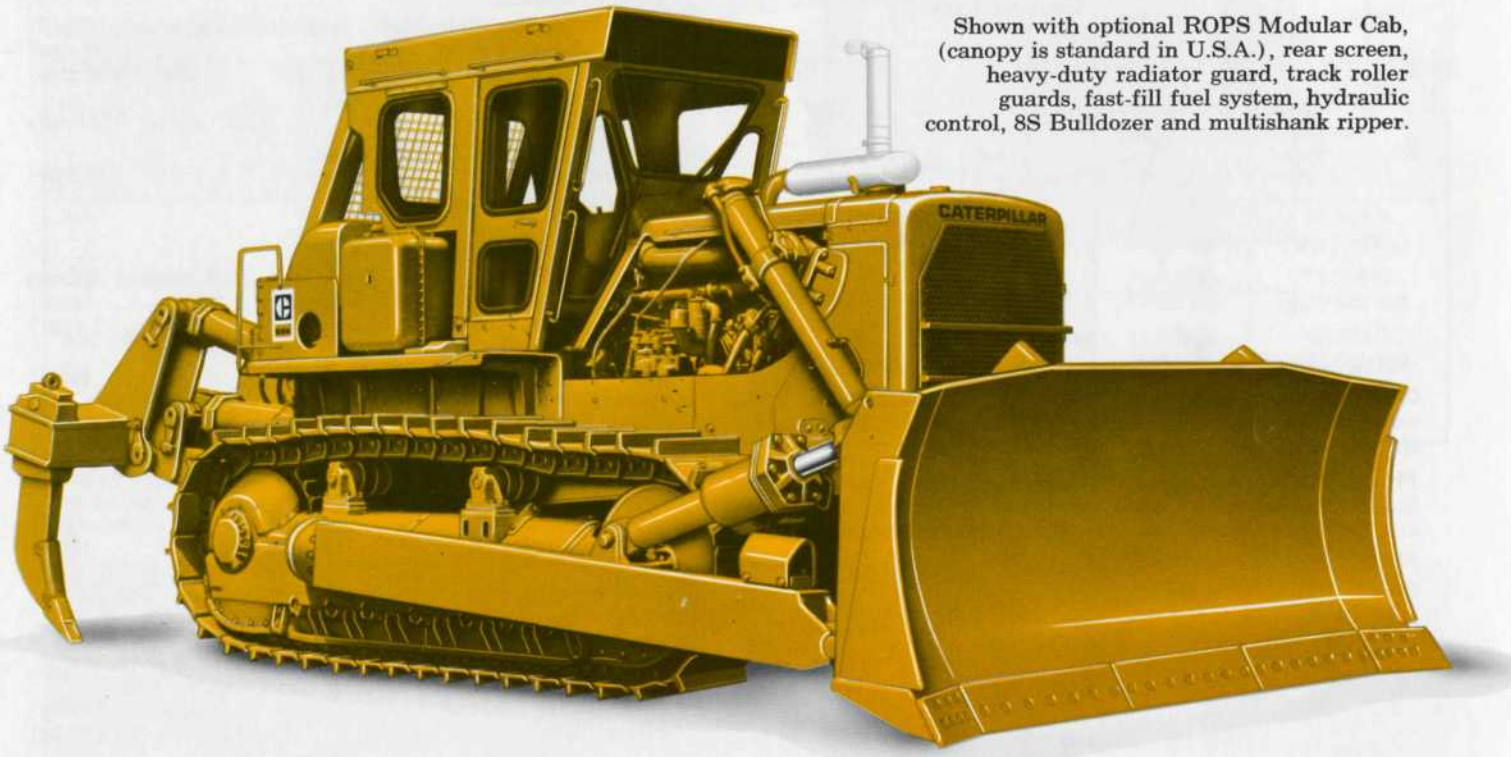
CATERPILLAR

D8K
Track-type Tractor

Summary of features

- **Turbocharged Cat D342 Engine** delivers 300 flywheel horsepower . . . keeps full rated power up to 7,500 ft. (2300 m) altitude.
- **Sealed and Lubricated Track** greatly reduces internal pin and bushing wear . . . for lower undercarriage maintenance costs.
- **Pinned equalizer bar** reduces bending stresses in sprocket shaft and misalignment of final drive gears and bearings.
- **Complete hand-lever steering** combines clutch disengagement and braking in the same control.
- **Hydraulic pilot controls** make ripper and dozer tilt lever *operation easy.*
- **Caterpillar Modular Cab** is a self-contained unit with operator protection and improved environment built in . . .sound suppressed . . . tilts rearward for easier servicing of power train components.
- **CAT PLUS** . . . from your Caterpillar Dealer . . . the most comprehensive, total product support system in the industry.





Shown with optional ROPS Modular Cab, (canopy is standard in U.S.A.), rear screen, heavy-duty radiator guard, track roller guards, fast-fill fuel system, hydraulic control, 8S Bulldozer and multishank ripper.

Caterpillar Engine

Flywheel horsepower @ 1330 RPM	300
Kilowatts	224

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

The net power at the flywheel of the vehicle engine operating under SAE standard ambient temperature and barometric conditions, 85° F (29° C) and 29.38" Hg (995 mbar), using 35 API gravity fuel oil at 60° F (15.6° C). Vehicle engine equipment includes fan, air cleaner, water pump, lubricating oil pump, fuel pump and alternator. Engine will maintain specified power up to 7,500 feet (2300 m) altitude.

Caterpillar four-stroke-cycle Diesel Model D342 with six cylinders, 5.75" (146 mm) bore, 8.0" (203 mm) stroke and 1,246 cu. in. (20.4 litres) piston displacement.

Turbocharged. Individual adjustment-free fuel injection pumps and non-clogging injection valves and precombustion chambers. Stellite-faced valves, valve rotators and hard alloy steel seats.

Spray-cooled, cam-shaped and tapered aluminum alloy pistons with three keystone rings. Both compression rings carried in cast-iron bands. Steel-backed aluminum alloy bearings and Hi-Electro hardened crankshaft journals. Full-flow filtered lubrication. Dry-type air cleaner with automatic dust ejector.

In-seat 24-volt direct electric starting.

D8K

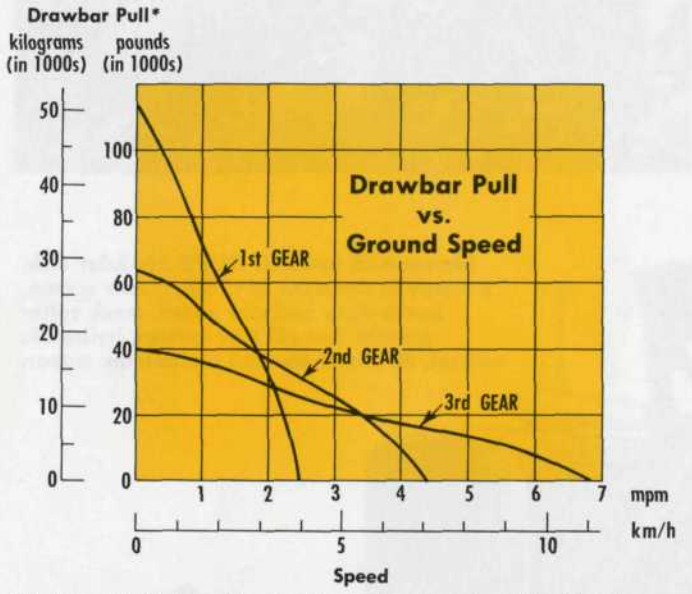
Track-type Tractor

transmission

Power shift: Planetary-type power shift with 21″ (530 mm) diameter, high-torque-capacity oil clutches. Special valve permits unrestricted speed and direction changes under full load.

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

Gear	Forward Speed MPH	(km/h)	Reverse Speed MPH	(km/h)
1	0-2.5	(4.0)	0-3.1	(5.0)
2	0-4.4	(7.1)	0-5.4	(8.7)
3	0-6.8	(10.9)	0-8.4	(13.5)



*Usable pull will depend on traction and equipped weight of tractor.

Direct drive: Constant mesh with helical gears and fast forward-reverse shift. Filtered, cooled, full-pressure lubrication. Unit construction for servicing ease.

Flywheel clutch has three metallic-faced plates with hydraulically boosted, over-center engagement. Clutch lubricated and cooled by pressure-circulated oil. Connected to the transmission by double universal joint.

Speeds and drawbar pulls:

Gear	Forward MPH	(km/h)	Reverse MPH	(km/h)
1	1.7	(2.7)	1.7	(2.7)
2	2.2	(3.5)	2.2	(3.5)
3	3.0	(4.8)	3.0	(4.8)
4	3.9	(6.3)	4.0	(6.4)
5	5.1	(8.2)	5.1	(8.2)
6	7.0	(11.3)	7.1	(11.4)

Drawbar Pull Forward*

Gear	At Rated RPM Lb.	(kg)	Maximum at Lug Lb.	(kg)
1	56,000	(25 400)	71,730	(32 540)
2	41,740	(18 930)	53,830	(24 420)
3	28,640	(12 990)	37,380	(16 955)
4	20,650	(9370)	27,340	(12 400)
5	14,580	(6610)	19,720	(8945)
6	9,010	(4090)	12,730	(5770)

*Usable pull will depend on traction and equipped weight of tractor.

steering

Hydraulically actuated, multiple-disc oil clutches require no adjustment. Oil-cooled contracting band brakes are hydraulically boosted. Mechanical parking brake. Clutch and brake assemblies can be serviced as a unit.

final drives

Crown-shaved, double-reduction final drive gears. Filtered, full-pressure lubrication and Duo-Cone® floating ring seals. Sprockets with bolt-on, replaceable rim segments.

track roller frame

Reinforced box-section construction. Welded-on track-guiding guards with bolt-on replaceable wear strips. Outside-mounted carrier rollers. Lifetime-Lubricated rollers and idlers.

Number of rollers (each side) 7
Oscillation at front idler ..... 15.7″ (399 mm)

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 and a rubber load ring. Additional lubricant is contained in a reservoir drilled into the track pin. Extends undercarriage maintenance intervals and reduces costs. Split master link standard. Hydraulic track adjusters standard.

Number of shoes (each side) 41
Width of standard shoe ..... 22″ (560 mm)
Length of track on ground ..... 124″ (3150 mm)
Ground contact area
with standard shoes ..... 5,437 sq. in. (3.51 m²)
Grouser height (from ground face of shoe) ..... 3.06″ (78 mm)

service refill capacities

	U.S. Gallons	(litres)
Fuel tank	170	(640)
Cooling system	32	(121)
Lubrication systems:		
Diesel engine crankcase	8.7	(32.9)
Power shift transmission, bevel gear and steering clutch compartments (includes torque converter)	31	(117)
Direct drive transmission, flywheel clutch, steering clutch and bevel gear compartments	35	(132)
Final drives (each)	9.5	(36.0)

weight (approximate)

Shipping (includes lubricants, coolant and 10% fuel):
Power shift ..... 54,700 lb. (24 810 kg)
Direct drive ..... 53,500 lb. (24 270 kg)

Shipping (includes above plus ROPS canopy):
Power shift ..... 56,400 lb. (25 580 kg)
Direct drive ..... 55,200 lb. (25 040 kg)

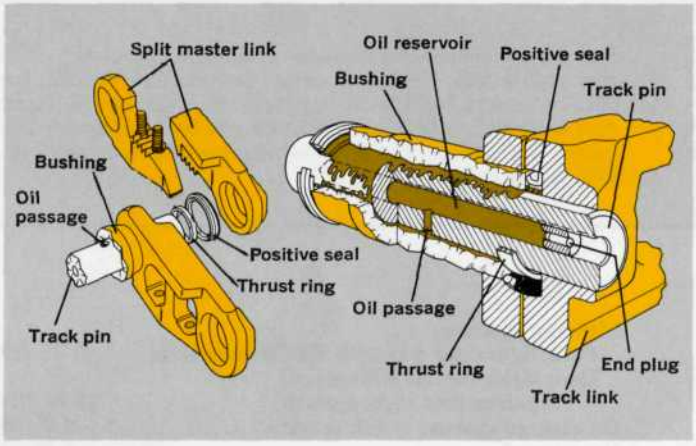
Operating (includes lubricants, coolant, full fuel tank, hydraulic control, 8S Bulldozer, ROPS canopy and operator):
Power shift ..... 70,500 lb. (31 980 kg)
Direct drive ..... 69,300 lb. (31 430 kg)

ROPS

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

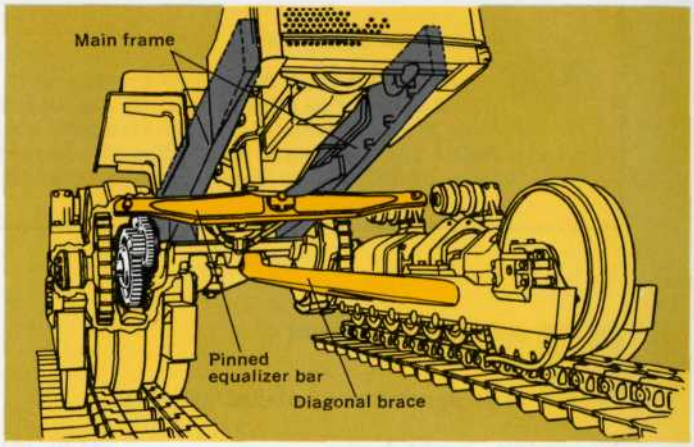
ROPS (Rollover Protective Structure) offered by Caterpillar for this machine meet ROPS criteria: SAE J395, SAE J1040a and ISO 3471. They also meet FOPS (Falling Object Protective Structure) criteria SAE J231 and ISO 3449.

Rugged undercarriage design, means less downtime, lower maintenance costs.



Sealed and Lubricated Track can greatly reduce undercarriage maintenance and expense. A special sealing arrangement maintains an oil film between pin and bushing contact surfaces, virtually eliminating internal wear. The thicker bushing has longer external wear life. And the pin contains an oil reservoir in the center for continuous lubing. Sealed and Lubricated Track potentially extends component life and noticeably reduces track noise.

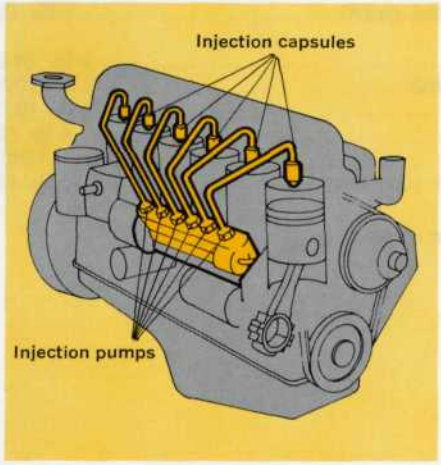
Split master link makes installation and breaking of track less time consuming. Serrated two-piece link is held in place by bolts which fasten the track shoe to each link. Split master link is standard.



Rugged undercarriage delivers long service life with minimum maintenance.

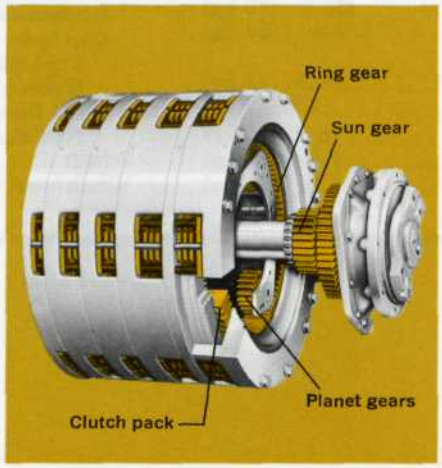
- Pinned equalizer bar prevents excessive lateral movement of track roller frames . . . thus reducing bending stresses in sprocket shaft and misalignment of final drive gears and bearings.
- Strong diagonal braces are built from heat-treated steel for strength and durability.
- Main frame has a heavy cast steel saddle blended into the side of the deep frame for improved strength and durability.
- Final drives have nickel alloy steel bull gears for strength and life.

Reliable Cat-built power train — power you can depend on.



Cat D342 Diesel Engine . . . with 1,246 cu. in. (20.4 litres) displacement . . . delivers 300 flywheel horsepower for productive dozing, ripping, push-loading or skidding. And it includes many time-proven benefits of Cat diesel power:

- Adjustment-free fuel system has individual injection pumps and injectors that precisely meter the proper amount of fuel for peak performance.
- Turbocharging packs more air into the cylinders for more complete combustion, more power.



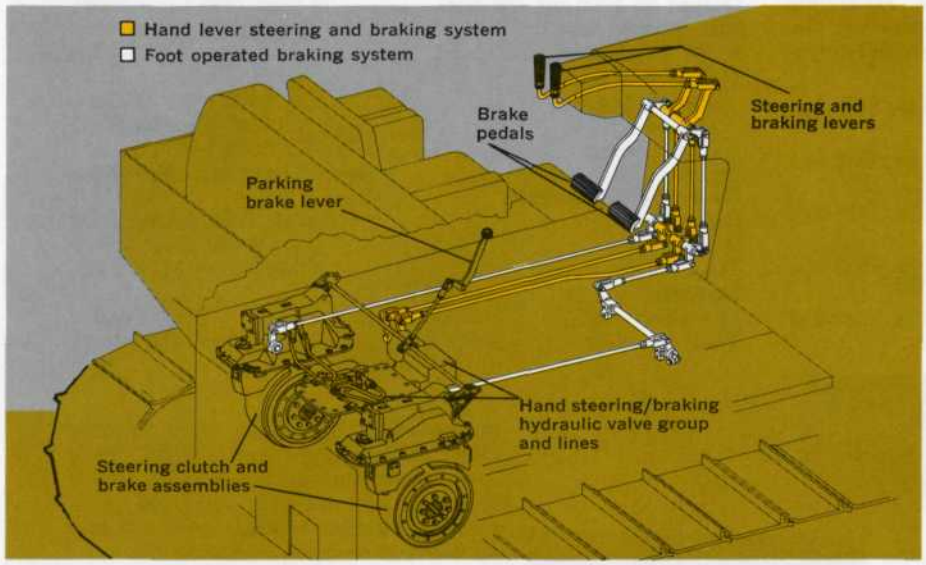
Planetary power shift transmission permits on-the-go shifting for quick speed and direction changes. Large-diameter clutch packs, which surround inherently balanced planetary gearing, are hydraulically modulated to smoothly absorb shift torque loads.

Serviceability — less time on maintenance, easier repair.

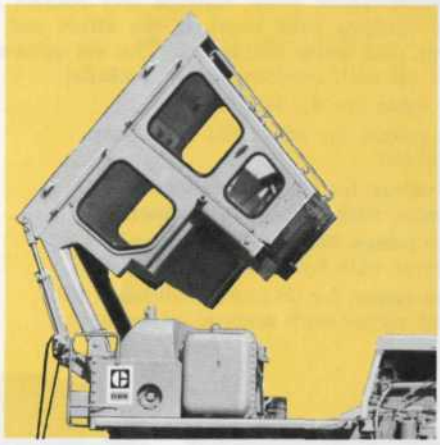


Bolt-on sprocket rim segments save on repair costs and reduce downtime. Rerimming can be done in the field . . . without breaking the track or removing the roller frame.

Built-in convenience, comfort and protection mean more operator efficiency.



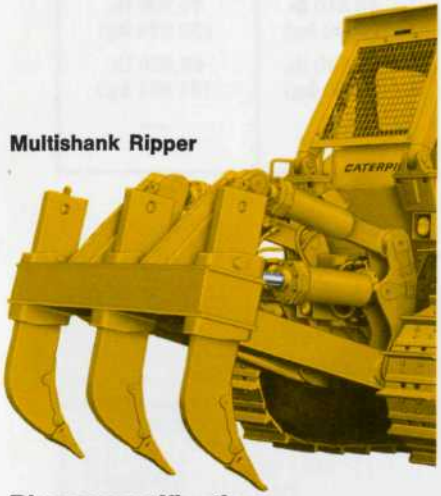
Combined hand-lever hydraulic steering controls mean that operator can both disengage steering clutches and apply brakes with the hand levers. Pull back slightly for gradual turn . . . back all the way for pivot turn. Hydraulically boosted mechanical foot pedals are retained for times when operator may prefer them. Both systems can be used independently, or operator can combine clutching with the hand levers and braking with the foot pedals to precisely control speed and turning rate. Mechanical brake linkage provides an emergency backup system in case of hydraulic system failure.



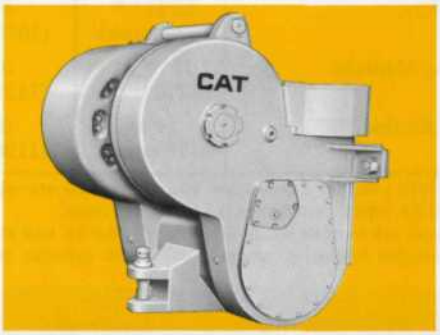
Caterpillar Modular Cab option features controls completely self contained in the cab unit, permitting entire cab to tilt rearward for servicing power train components underneath. Cab is an integral, all-welded ROPS connected to the frame with rubber mountings to reduce noisy vibration. Structure meets all current OSHA (U.S.A.) requirements for operator rollover protection. Included with cab are many standard operator efficiency features: padded seat, air pressurizer with filter, tinted glass, windshield wipers, swing-open side windows. Air conditioner and heater are available options.

Increased machine versatility, with rugged Cat-built attachments.

Multishank Ripper



No. 8 Series D Rippers are available with either hydraulic tip angle adjustment for easy operation, or manual adjustment for use when you seldom change tip angle. Single shank ripper has optional hydraulic pin puller to adjust shank length from operator's seat. Multishank ripper (shown at left) lets you choose one, two or three shanks, depending on job conditions.



Optional Cat 58 Winch operates with only one lever for easy control of reel-in, reel-out, inching and braking. Drum speeds are matched to tractor ground speeds in 1st gear, so cable unwinds smoothly. There's also easy access for servicing the brakes and gear train.

Ripper specifications

Ripper	Beam Width	Cross Section	Maximum Penetration	Maximum Clearance Raised (under tip)	Shank Positions	Weight (without hydraulic controls)	Total Operating Weight * (tractor with 8S blade and ripper)
Single shank, standard	4'6" (1370 mm)	17" x 19" (432 x 483 mm)	47" (1190 mm)	39" (990 mm)	4	10,020 lb. (4550 kg)	80,800 lb. (36 650 kg)
Single shank, deep ripping	4'6" (1370 mm)	17" x 19" (432 x 483 mm)	69" (1750 mm)	39" (990 mm)	6	11,000 lb. (4990 kg)	81,600 lb. (37 014 kg)
Multishank	8'7" (2620 mm)	15" x 18" (381 x 457 mm)	28" (710 mm)	32" (810 mm)	2	10,330 lb. (4690 kg)	81,000 lb. (36 742 kg)

*Includes hydraulic controls, blade tilt cylinder, lubricants, coolant, full fuel tank, ROPS canopy, operator and one shank. Add 730 lb. (331 kg) for each additional shank.

hydraulic controls

Complete system consists of pump, tank, filter, valves, lines, linkage and control levers. Hydraulic pilot controls take most of the effort out of operating the ripper and dozer tilt levers. The six optional hydraulic systems, all with external valves, include:

One valve, for 8A Bulldozer ..... 950 lb. (430 kg)

Two valves, for 8S or 8U Bulldozer and tilt ..... 1,165 lb. (528 kg)

Two valves, for 8A Bulldozer and ripper with manual adjustment ..... 1,070 lb. (485 kg)

Three valves, for 8A Bulldozer and ripper with hydraulic adjustment ..... 1,175 lb. (533 kg)

Three valves, for 8S or 8U Bulldozer, tilt and ripper with manual adjustment ..... 1,280 lb. (580 kg)

Four valves, for 8S or 8U Bulldozer, tilt and ripper with hydraulic adjustment ..... 1,300 lb. (590 kg)

Pump:

Output @ 1000 psi (69 bar) ..... 78 gpm (295 litres/min)

Tilt cylinder flow ..... 22 gpm (83 litres/min)

RPM @ rated engine speed 1885

Relief valve settings:

Bulldozer ..... 2400 psi (166 bar)

Ripper ..... 2400 psi (166 bar)

Tilt cylinder ..... 2500 psi (172 bar)

Drive ..... Geared from auxiliary drive

Control valve positions:

Bulldozer ..... Raise, hold, lower, float

Ripper ..... Raise, hold, lower

Tilt cylinder ..... Tilt right, hold, tilt left

Reservoir:

Mounting ..... Fender

Tank capacity ..... 18.5 gallons (70 litres)



Rugged D8K bulldozers have durable DH-2 cutting edges and end bits. Push arm braces connect to a sliding center ball that absorbs side stress on push arms and blade. A single lever controls all blade movement, including tilt.

Bulldozer specifications

Blade	Overall Width (tractor with bulldozer)	Height	Digging Depth	Ground Clearance	Maximum Tilt	Weight**	Total Operating Weight *** (tractor with bulldozer)
8S	13′3″ * (4040 mm)	5′0″ (1520 mm)	20″ (510 mm)	4′7″ (1400 mm)	40″ (1020 mm)	12,080 lb. (5480 kg)	70,500 lb. (31 979 kg)
8U	13′11″ * (4240 mm)	5′0″ (1520 mm)	20″ (510 mm)	4′7″ (1400 mm)	41.7″ (1060 mm)	13,310 lb. (6040 kg)	71,700 lb. (32 523 kg)
8A, straight	15′6″ *† (4720 mm)	3′8″ (1120 mm)	24.2″ (610 mm)	4′4″ (1320 mm)	13″ (330 mm)	11,590 lb. (5260 kg)	69,800 lb. (31 661 kg)
Angled 25°	14′0″ (4270 mm)	3′8″ (1120 mm)	31″ (790 mm)	5′2″ (1570 mm)	13″ (330 mm)	—	—

*Width over hot cupped end bits. Width over standard forged end bits is 4″ (102 mm) less.

†Width with C-frame only is 11′5″ (3480 mm).

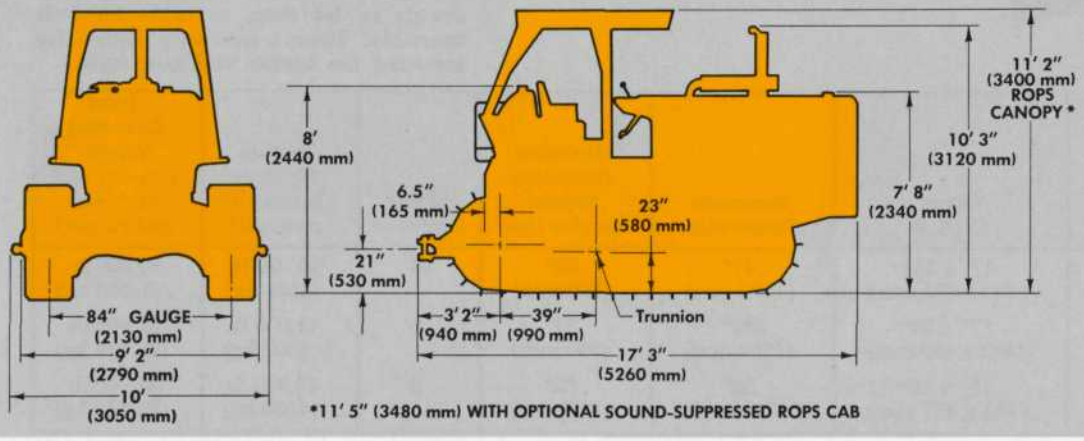
**Does not include hydraulic controls, but 8S and 8U include blade tilt cylinder.

***Includes hydraulic controls, blade tilt cylinder (8S and 8U), lubricants, coolant, full fuel tank, ROPS canopy and operator.

dimensions (approximate)

Ground clearance, from ground face of shoe (per SAE J894) ..... 17.1″ (434 mm)

Drawbar height (from ground face of shoe) .... 21″ (530 mm)



*11′ 5″ (3480 mm) WITH OPTIONAL SOUND-SUPPRESSED ROPS CAB

WITH FOLLOWING ATTACHMENTS, ADD TO BASIC TRACTOR LENGTH OF 17′ 3″ (5260 mm):

SINGLE SHANK RIPPER	6′ 7″ (2010 mm)
MULTISHANK RIPPER	5′ 0″ (1520 mm)
S-DOZER	4′ 4″ (1320 mm)
U-DOZER	5′ 5″ (1650 mm)
A-DOZER	4′ 5″ (1350 mm)
A-DOZER ANGLED 25°	7′ 5″ (2260 mm)
C-FRAME ONLY	2′ 8″ (810 mm)

CATERPILLAR

standard equipment

24-volt direct electric starting. 35-amp alternator. Muffler. Rain cap. Fuel priming pump. 7-roller track frame. 22″ (560 mm) grouser tracks (41 section). Hydraulic track adjusters. Sealed and Lubricated Track. Pinned equalizer bar. Rigid drawbar. ROPS canopy (U.S.A. only). Suspension seat. Seat belt. Turbocharger. Reversible fan with automatic belt tension adjustment. Engine oil cooler. Coolant flow warning horn. Spin-on oil and fuel filters. Dry-type air cleaner and automatic dust ejector. Crankcase guard. Front pull hook. Hinged radiator guard. Decelerator. Forward warning horn (U.S.A. only). Steel final drives cases.

optional equipment

(with approximate installed weights)

Air conditioner with heater	132 lb. (60 kg)
Without heater	104 lb. (47 kg)
Alternator, 50-amp	11 lb. (5 kg)
Cab, ROPS, sound suppressed:	
Power shift	1,110 lb. (500 kg)
Direct drive	1,525 lb. (690 kg)
Cab accessory group	15 lb. (7 kg)
Canopy, ROPS (standard in U.S.A.)	1,670 lb. (760 kg)
Counterweight, rear mounted	3,350 lb. (1520 kg)
Front mounted	2,000 lb. (907 kg)
Drawbar, swinging	265 lb. (120 kg)
Engine enclosure, for use with ROPS cab	190 lb. (86 kg)
For use without ROPS cab	318 lb. (144 kg)
Fan blast deflector	17 lb. (8 kg)
Fast-fill fuel system	11 lb. (5 kg)
Fire extinguisher	30 lb. (14 kg)
Guards:	
Crankcase, extreme service	333 lb. (151 kg)
Engine, upper	142 lb. (64 kg)
Radiator, hinged, heavy duty	175 lb. (79 kg)
Track roller	860 lb. (390 kg)
Heaters:	
Cab	28 lb. (13 kg)
Engine coolant	7 lb. (3 kg)
Horn	5 lb. (2 kg)
Hour meter, electric	1 lb. (0.5 kg)
Idlers, extreme service	248 lb. (112 kg)
Lighting systems:	
Four lights, for use with ROPS mounting	80 lb. (36 kg)
Rear light, for use with ripper (requires four-light system)	23 lb. (10 kg)
Oil change system, quick service	6 lb. (3 kg)
Prescreener	6 lb. (3 kg)
Radiator core protector grid	82 lb. (37 kg)
Ripper pin puller, hydraulic, for *single shank ripper only*	137 lb. (62 kg)
Ripper solid upper link, for manual shank adjustment	–226 lb. (–103 kg)
Screen, for ROPS cab or canopy	64 lb. (29 kg)
Seat, shock dampening	25 lb. (11 kg)
Starting receptacle	3 lb. (1 kg)
Sweep, logging	374 lb. (170 kg)
Tool kit	15 lb. (7 kg)
Tracks, pair, Sealed and Lubricated:	
22″ (560 mm) extreme service	980 lb. (445 kg)
24″ (610 mm)	328 lb. (149 kg)
24″ (610 mm) extreme service	1,480 lb. (670 kg)
26″ (660 mm)	980 lb. (445 kg)
28″ (710 mm)	1,310 lb. (590 kg)
Sealed, non-lubricated track, 22″, 22″ extreme service, 24″, 26″, 28″ also available. (Weights are same as above.)	
Vandalism protection:	
Instrument panel guard	7 lb. (3 kg)
Cap locks for:	
Fuel tank	1 lb. (0.5 kg)
Hydraulic tank	1 lb. (0.5 kg)
Oil filler	1 lb. (0.5 kg)
Radiator	4 lb. (2 kg)
Winch	3,510 lb. (1592 kg)
Windshield wiper (cab rear)	6 lb. (3 kg)

Materials and specifications are subject to change without notice.

AEHQ9235-Rev02 (2-79)
Replaces AEHQ9235-Rev01

Caterpillar, Cat and ⊞ are Trademarks of Caterpillar Tractor Co.

Printed in U.S.A.