

# CAT

# D6H

## WASTE DISPOSAL ARRANGEMENT

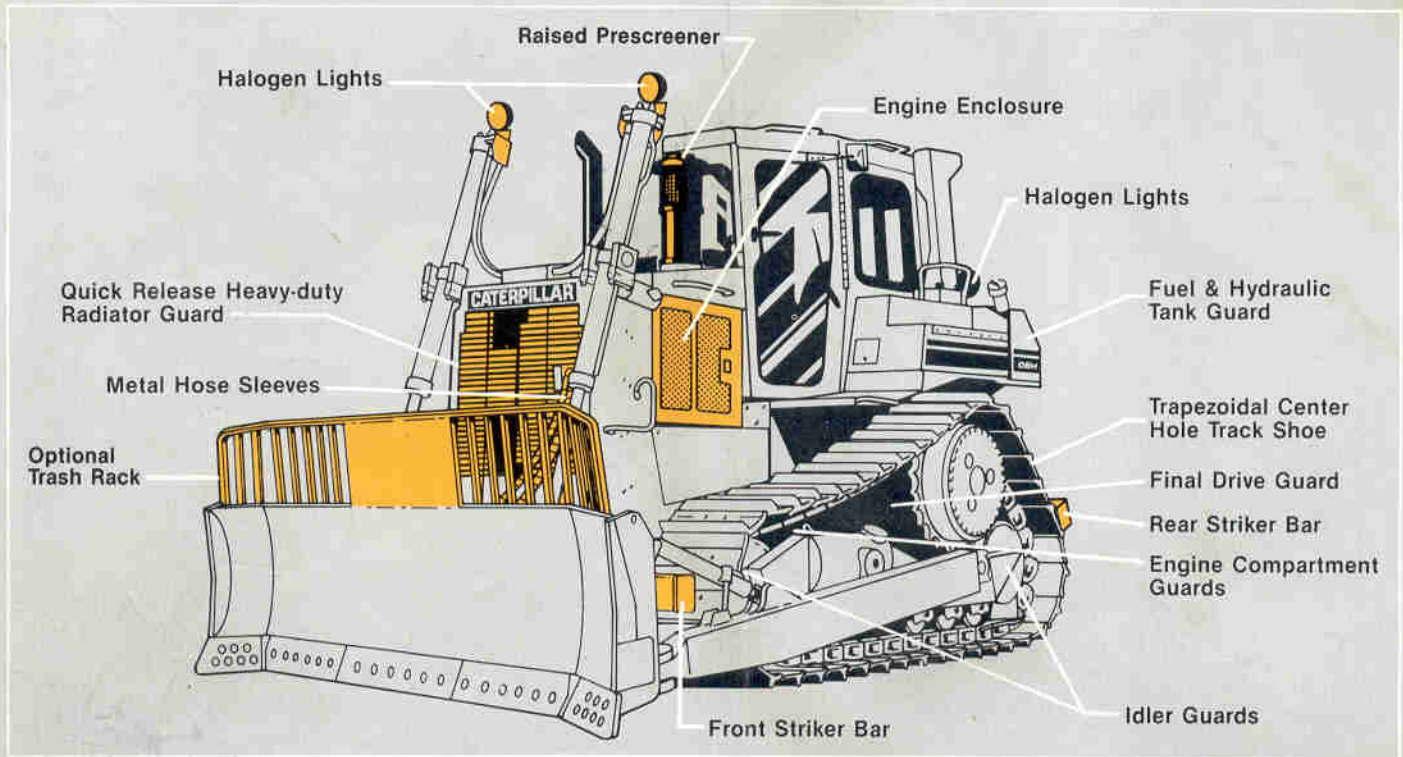
- Cat 3306 diesel Engine . . . . . 123 kW/165 HP
- Operating Weight . . . . . 18 191 kg/40,104 lb
- Blade Capacity up to . . . . . 11.17 m<sup>3</sup>/14.6 yd<sup>3</sup>
- Ground clearance . . . . . 377 mm/14.8"

Machine shown may include optional equipment.

- **Folded Core Radiator** deflects trash and debris through wide trash gaps reducing trash buildup on core. Modular design lets you replace individual cores.
- **Hinged Heavy-duty Radiator Guard** with two quick release "T" handles allow easy radiator access for cleaning.
- **Final Drive And Idler Seal Guarding** help prevent wire, cable and similar material from winding around these components and damaging seals.
- **Exclusive Differential Steer (optional)** provides continuous power to both tracks for efficient control.
- **Trapezoidal-shaped Center Hole Track Shoes (optional)** help keep track clean.
- **Front and Rear Striker Bars (optional)** keep trash from damaging fenders, fuel and hydraulic tanks or other sheet metal.
- **Total Customer Support System** unmatched in the industry.

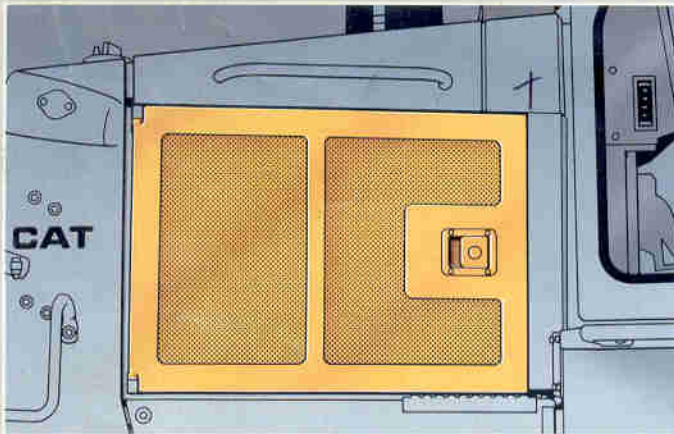


# CUSTOM PRODUCT BY CATERPILLAR



## Required Attachments

Engine Enclosure



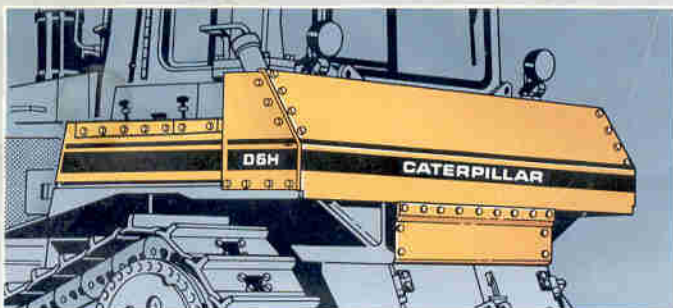
**Engine Enclosures** consist of perforated hood and side panels. The enclosures prevent airborne paper and plastics from entering the engine compartment, reducing radiator plugging which can cause cooling system problems.

**Fuel Tank Guard** protects implement hydraulic oil tank, battery box and fuel tank.

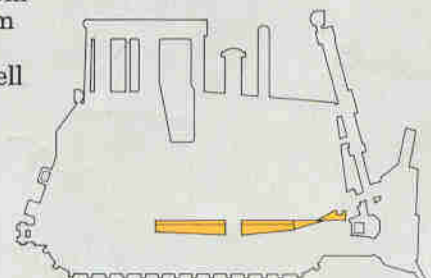
**Prescreener** provides additional protection from debris being sucked into the air intake.

**Lighting System** is relocated and changed to halogen lamps. More night visibility is achieved with the repositioned halogen lamps – better protected from damage.

**Extreme Service Crankcase Guarding** restricts waste materials from entering the bottom of the engine compartment as well as providing protection.



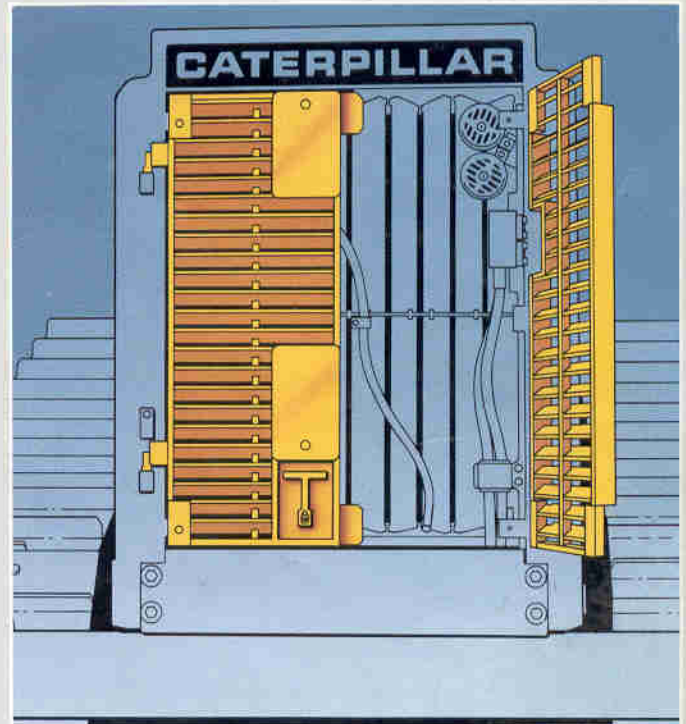
Fuel Tank Guard



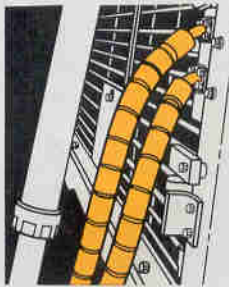
### Required Modifications

**Hinged Heavy-duty Radiator Guard** protects the cooling system. It comes equipped with two quick release "T" handles for the center-opening guard, allowing easy access to the radiator for cleaning. Covers protect the handles from damage. Special hinge latches retain the guard in the open or closed positions.

*Hinged Heavy-duty Radiator Guard*

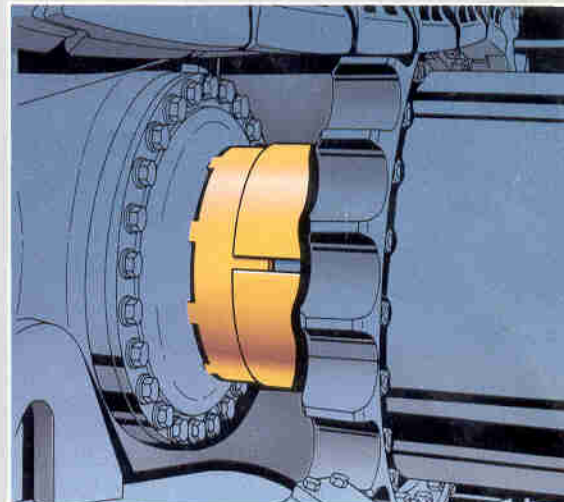


**Metal Hose Sleeves** shield tilt cylinder hydraulic hoses. Hose flexibility is retained.



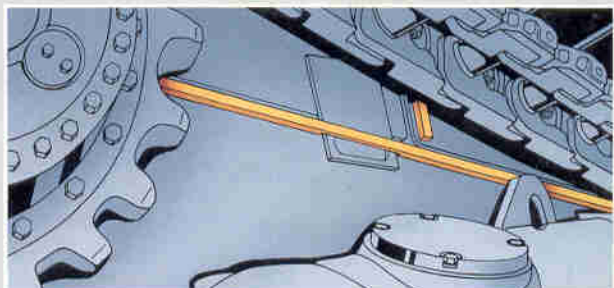
**Idler Guards** Metal-to-metal seal guards protect the four idlers. These guards keep wire and similar materials from winding around these critical components and damaging the seals.

**Final Drive Guard** protects Duo-Cone seals from damage by wire, nylon strapping, fishing line, etc.



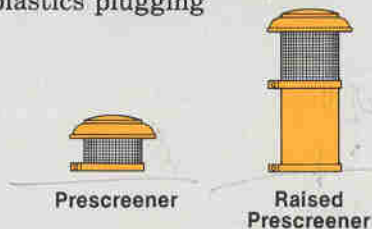
*Final Drive Guards*

**Engine Compartment Guards** help protect sheet metal from being pried up and damaged.



*Engine Compartment Guards*

**Raised Prescreener** reduces the likelihood of airborne paper or plastics plugging the air intake and provides a larger air inlet.

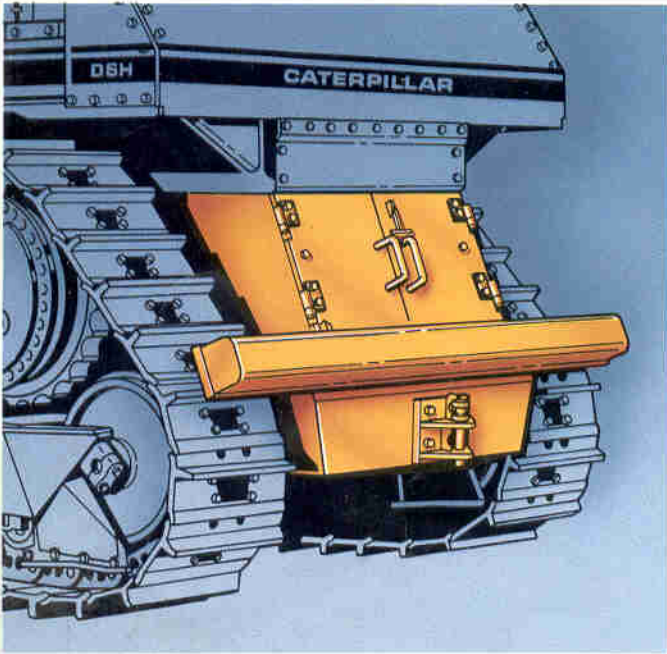


Prescreener

Raised Prescreener

## Recommended Modifications

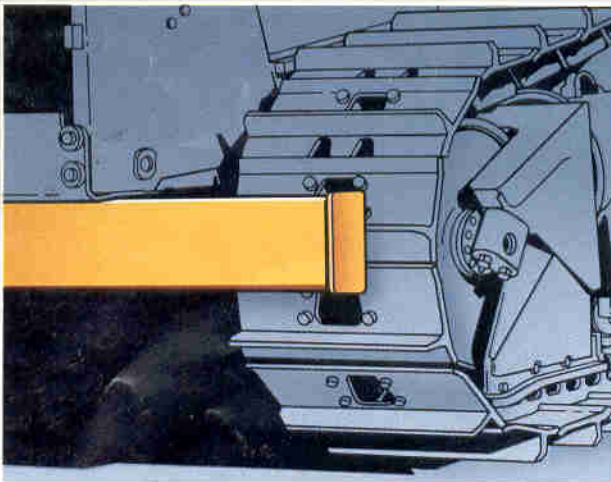
Rear Striker Bar with Enclosure Area



**Striker Bars** — When working on landfills or at transfer stations where a full range of industrial and residential materials are deposited, front and rear striker bars are a good investment. The striker bars keep trash from climbing the track and damaging the fender areas, as well as fuel and hydraulic tanks.

The rear striker bar, weighing 723 kg/1,595 lb, is mounted on the bevel gear case and sweeps across both tracks. The arrangement includes a retrieval hitch, vertical side plates and lower power train guard. The rear striker bar enclosure area, with wide-opening doors, provides handy storage space for counterweight and/or cable for retrieving stuck vehicles. (Not available for extended undercarriage or LGP versions.)

The rear striker bar is not compatible with rear implements (ripper or winch). When rear implements are required, dealers may elect to provide a rear striker bar of their own modification.

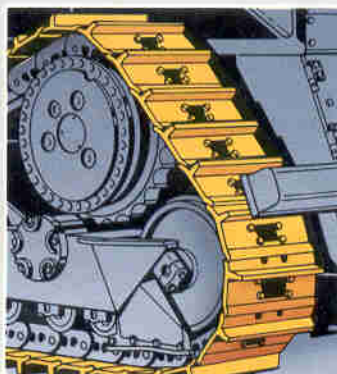


Front Striker Bar

Some users equip waste disposal tractors with a ripper or winch, yet still want the protection of front striker bars. The front striker bars weigh 108 kg/238 lb and attach to the front crankcase guard, extending across each track. The front striker bar is compatible with both standard and optional crankcase guards.

**Trapezoidal Center Hole Track** — Optional single grouser 510 mm/20" and 560 mm/22" tracks are available with center holes cut in a trapezoidal shape. They reduce refuse packing under the track, which causes the track chain to tighten and accelerate pin and bushing wear. The trapezoidal holes relieve packing by allowing the sprocket to punch out dirt and debris. Especially helpful in wet materials.

Trapezoidal Center Hole Track Shoes



### Other Considerations

**Bulldozers** — Choice of blades — S or SU — depends on the machine's principal work:

- Spreading cover material — choose S or SU blade.
- Spreading refuse or performing other waste disposal work — choose SU blade.

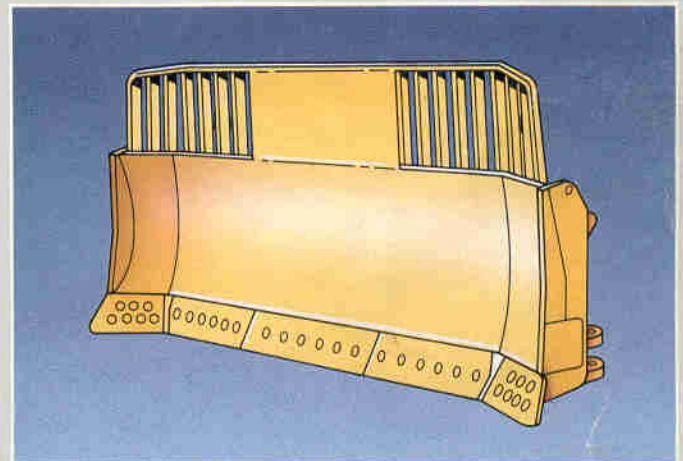
### Waste Disposal Bulldozer Specifications

(with 610mm/24" trash rack) Blades	Blade Capacity Per SAE J1265		Overall width includes end bits (Tractor w/bulldozer)		Height		Digging Depth		Ground Clearance		Maximum Tilt		Weight (without hydraulic controls)		Total Operating Weight* (Tractor with bulldozer)	
	m <sup>3</sup>	yd <sup>3</sup>	mm	ft	mm	ft	mm	in	mm	in	mm	in	kg	lb	kg	lb
6S .....	8.60	11.2	3274	10' 9"	1863	6' 1"	460	18.1	1077	42.4	738	29.0	2713	5982	17 985	39,651
6SU .....	11.17	14.6	3242	10' 7.5"	2017	6' 7"	460	18.1	1081	42.5	738	29.0	2919	6436	18 191	40,104

\*Includes hydraulic controls, blade tilt cylinder, blade, trash rack, lubricants, coolant, full fuel tank, ROPS canopy 560 mm/22" track shoes and operator.

**Trash Racks** — available in various configurations. Rack should be tilted forward as an extension of the blade's curvature to prevent material from reaching the radiator. Many have a steel plate in the center, which will prevent rods, wire, etc. from entering the radiator area.

Trash Rack

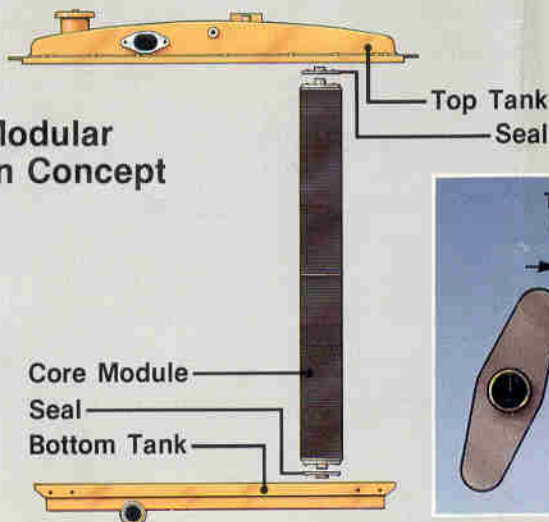


### Serviceability

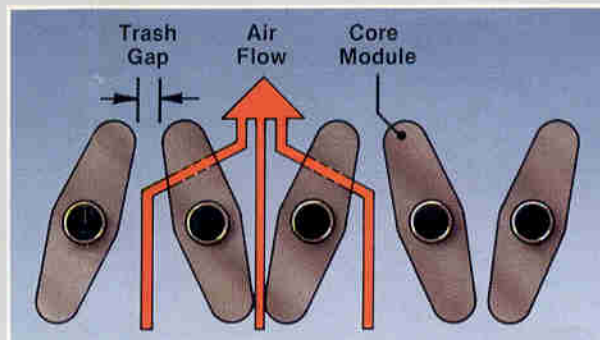
Less time on maintenance, easier repair.

Folded Core Radiator provides efficient cooling, reduced maintenance, and quick module replacement. Angled core assemblies provide maximum cooling while channeling debris through wide trash gaps. Easy servicing and repair of the individual modules, anywhere, without special tools.

### The Modular Design Concept



Folded Core Radiator



# SPECIFICATIONS



## Caterpillar Engine

Gross power @ 1800 RPM ... 133 kW/179 HP  
Flywheel power @

1800 RPM ... 123 kW/165 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" Hg. Power is based on using 35° API (15.6°C/60°F) gravity fuel having an LHV of 42 780 kJ/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 derating required up to 2300 m/7,500 ft. altitude for direct drive, 2300 m/7,500 ft. for power shift model.*

These additional ratings also apply at 1800 RPM

	kW	HP
ISO 1585	127.5	171.0
ISO 3046-1	126.5	168.5
EEC 80/1269	127.5	171.0

Caterpillar 4-stroke-cycle 3306 turbocharged diesel Engine with six cylinders, 121 mm/4.75" bore, 152 mm/6.0" stroke and 10.5 liters/638 in<sup>3</sup> displacement.

Direct injection Caterpillar fuel system with individual adjustment-free injection pumps and valves.

Stellite-faced valves, hard alloy steel valve seats, valve rotators. Cam-ground and tapered aluminum alloy pistons with 3-ring design, cooled by oil spray. Steel-backed aluminum bearings, thru-hardened crankshaft. Pressure lubrication with full-flow filtered and cooled oil. Dry-type air cleaner with primary and safety elements.

Uses No. 2 fuel oil (ASTM Specification D396), often called No. 2 furnace or burner oil, with a minimum cetane rating of 35. Premium quality diesel fuel can be used but is not required.

Two 24-volt direct electric starting systems — standard or low temperature.



## Transmission

Planetary-type power shift with 345 mm/13.6" diameter, high-torque-capacity oil clutches. Special modulation system permits fast speed and direction changes.

Single-stage torque converter with output torque divider. Connected to transmission by double universal joint for unit construction to provide servicing ease.

Modular transmission and bevel gear plug into rear of main drive case facilitating exchange.

	1st	2nd	3rd
Forward Km/h	3.8	6.5	11.3
MPH	2.4	4.0	7.0
Reverse Km/h	4.8	8.4	14.4
MPH	3.0	5.2	8.9

Direct Drive also available.



## Steering and Braking

Hydraulically actuated, multiple-disc brakes and hydraulically-applied steering clutches are cooled by pressurized oil and require no adjustment. Each assembly serviceable as a unit.

Hand levers combine steering clutch disengagement and braking in one control for each track. Pull back slightly to disengage steering clutches, fully back to brake track.

A single pedal simultaneously applies brakes to both tracks for service or emergency stops. Parking brake is applied by transmission lock lever. A service tool, electrically driven from auxiliary start receptacle, is available when towing is required to allow in-seat brake release in absence of control system pressure.

**Differential steer (optional)** — Differential steering system provides continuous power to both tracks even in tight turns. Steering feature powered by a steering differential, hydrostatic pump, motor and controls. Single steering tiller controls all direction movement. Twist grip controls forward/reverse direction. Moving tiller forward results in left hand turn when moving forward, right turn in reverse. Moving tiller towards operator results in right hand turn moving forward, left reverse. Counterrotation possible with transmission in neutral.



## Final Drive

Single reduction planetary in-line final drive gears, splash lubricated and sealed with Duo-Cone Floating Ring Seals. Sprockets with 5, 72° bolt-on, replaceable rim segments.



## Track Roller Frame

Tubular design to resist bending and torsional loads. Lifetime Lubricated rollers and idlers are directly mounted to roller frame.

Oscillating roller frames attach to tractor by stub pivot shafts and pinned equalizer bar. Pivot bushings operate in an oil reservoir.

Saddle connection is a low friction, no maintenance bushing. Recoil system is fully sealed and lubricated.

Number of rollers (standard roller frame) ... 6  
Oscillation at front idler ... 6°

### Sealed and Lubricated Track

Sealed and Lubricated Track surrounds the track pin with lubricant to virtually eliminate internal bushing wear. Lubricant is held in place by a sealing arrangement consisting of a polyurethane seal, a rubber load ring and a thrust ring. Additional lubricant is contained in a reservoir drilled into the track pin. Extends undercarriage maintenance intervals and reduces costs. Hydraulic track adjusters and two-piece master link standard.

Number of shoes (each side-standard model) . . . . . 39  
 Available shoe widths . . . 457 mm/18" to 610 mm/24"  
 Length of track on ground . . . . . 2629 mm/8' 7"  
 Ground pressures with  
 559 mm/22" shoes . . . . . 605 kg/cm<sup>2</sup>/8.6 psi

### Weight (approximate)

Waste Disposal Arrangement  
 Shipping (includes lubricants, coolant, canopy and 10% fuel):  
 Power shift . . . . . 13 882 kg/30,604 lb  
 Operating (includes lubricants, coolant, full fuel tank, hydraulic control, 6 SU Bulldozer w/tilt, 610 mm/24" trash rack, 560 mm/22" shoes, ROPS canopy, and operator):  
 Power shift . . . . . 18 191 kg/40,104 lb

### ROPS


ROPS canopy is standard in U.S.A.  
 ROPS (Rollover Protective Structures) offered by Caterpillar for this machine meet ROPS criteria SAE J395, SAE J1040c and ISO 3471-1980. They also meet FOPS (Falling Object Protection Structure) criteria SAE J231 JAN81 and ISO 3449-1984. Cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 SEP80, meets OSHA and MSHA requirements for operator sound exposure limits in effect at the time of manufacture.

ROPS structure is designed and certified for operating weight . . . . . 23 500 kg/51,810 lb

### Hydraulic Controls

Pressure compensating fixed displacement gear pump system adjusts pressure to accommodate the maximum implement load demand.

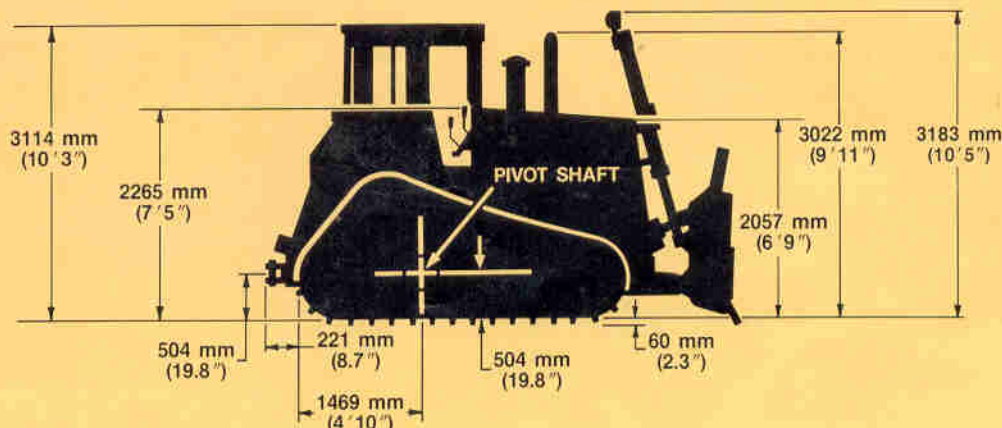
Pump, gear type:

Capacity @ 19 800 kPa/198 bar   
 2875 psi . . . . . 167 liters/min/44 gpm  
 Tilt cylinder flow . . . . . 80 liters/min/21 gpm  
 RPM @ rated engine speed . . . . . 1912  
 Relief valve settings:  
 Bulldozer . . . . . 19 800 kPa/198 bar/2,875 psi  
 Ripper . . . . . 19 800 kPa/198 bar/2,875 psi  
 Tilt cylinder . . . . . 19 800 kPa/198 bar/2,875 psi  
 Drive . . . . . Geared from flywheel

### Dimensions (approximate)

Ground clearance, from ground face of shoe per SAE J1234 . . . . . 377 mm/14.8"  
 Drawbar height from ground face of shoe . . . . . 504 mm/19.8"  
 Width over trunnion . . . . . 2640 mm/8' 8"

With the following attachments, add to basic tractor length of . . . . . 4069 mm/13' 4"  
 (Front of tractor to drawbar clevis)  
 S-Blade . . . . . 945 mm/3' 1"  
 SU-Blade . . . . . 1219 mm/4' 0"  
 Winch . . . . . 207 mm/8.1"





### Required Attachments

Waste Disposal Arrangement  
From Caterpillar

	Kg	Lb
Engine enclosure (includes perforated side panels) . . . . .	35	77
Guards:		
Crankcase, extreme service . . . . .	64	140
Fuel tank . . . . .	100	220
Lighting system, four lights . . . . .	10	22
Prescreener . . . . .	3	6



### Recommended Modifications

From Caterpillar Custom Machine Products

	Kg	Lb
Striker Bars:		
*Rear . . . . .	723	1595
Front . . . . .	108	238
Trapezoidal center hole tracks:		
510 mm/20" . . . . .	112	246
560 mm/22" . . . . .	231	509

\*Not compatible with winch or ripper



### Required Modifications

From Caterpillar Custom Machine Products  
(All items listed below must be ordered as a group)

	Kg	Lb
Total group weight . . . . .	133	295
Hinged heavy duty radiator guard with quick release handles		
Final drive seal guarding		
Idler seal guarding		
Engine compartment guarding		
Tilt cylinder hydraulic hose guarding		
Modification to the attachment four lamp lighting system to include 4 halogen lamps and dozer lift cylinder mounting of 2 forward lamps.		
Modification raises attachment prescreener		





## The Competitive Edge

### Performance

- Bulldozer with optional trash rack — increased blade capacity for large loads.
- 25% torque rise — power through heavy loads without constant downshifting, momentum loss.
- Turbocharged 3306 engine — direct fuel injection for more working power from each unit of fuel.
- Greater track-to-ground contact length — increases traction, stability.
- Differential steer (optional) — power to both tracks at all times. Enhanced maneuverability, productivity and operating ease.
- Exceptional balance — more penetration force to blade, more tractive force to ripper.
- Pivot shaft and pinned equalizer bar maintain roller frame alignment — more ground clearance, no diagonal braces to clutter up underside.

### Reliability/Durability

- Elevated sprocket design — raises final drives, steering clutches and brakes above work environment, isolates from drawbar and dozer shock loads — extends life of drive train.
- Final drive and idler seal guards — help prevent damage to seals.
- Large engine displacement, low RPM setting — peak power with little strain.
- Front and rear striker bars — prevent damage to fenders, fuel and hydraulic tanks, other sheet metal.
- Trapezoidal-shaped center hole track shoes — reduce track pin and bushing wear.
- Metal hose sleeves — shielded yet flexible hoses.
- Engine compartment guards — restrict debris entry.
- Raised prescreener reduces air intake plugging.

### Maintenance/Repair

- Folded core radiator deflects trash and debris, reduces downtime.
- Hinged heavy duty radiator guard for quick cleanout.
- Exclusive plug-in diagnostic tool reads 12 electrical system check points — electrical problems diagnosed quickly.
- Quick disconnect fittings permit quick identification of power train or implement oil system problems.

- Minimal daily maintenance, easy access, grouped service points reduce downtime.
- Modular components — remove as single units for simpler, quicker repairs, less downtime.
- Modules can be pre-tested, field installed — less shoptime, downtime.
- Electronic Monitoring System — guards against costly failures, when gauges aren't checked often enough.

### Operating Ease

- Fully adjustable suspension seat angled 15° for comfort, visibility.
- Conveniently placed, precise, low-effort controls and easy-to-read, non-glare instrument panel — less strain, fatigue for operator.
- Sound-suppressed ROPS/FOPS cab available — heater (standard with cab) or optional heater/air conditioner controls environment — pressurization keeps out dust.
- Halogen lights increase night visibility.

### Total Customer Support System

- Parts availability — most Cat parts on dealer's shelf when you need them — worldwide emergency system backup.
- Service capability — dealer's shop or fast field service — factory trained servicemen — latest tooling and technology.
- Machine management services — effective preventive maintenance programs, diagnostic programs (Scheduled Oil Sampling, Technical Analysis), cost effective repair options, customer meetings, operator and mechanic training.
- Exchange components for quick repair — choose Cat remanufactured products or dealer rebuilt components for maximum uptime and lower costs.
- Literature support — easy-to-use operation, maintenance guides get the job done right — important new maintenance and product support information passed on as developed.
- Cat financing — available through your Cat dealer, offers you attractive, flexible financing on the entire line of Cat machines, engines and lift trucks. Cat financing can provide terms structured to meet your cash flow requirements. See how affordable and easy it is to own Cat equipment.

BULLDOZERS  
5-02-51



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