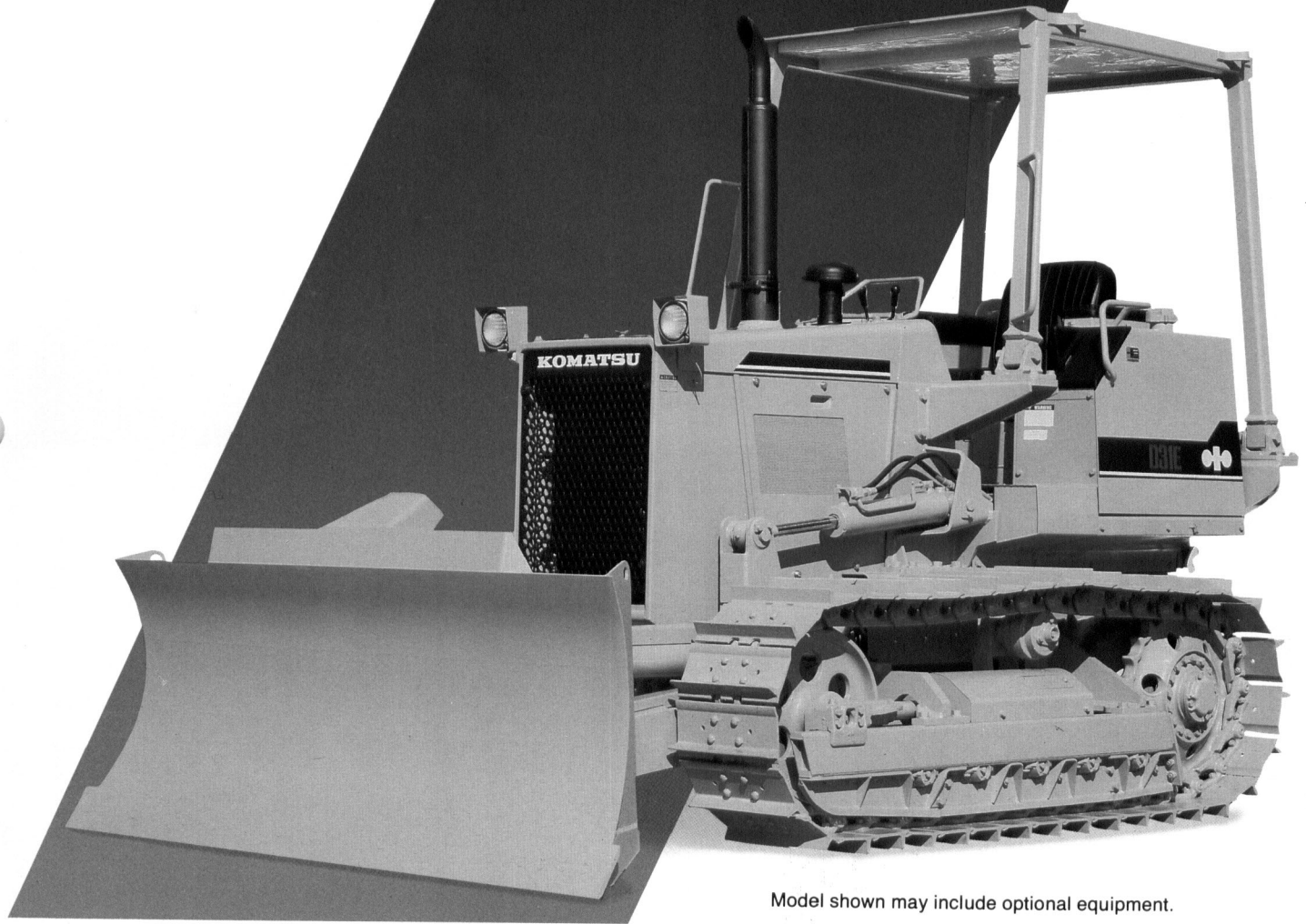


D31E-18

CRAWLER DOZER



Model shown may include optional equipment.

KOMATSU: The Quality is Standard.

FLYWHEEL HORSEPOWER: 70 HP (52 kW) @ 2350 RPM. OPERATING WT: 6520 kg (14,360 lb)

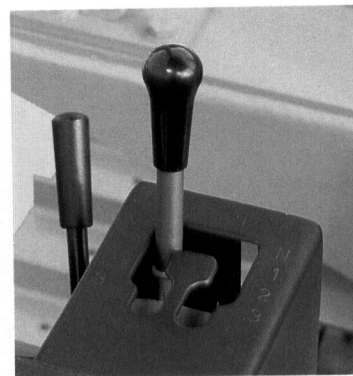
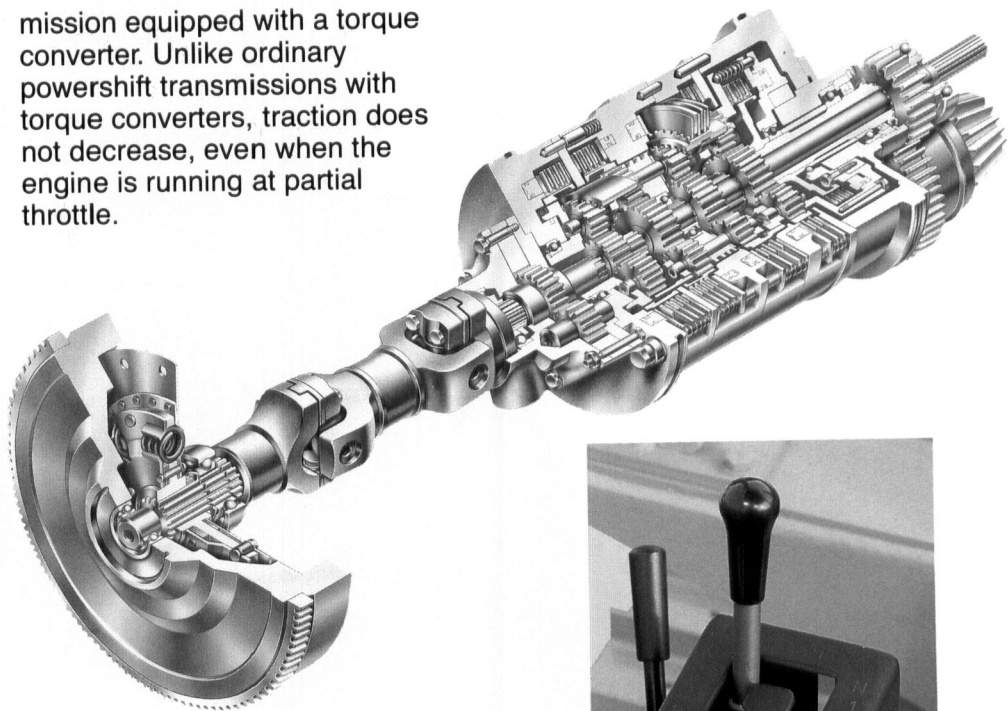
- Long tracks provide these valuable extras: flotation, traction, stability and efficient grading.
- Komatsu-built power train maximizes production while assuring excellent fuel economy.
- Designed for maximum durability, reliability and maintainability.
- Wet-type steering and brakes extend durability, increase operator control.
- HYDROSHIFT transmission provides efficiency of direct drive and convenience of powershift.

The Komatsu-built power train maximizes production while assuring excellent fuel economy.

HYDROSHIFT transmission

The D31E is equipped with Komatsu's unique HYDROSHIFT transmission, assuring smooth gear shifts, powerful traction and low fuel consumption. It consists of a damper and planetary gear packs. The HYDROSHIFT transmission makes two previously incompatible factors compatible: It efficiently converts engine power to traction with minimal power loss as obtained with a direct-drive transmission, and it offers smooth, easy shifting as obtained with the powershift trans-

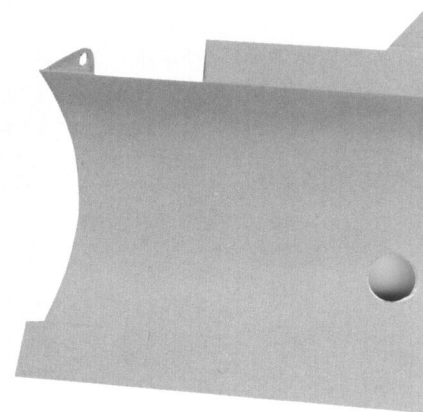
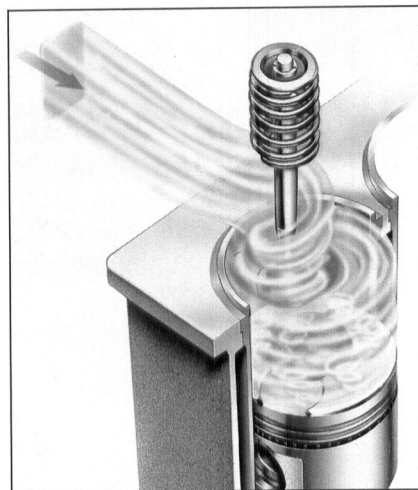
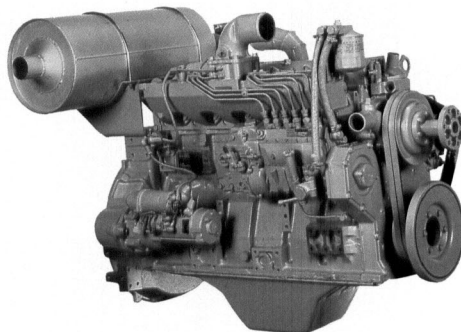
mission equipped with a torque converter. Unlike ordinary powershift transmissions with torque converters, traction does not decrease, even when the engine is running at partial throttle.



Fuel-efficient 6D95L engine

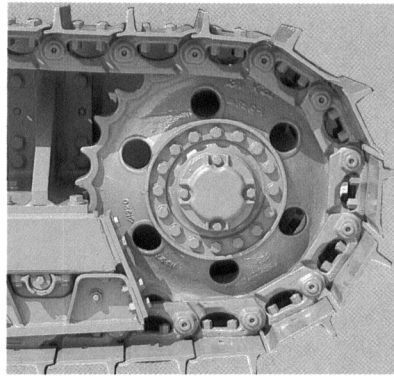
The Komatsu 6D95L-1 features a direct-injection, Microturbulence Combustion Chamber (MTCC) fuel system. Intake air is swirled into the combustion chamber where it is mixed with injected, atomized fuel, providing optimum combustion. This MTCC fuel system not only contributes to greater power and fuel savings, but also insures reduced noise and cleaner exhaust. Cushion mounted engine reduces noise and vibration even further.

An electrical heater located in the intake-air manifold warms fresh air to assure smooth, quick engine starts, even in cold weather.

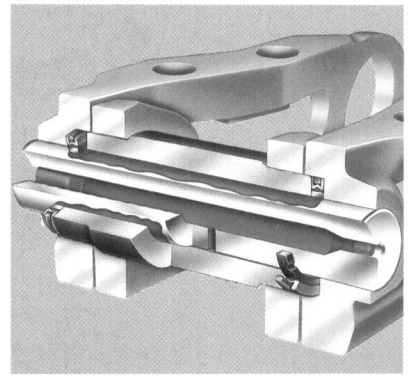


Designed for maximum durability, reliability and maintainability.

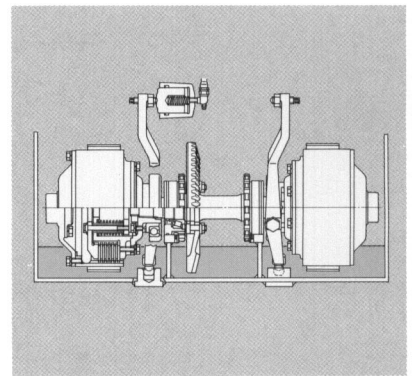
Every Komatsu crawler is manufactured with Komatsu-built components. Since each component is produced under the world's strictest quality control, reliability and durability are assured. Maintainability is also a factor contributing to machine efficiency and economy, and the D31E offers you more.



Bolt-on type sprocket: The bolt on sprockets can be easily replaced on the job-site when needed, for reduced downtime.



Lubricated track links (optional): Since the clearance between the link pin and bushing is lubricated, wear and pitch elongation are minimized for extended service life. With lubricated track, power loss due to friction of pin and bushing is reduced, increasing operating comfort and performance. Split master links are also provided to facilitate track assembly and disassembly.

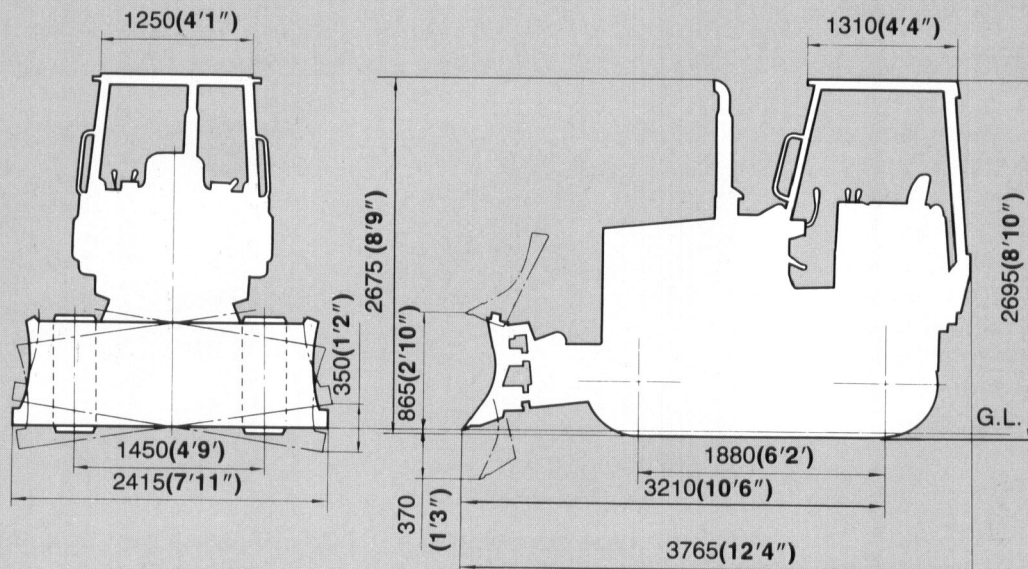


Wet type steering clutches and brakes: The D31E has interconnected, lever-operated, wet steering clutches and brakes for long service life and reliability. The self-adjusting steering clutches are multiple-disc type with a hydraulic booster insuring light-touch lever movements, while the brakes are the contracting-band type that facilitate easy lining replacement.



DIMENSIONS

(Equipped with power angle-tilt dozer and ROPS canopy)

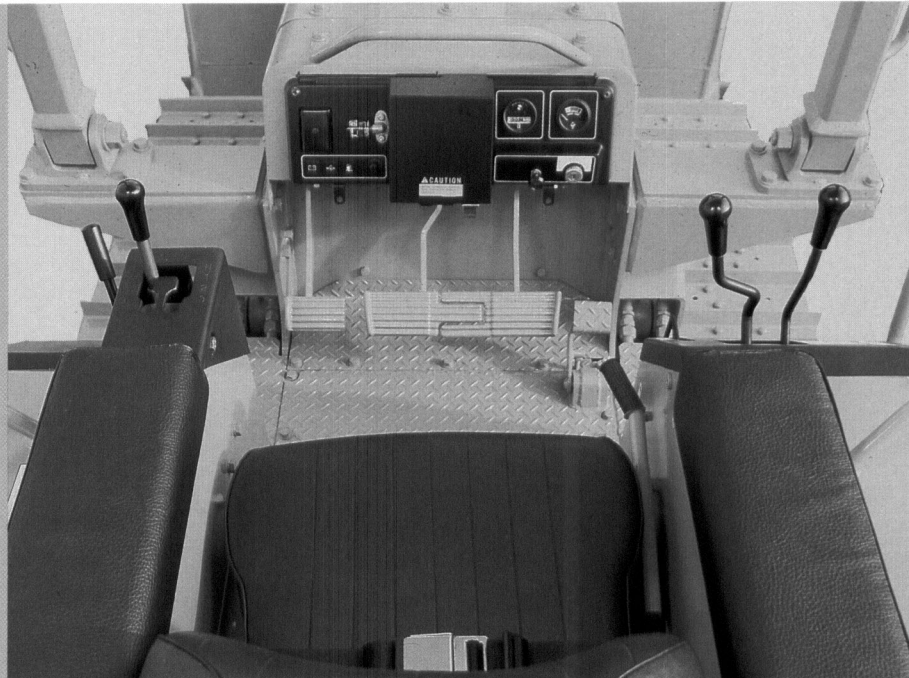


Unit: mm (ft.in)



CONTROLS

- Operator-oriented arrangement of control levers, pedals, instruments and operator's seat.
- Single shift lever.
- Hydraulically boosted steering levers.
- Walk-through operator's compartment.
- Suspended type pedals eliminate gaps in the floor, reducing noise.
- Color-coded meters and gauges with universal symbols.
- Dust indicator installed on the instrument panel.
- Padded, fore/aft adjustable operator's seat.
- Oil-suspension seat is optionally available.



STANDARD EQUIPMENT

- HYDROSHIFT transmission
- 330 mm (13.0") single-grouser shoes
- Hydraulic track adjusters
- 24 V, 25 A alternator
- 24 V, 5.5 kW electric starting motor
- Front and rear track roller guards
- Wet-type, interconnected steering clutches and brakes
- In-line radiator core
- Dry-type air cleaner with automatic dust evacuator and dust indicator
- 24 V (12 V × 2), 150

- Ah batteries
- 5-roller track frames
- Lighting system (2 front and 1 rear light)
- Blower fan
- Muffler
- Adjustable operator's seat
- Seat belt
- Crankcase guard
- ROPS brackets
- Backup alarm
- Console type lever steering
- Decelerator pedal
- Inching pedal
- Radiator guard
- Underguard
- PTO gear box
- Gauge group



DOZER EQUIPMENT

Hydraulic hoses for blade and tilting are covered with steel plates and protected from damage.

	Overall length with dozer	*Blade capacity	Blade length × height	Max. lift above ground	Max. drop below ground	Max. tilt adjustment	Blade angle	Additional weight		Additional ground pressure
								Blade	Hydraulic control unit	
Power-angle-tilt dozer	3765 mm (12'")	1.26 m ³ (1.65 yd ³)	2415 mm × 840 mm (8' × 2'9")	865 mm (2'10")	370 mm (1'8")	350 mm (1'2")	25°	850 kg (1,870 lb)	180 kg (400 lb)	—

*Blade capacity is based on the SAE recommendation practice J1265.

SPECIFICATIONS



ENGINE

Komatsu 6D95L-1, 4-cycle, water-cooled diesel engine with 6 cylinders of 95 mm (3.7") bore × 115 mm (4.5") stroke and 4.87 ltr. (298 in³) piston displacement.

Flywheel horsepower:

70 HP (52 kW) at 2350 RPM (SAE J1349)

Maximum torque26.6 kg-m (192 ft-lb)
at 1400 RPM

Direct-injection Microturbulence Combustion Chamber system for fuel economy. Mechanical all-speed governor. Gear-pump-driven force-lubrication with full-flow filter. Dry-type air cleaner with automatic dust evacuator for longer element service and dust indicator for simplified maintenance. All the filters are spin-on type for easy element replacement. Electrical 24-volt starting system.



DAMPER

Wet-type damper, with built-in torsion and friction springs, absorbs engine torque vibrations as well as stress from external impacts.



HYDROSHIFT TRANSMISSION

The unique Komatsu HYDROSHIFT transmission with planetary gears is hydraulically-controlled and force-lubricated. Efficient power flow and simplified direction and speed changes (3 forward and 3 reverse) are achieved with one lever.

Travel speeds	Forward	Rated drawbar pull	Reverse
1st	2.2 km/h (1.4 MPH)	7340 kg (16,200 lb)	2.4 km/h (1.5 MPH)
2nd	3.9 km/h (2.4 MPH)	3950 kg (8,710 lb)	4.3 km/h (2.7 MPH)
3rd	6.5 km/h (4.0 MPH)	2170 kg (4,800 lb)	7.1 km/h (4.4 MPH)

Max. drawbar pull9010 kg (19,860 lb)



STEERING

Wet, multiple-disc, hand-operated steering clutches are hydraulically boosted and interconnected with wet, contracting-band, steering brakes to allow easy, light-touch steering/braking actions. A modulating valve built into the steering circuit facilitates smooth, shockless steering control. Inching pedal assures smooth, easy starting and stopping, precise inching approaches to obstacles and impact digging.



FINAL DRIVE

Spur gear, single-reduction final drives. Bolt-on type sprockets for easy replacement.



UNDERCARRIAGE

Suspension Rigid type
Track roller frame Box-section, high-tensile-strength steel construction.

Rollers and idlers Lubricated idlers, track and carrier rollers are sealed with floating seals.

Number of track rollers5 each

Number of carrier rollers1 each

Track shoes Assembled single-grouser shoes. Unique dust seals prevent entry of dust into pin-to-bushing clearances for extended service. Track tension is easily adjusted with a grease gun.

Number of shoes37 each side

Grouser height47 mm (1.9")

Ground clearance315 mm (12.4")

Shoe width (standard)330 mm (13.0")

Ground contact area12410 cm² (1,923 in²)

Ground pressure (less blade)0.44 kg/cm² (6.29 PSI)



COOLANT & LUBRICANT CAPACITY (refilling)

Coolant 22 ltr. (5.8 U.S. gal)

Fuel tank115 ltr. (30.4 U.S. gal)

Engine 9 ltr. (3.4 U.S. gal)

Damper case 0.7 ltr. (0.2 U.S. gal)

Transmission 13 ltr. (3.4 U.S. gal)

Bevel gear case 17 ltr. (4.5 U.S. gal)

Steering case 30 ltr. (7.9 U.S. gal)

Final drive (each side) 9.5 ltr. (2.5 U.S. gal)

Hydraulic tank 33 ltr. (8.7 U.S. gal)



OPERATING WEIGHT (approximate)

Operating weight, including power-angle-tiltdozer, ROPS, operator, standard equipment, rated capacity of lubricant, coolant and full fuel tank.6520 kg (14,360 lb)

Ground pressure0.53 kg/cm² (7.5 PSI)



HYDRAULIC SYSTEM

Hydraulic control unit: Gear-type hydraulic pump mounted on rear of engine with capacity (discharge flow) of 90 ltr. (23.8 U.S. gal)/min. at rated engine RPM.

Relief valve setting175 kg/cm² (2,490 PSI)

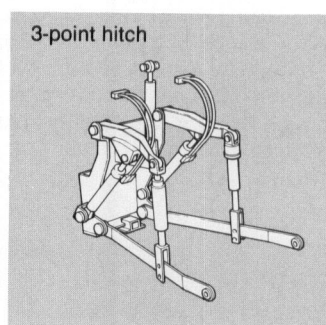
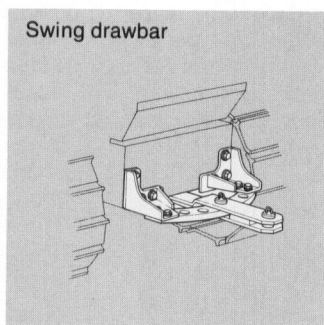
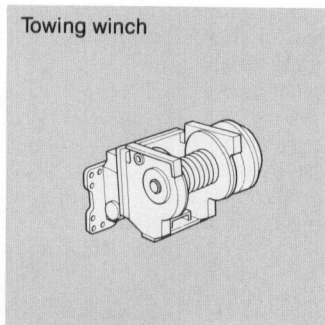
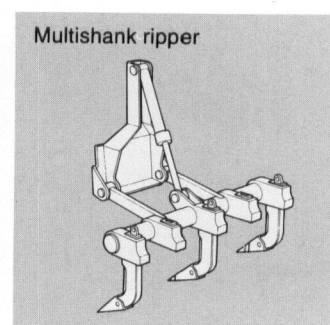
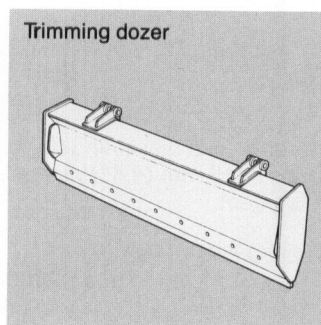
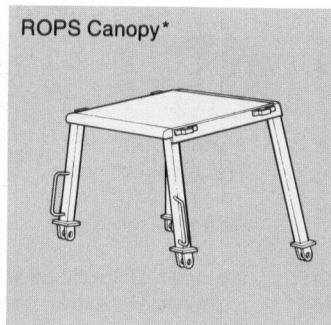
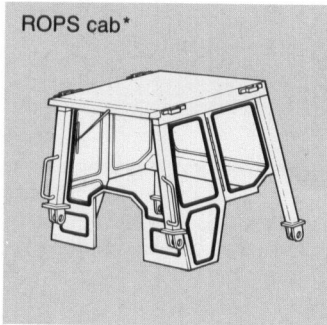
Control valves

- Three control valves for power-angle-tiltdozer
 - Positions: Blade liftRaise, hold, lower and float
 - Blade angleLeft, hold and right
 - Blade tiltLeft, hold and right
- Two control valves for trimming dozer
 - Positions: Blade liftRaise, hold, lower and float
 - TrimmingForward, hold and backward
- Additional control valve required for ripper
 - Positions: Ripper liftRaise, hold, lower and float

Hydraulic cylinders: Double-acting, piston type

Cylinder	Number of cylinders	Bore
Blade lift	2	90 mm (3.54")
Blade tilt	1	90 mm (3.54")
Blade angling	2	90 mm (3.54")

A Wide Range of Attachments and Optional Equipment



*ROPS cab and ROPS canopy meet ISO 3471, SAE J1040a and SAE J395a ROPS standards.

Other attachments and optional equipment

- Reversible fan
- Final drive case wear guards
- Track-roller guards, center
- Front pull hook
- Hitch type drawbar
- Tool kit
- Pedal steering
- Underguards (heavy duty)
- Rear screens
- Side screens
- Heater and defroster
- Radiator core protective grid
- Hinged radiator grill
- Vandalism protection kit
- Oil-suspension seat
- Fairlead for winch
- 4th valve and lever for ripper control
- Front sweeps
- Tank guards
- Sealed and lubricated track
- Perforated engine side covers

Optional shoes

	Additional weight kg (lb)	Ground contact area cm ² (in ²)	Additional ground pressure (tractor) kg/cm ² (PSI)
400 mm (15.8") single-grouser shoe	+80 (+176)	15040 (2,331)	-0.07 (1.00)
400 mm (15.8") triple grouser shoe	+90 (+200)	15040 (2,331)	-0.05 (-0.8)

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

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