## 621G
**Wheel Tractor Scraper**
Joint Services

### Cat® C15 ACERT™ Engine

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Power</td>
<td>246/272 kW</td>
</tr>
<tr>
<td></td>
<td>330/365 hp</td>
</tr>
</tbody>
</table>

### Scraper Bowl

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity Heaped</td>
<td>17 m³</td>
</tr>
<tr>
<td>Rated Load</td>
<td>23 950 kg</td>
</tr>
<tr>
<td></td>
<td>52,800 lb</td>
</tr>
</tbody>
</table>
The Cat® 621G Wheel Tractor Scraper – Tested, Proven, and Reliable – Mission Capable

The Cat 621G Wheel Tractor Scraper (WTS) is equipped with a 22 cubic yard bowl that is capable of self loading and hauling up to 52,800 lbs of material. The 365 hp engine provides the power and torque rise needed for excellent lugging in the toughest loading conditions.

The 621G WTS is also well suited to be push loaded by a medium size Cat Bulldozer. This arrangement combines the horsepower of two machines into one cutting edge. Using this concentrated effort, along with the high transport speeds and the ability to eject the payload on the run, allows the machine to be loaded and unloaded in cycle times less than a minute.

The fast load capability, along with unsurpassed visibility to the cutting edge and comfortable operator environment make the 621G WTS an exceptionally productive hauling unit. All of these features make the 621G WTS a vital piece of equipment in the construction of roads, airfields, defensive berms, and other key military construction missions.

MANEUVERABILITY.

The 621G WTS articulates a total of 175 degrees (90 degrees to the right and 85 degrees to the left), for maximum maneuverability in a variety of conditions.
Transportability. MIL-STD-209K lift and tiedown provisions are standard on the Joint Services 621G WTS and were designed for durability and long life. The 621G WTS is self-deployable with top speeds of 32 mph and a travel range exceeding 200 miles.

Retarder. The optional hydraulic retarder can be used on downgrades to reduce service brake wear and enhance machine control. The retarder acts as an internal brake on the driveline that minimizes the need to apply service brakes. Optimal retarding action occurs when the engine is turning at rated rpm.

Maintenance. The 621G provides unmatched serviceability with grouped service points that allow for easy access.

Power Train. Planetary powershift transmission delivers excellent load capability. High capacity axle design accommodates wide brake shoes and drums. The neutral coast inhibitor and programmable top gear reduce wear while increasing machine performance.

Fuel Economy. Electronic controls yield a fuel savings by optimizing the timing set for varying conditions. The Electronic Control Modules (ECU) matches timing to the load on the engine, engine speed and temperature.

Operator Station. The interior incorporates convenient control placement and a comfortable work environment, which are several keys to high productivity. Features include electro-hydraulic controls, an air suspension seat and improved instrumentation.

Single Lever Implement Control. Simple and easy to operate, the joystick enhances the productivity of operators of all skill levels. Requires less force to control the critical implement functions and requires less lever travel. Grab handle/hand rest next to joystick controller so operator has a place to rest hand.
**Remanufactured Parts.** Cat engines and major components are designed to be remanufactured and provide multiple life cycles. Components are remanufactured in the factory to original specifications with necessary product updates.

**Monitoring Systems.** The 621G WTS is also equipped with Electronic Technician (Cat ET), a service tool that helps in troubleshooting existing problems or identifying potential problems by displaying real-time pressures, temperatures, fuel settings, historical data, and other diagnostic information.

**Worldwide Locations.** The Caterpillar global network of authorized dealers supports the U.S. Military in every corner of the globe. With heavy construction equipment dealers located in over 200 countries, Caterpillar’s support organization provides global coverage.

**Service Capabilities.** Cat field service technicians have the experience and tools necessary to service your equipment 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 at Caterpillar are available to provide assistance to field service technicians when needed. When on-site repair isn’t enough, Cat Dealerships are fully-equipped to service your equipment quickly.

**Dealer Support.** The Caterpillar global network of authorized dealers is the best in the world at providing support to keep your equipment up and running. With 99.7% of parts shipped within 24 hrs, Cat Dealers are supporting the 621G WTS.
### Engine

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Net Power – Gears 1-2</th>
<th>Net Power – Gears 3-8</th>
<th>Gross Power – Gears 1-2</th>
<th>Gross Power – Gears 3-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat® C15 ACERT™</td>
<td>kW</td>
<td>246</td>
<td>272</td>
<td>268</td>
<td>294</td>
</tr>
<tr>
<td>hp</td>
<td></td>
<td>330</td>
<td>365</td>
<td>359</td>
<td>394</td>
</tr>
</tbody>
</table>

- Bore: 140 mm (5.5 in)
- Stroke: 165 mm (6.5 in)
- Displacement: 15.2 L (928 in³)

*Net power advertised is the power available at rated speed of 1800 rpm, measured at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.*

### Scraper Bowl

| Metric (m³ | yd³) | Heaped Capacity | 17 | 22 |
| Rated Load | kg | 23 950 | 52,800 |
| Struck Capacity | m³ | 12 | 15.7 |
| Maximum Depth of Cut | mm | 333 | 13.1 |
| Width of Cut, to Router Bits | mm | 3023 | 119 |
| Maximum Ground Clearance | mm | 522 | 20.6 |
| Cutting Edge Thickness | mm | 22 | 0.88 |
| Hydraulic Penetration Force | kN | 150.4 | 33,840 |
| Maximum Depth of Spread | mm | 522 | 20.6 |
| Apron Opening | mm | 1780 | 70 |
| Apron Closure Force | kN | 107 | 24,075 |

### Transmission

<table>
<thead>
<tr>
<th>Mode</th>
<th>Speed</th>
<th>kph</th>
<th>mph</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Forward</td>
<td></td>
<td>5</td>
<td>3.1</td>
</tr>
<tr>
<td>2 Forward</td>
<td></td>
<td>7.6</td>
<td>4.7</td>
</tr>
<tr>
<td>3 Forward</td>
<td></td>
<td>10.9</td>
<td>6.8</td>
</tr>
<tr>
<td>4 Forward</td>
<td></td>
<td>14.8</td>
<td>9.2</td>
</tr>
<tr>
<td>5 Forward</td>
<td></td>
<td>19.9</td>
<td>12.4</td>
</tr>
<tr>
<td>6 Forward</td>
<td></td>
<td>26.9</td>
<td>16.7</td>
</tr>
<tr>
<td>7 Forward</td>
<td></td>
<td>36.4</td>
<td>22.6</td>
</tr>
<tr>
<td>8 Forward</td>
<td></td>
<td>51.5</td>
<td>32</td>
</tr>
<tr>
<td>Reverse</td>
<td></td>
<td>9.2</td>
<td>5.7</td>
</tr>
</tbody>
</table>

### Steering

- Steering Angle – Right: 90°
- Steering Angle – Left: 85°
- Width – 180° Turn: 10.9 m (35.9 ft)
- Hydraulic Output: 209 L/min (55 gal/min)

*Optional supplemental steering system meets SAE J1511 (OCT 90) and ISO 5010 (1992) requirements

*Steering circuit at 1900 RPM*

### Weights (approximate)

| Component | Shipping with ROPS cab and 10% fuel | Operating empty with ROPS cab, full tank & operator | Loaded, based on a rated load of:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>69%</td>
<td>68%</td>
<td>53%</td>
</tr>
<tr>
<td>Scraper</td>
<td>31%</td>
<td>32%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Total 100%</strong></td>
<td>69%</td>
<td>68%</td>
<td>53%</td>
</tr>
</tbody>
</table>

### Standards

- Falling Object Protective Structure (FOPS) meets SAE J231 JAN 81 and ISO 3449-1992
- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 80.5 dB(A), for 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.
- Standard air conditioning system contains environmentally friendly R134a refrigerant.

### Services Refill Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Tank</td>
<td>606 L</td>
<td>gal</td>
</tr>
<tr>
<td>Crankcase</td>
<td>36 L</td>
<td>gal</td>
</tr>
<tr>
<td>Transmission</td>
<td>72 L</td>
<td>gal</td>
</tr>
<tr>
<td>Differential</td>
<td>144 L</td>
<td>gal</td>
</tr>
<tr>
<td>Final Drive (per side)</td>
<td>19 L</td>
<td>gal</td>
</tr>
<tr>
<td>Cooling System</td>
<td>107 L</td>
<td>gal</td>
</tr>
<tr>
<td>Hydraulic Reservoir</td>
<td>140 L</td>
<td>gal</td>
</tr>
<tr>
<td>Wheel Coolant (each)</td>
<td>45 L</td>
<td>gal</td>
</tr>
<tr>
<td>Windshield Washer</td>
<td>6 L</td>
<td>gal</td>
</tr>
</tbody>
</table>

*Options for additional steering system meet SAE J1511 (OCT 90) and ISO 5010 (1992) requirements.*

MILITARY 621G WHEEL TRACTOR SCRAPER
Gradeability/Speed/Rimpull

To determine gradeability performance: Read from gross weight down to the percent of total resistance. Total resistance equals actual percent grade plus 1% for each 9 kg/t (20 lb/ton) of rolling resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable gear, then down to maximum speed. Usable rimpull will depend upon traction available and weight on drive wheels.

Retarding

To determine retarding performance: Read from gross weight down to the percent effective grade. (Effective grade equals actual percent grade minus 1% for each 9 kg/t (20 lb/ton) of rolling resistance). From this weight-effective grade point, read horizontally to the curve with the highest obtainable speed range, then down to maximum descent speed the retarder can properly handle.

Dimensions

1 Width – Overall Machine 3467 mm 136.5 in
2 Width – Tractor 3130 mm 123.2 in
3 Width – Rear Tire Center Lines 2180 mm 85.8 in
4 Width – Inside of Bowl 2946 mm 116 in
5 Width – Outside Rear Tires 3048 mm 120 in
6 Height – Overall Shipping 3705 mm 145.9 in
7 Height – Top of Cab 3423 mm 134.8 in
8 Ground Clearance, Tractor 553 mm 21.8 in
9 Front of Tractor to Front Axle 3058 mm 120.4 in
10 Rim Radius 432 mm 17 in
11 Height – Scraper Blade Max. 522 mm 20.6 in
12 Wheelbase 7722 mm 304 in
13 Length – Overall Machine 12 917 mm 508.5 in
14 Rear Axle to Rear of Machine 2142 mm 84.3 in
**Electrical**
Alarm, backup
Alternator, 75 amp
Batteries (4), 12V Maintenance Free, High Output
Lighting System - Tractor
  Directional Signals; Hazard Lights; Headlights; Stop/Tail Halogen with Dimmer; Floodlight, Cutting Edge
Starting Receptacle

**Operator Environment**
Air Conditioner (includes heater and defroster)
Cigarette Lighter and Ashtray
Defroster fan
Diagnostic Connection Port (12V)
Dome Courtesy Light
Engine Speed Control Lock
Gauge Group
  Air Pressure
  Converter/Retarder temperature
  Electronic Monitoring System (EMS III)
  Engine Coolant Temperature
  Actual Transmission Gear Indicator
  Fuel
  Speedometer
  Tachometer
  Transmission Gear Indicator
Horn
Implement Control Joystick
Rearview Mirrors
Radio Ready
(two bays, speakers, 5-amp converter)
ROPS Cab with Sound Suppression and Pressurization
Static Seat belt
Seat, Air Suspension, Cat Comfort, Cloth, Rotates
Steering Wheel – Tilt and Telescoping
Storage Compartment
Throttle lock
Transmission Hold
Windows – Sliding Side, Swing out
Windshield – Laminated Glass
Windshield Wiper/Washer – Front and Rear

**Powertrain**
Engine
  Electronic Unit Injection (EUI)
  Electric Start, 24V
  Fan, Suction
  Ground Level Engine Shutdown
  Muffler
  Starting Aid, Ether
  Thermo-shield, Laminated
  Cat® C15, 6-cylinder Diesel with ACERT™ Technology
  Air Cleaner, Dry-type with Pre-cleaner
  Radiator, NGMR (9 fins per inch)
  Guard, Crankcase
Braking System
  Parking/Primary/Secondary Shields – Brake
Transmission
  8-speed Automatic Powershift with Electronic Control
  Control Throttle Shifting
  Differential – Lockup
  Downshift Inhibitor
  Guard, powertrain
  Neutral Coast Inhibitor
  Programmable Top-Gear Selection
  Throttle lock, variable
  Transmission hold

**Other Standard Equipment**
Extended Life Coolant, –36°C (–33°F)
Fast Oil Change
Fenders
Rims – 29 in (736.6 mm)
Tires – 33.25-R29 Radial
Air Dryer
Cushion Hitch
Locks, Vandalism Protection
Product Link Ready
Tow Pins – Front and Rear
■ Armored Cab (Optional)
■ NATO Start Receptacle
■ Blackout Lighting System
■ Keyless Engine Start Switch
■ Rifle Bracket
■ Military Data Plates
■ Shipping Data Plates
■ Cold Start Aid for -25° F
■ Arctic Kit for (-40° F) Cold Start (Optional)
■ Military Towing Lugs
■ Decontamination Bracket

■ Vandalism Protection
■ Fresh Water Foldable to 36” Depth
■ Tool Box
■ Fire Extinguisher
■ CARC or Special Paint
■ Military Oil Sampling Valves
■ Sorbent Decontamination System
■ Mounting Bracket
■ Pulse Solar Charger
■ Military (Hawker) Batteries

All dimensions are approximate. Dimensions may vary with configuration.
Specific military service configurations are available upon request.

For more information visit: www.catdfp.com