 80/1269, DIN 6271,	







Powertrains can really take a beating when shifting back and forth in wheel loader applications. That's why we equipped the 621B with a driveline built to perform under the toughest conditions.

- 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.
- Range-sensing forward/reverse shift modulation in 1st and 2nd gear produces smooth directional changes and faster cycle times to improve productivity.
- Self-adjusting, fade-resistant outboard-mounted wet disc brakes are located at the ends of each axle. Three friction brake discs between metal discs have a total of 312 in² (2013 cm²) stopping power for each wheel.
- Selectable transmission disconnect feature
 activates when the left brake is engaged to allow
 for faster hydrautic response and allows precise
 inching control when braking against power. The
 left pedal applies brakes and electrically
 neutralizes power flow to the wheels or brakes
 against power. The right pedal applies brakes only.
- A speed sensor allows for semi-automatic shifting for upshifts and downshifts – starting out in one gear and then selecting another causes the transmission to automatically shift through the gears until the selected gear is reached. It can also be manually shifted.
- Downshift button on loader control 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.

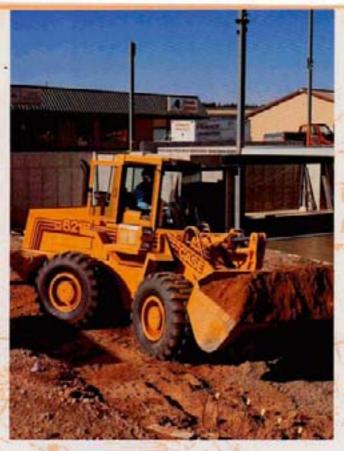


TRAVEL SPEEDS mph (km/h)

	1st	2nd	3rd	4th
Forward	4.1 (6.6)	6.9 (11.1)	14.6 (23.5)	20.6 (33.2)
Reverse	4.2 (6.8)	7.0 (11.2)	15.0 (24.1)	***

Note: Engine at full throttle, 20.5 x 25 tires.

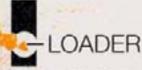
- Single stage integral torque converter with 2.9-to-1 stall ratio reduces shockloads to the powertrain by automatically adjusting torque to job requirements.
- Outboard-mounted planetary drive axles simplify service and reduce axle shaft stress.
- Limited slip differentials provide groundgripping traction in adverse conditions assuring transfer of traction to wheel with solid footing.
- Separate hydraulic brake valves for front and rear actuation provide independent system security.
- Engaging parking brake applies a disc brake on transmission output shaft and disconnects the transmission to prevent drive-through.



STEERING/ ARTICULATION

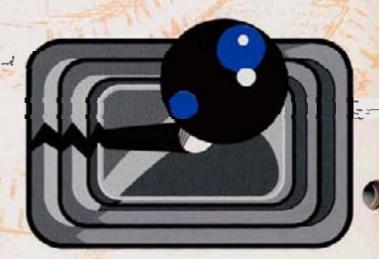
A full 40° turn each side of center allows precise maneuvering in tight quarters or open spaces.

- Hydrostatic power steering lets you change direction with minimal effort. The stop-to-stop turning ratio is 4.0 turns. Two hydraulic cylinders controlled by a hydrostatic gear with relief and flow control valve steer the 621B so that the front and rear wheels always track. The outside turning radius of the tires is 17'1" (5.19 m) with 20.5 x 25 tires.
- Heavy-duty top and lower plates on the centerpivot articulation have sealed, double-tapered roller bearings with 1,000 hour lube intervals.
- Hydraulic hoses are routed through specially : designed harnesses to reduce wear.



A front-end loader moves a variety of materials in a wide range of working conditions. You need a machine that maximizes maneuverability, operator efficiency and performance and the 621B does just that.

- A SAE rated breakout force of 24,799 lb (11 249 kg) puts the 621B at the front of its class.
- A 17,393 lb (7889 kg) full turn tipping load means that the 621B can easily handle 3,865 lb (1753 kg) per cubic yard of material.
- Servo loader controls with electromagnetic detents give you precise metering. The 621B features five different loader control lever options to 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 the machine 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.
- The Z-bar linkage features a cast ductile iron bellcrank and bucket link powered by a 6.0° diameter cylinder.

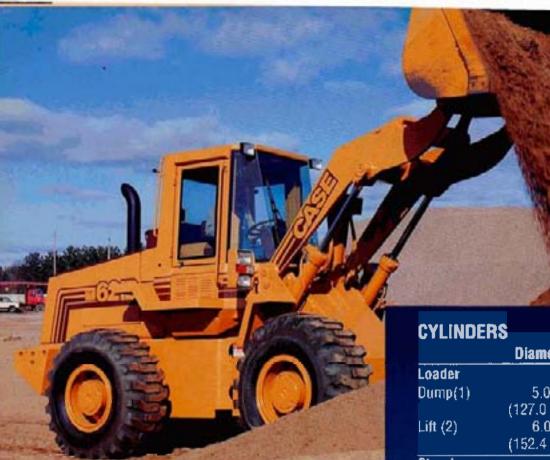






Raise (with rated bucket load)	Seconds
Dump (with rated bucket load)	
Lower (empty, power down)	5.0
Lower (empty, float down)	4.4
Total Cycle Time	. 11.6







Providing you with more breakout force, operating load capacity and faster cycle times is what the 621B is all about. The "open" center hydraulic system is designed to give you balanced power and speed.

- A dual tandem gear pump supplies oil to the integrated loader and steering hydraulic system.
- A sight gauge placed on the reservoir lets you conveniently check the oil regularly.
- High pressure hydraulic hoses and steel hydraulic lines are routed for easy accessibility
- Located in line with the engine radiator for easy accessibility, a hydraulic oil cooling system maintains the optimum operating temperatures for maximum component life.

CYLINDERS			
	Diameter	Stroke	Rod
Loader			
Dump(1)	5.01	32.8"	3.0"
	(127.0 mm)	(833.6 mm)	(76.2 mm)
Lift (2)	6.0'	21.4*	3.0'
	(152.4 mm)	(544.3 mm)	(76.2 mm)
Steering			
Articulation (2)	3.01	17.4"	1.8'
	(76.2 mm)	(442.7 mm)	(44.4 mm)
Clam	4.0"	10.0	2.0"
	(101.6 mm)	(254.0 mm)	(50.8 mm)

Filtration: 10-micron, full-flow, return filters furnish clean oil to all components.

HYDRAULIC SYSTEM

Steering pump

capacity 30.9 gpm @ 2200 rpm @ 2500 psi (117 L/min @ 2200 rpm @ 17 237 kPa)

Loader pump

capacity 56.4 gpm @ 2200 rpm @ 2250 psi (213 L/min @ 2200 rpm @ 15 513 kPa)

System relief pressure 2250 psi (15 513 kPa)

Loader control valve: Open-center, series parallel circuit, with positive low pressure regeneration for bucket dump.





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 tower pivot points are sealed to protect the tapered roller bearings from external contamination. The machine can run 1,000 hours between lubes. Grease zerks are easy to reach with ground level access.
- All pivot pins on the loader are secured by a bolted teardrop retainer for positive hold and easy serviceability.
- Solted 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.
- 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 radiator coolant, transmission oil and hydraulic oil.
- . U-joints are lubed for life.
- Easily replaced spin-on filters for engine oil, hydraulic oil, fuel and transmission oil.





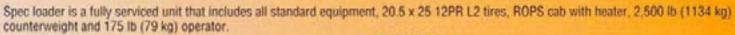
- SERVICE CAPACITIES

		U.S.	Metric
Cooling Syster	n	7.0 gal	26.5 L
Fuel Tank		51.0 gal	193.0 L
Engine Cranko	ase	3.7 gal	14.2 L
Crankcase ar	nd filter	4.0 gal	15.1 L
Transmission		5.0 gal	18.9 L
Service (w/fi	lter)	2.0 gal	7.6 L
Total Hydraulic	Total Hydraulic System		153.3 L
Hydraulic Re	servoir	23.8 gal	90.1 L
Axies (each)			
Differential:	front	2.5 gal	9.5 L
	геаг	2.5 gal	9.5 L
Hub (each):	front	1.5 gal	5.7 L
	геаг	1.5 gal	5.7 L
Total:	tront	5.5 gal	20.5 L
	геаг	5.5 gal	20.5 L





PERFORMANCE DATA



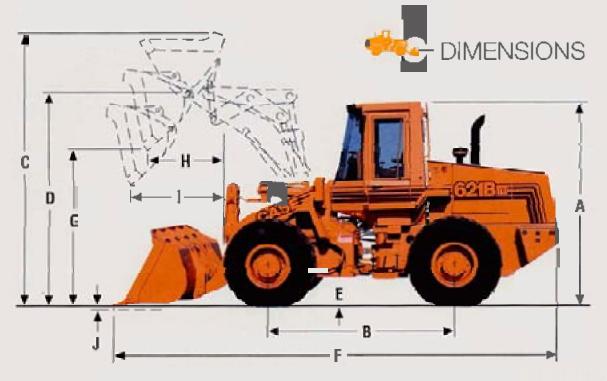
BUCKETS

BUCKET CONFIGURATION	Bucket	2.25 yd ³ Bucket w/teeth	Bucket w/bolt-on edge	Bucket only	2.50 yd ³ Bucket w/teeth	Bucket w/bolt-on edge	2.78 Bucket only	Bucket w/bolt-on edge	Bucket only	2.0 yd ³ Bucket w/teeth	Bucket w/bolt-on edge
SAE heaped capacity	2.25 yd ³	2.25 yd ³	2.41 yd ³	2.50 yd ³	2.50 yd ³	2.60 yd ³	2.75 yd ³	2.79 yd ³	2.00 yd ³	2.00 yd ³	2.28 yd ³
	(1.72 m ³)	(1.72 m ³)	(1.84 m ³)	(1.91 m ³)	(1.91 m ³)	(1.99 m ³)	(2.10 m ³)	(2.13 m ³)	(1.53 m ³)	(1.53 m ³)	(1.74 m ³)
SAE struck capacity	1.98 yd ³	1.98 yd ³	2.06 yd ³	2.15 yd ³	2.15 yd ³	2.21 yd ³	2.34 yd ³	2.38 yd ³	1.77 yd ³	1.77 yd ³	1.85 yd ³
	(1.51 m ³)	(1.51 m ³)	(1.57 m ³)	(1.64 m ³)	(1.64 m ³)	(1.69 m ³)	(1.79 m ³)	(1.82 m ³)	(1.35 m ³)	(1.35 m ³)	(1.41 m ³)
Bucket weight	1,726 lb	1,918 lb	2,094 lb	2,155 lb	2,441 lb	2,779 lb	1,970 lb	2,456 lb	2,724 lb	3,015 lb	3,129 lb
	(783 kg)	(870 kg)	(950 kg)	(978 kg)	(1107 kg)	(1261 kg)	(894 kg)	(1114 kg)	(1236 kg)	(1368 kg)	(1419 kg)
Bucket width	100°	100°	100°	102"	102°	102"	102°	102°	100"	100°	100°
	(2.54 m)	(2.54 m)	(2.54 m)	(2.59 m)	(2.59 m)	(2.59 m)	(2.59 m)	(2.59 m)	(2.54 m)	(2.54 m)	(2.54 m)
oader clearance	37'3'	37'7'	37°4°	37°5°	37°10°	37 ⁻⁷	37'7"	37'8"	37-6"	37'11'	37 ^{-7*} (11.46 m)
arcle, bucket at carry	(11.35 m)	(11.46 m)	(11.37 m)	(11.41 m)	(11.52 m)	(11.46 m)	(11.46 m)	(11.49 m)	(11.42 m)	(11.56 m)	
AE breakout force	24,799 lb	24,583 lb	23,373 lb	23,911 lb	23,695 lb	22,213 lb	22,641 lb	21,311 lb	22,791 lb	22,467 lb	21,439 lb
	(11 249 kg)	(11 151 kg)	(10 602 kg)	(10 846 kg)	(10 748 kg)	(10 748 kg)	(10 270 kg)	(9667 kg)	(10 338 kg)	(10 191 kg)	(9725 kg)
AE tipping load - traight*	20,515 lb	20,277 lb	19,940 lb	20,419 lb	20,049 lb	19,295 lb	20,272 lb	19,528 lb	18.885 lb	18,515 lb	18.268 lb
	(9306 kg)	(9198 kg)	(9045 kg)	(9262 kg)	(9094 kg)	(8752 kg)	(9195 kg)	(8858 kg)	(8566 kg)	(8398 kg)	(8287 kg)
AE tipping load	17,393 lb	17,157 lb	16,842 lb	17,255 lb	16,889 lb	16,186 lb	17,145 lb	16,432 lb	15,857 lb	15,491 lb	15,261 lb
t 40" turn*	(7889 kg)	(7782 kg)	(7640 kg)	(7827 kg)	(7661 kg)	(7342 kg)	(7777 kg)	(7454 kg)	(7193 kg)	(7027 kg)	(6923 kg)
perating load	8,697 lb	8.579 lb	8,421 lb	8,628 lb	8,445 lb	8,093 lb	8,573 lb	8,216 lb	7,929 lb	7,746 lb	7.631 lb
	(3945 kg)	(3891 kg)	(3820 kg)	(3914 kg)	(3831 kg)	(3671 kg)	(3889 kg)	(3727 kg)	(3597 kg)	(3514 kg)	(3461 kg)
AE operating veight	26,199 lb	26,391 lb	26,568 lb	26,628 lb	26,914 lb	27,252 lb	26,443 lb	26,930 lb	27,197 lb	27,488 lb	27,602 lb
	(11 884 kg)	(11 971 kg)	(12,051 kg)	(12,078 kg)	(12 208 kg)	(12,362 kg)	(11 995 kg)	(12,215 kg)	(12 338 kg)	(12 470 kg)	(12,521 k)

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

SELECTED OPTIONS	Weight Adjustments Ib (kg)	Tipping Los Straight-ib (kg)	nd Ad nen 40' furn-10 (kg)
20.5 x 25 12PR L2	NC	NC	NG
20.5 x 25 16PR L2			
20.5 x 25 12PR L3			
20.5 x R25 XHAT 1*			
20.5 x R25 XGLAT 1*,			
17.5 x 25 12PR L2			
17.5 x 25 12PR L3		358 (-162)	322 (-146)
17.5 x R25 XHAT 1*	540 (-245)	159 (-72)	27 (-12)
17.5 x R25 XGLAT 11			
1,500 lb (680 kg) counterweight	1,000 (-454)	2,049 (-929)	1,671 (-758)
ROPS canopy	295 (-134)	270 (-122)	245 (-111)

NOTE: Ballast is not approved with the 2,500 lb (1134 kg) counterweight and/or 20.5 x 25 tires.



Dimensions are for spec loader with 20.5 x 25 12PR tires and 2.25 yd³ bucket.

A-	Height to top of cab/canopy	10°8° (3.26 m)	TIRE SIZE ADJUSTMENT FOR VERTICAL DIMENSIONS	
B-	Wheel base	114.0° (2.90 m)	20.5 x 25	0° (0 mm)
C.	Overall height	15'8' (4.77 m)	17.5 x 25	-2.25" (-57.2 mm)
D	Hinge pin height	12'1" (3.68 m)	Warming To All Street	
E-	Ground clearance	16.8° (427 mm)	400 F C 4 S AC	
Tre	ead width	74" (1.88 m)		
Wi	dth over tires	96' (2.44 m)	 -	

(The following dimensions are affected by bucket configuration)

	111			BUCKETS										
			E)	CAVATIN	G	EXCAVATING				STOCKPILING		MULTIPURPOSE		
11	BL	ICKET CONFIGURATION	Bucket only	2.25 yd ³ Bucket w/teeth w/	Bucket bolt-an edge	Ruckel only	2.50 yd ³ Becket y/teeth w/	Bucket boll-on edge	Bucket	Sucket Bucket /bolt-on edge	Bucket	2.0 yd ³ Sucket w/teeth w	Backet /bolt-on edge	
	F-	Overall length	22'2" (6.76 m)	22'9' (6.93 m)	22'4" (6.81 m)	22'3' (6.78 m)	23'0" (7.01 m)	22'5" (6.83 m)	22'5' (6.83 m)	22'7" (6.88 m)	22'6" (6.86 m)	23'3' (7.09 m)	22'8' (6.91 m)	
	G-	Dump clearance @ full height - 45°	9'6' (2.90 m)	9°0" (2.73 m)	9°4° (2.84 m)	9'5' (2.88 m)	8'11' (2.73 m)	9:3° (2.82 m)	9'4" (2.84 m)	9°2° (2.79 m)	9'3' (2.82 m)	8'8" (2.64 m)	9°1° (2.77 m)	
	H-	Bucket reach @ full height - 45°	37.7° (958 mm)	37.7° (958 mm)	38.1" (968 mm)	38.5" (978 mm)	38.5° (978 mm)	38.7° (983 mm)	39.8" (1.01 m)	40.2° (1.02 m)	36.8' (935 mm)	36.8° (935 mm)	36.8° (935 mm)	
アドビ	ŀ	Bucket reach @ 7' (2.13 m) - 45°	56.2° (1.427 m)	56.2" (1.427 m)	55.8" (1.417 m)	56.6° (1.438 m)	56.6° (1.438 m)	55.9° (1.420 m)	57.4" (1.458 m)	56.7" (1.440 m)	53.8" (1.367 m)	53.8" (1.367 m)	54.2" (1.377 m)	
	1	Dig depth below groundline	2.75° (70 mm)	2.7° (69 mm)	3.8T (97 mm)	2.6° (66 mm)	2.6° (66 mm)	4.0° (102 mm)	2.7° (69 mm)	4.0" (102 mm)	5.7" (145 mm)	5.7° (145 mm)	6.8° (173 mm)	



Productivity and performance characteristics are maximized when the 621B 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 621B 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 (Loo	se)
Caliche	. 2,100 lb/yd ³	(1250 kg/m ³)
Clay		
Natural bed	. 2,800 lb/yd ³ .	(1600 kg/m ³)
Dry	. 2,500 lb/yd ³	(1480 kg/m^3)
Wel		(1660 kg/m^3)
With gravel, dry	. 2,400 lb/yd3	(1420 kg/m ³)
With gravel, wet	. 2,600 lb/yd ³ .	(1540 kg/m ³)
Coal		
Anthracite, broken	. 1,850 lb/yd ³	(1100 kg/m^3)
Bituminous, broken	. 1,400 lb/yd ³	(830 kg/m^3)
Earth		
Dry, packed	$2,550 \text{lb/yd}^3$	(1510 kg/m^3)
Wet, excavaled	. 2,700 lb/yd ³	(1600 kg/m^3)
Loam	. 2,100 lb/yd3	(1250 kg/m ³)
Granite, broken or large crushed .	. 2,800 lb/yd ³	(1660 kg/m^3)

Material	_Density (Loc	ose)
Gravel		
Dry		$(15^{\circ}0 \text{ kg/m}^3)$
Pit run (graveled sand)	3,250 lb/yd ³	(1930 kg/m ³)
Dry - 1/2" to 2" (13 to 50 mm) .	2,850 lb/yd3	(1690 kg/m^3)
Wet - 1/2' to 2' (13 to 50 mm).	3,400 lb/yd3	(2020 kg/m ³)
Limestone, broken or crushed	2,600 lb/yd3	(1540 kg/m ³)
Sand		
Dry	2,400 lb/yd3	(1420 kg/m ³)
Wet	3,100 lb/yd3	(1840 kg/m ³)
With gravel, dry	2,900 lb/yd3	(1720 kg/m ³)
With gravel, wet	3,400 lb/yd3	(2020 kg/m ³)
Sandstone, broken	2,550 lb/yd3	(1510 kg/m ³)
Shale	2,100 lb/yd3	(1250 kg/m ³)
Slag, broken	2,950 lb/yd3	(1750 kg/m ³)
Stone, crushed	2,700 lb/yd3	(1600 kg/m ³)
Topsoil	1,600 lb/yd3	(950 kg/m ³)

621B EQUIPMENT DATA

Standard Equipment

Articulation lock Air precleaner

Backup alarm

Brakes - 4-wheel, outboard, wet disc

Bucket position indicator

Canopy - ROPS Diesel engine

Electronic instrument cluster

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

Hydraulic-actuated levers

Electromagnetic detents

Automatic "return-to-dig"/height control

"Return-to-travel"/self-leveling

Master electrical disconnect

Parking brake

Power steering

Pusher fan

Steering knob

Suspension seat (deluxe) w/2" retractable seat belt

Tilt steering column

Transmission

4F/3R powershift

Semi-automatic shifting

Quick downshift button

Transmission oil cooler

Vandal protection lockup package

Windshield wiper, front and rear

Windshield washer

Wrist rest

65 amp alternator

Optional Equipment

Counterweight package: 2,500 lb (1134 kg) Cold start aid (ether and heavy-duty battery)

Mirrors (2 exterior)

Lift and tie-down brackets

Air conditioner (cab) Analog gauges

Beacon: rotating

Buckets

2.25 yd3 (1.72 m3) excavating

2.50 yd3 (1.91 m3) excavating

2.75 yd³ (2.10 m³) stockpiling

2.00 yd³ (1.53 m³) multipurpose

Bucket accessories

Teeth (2-piece, set of 8)

Bolt-on edge

Cab (pressurized)

w/heater, defroster







-ALLIED EQUIPMENT

The 621B is a prime mover for a wide range of attachments. Meet today's market demand with the versatility and productivity of the Case 621B using these allied supplied attachments.

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

- Asphalt cutters
- Booms (jib crane)
- Blades landfill woodchip
- Buckets grapple light material rock trash demolition
- Farks

20.5 x 25 12PR L2 Bias ply dirt (all soil conditions) 20.5 x 25 16PR L2Bias ply dirt (all soil conditions) 20.5 x 25 12PR L3Bias ply rock (normal rock conditions) 20.5 x R25 XHAT 1*Radial (normal rock conditions) 20.5 x R25 XGLAT 1*Radial (all soil conditions) @8322392

> log and lumber. pipe and pole car body

Kind

- Grapples scrap loa
- Snow equipment blowers plows blades
- Rakes
- 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.

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