966H

Wheel Loader

CAT®
Defense

Applications	
Airfield Construction	General Construction
Landing Zones	Demolition
Modify Environments	Anti-tank Ditches
Mine Clearing	Route Clearance

Giving operators superior control over their heaviest loads.

Maneuver, fully loaded, around obstacles on every site. The Cat® 966H Wheel Loader delivers highly responsive controls and heavy duty capabilities, ensuring unsurpassed productivity for diverse operations. Designed with midpoint articulation, the machine maintains greater balance and durability, and superior maneuverability in tight operating conditions. Beyond lifting barriers for installation and stockpiling material, the 966H demonstrates its versatility in the construction of airfields, roads, defensive berms, as well as various demolition functions.

Understanding that loaders work in some of the harshest environments, the 966H is engineered with machine-wide shock and vibration reducing measures.

- Oscillating rear axle
- Cab iso-mounts
- Neutralizer valves at articulation joint
- Electronically controlled, automatic kickouts
- Air suspension seat-mounted implement controls
- Cylinder dampening for the bucket

Entry ladder with self-cleaning steps and wide front and rear platforms.

Operator-focused ride control and hydraulics.

- **Electro-hydraulic Implement Controls:** Prevent material spillage and improve productivity with in-cab programmable kickouts. The console features a forward/neutral/reverse switch for fast and easy directional changes to reduce cycle times.
- **Ride Control:** Improve ride, cycle times and load retention when traveling at higher speeds over rough terrain in load and carry operations.
- **Planetary Powershift Transmission:** The responsive electronic planetary powershift transmission with automatic shift capability is designed and built by Caterpillar for precise speed and directional changes.
- **Load Sensing Hydraulics:** The load-sensing hydraulic system automatically adjusts to operating conditions, providing only the hydraulic flow required for improved fuel efficiency.

Two-person cab with rifle brackets.

Monitoring system.

Ergonomic cab.

Military Modifications

- C17/C5 air transportable
- Removable cab for transport
- NATO slave receptacle
- MIL-STD-209 lift and tie down provisions
- Fresh water fordable to 20 in/508 mm depth
- Blackout lighting system
- Rifle bracket
- Storage – provisions for MOPP gear
- Tool box
- Cold start aid for -25° F (ether)
- Military towing lugs
- Vandalism protection
- Shipping data plate
- Keyless engine start switch
- Military oil sampling valves
- Fire extinguisher
- Brush guards for lights
- Military data plates
- CARC paint

OPTIONAL

- Hydraulic broom
- Foam-filled tires
- Pallet forks
- Armor (optional)*
  - Machine armor package
  - Two-person armored cab*

Consult Caterpillar Defense for specific details on military modifications.

Built to complete more operations with one machine.

Easily expand the capability and performance of the 966H as operating environments and tasks change. Cat attachments are specifically designed to fit the wheel loader, delivering the highest performance, safety and stability for every operation.

Cat Loader Work Tools
General Purpose (GP) Bucket
Rock Bucket
Multi-purpose Bucket
Hydraulically Adjustable Pallet Forks
Snow Plow
Hydraulic Broom

Armor Protection Solutions

The armored crew protection kit (CPK) on the 966H provides 360° protection for operators inside the cab. Its emergency egress hatch gives operators the ability to quickly exit the cab, while providing rescue personnel critical access to those inside. Transparent armor provides a wide field of view of the machine and surrounding areas. Cat armor protection solutions give operators the scalability they need to adapt to changing environments and conditions.

Scalable Armor Packages (conform to STANAG 4569)

2-person CPK	Machine Armor Protection (MAP) for Critical Machine Automotive Components

CPK Protection Levels Available

STANAG 4569 Annex A Level 2 • Annex B Level 4
STANAG 4569 Annex A Level 3 • Annex B Level 4

MAP Protection Levels Available

STANAG 4569 Annex A Level 2 • Annex B Level 3
STANAG 4569 Annex A Level 3 • Annex B Level 3

Two-person armored cab.

Emergency egress hatch.

966H fully armored with two-person cab.

Support and Serviceability

Easy to maintain. Ready for work.

Proper maintenance of your wheel loader will keep it running at peak performance with minimal downtime. The 966H is engineered with easy-to-access maintenance points and a full range of systems to ensure operators and technicians are able to efficiently diagnose and maintain the machine.

Electric Service Center

The batteries, relay panel and tool box are conveniently located below the left-side access platform. The engine shutdown switch is housed within the relay panel. A compartment integrated into the access platform contains the hood tilt actuation switch, master switch and NATO start receptacle.

Ground Level Grease Points

Grease fittings are grouped on the right side of the machine in two convenient locations – in a service compartment just below the right-side service platform and a bank located just off the non-engine end frame. These locations facilitate easy lubrication of vital components located throughout the machine.

Monitoring Systems

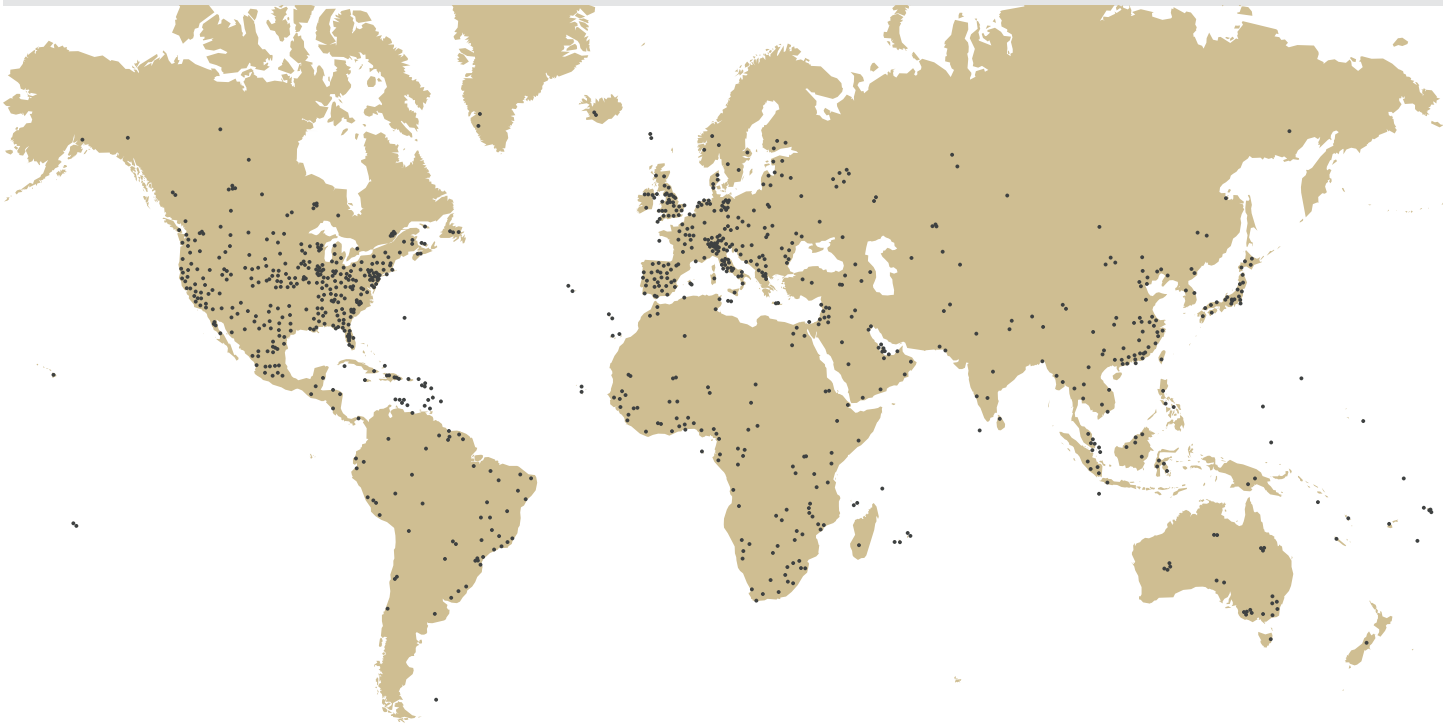
The 966H maximizes on-board diagnostics capability using electronic control modules (ECMs) to monitor engine and machine systems (transmission, hydraulics and brakes). Cat Electronic Technician (ET) software accesses information from the allowing technicians to view status parameters, logged codes, active codes, perform functional tests and record and view data logs of equipment operation. The instrument panel conveniently displays fault or event codes, while the messenger system provides text related to the fault code. This diagnostic capability allows customers to maintain wheel loader readiness while minimizing the maintenance burden.

Worldwide Service Capabilities

Cat dealer field service technicians have the experience and tools necessary to service your machine on-site. Field service trucks are fully loaded with state-of-the-art tools and diagnostic equipment, as well as specifications and schematics for every Cat machine. Technical experts at the dealership and the Caterpillar team are available to provide assistance to field service technicians. When on-site repair isn't enough, Cat dealerships are fully-equipped to service your wheel loader quickly.

Dealer Support

The Caterpillar global network of dealers is the best in the world at providing support to keep your wheel loader up and running. With 99.7% of parts shipped within 24 hours, Cat dealers are partners in support.



Operating Specifications

Engine

MODEL	Cat® C11 (ATAAC)
Gross Power - SAE J1995 (hp/kW)	283 / 211
Net Power - ISO 9249 (hp/kW)	262 / 195
Net Power - SAE J1349 (hp/kW)	259 / 193
Net Power - 80/1296/EEC (hp/kW)	262 / 195
Peak Torque (Net) at 1,400 rpm (ft-lb/Nm)	896 / 1215
Bore (in/mm)	5.12 / 130
Stroke (in/mm)	5.51 / 140
Displacement (in^3/L)	677 / 11.1

- Cat engine with ACERT™ Technology – EPA Tier 3, EU Stage III Compliant.
- These ratings apply at 1,800 rpm when tested under the specified standard conditions.
- Rating for net power advertised based on power available when the engine is equipped with alternator, air cleaner, muffler and on-demand hydraulic fan drive at maximum fan speed.

Operating Weight

Standard	
Standard, Split Cab (lb/kg)	54,000 / 24 494
Armored*	
STANAG 2 Armor	
- CPK 2-person, Foam Filled Tires (lb/kg)	71,500 / 32 432
- CPK 2-person, Machine Armor, Foam Filled Tires (lb/kg)	81,000 / 36 741
STANAG 3 Armor	
- CPK 2-person, Foam Filled Tires (lb/kg)	73,000 / 33 112
- CPK 2-person, Machine Armor, Foam Filled Tires (lb/kg)	85,000 / 38 555

- Approximate operating weight with general purpose bucket.
- Weight will vary with options selected.
- Custom configurations may be available.

Standards

Cab

- Cat cab with integrated Rollover Protective Structure (ROPS) are standard in North America and Europe.
- ROPS meets SAE J1040 APR88 and ISO 3471:1994 criteria.
- Falling Objects Protective Structure (FOPS) meets SAE J231 JAN81 and ISO 3449:1992 Level II criteria.
- The operator sound pressure level measured according to the procedures specified in ISO 6394:1998 is 75 dB(A) for the cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environments.
- The sound pressure level is 111 dB(A) measured according to the static test procedure and conditions specified in ISO 6395:1998 for a standard machine configuration.

Transmission

Forward - 1st (mph/km/h)	4.2 / 6.7
- 2nd (mph/km/h)	7.8 / 12.6
- 3rd (mph/km/h)	13.7 / 22.1
- 4th (mph/km/h)	23.2 / 37.4
Reverse - 1st (mph/km/h)	4.6 / 7.4
- 2nd (mph/km/h)	8.6 / 13.9
- 3rd ((mph/km/h)	15.1 / 24.3
- 4th (mph/km/h)	23.2 / 37.4

- Maximum travel speeds (26.5-25 tires).

Service Refill Capacities

Fuel Tank Standard (gal/L)	106.7 / 404
Cooling System (gal/L)	11.2 / 42.4
Crankcase (gal/L)	9.25 / 35
Transmission (gal/L)	13.2 / 50
Differentials and Final Drives - Front (gal/L)	16.9 / 64
Differentials and Final Drives - Rear (gal/L)	16.9 / 64
Hydraulic Tank (gal/L)	29 / 110

**Optional.*

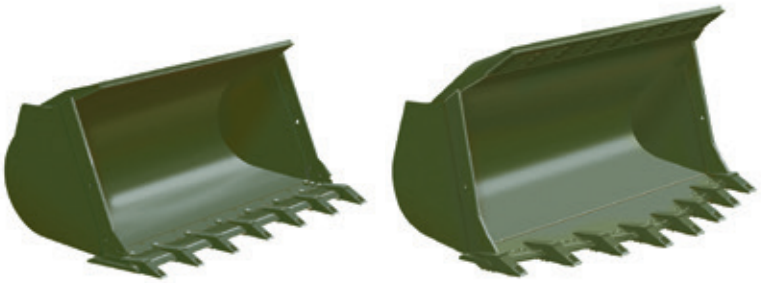
Standard equipment may vary.

Consult Caterpillar Defense for details.

All dimensions are approximate and may vary with configuration.

Specific military service configurations are available upon request.

Bucket Dimensions and Performance



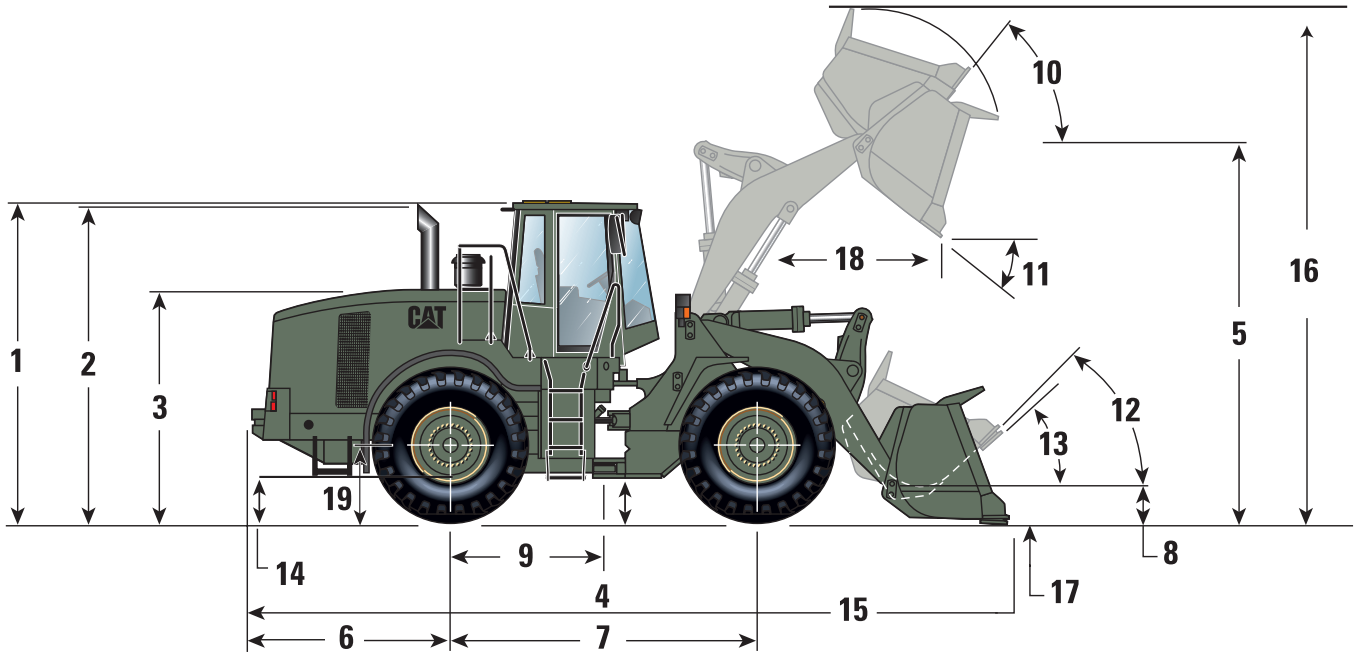
	General Purpose Bucket Teeth & Segments	Rock Bucket Teeth & Segments
Capacity† (yd^3/m^3)	5 / 3.85	4.50 / 3.50
Overall Width (in/mm)	124 / 3145	128 / 3258
Dump Clearance at Full Lift and 45° Discharge† (in/mm)	117 / 2968	106 / 2691
Digging Depth† (in/mm)	4 / 108	5 / 121
Overall Length (in/mm)	356 / 9038	364 / 9256
Overall Height with Bucket at Full Raise (in/mm)	229 / 5814	234 / 5940
Loader Clearance Circle with Bucket at Carry Position† (in/mm)	581 / 14 756	594 / 15 076
Static Tipping Load - Straight** (lb/kg)	38,038 / 17 254	37,932 / 17 206
Static Tipping Load - Full 37° Turn (lb/kg)	33,825 / 15 342	33,530 / 15 209
Breakout Force†† (lb/kN)	43,388 / 193	34,621 / 154

† Specifications and ratings conform to all applicable standards recommended by the Society of Automotive Engineers, including SAE Standard J732C governing loader ratings.

** Static tipping loads and operating weights shown are based on standard machine configurations with 26.5R25 L-4 Firestone tires, roading fenders, power train guard, full fuel tank, coolants, lubricants, air conditioner and operator.

†† Measured 4.0 in (102 mm) behind tip of cutting edge with bucket hinge pin as pivot point in accordance with SAE J732C.

Dimensions



		Type I w/Rock Bucket	Type II w/GP Bucket
1)	Height to Top of ROPS (in/mm)	141 / 3580	140 / 3560
2)	Height to Top of Exhaust Pipe (in/mm)	139 / 3530	138 / 3510
3)	Height to Top of Hood (in/mm)	105 / 2670	100 / 2540
4)	Ground Clearance (in/mm)	19 / 470	18 / 445
5)	B-Pin Height at Maximum Lift (in/mm)	166 / 4220	165 / 4190
6)	Centerline of Rear Axle to Edge of Counterweight (in/mm)	100 / 2540	100 / 2540
7)	Wheelbase (in/mm)	136 / 3450	136 / 3450
8)	B-Pin Height at Carry (in/mm)	19 / 483	18 / 457
9)	Rear Axle Centerline to Hitch (in/mm)	68 / 1730	68 / 1730
10)	Rack Back at Maximum Lift	55°	55°
11)	Dump Angle at Maximum Lift	50°	50°
12)	Rack Back at Carry	47°	47°
13)	Rack Back at Ground	42°	42°
14)	Axle Housing Clearance (in/mm)	17 / 432	16 / 406
15)	Overall Length (in/mm)	372 / 9450	372 / 9450
16)	Overall Height - Bucket Raised (in/mm)	225 / 5720	224 / 5690
17)	Digging Depth (in/mm)	5 / 127	5 / 127
18)	Reach at Maximum Lift and 45° Dump (in/mm)	58 / 1470	60 / 1520
19)	Height to Center of Axle (in/mm)	31 / 787	30 / 762

Standard Equipment

Operator Environment

- Air conditioner, heater and defroster
- Bucket/work tool function lockout
- Cab, pressurized and sound-suppressed ROPS/FOPS
- Computerized monitoring system
- Instrumentation, gauges:
  - Digital gear range indicator
  - Engine coolant temperature
  - Fuel level
  - Hydraulic oil temperature
  - Speedometer/tachometer
  - Transmission oil temperature
- Instrumentation, warning indicators:
  - Axle oil temperature
  - Electrical, alternator output
  - Engine air filter restriction
  - Engine inlet manifold temperature
  - Engine oil pressure
  - Fuel level
  - Fuel pressure, hi/low
  - Hydraulic filter bypass
  - Hydraulic oil level
  - Parking brake
  - Primary steering oil pressure
  - Service brake oil pressure
  - Transmission filter bypass
- Controls, electro-hydraulic, lift, tilt and auxiliary function
- Horn, electric (steering wheel/console)
- Light, dome (cab)
- Beverage holders and personal tray
- Mirror, rearview (internally mounted)
- Vinyl seat with air suspension
- Seat belt, retractable, 3 inch (76 mm) wide
- Steering column, adjustable angle
- Wet-Arm wipers and washers, front and rear
- Intermittent front wipers
- Ride Control
- Supplemental steering

Electrical

- Alarm, back-up
- Alternator, 80-amp brushless
- Batteries, maintenance-free (2) 1,400 CCA
- Lighting system, halogen (6 total)
- Main disconnect switch
- Starter, electric, heavy-duty
- Starting and charging system (24-volt)

Power Train

- Brakes, full hydraulic enclosed wet-disc with Integrated Braking System (IBS) and brake wear indicator
- Engine, Cat C11 with ACERT™ technology and ATAAC
- Fan, radiator, electronically controlled, hydraulically driven, temperature sensing, on demand
- Filters, fuel, primary/secondary
- Filters, engine air, primary/secondary
- Fuel priming pump (electric)
- Limited Slip Differential (Front)
- Muffler, sound suppressed
- Radiator, unit core, high performance
- Starting aid, ether
- Switch, transmission neutralizer lockout
- Torque converter, free wheel stator
- Transmission, automatic, planetary powershift (4F/4R)

Tires, Rims and Wheels

- Type II: 26.5-25, 20 PR, L-3

Standard equipment may vary.
Consult Caterpillar Defense for details.
All dimensions are approximate and may vary with configuration.
Specific military service configurations are available upon request.

Standard Equipment

Other

- Automatic bucket positioner
- Couplings, Cat O-ring face seal
- Doors, service access (locking)
- Engine coolant
- Fenders, steel (front and rear)
- Guard, airborne debris
- Hood, non-metallic, power tilting
- Hoses, Cat XT™
- Hydraulic oil
- Hydraulic oil cooler
- Kickout, lift and tilt, automatic (in-cab adjustable)
- Linkage, Z-bar, cast crosstube/tilt lever
- Remote diagnostic pressure taps
- Quick Coupler, hydraulic
- Pallet forks
- Service center, electrical and hydraulic
- Sight gauges
- Steering, load sensing
- Transmission oil level
- Turn signals/emergency flashers
- Vandalism protection caplocks
- 5.0 yd^3 general purpose bucket, Type II

Optional Equipment

- Heavy duty transmission
- Heavy duty axles
- Axle oil coolers
- Tires:
  - 26.5-25, 20 PR, L-4
  - 775/65 R29 foam-filled tires
- Sweeper, hydraulic
- 4.5 yd^3 rock bucket, Type I
- 4.0 yd^3 multi-purpose bucket

Standard equipment may vary.
Consult Caterpillar Defense for details.
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