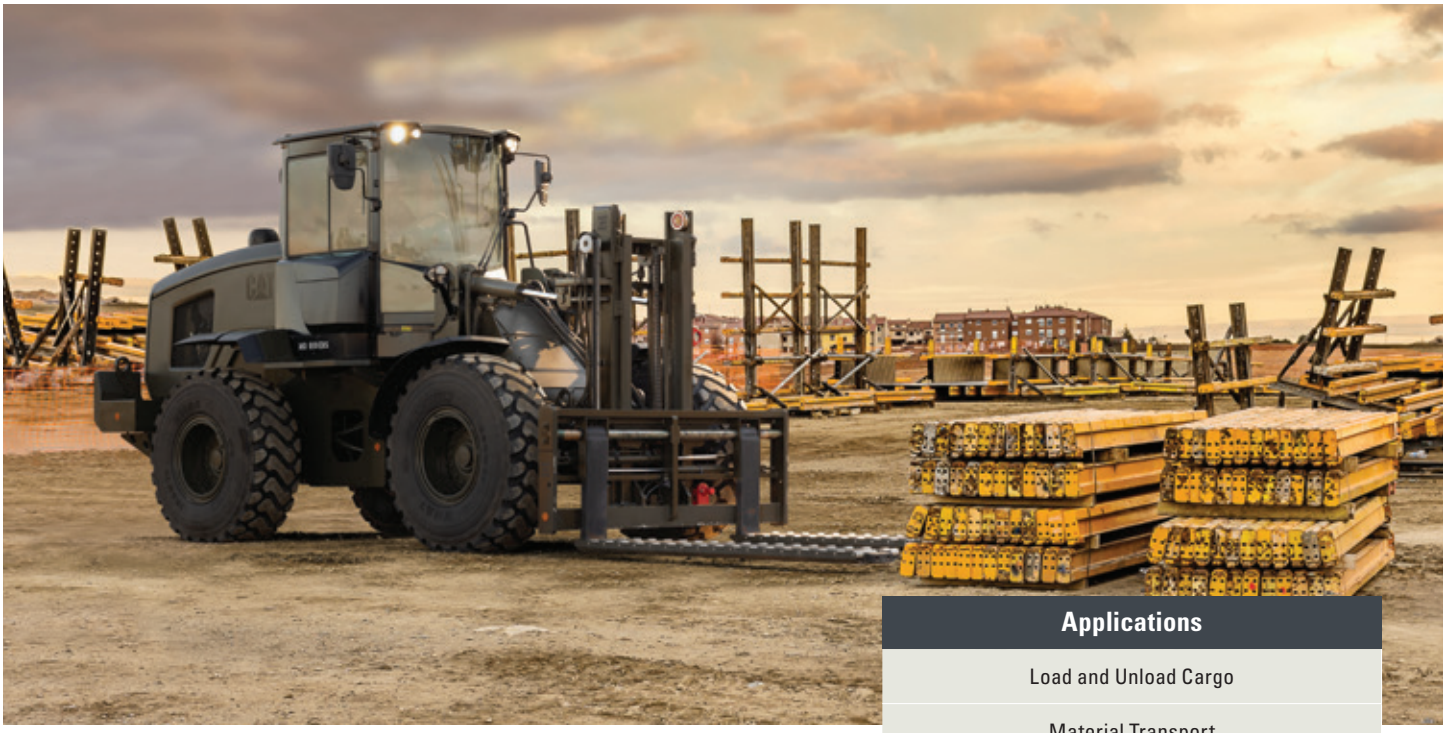
930/938 12K/16K RTFL

Rough-Terrain Forklifts

CAT® Defense

930/938 12K/16K RTFL Rough-Terrain Forklifts



Conveyor style rollers on forks.

Applications
Load and Unload Cargo
Material Transport
All Classes of Supply
Paved & Unimproved Surface Mobility
Tricon Freight Containers

Maximum capacity for handling materials regardless of the conditions.

Perform every task with the highest efficiency. Handle your machine and critical cargo with complete control. Cat® 930/938 12K/16K Rough-Terrain Forklifts (RTFLs) are engineered to deliver maximum capacity and productivity, even when underfoot conditions change from paved to unimproved surface. When fully loaded, Cat RTFLs allow operators to efficiently lift and haul cargo up to 12,000 lbs (5,443kg) with the 12K variant or 16,000 lbs (7,257kg) with the 16K variant. Operating with the closed center hydraulic system and work-ready 120 inches (3,048 mm) of lift height, Cat RTFLs precisely manage every load.

	12K	16K
Machine Width (in/mm)	101" / 2561	106" / 2693
Machine Length (in/mm)	337" / 8549	337" / 8549
Operating Weight (lb/kg)	29,011 / 13 159	33,986 / 15 416
Operating Axle Load		
Front Axle (lb/kg)	12,070 / 5475	13,402 / 6079
Rear Axle (lb/kg)	16,345 / 7414	20,585 / 9337
Rated Operating Capacity @ 48" Load Center (lb/kg)	12,000 / 5443	16,000 / 7257
Drive-On Length for Air Transport (in/mm)	TBD	337" / 8549
Drive-On Height for Air Transport (in/mm)	TBD	131" / 3340
Drive-On Weight for Air Transport (lb/kg)	TBD	33,986 / 15 416
Air Transportable ATTLA-Certified		
Front Axle (lb/kg)	TBD	13,288 / 6040
Rear Axle (lb/kg)	TBD	20,042 / 9110

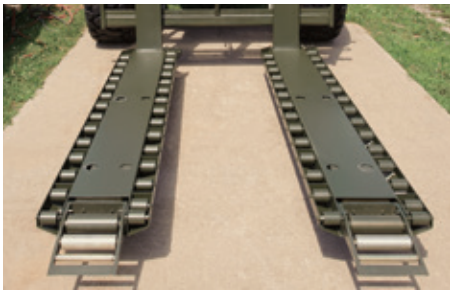
Delivering the highest productivity with a lift system built for logistics applications.

Versatile pallet fork trays:

- Conveyor style rollers for quick loading and unloading of ISO-type containers
- Precisely align with the 463L pallet system

Additional features for every task:

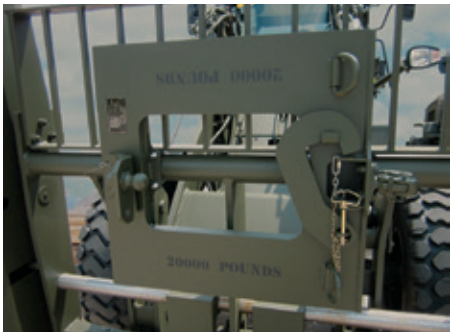
- 24V NATO start receptacle allows the machine to be started in the event of battery failure



Pallet fork trays with conveyor style rollers.

Easy fixed-wing air transport.

The RTFL makes it easy for five support personnel to reconfigure the machine for air transport in only 60 minutes. With this capability, the RTFLs are USAF ATTLA-certified for air transportability.



Aircraft loading fork attachment (optional).

MIL-STD-209K lift and tie downs.

NATO 24V start receptacle.

Rear retrieval hitch.

Military Modifications

- Dedicated fork carriage
- Green, tan or commercial paint options
- Conveyorized fork attachment
- Aircraft loading fork attachment (optional)
- 96 in/2438 mm hydraulic adjustable forks
- MIL-STD-209K lift and tie downs
- Aircraft drive-on transportability
  - 12K* on C130, C17 or C5
  - 16K on C17 or C5
- NATO 24V start receptacle
- JP-8 fuel compatible engines
- Arctic winterization (optional)

**Consult Caterpillar Defense for specific details on military modifications.*

Support and Serviceability

Complete and clear access to the RTFLs service points.

All service points are accessible from ground level. Three large service doors can be opened and closed in any order to give you full access to filters and service points. Extended service intervals reduce your service time and maximize your uptime.

Additional Service Features

- Jump start studs as standard equipment
- Single plane cooling system with 6 fins per inch coolers as standard
- Swing-up air conditioner condenser for easy clean out
- Caterpillar exclusive electric priming pump

Easy to maintain. Ready for work.

Proper and regular maintenance of your RTFL will help it achieve the highest performance levels throughout its life cycle. RTFLs are built with easy to access maintenance points and a full range of machine systems to ensure operators and technicians are able to quickly and efficiently diagnose and maintain the machines.

Intelligent Power Management
The Cat exclusive system actively monitors operator input and power availability to keep your machine working at its peak efficiency.

Engine
The Cat® C7.1 ACERT™ engine provides cleaner, quieter operation while delivering superior performance and durability through a high-torque, low-speed design. Proven engine technology meets Tier 3 and Stage IIIA equivalent emission standards.

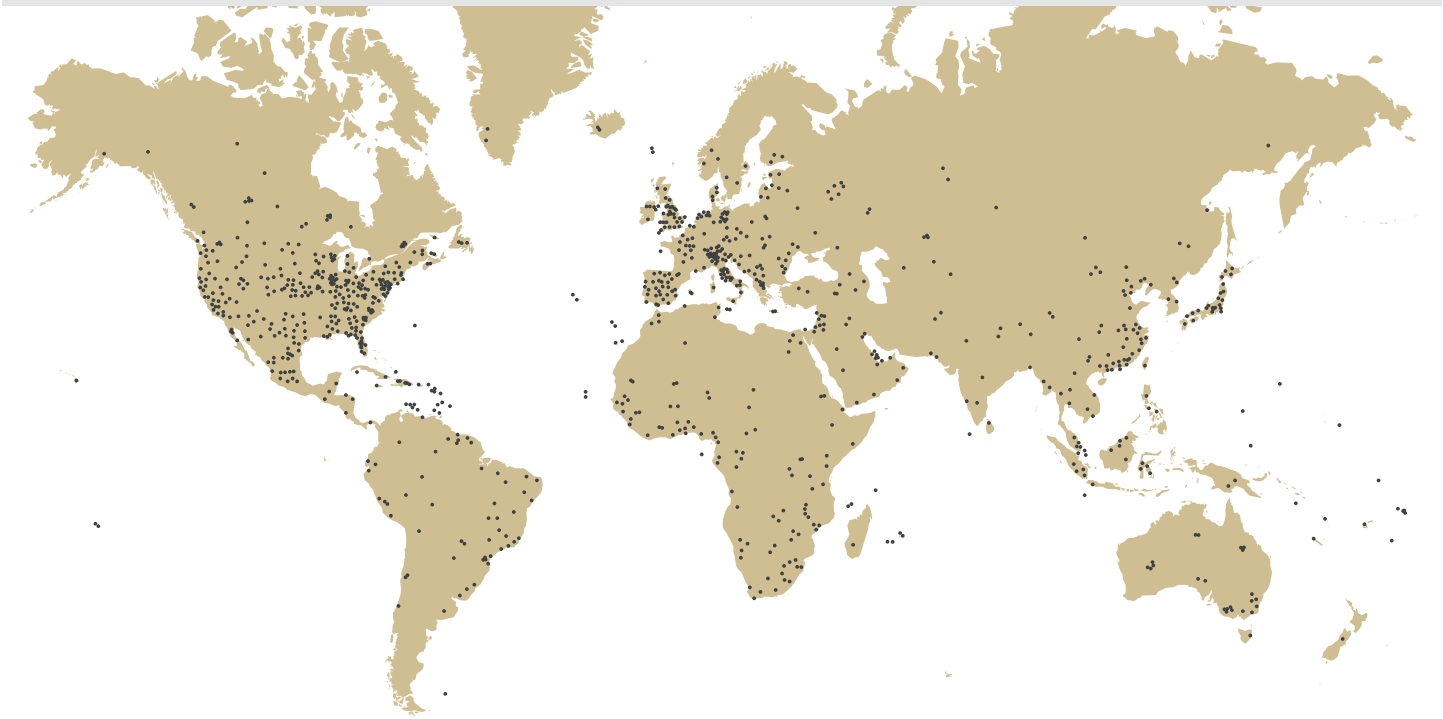
Transmission
A smooth, stepless electronically controlled hydrostatic transmission provides adjustable power to the ground and superb groundspeed control for a multitude of tasks. Four speed ranges ensure maximum controllability for any task. Rimpull control enables operators to match available tractive power to underfoot conditions, helping reduce tire wear.

Worldwide Service Capabilities

Cat 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 RTFL quickly.

Dealer Support

The Caterpillar global network of dealers is the best in the world at providing support to keep your bulldozer up and running. With over 99% of customer orders shipped the same day, Cat dealers are partners in support.



Operating Specifications

Engine	12K	16K
MODEL	**Cat® C7.1 ACERT™**	**Cat® C7.1 ACERT™**
Maximum Gross Power		
ISO 14396 (hp/kW)	168 / 125	188 / 140
ISO 14396 - DIN (mhp)	170	190
Rated Net Power @ 1,800 rpm		
SAE J1349 (hp/kW)	163 / 122	183 / 137
ISO 9249 (hp/kW)	164 / 122	184 / 137
ISO 9249 - DIN (mhp)	166	186
Maximum Gross Torque		
ISO 14396 (ft-lb/Nm)	601 / 815	664 / 900
Maximum Net Torque		
SAE J1349 (ft-lb/Nm)	588 / 797	649 / 880
ISO 9249 (ft-lb/Nm)	587 / 796	650 / 882
Displacement (in³/L)	427 / 7.01	427 / 7.01
Bore (in/mm)	4.1 / 105	4.1 / 105
Stroke (in/mm)	5.3 / 135	5.3 / 135

Transmission	12K	16K
Forward & Reverse		
Range 1* (mph/km/h)	0.6-8 / 1-13	0.6-8 / 1-13
Range 2 (mph/km/h)	8 / 13	8 / 13
Range 3 (mph/km/h)	17 / 27	17 / 27
Range 4 (mph/km/h)	25 / 40	25 / 40

** Creeper control allows maximum speed range adjustability from 0.6 mph to 8 mph (1 km/h to 13 km/h) in range 1 through the secondary display when equipped. Factory default is 4.4 mph (7km/h).*

Service Refill Capacities	12K	16K
Fuel Tank (gal/L)	51.5 / 195	51.5 / 195
Cooling System (gal/L)	7.9 / 30	8.5 / 32
Engine Crankcase (gal/L)	5.3 / 20	5.3 / 20
Transmission (gal/L)	2.2 / 8.5	2.9 / 11
Front Axle (gal/L)	6.9 / 26	9.2 / 35
Rear Axle (gal/L)	6.6 / 25	9.2 / 35
Hydraulic System - Including Tank (gal/L)	42.3 / 160	44.9 / 170
Hydraulic Tank (gal/L)	23.8 / 90	23.8 / 90

Cab

- ROPS: SAE J1040 MAY94, ISO 3471-1994
- FOPS: SAE J/ISO 3449 APR98 Level II, ISO 3449 1992 Level II
- Cat cab and Rollover Protective Structure (ROPS) are standard.
- The typical dynamic operator sound pressure level is 78 dB(A) when ISO 6396:2008 is used to measure the value for an enclosed cab.† The cab was properly installed and maintained. The measurement was conducted with the cab doors and the cab windows closed.

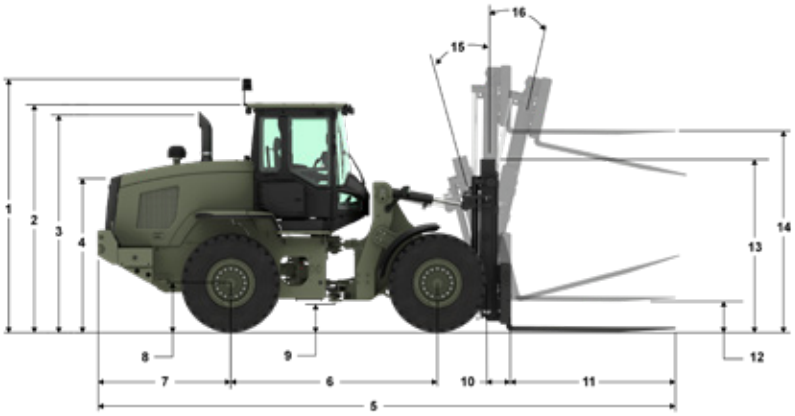
Standard Equipment

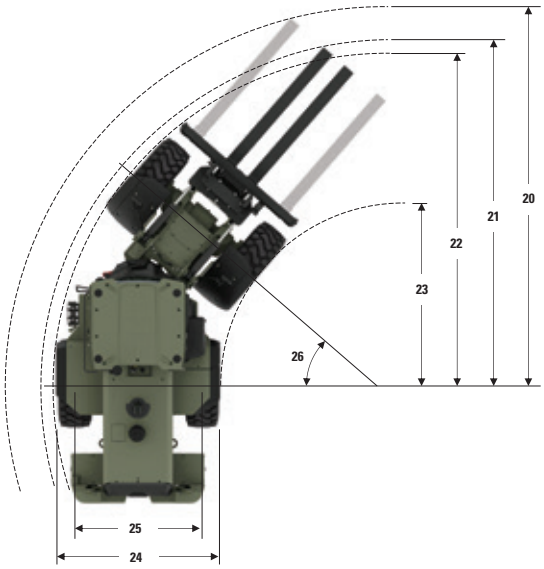
- Cat C7.1 ACERT™ engine
- 115 amp, heavy duty alternator
- ROPS and FOPS
- Hydrostatic transmission with electronic speed range control
- Tires
  - 12K Michelin 550/65R25 XLD L3
  - 16K Michelin 20.5R25 XHA2 L3
- Three valve, joystick hydraulics controls
- Hydraulic load check valves
- Ether starting aid
- Sliding glass cab windows
- Heater and defroster
- Vinyl suspension seat
- Six adjustable floodlights
- EMI and Tier 3 compliant
- Modified commercial manuals
- Air conditioning
- Type C winterization (-25°F)

† The measurements were conducted with the cab doors and windows closed and at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds.

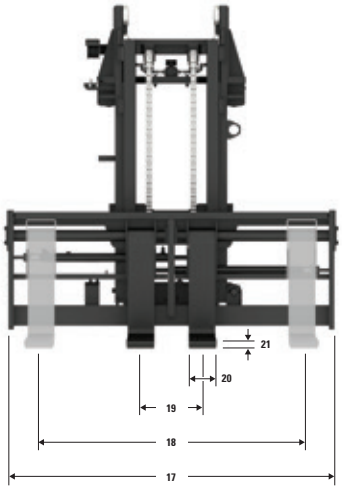
Standard equipment may vary.
Consult Caterpillar Defense for details.
†† All dimensions are approximate and may vary with configuration.
Specific military service configurations are available upon request.

Machine Dimensions





Dimensions ††		12K	16K
1	Height: Ground to Beacon (in/mm)	143" / 3637	146" / 3707
2	Height: Ground to Cab (in/mm)	129" / 3270	131" / 3340
3	Height: Ground to Exhaust (in/mm)	124" / 3153	127" / 3224
4	Height: Ground to Hood (in/mm)	87" / 2205	90" / 2275
5	Length: Overall (in/mm)	337" / 8549	337" / 8549
6	Length: Wheel Base (in/mm)	118" / 3000	120" / 3050
7	Length: Rear Axle to Bumper (in/mm)	78" / 1993	77" / 1968
8	Height: Ground to Axle Center (in/mm)	24" / 615	27" / 685
9	Height: Ground Clearance (in/mm)	13" / 327	15" / 386
10	Reach: Tire to Fork Face (in/mm)	16" / 418	14" / 349
11	Length: Tine (in/mm)	96" / 2438	96" / 2438
12	Height: Bottom of Fork at Free Lift (in/mm)	19" / 483	19" / 483
13	Height: Ground to Top of Mast (in/mm)	99" / 2515	99" / 2515
14	Height: Ground to Top of Fork at Full Lift (in/mm)	122" / 3088	122" / 3088
15	Angle: Maximum Rearward Tilt (degrees)	14°	15°
16	Angle: Maximum Forward Tilt (degrees)	13°	12°
17	Width: Outside of Carriage (in/mm)	96" / 2445	96" / 2445
18	Width: Maximum Fork Centerline (in/mm)	84" / 2132	84" / 2132
19	Width: Minimum Fork Centerline (in/mm)	18" / 457	18" / 457
20	Tine Width (in/mm)	7.9" / 200	7.9" / 200
21	Tine Thickness (in/mm)	2.6" / 65	2.6" / 65
22	Turning Radius: Outside of Widest Tine (in/mm)	251" / 6368	253" / 6415
23	Turning Radius: Outside of Narrowest Tine (in/mm)	224" / 5696	226" / 5735
24	Turning Radius: Outside Tires (in/mm)	213" / 5406	218" / 5546
25	Turning Radius: Inside Tires (in/mm)	112" / 2841	112" / 2843
26	Width: Over Tires (in/mm)	101" / 2561	106" / 2693
27	Width: Tread Center (in/mm)	76" / 1930	82" / 2083
28	Angle: Maximum Articulation (degrees)	40°	40°
	Tire Selection - Michelin	550/65R25 XLD	20.5R25 XHA2



Materials and specifications are subject to change without notice. Featured machines may include additional equipment. See your account manager for available options.

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