Elevator Design — general earthmoving to finish work with less support equipment requirements than other systems.

Performance — quick response engine combined with a two-speed elevator drive and high hydraulic horsepower for maximum hauling and loading performance.

Operator’s Compartment — low sound levels and conveniently located, easy to operate controls for a comfortable and efficient work environment.

Total Customer Support — unmatched in the industry!

Heaped Capacity ............................................. 8.4 m³/11 yd³
Rated Load ..................................................... 11 975 kg/26,400 lb

Featured machine may include additional equipment applicable only for special applications. See your authorized Caterpillar dealer for available options.
Designed with fuel efficiency and emissions control in mind. Traditional items you've come to expect from your Caterpillar engine remain — reliability, durability, performance and serviceability.

- Unit injection allows very high injection pressures and short injection times — fast response, low fuel consumption and excellent emissions control.
- Internal fuel passages — eliminate the need for high pressure lines and their connections.
- Two-piece, articulated piston — maximizes the use of material properties
  - Steel in the crown for structural integrity — the piston was designed to withstand cylinder pressure and thermal loads well beyond the capability of an aluminum piston.
  - Aluminum skirt isolated from combustion and gas loads — lower structural requirements allow the use of lightweight, high performance.
- The two-piece piston also features a high top-ring position — "dead" space is reduced resulting in lower emissions and better fuel efficiency.
- Serviceability
  - Block — designed for first overhaul without reboring followed by two reborings with identical weight oversized pistons and lastly, the availability of dry sleeves.
  - Cylinder heads — both valve seats and guides are replaceable, making the head completely rebuildable.

- Water pump
  - Externally mounted for easy access
  - Fully serviceable with all components available through the parts system.
- Quick access side covers
  - Cam followers are attached to side covers for easy access
  - Easy inspection of cam lobes
  - Allow pushrod removal without pulling the cam.
Elevator Mechanism/Bowl
General earthmoving to finish work with work alone capability.

- Two-speed elevator drive and high hydraulic horsepower provide maximum loading performance over a wide range of material conditions. Low speed and high horsepower for tough materials or deeper cuts and high speed with lower horsepower for easier materials or windrow loading.

- Elevator flights break up the material during the loading and unloading process — fill area workload is reduced.

- Retracting floor, bulldozer ejector and reversible elevator provide clean, quick material ejection.

- Low-profile bowl design lets loaded material flow to the rear of the bowl — new material enters with less resistance.

- Wide cutting edge allows a large volume of material to enter the bowl — even with shallow cuts, loads are obtained quickly.

- Angled top plate on ejector helps retain loads for maximum productivity and minimum haul road spillage.

- Adjustable throat opening — lower elevator linkage may be adjusted from 25 to 400 mm / 1 to 16 in from the cutting edge for optimum loading with various material types and conditions.

- Durability / reliability
  - Retractable floor
    - roller mounted design reduces the chance of binding
    - positive support, while closed, transfers stresses from the rollers to the bowl frame.
  - Heat-treated carrier rollers and chain idlers for wear resistance.
  - Elevator flights
    - triangularly reinforced for strength
    - flexible elevator mounting prevents damage from sudden shock.
  - Cellular bowl construction for strength and dent resistance.

- Serviceability
  - Segmented elevator drive sprockets allow exchange without removing the chain.
Cutting Edges  Caterpillar cutting edges help you match the machine to job requirements.

<table>
<thead>
<tr>
<th>Cutting Edge</th>
<th>Penetration Capability</th>
<th>Resistance To Breakage</th>
<th>Typical Application Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
<td>Low</td>
<td>High</td>
<td>Finish / General</td>
</tr>
<tr>
<td>Stinger</td>
<td>Medium</td>
<td>Medium</td>
<td>General</td>
</tr>
<tr>
<td>Teeth</td>
<td>High</td>
<td>Low</td>
<td>General</td>
</tr>
</tbody>
</table>

- Reversibility extends the life — lowers your G.E.T. cost.
- Heat-treated and through hardened with minimum Rockwell surface hardness of 45 — long life before reversal is required.
- All scraper ground engaging tools are warranted against breakage — if any of the components breaks during normal operation, Caterpillar will replace them free of charge.*

* Refer to complete Caterpillar G.E.T. warranty.
Operator's Compartment

Logical, convenient control placement and exceptional operator comfort promote fast, confident machine operation for top productivity.

- **Excellent visibility**
  - Cutting edge — enhances finish work capability and overall loading and dumping effectiveness.
  - Gauges — whether loading, dumping or hauling the operator can easily monitor machine operating conditions.
- **Seat** — multi-adjustable with air/hydraulic suspension for shift-long comfort.
- **Tilt/telescopic steering wheel** — enhances operational comfort and allows easier entrance and exit.
- **Modulated, variable-flow steering** for precise, low effort maneuverability.
- **Controls** — easy to reach with low operational effort
  - Ejector return with detent and automatic kickout — allows operator to concentrate on other areas of machine operation.
- **Sound** — 75 dBA operator exposure level when equipped with optional cab (page 11).
- **Vibration** — resiliently mounted engine and cab/canopy minimize vibration of the operator's compartment.

- **Tilt-out windshield** — additional control of fresh air circulation.
- **Integral Rollover Protective Structure (ROPS)**
  - Canopy — included in the standard arrangement.
  - Cab (optional) — further protection from the elements. Includes rear window wiper and washer. Optional heater or heater / air conditioner provides pressurization, filtration and temperature-controlled air.
- **Electronic Monitoring System (EMS)** — three stages of alert notify the operator of varying degrees of required action to avoid possible damage or failure to components / systems.
Serviceability

Less time spent on maintenance gives you more time on the job.

- **Diagnostic connector** — (located in the cab) with the aid of a service tool, allows quick analysis of the starting and charging system.

- **Wiring** — with the increasing use of electronics in today's machines, the quality of materials and design are having a greater effect on machine availability.
  - Commonality — consistent use of numerical coding and coloring of wires across the product line means service personnel can transfer their electrical system knowledge from one CAT machine to another.
  - Connectors — junctions stay clean and solid with non-automotive type connectors.
  - Braiding — provides protection against abrasion and helps keep routing clean.
  - Bosses — for attachment of bolt-on clips to keep wiring in place → prevents loose connections due to vibration and failures due to abrasion.

- **Outboard, planetary final drives** — can be removed independently of wheel mounting and brakes.

- **Quick connect/disconnect check points** — hydraulic pressures can be obtained quickly and easily. Periodic inspection and diagnosis of hydraulic system problems is enhanced.

- **Ground-level access** — transmission fill and check, hydraulic fill and check, manual fuel check (gauge in cab) and fill, majority of grease points, fuel tank sediment and water drain, air tanks sediment and water drain, air filters, batteries, rear brake reservoir, engine oil filter, transmission filter and primary fuel filter.

- **Maintenance platform access** — engine oil check and fill, engine coolant level check and fill, front brake reservoir, hydraulic system filter, secondary fuel filter.
Total Customer Support
Unmatched in the industry!

- Parts — time spent waiting on parts directly affects your bottom line! Caterpillar and its worldwide dealer network maintain the largest and most comprehensive parts support system in the industry. Most parts are immediately available directly from the dealer. Worldwide distribution centers provide backup support.

- Service — whether in the dealer’s fully equipped shop or in the field, trained service personnel using the latest technology and tooling will keep your equipment working.

- Exchange components — for quick, yet cost-effective repairs with minimal downtime.

- Machine management — Cat dealers help manage equipment investments with:
  - Vehicle systems analysis to match the right machine to your job conditions.
  - Effective preventive maintenance programs.
  - Diagnostic programs like Scheduled Oil Sampling and Technical Analysis.
  - Information to make the most cost-effective repair option decisions.
  - Customer meetings, training for operators and mechanics.

- Literature — extensive operation and maintenance guides, parts manuals and other support information help you get the full value out of your equipment investment.

- Financing/leasing — through CAT Financial or an alternate source, your dealer can arrange attractive financing or leasing on the entire line of Cat equipment.
**Caterpillar Engine**

- Gross power @ 2300 rpm .......... 140 kW/187 hp
- Flywheel power @ 2300 rpm ...... 131 kW/175 hp

(Kilowatts (kW) is the International System of Units equivalent of horsepower).

Net power at the flywheel of the vehicle engine is based on SAE J1349 standard conditions of 25 °C/77 °F and 100 kPa/29.61 in Hg. Power is based on using 35 °API (15.6 C/60 °F) gravity fuel having an LHV of 42,780 Btu/lb kg, 18,390 Btu/lb when used at 29.4 C/85 °F and with a density of 838.9 g/l. 7,001 lb/U.S. gal. Power rating is adjusted for vehicle equipped with fan, air cleaner, water pump, fuel pump, muffler and lubricating oil pump. No rating is required up to 2286 m/7,500 ft altitude.

Caterpillar four-cycle, turbocharged 3116 diesel engine with six cylinders (in-line). 105 mm/4.13 in bore and 127 mm/5.00 in stroke with 6.6 l/403 in³ displacement.

Cat high pressure, unit injector with no external high pressure fuel lines. Flyweight type, full range governor with an internal floating fulcrum linkage and speed sensing torque cam. One intake and one exhaust valve per cylinder. Deep skirted (iron below the centerline of crankshaft) block design. Crankshaft is a dynamically balanced steel forging with induction hardened journals and fillets and bolt-on crank gear. Copper bonded main and rod bearings with large bearing surface. Two-piece, articulated piston with forged steel crown and forged aluminum skirt. Carburized steel camshaft with seven bearings. Gear driven, low mount oil pump. Oil cooler is recessed into the block with minimal exterior oil and coolant lines. External water pump with self-adjusting idler is crankshaft driven with solely dedicated belt. Suction fan. Electric fuel pump to bleed fuel lines after maintenance.

Twenty-four volt electrical system with two 100 amp-hour/700 cold cranking amp, maintenance free batteries and a 50-amp alternator.

**Transmission**

Caterpillar, six speed forward and one reverse, powershift, manual transmission. All forward and reverse gears are torque converter drive.

*Top speeds (equipped with 23.5-25 tires, 27 235 kg / 60,050 lb gross vehicle weight and 3% total resistance)*

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>kph</td>
<td>3.5</td>
<td>5.8</td>
<td>9.2</td>
<td>14.3</td>
<td>24.3</td>
<td>35.1</td>
</tr>
<tr>
<td>mph</td>
<td>2.2</td>
<td>3.6</td>
<td>5.7</td>
<td>8.9</td>
<td>15.1</td>
<td>21.8</td>
</tr>
</tbody>
</table>

**Differential Control**

Normal differential action allows an uneven distribution of power between the drive wheels in a poor traction situation — loading, dumping and poor haul road conditions. The CAT differential lock, engaged with a foot pedal, prevents the uneven distribution of power and minimizes wheel spin.

**Steering**

Two Caterpillar double-acting hydraulic cylinders provide full 90° right or left steering. Modulated, variable-flow steering.

<table>
<thead>
<tr>
<th>Cylinder</th>
<th>Bore</th>
<th>Stroke</th>
<th>Rod</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>89 mm/3.5 in</td>
<td>508 mm/20.0 in</td>
<td>51 mm/2.0 in</td>
</tr>
</tbody>
</table>

Turning Radius ........... 4.47 m/14.67 ft

Optional supplemental system (ground driven piston pump) provides hydraulic power for steering in the event of engine power loss. Emergency steering meets SAE J53 and J1511 and ISO 5010.

**Final Drives**

Type .................. Planetary/Outboard Axle .................. Full-floating

Reduction Ratio ........... 3.6364:1
Planetary .................. 4.7647:1
Total .................. 17.3264:1

Majority of reduction is taken at the wheel to minimize stresses in the rest of the powertrain. Caterpillar planetary units can be removed independently of wheel mounting and brakes.
**Brakes**

System meets SAE J1473 and ISO 3450 standards.

**Front / Rear Service** — Air-over-oil actuated, caliper disc.

Braking Surface Area / Brake ...................... 484 cm² / 75 in²

**Parking** — Shoe type mounted on rear of transmission transfer case.

**Secondary** — Utilizes the service brakes, but with a separate air tank. Operator is alerted by the Electronic Monitoring System (3rd level — Brake air pressure panel light, action light and alarm) when the service system air pressure falls below normal operating level. Further loss of air pressure will lead to automatic application of the secondary and parking brake. Can be manually activated by a control knob on the dash.

**Tires**

Productive capabilities of the 613C II are such that, under certain job conditions, tonnes-kmph ton-mph capabilities of standard or optional tires could be exceeded and, therefore, limit production. Caterpillar recommends the user evaluate all job conditions and consult the tire manufacturer to make proper tire selection.

Standard (Tractor / Scraper) ...................... 23.5R25

Optional (Tractor / Scraper) .................... 18.00-25 16PR (E-2)

23.5-25 16PR (E-2)

**Hydraulics**

Powered by double-section vane pumps with open-center circuits.

*Pump outputs at 2300 rpm and 6900 kPa / 1000 psi*

Bowl & Ejector Circuit ......................... 102 l/min 27 gal/min

Steering Circuit ................................ 83 l/min 22 gal/min

Elevator (Low speed & Reverse) ............. 166 l/min 44 gal/min

(High speed) .................................... 268 l/min 71 gal/min
**SPECIFICATIONS**

### Bowl

Cellular construction with 290 000 kPa/42,000 psi minimum yield strength steel. Hydraulic dozer-type ejector.

**Capacity**
- Rated load: 11 975 kg/26,400 lb
- Struck (SAE): 6.8 m³/8.9 yd³
- Heaped (SAE): 8.4 m³/11.0 yd³

**Width of cut**
- Outside router bits: 2350 mm/7 ft 8.5 in
- Floor/cutting edge retraction: 1140 mm/45 in
- Ejector travel: 914 mm/36 in
- Hitch oscillation: 16° left or right

_Equipped with 18.00-25 or 23.5-25 tires_

**Maximum depth of cut:** 160 mm/6.3 in
**Maximum depth of spread:** 370 mm/14.6 in
**Ground clearance**
(minimum occurs at cutting edge): 450 mm/17.7 in

**Cutting Edge**
Three reversible sections. Heat-treated and through hardened. Center section is predrilled for installation of four optional teeth to increase penetration.

**Minimum Rockwell surface hardness:** 45
**Center section:** 19 x 330 x 1100 mm/
- 0.75 x 13.0 x 43.3 in
**End sections:** 19 x 330 x 560 mm/
- 0.75 x 13.0 x 22.0 in

Caterpillar double-acting cylinders:

<table>
<thead>
<tr>
<th>Location</th>
<th>Quantity</th>
<th>Bore</th>
<th>Stroke</th>
<th>Rod</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowl</td>
<td>2</td>
<td>102 mm/4.0 in</td>
<td>419 mm/16.5 in</td>
<td>51 mm/2.0 in</td>
</tr>
<tr>
<td>Floor</td>
<td>1</td>
<td>127 mm/5.0 in</td>
<td>625 mm/24.6 in</td>
<td>64 mm/2.5 in</td>
</tr>
<tr>
<td>Ejector</td>
<td>1</td>
<td>89 mm/3.5 in</td>
<td>914 mm/36.0 in</td>
<td>57 mm/2.2 in</td>
</tr>
</tbody>
</table>

### Elevator

Length (overall): 2438 mm/8 ft 0 in
Width of flight face: 170 mm/6.7 in
Length of flights: 1734 mm/5 ft 8 in
Number of flights: 15
Flight spacing: 406 mm/16 in

_Working speeds at relief valve setting 17 237 kPa / 2500 psi_
- High forward: 85 m/min 279 ft/min
- Low forward: 34 m/min 112 ft/min
- Reverse: 34 m/min 112 ft/min

**Power supply:** Hydraulic motor on scraper transmits power to elevator through 38:1 planetary gear reduction box.

**Drive sprockets:** Segmented sprockets allow exchange without removing the chain.

**Chain:** Large rollers, pins and links are hardened to resist abrasion. Chain tension adjustable at carrier idlers.

**Elevator mounting:** Elevator frame has 4-bar linkage (mounted top and bottom on each side). Lower linkage may be adjusted from 25 to 400 mm/1 to 16 in from the cutting edge.

### Controls

Four levers for hydraulic actuation.

_Elevator speed:_ two speeds forward/stop/single speed reverse
_Elevator direction:_ forward/reverse
_Bowl:_ raise/hold/lower
_Ejection:_ dump/hold/return

"Return" is detent held with automatic kickout to "hold" when ejeector reaches full return. Detent can be overridden at any time.
**Cab**

(ROPS canopy is standard in U.S.A.).

ROPS (Rollover Protective Structure) offered by Caterpillar for this machine meets ROPS criteria SAE J320a, SAE J1040-Feb86, SAE J1040-Apr88 and ISO 3471-1986. It also meets FOPS (Falling Object Protective Structure) criteria SAE J231 and ISO 3449.

When properly installed and maintained, cab offered by Caterpillar when tested with doors and windows closed per work cycle procedures specified in ANSI/SAE J1166 MAY90 results in an operator sound exposure \( L_{eq} \) (equivalent sound pressure level) of 75 dB(A). This operator A-weighted sound exposure level can be used in conjunction with OSHA, MSHA and EEC Occupational Noise Exposure Criteria.

**Service Refill Capacities**

<table>
<thead>
<tr>
<th></th>
<th>Liters</th>
<th>U.S. Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank</td>
<td>250</td>
<td>66</td>
</tr>
<tr>
<td>Crankcase</td>
<td>20</td>
<td>5.3</td>
</tr>
<tr>
<td>Transmission</td>
<td>35</td>
<td>9.2</td>
</tr>
<tr>
<td>Differential</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Cooling system</td>
<td>38.5</td>
<td>10.2</td>
</tr>
<tr>
<td>Hydraulic system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(steering and implements)</td>
<td>100</td>
<td>26.4</td>
</tr>
<tr>
<td>Final drives (each)</td>
<td>5.8</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Weight**

Standard equipment

with ROPS canopy, full fuel tank and operator.

<table>
<thead>
<tr>
<th></th>
<th>Kg</th>
<th>Lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty</td>
<td>9571</td>
<td>21,100</td>
</tr>
<tr>
<td>Tractor — 63%</td>
<td>5693</td>
<td>12,550</td>
</tr>
<tr>
<td>Scraper — 37%</td>
<td>15 264</td>
<td>33,650</td>
</tr>
<tr>
<td>Total</td>
<td>15 264</td>
<td>33,650</td>
</tr>
</tbody>
</table>

Loaded (based on 11 975 kg/26,400 lb rated load)

<table>
<thead>
<tr>
<th></th>
<th>Kg</th>
<th>Lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor — 49%</td>
<td>13 353</td>
<td>29,438</td>
</tr>
<tr>
<td>Scraper — 51%</td>
<td>13 886</td>
<td>30,612</td>
</tr>
<tr>
<td>Total</td>
<td>27 239</td>
<td>60,050</td>
</tr>
</tbody>
</table>
Gradeability/Rimpull/Speed
To determine gradeability performance: Read from gross
weight to the % of total resistance. Total resistance =
actual % grade + % rolling resistance. From this weight-
resistance point, read horizontally (left or right) to the
curve with the highest obtainable gear, then down to the
corresponding speed. Useable rimpull will depend upon
traction available and weight on drive wheels.

Dimensions
(approximate)

A - 2440 mm/8’0”
B - 1800 mm/5’11”
  * 1900 mm/6’3”
C - 2248 mm/7’4.5”
D - 1800 mm/5’11”
  * 1900 mm/6’3”
E - 3060 mm/10’0.5”
F - 2845 mm/9’4”
G - 571 mm/1’10.5”
H - 3100 mm/10’2”
J - 3810 mm/12’6”
K - 1229 mm/4’0.5”
L - 6260 mm/20’6.5”
M - 2500 mm/8’2.5”
N - 10 135 mm/33’3”

* When equipped with 18.00 - 25 tires.
Standard Equipment
(May vary — consult your Caterpillar Dealer for specifics)

Air cleaner service indicator
Alarm, back up
Alternator, 50-amp
Batteries (2), 100 amp-hr, 700 cca
Brakes:
  - Caliper disc (front & rear)
  - Parking
  - Secondary
Canopy, ROPS (standard in U.S.A.)
Crankcase guard
Differential lock
Electrical system, 24-volt
Electronic Monitoring System (EMS)
Fan (engine), suction
Fenders (tractor)
Fuel pump, electric
Gauges:
  - Air pressure
  - Engine coolant temperature
  - Fuel
  - Speedometer
  - Tachometer with electric
    hour meter
  - Torque converter oil temperature
  - Headlights, halogen with dimmer
  - Horn
  - Mirror, right-hand and rearview (cab
    interior)
Locks, vandalism protection
Muffler
Precleaner, air cleaner
Seat, multi-adjustable with
  air/hydraulic suspension
Seat belt
Starting, electric
Steering wheel, tilt and telescopc
Tires, 23.5R25
Tow pins, front and rear
Transmission, powershift
Windshield, tilt-out, tinted
Windshield washer and wiper
  (front)

Functions monitored by EMS:

Warning Level I — Alternator. Parking brake on
transmission in neutral. (EMS panel light).
Warning Level II — Coolant temperature. Converter
oil temperature. (EMS panel light and action light).
Warning Level III — Brake air pressure. Brake oil
pressure. Engine oil pressure. Parking brake on
transmission in gear. Supplemental steering active (if
equipped). (EMS panel light, action light and alarm).

Optional Equipment
(with approximate change in operating weight)
(equipment may vary — consult your Caterpillar Dealer
for specifics)

<table>
<thead>
<tr>
<th>Item</th>
<th>kg</th>
<th>lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air conditioner and heater</td>
<td>60</td>
<td>132</td>
</tr>
<tr>
<td>Heater</td>
<td>40</td>
<td>88</td>
</tr>
<tr>
<td>Cab, ROPS includes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- rear window wiper and washer</td>
<td>198</td>
<td>436</td>
</tr>
<tr>
<td>Ether starting aid</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Fenders (scraper)</td>
<td>87</td>
<td>191</td>
</tr>
<tr>
<td>Floodlight (bowl &amp; cutting edge)</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Guard, powertrain</td>
<td>27</td>
<td>60</td>
</tr>
<tr>
<td>Lighting system (highway):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- scraper — includes directional and</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- tractor — includes directional/hazard</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Must be ordered together
The Competitive Edge

Performance
- Engine unit injection allows very high injection pressures and short injection times — fast response.
- Two-speed elevator drive and high hydraulic horsepower provide maximum loading performance over a wide range of material conditions.
- Spacing between elevator flights and cutting edge is adjustable for optimum loading with various material types and conditions.
- Wide cutting edge allows a large volume of material to enter the bowl — even with shallow cuts, loads are obtained quickly.
- Logical, convenient control placement and exceptional operator comfort promote fast, confident machine operation for top productivity.

Durability/Reliability
- Internal engine fuel passages eliminate the need for high pressure lines and their connections.
- Roller mounted retractable floor design reduces the chance of binding. Positive support, while closed, transfers stresses from the rollers to the bowl frame.
- Heat-treated elevator carrier rollers and chain idlers for wear resistance.
- Elevator flights are triangularly reinforced for strength.
- Flexible elevator mounting prevents damage from sudden shock.
- Cellular bowl construction for strength and dent resistance.
- Electronic Monitoring System (EMS) has three stages of alert to notify the operator of varying degrees of required action to avoid possible damage or failure of components/systems.

Serviceability
- Diagnostic connector with the aid of a service tool, allows quick analysis of the starting and charging system.
- Ground-level access to majority of daily maintenance areas.
- Engine block designed for first overhaul without reboring followed by two reborings with identical weight oversized pistons and lastly, the availability of dry sleeves.
- Quick connect/disconnect hydraulic pressure check points for periodic inspection and diagnosis of hydraulic system.
- Common numerical coding and coloring of wires across the Caterpillar product line.
- Rebuildable cylinder heads with replaceable valve seats and guides.
- Externally mounted water pump for easy access. Fully serviceable with all components available through the CAT parts system.
- Quick access engine side covers with attached cam followers allow easy inspection of followers and cam lobes. Pushrods can be removed without pulling the cam.
- Segmented elevator drive sprockets allow exchange without removing the chain.
- Outboard, planetary final drive units can be removed independently of wheel mounting and brakes.

Total Customer Support System
- Parts — Caterpillar and its worldwide dealer network maintain the largest and most comprehensive parts support system in the industry.
- Trained service personnel using the latest technology and tools will keep your equipment working.
- Machine management vehicle systems analysis to match the right machine to your job conditions; preventive maintenance programs; diagnostic programs like scheduled oil sampling and technical analysis; cost effective repair options; customer meetings; operator and mechanical training.
- Exchange components for quick, yet cost-effective repairs with minimal downtime.
- Flexible financing and leasing through CAT Financial or an alternate source, your dealer can arrange attractive financing or leasing on the entire line of CAT equipment.

Custom Products
- In addition to the standard range of optional equipment, special attachments and machine configurations to suit particular customer applications can be made. Contact your Caterpillar dealer for details on matching Caterpillar products to your special applications.

CATERPILLAR®

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