

**KOMATSU**

# **D275A-2**

**BULLDOZER**

**ABRIDGED**



Flywheel Horsepower @ 1800 RPM

301 kW **(405 HP)**

Operating Weight:

50810 kg **(111,800 lb)**

Blade Capacity:

12.8 m<sup>3</sup> - 15.3 m<sup>3</sup> **(16.7 yd<sup>3</sup> ~ 20.0 yd<sup>3</sup>)**

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# SPECIFICATIONS



## ENGINE

Komatsu S6D170E-2A 4-stroke cycle, water-cooled, direct-injection turbocharged, and emission certified diesel engine. Cylinders with 170 mm (6.69") bore x 170 mm (6.69") stroke and 23.15 ltr. (1,413 in<sup>3</sup>) piston displacement.

Flywheel horsepower:

301 kW (405 HP) at 1800 RPM (SAE J1349)

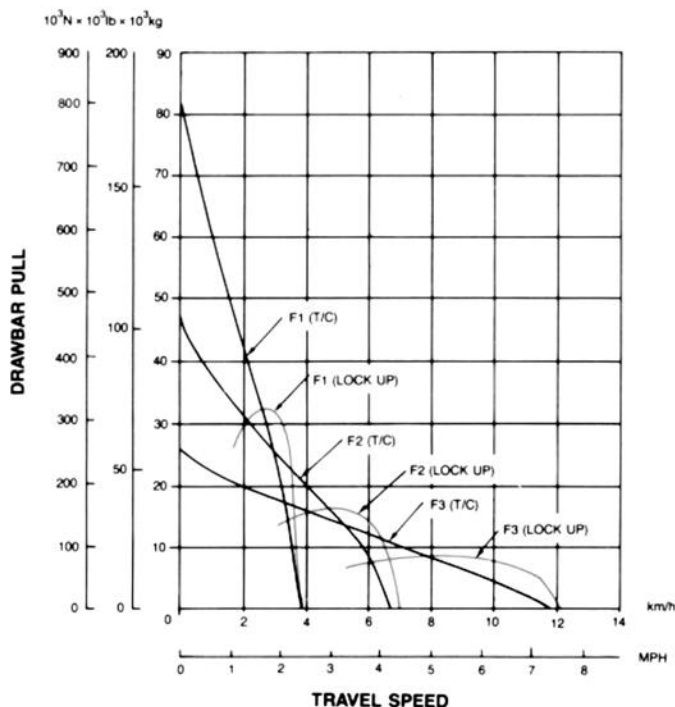
Direct-injection fuel system. All-speed mechanical governor. Force-lubrication driven by gear pump. Full-flow filter. Dry-type air cleaner with automatic dust evacuator and dust indicator. 24 V/15 kW (7.5 kW x 2) electrical starter motors. 24 V/50 alternator. 2 x 12 V/170 Ah batteries.



## TORQFLOW TRANSMISSION

Komatsu's TORQFLOW transmission consists of a water-cooled, 3-element, 1-stage, 1-phase torque converter with lock-up clutch and a planetary gear, multiple-disc clutch transmission which is hydraulically actuated and force-lubricated for optimum heat dissipation. It offers single-lever control of gears (3 forward and 3 reverse) and directional changes. Gearshift lock lever and neutral safety switch prevent machine from accidental starts.

Travel speeds	Forward	Reverse
1st	0— 3.8 km/h (2.4 MPH)	0— 4.9 km/h (3.0 MPH)
2nd	0— 6.7 km/h (4.2 MPH)	0— 8.7 km/h (5.4 MPH)
3rd	0—11.8 km/h (7.3 MPH)	0—14.9 km/h (9.3 MPH)



Usable pull will depend upon traction and weight of equipped tractor.



## STEERING

Left hand lever-controlled, wet, multiple-disc steering clutches are spring loaded and hydraulically released. Wet, multiple-disc, pedal/lever-controlled steering brakes are spring-loaded and hydraulically released, and require no adjustment. Steering clutches and brakes are interconnected for easy, responsive steering.

Min. turning radius .....3.9 m (12'10")



## FINAL DRIVES

Spur and planetary double-reduction final drives increase tractive effort. Segmented sprocket teeth are bolt-on type for easy in-the-field replacement. Newly designed shock damping rubber bushings are installed around the sprocket to minimize transmission of shocks to power-train components during logging/ripping operations.



## UNDERCARRIAGES

Suspension .....	Oscillating equalizer bar and pivot shaft
Track roller frame .....	Cylindrical, high-tensile strength steel construction
<b>Rollers and idlers</b> .....	Lubricated carrier/track rollers and idlers are sealed with floating seals.
Number of carrier rollers (each side) .....	2
Number of track rollers (each side) .....	8
<b>Track shoes</b> .....	Lubricated tracks. Extreme service shoes. Unique dust seals for preventing entry of foreign abrasives into pin-to-bushing clearances for extended service. Track tension easily adjusted with grease gun.
Number of shoes (each side) .....	39
Grouser height .....	88 mm (3.5")
Shoe width (standard) .....	610 mm (24")
Ground contact area .....	42090 cm <sup>2</sup> (6,524 in <sup>2</sup> )
Ground pressure (tractor) .....	0.90 kg/cm <sup>2</sup> (12.77 PSI)



## COOLANT & LUBRICANT CAPACITY (refilling)

Fuel tank .....	840 ltr. (222 U.S. gal)
Coolant .....	136 ltr. (35.9 U.S. gal)
Engine .....	51 ltr. (13.5 U.S. gal)
Damper .....	2.1 ltr. (0.6 U.S. gal)
Torque converter, transmission, bevel gear and steering system .....	120 ltr. (31.7 U.S. gal)
Final drive (each side) .....	43 ltr. (11.4 U.S. gal)



## OPERATING WEIGHT (approximate)

Tractor weight, including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment .....	37780 kg (83,290 lb)
Operating weight, including dual tilt U-dozer, giant ripper, steel cab, ROPS canopy, operator, standard equipment, rated capacity of lubricant, coolant and full fuel tank .....	50810 kg. (111,800 lb)
Ground pressure .....	1.21 kg/cm <sup>2</sup> (17.14 PSI)

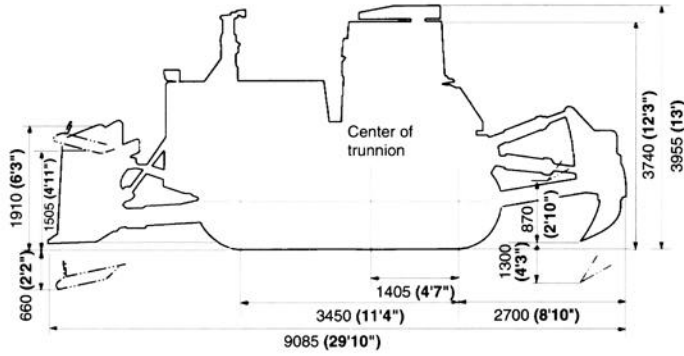
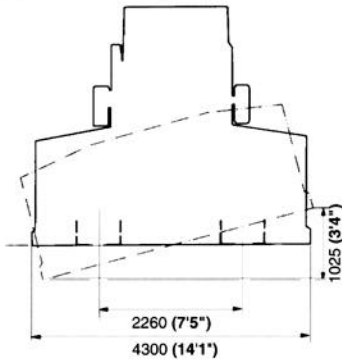


## ROPS

ROPS (Roll Over Protection Structure) canopy meets requirements of ISO 3471, SAE J1040 (Apr. 88), SAE J395 ROPS standards and ISO 3449 FOPS standards.



## DIMENSIONS (Semi-U Dozer with Giant Ripper)



Ground clearance ..... 507 mm (1'8")

Unit: mm (ft.in.)



## HYDRAULIC SYSTEM

**Hydraulic control unit:** All spool-type control valves externally mounted on the hydraulic tank. Gear-type hydraulic pump with capacity (discharge flow) of 288 ltr. (**76.1 U.S. gal/min.**) at rated engine RPM.

Relief valve setting ..... 210 kg/cm<sup>2</sup> (**2,990 PSI**)

### Control valves

- Two control valves for straight-tilt dozer and U dozer
  - Positions: Blade lift ..... Raise, hold, lower and float
  - Blade tilt ..... Right, hold and left
- Additional control valve required for ripper
  - Positions: Ripper lift ..... Raise, hold and lower
  - Ripper tilt (digging angle) ..... Increase, hold and decrease

**Hydraulic cylinders** ..... Double-acting, piston type

	Number of cylinders	Bore
Blade lift	2	130 mm (5.1")
Blade tilt	1	200 mm (7.9")
Blade pitch	1	225 mm (8.9")
Ripper lift	2	200 mm (7.9")
Ripper tilt	2	200 mm (7.9")

### Hydraulic oil capacity

- Semi-U dozer or U dozer ..... 152 ltr. (**40.2 U.S. gal**)
- Ripper equipment (Additional volume):
  - Giant ripper ..... 48 ltr. (**12.7 U.S. gal**)
  - Multi-shank ripper (variable) ..... 48 ltr. (**12.7 U.S. gal**)



## DOZER EQUIPMENT

Use of high-tensile-strength steel in moldboard and unitized construction of the back plate for extended service. Blade tilt hose pipings are mounted inside the dozer frame and protected from damage.

	Overall length with dozer	Blade capacity*	Blade length x height	Max. lift above ground	Max. drop below ground	Max. tilt adjustment	Additional weight		Additional ground pressure
							Dozer equipment	Hydraulic oil	
Semi-U dozer	7085 mm (23'3")	12.8 m <sup>3</sup> (16.7 yd <sup>3</sup> )	4300 mm x 1910 mm (14'1" x 6'3")	1505 mm (4'11")	660 mm (2'2")	1025 mm (3'4")	7910 kg (17,440 lb)	30 kg (66 lb)	0.18 kg/cm <sup>2</sup> (2.68 PSI)
U dozer**	7395 mm (24'3")	15.3 m <sup>3</sup> (20.0 yd <sup>3</sup> )	4600 mm x 1910 mm (15'1" x 6'3")	1505 mm (4'11")	660 mm (2'2")	1100 mm (3'7")	8700 kg (19,180 lb)	30 kg (66 lb)	0.21 kg/cm <sup>2</sup> (2.95 PSI)
Semi-U dual dozer	7085 mm (23'3")	12.8 m <sup>3</sup> (16.7 yd <sup>3</sup> )	4300 mm x 1910 mm (14'1" x 6'3")	1505 mm (4'11")	660 mm (2'2")	1140 mm (3'9")	8130 kg (17,925 lb)	110 kg (240 lb)	0.20 kg/cm <sup>2</sup> (2.78 PSI)
U dual** tilt dozer	7395 mm (24'3")	15.3 m <sup>3</sup> (20.0 yd <sup>3</sup> )	4600 mm x 1910 mm (15'1" x 6'3")	1505 mm (4'11")	660 mm (2'2")	1225 mm (4'0")	8920 kg (19,665 lb)	110 kg (240 lb)	0.21 kg/cm <sup>2</sup> (3.05 PSI)

\*Blade capacities are based on the SAE recommendation practice J1265.

\*\*Ripper or counterweight recommended.

# TRANSPORTATION WEIGHT TABLE

## COMPONENT

Fuel Tank (full) .....	1400 kg (3,090 lb)
610 mm (24") Track Shoe Assembly (each side) .....	6800 kg (14,990 lb)
Track Frames (each side) .....	8400 kg (18,520 lb)
ROPS Canopy .....	580 kg (1,280 lb)
Cab .....	450 kg (990 lb)

## STANDARD EQUIPMENT

- 24 V/50 A alternator
- 2 x 12 V/170 Ah batteries
- Backup alarm
- Blower fan
- Decelerator pedal
- Dry-type air cleaner with automatic dust evacuator and dust indicator
- 24 V/15 kW (7.5 kW x 2) electric starters
- Electronic monitor/display system consisting of:  
Check before starting – Radiator level and engine oil level lights.  
Gauges; engine coolant temperature, fuel level, service meter, power train,

- oil temperature. Caution lights: engine oil pressure, radiator coolant level, engine coolant temperature, power train oil temperature, hydraulic temperature charge indicator.
- Exhaust pipe with rain cap
- Final drive case wear guard
- Front pull hook
- Hinged lower guards
- Hinged radiator guard
- Hydraulic controls: blade, tilt and ripper
- Hydraulic track adjusters
- Lighting system (including 2 rear and 4 front lights)

- Oil-suspension seat with seat belt and 15° swivel
- 8-roller track frames
- Sealed and lubricated tracks
- Segmented sprockets
- 610 mm (24") extreme service single-grouser shoes
- TORQFLOW transmission with lock-up torque converter
- Track-roller guards, full length
- Vandalism protection locks
- Wet-type steering clutches and multiple-disc brakes

## OPTIONAL EQUIPMENT

### OTHERS

- 2 x 12 V/200 Ah batteries
- 24 V/75 A alternator
- Air conditioning heater-defroster
- Blade, spill guard
- Cab enclosed sound suppressed includes: floor mat, room lamp, inside rear view mirror, wipers and washers (front, rear, left and right door)
- Drawbar, rigid type
- Engine hood and side covers, perforated
- Engine side covers
- Fabric operators seat
- Fast fuel fill adaptation
- Fire extinguisher
- Instrument panel cover (not used with cab)
- Radiator core protection grid
- Radiator shutter
- Radio, AM/FM cassette
- Reversible fan
- ROPS canopy\*
- Sunvisor
- Water separator
- Working light for ripper

\*ROPS canopy must be ordered for all machines.

### TRACK SHOE SELECTION

	Additional weight	Ground contact area	Additional ground pressure
710 mm (28") extreme service shoe	570 kg (1,260 lb)	48990 cm <sup>2</sup> (7,593 in <sup>2</sup> )	-0.11 kg/cm <sup>2</sup> (-1.56 psi)
760 mm (30") extreme service shoe	850 kg (1,870 lb)	52440 cm <sup>2</sup> (8,130 in <sup>2</sup> )	-0.15 kg/cm <sup>2</sup> (-2.13 psi)

### RIPPERS

Type	Variable giant	Variable multishank
No. of shanks	1	3
Additional weight (incl. hydraulic control unit)	3550 kg (7,830 lb)	4650 kg (10,250 lb)
Beam length	1252 mm (4'1")	2495 mm (8'2")
Max. lift above ground	870 mm (2'10")	995 mm (3'2")
Max. digging depth	1300 mm (4'3")	900 mm (2'11")
Digging angle	39.7° ~ 62.2°	38.9° ~ 61.0°

COUNTER WEIGHT with drawbar ..... 2500 kg (5,510 lb)  
 Additional tractor length ..... 700 mm (2'4")  
 No. of plates ..... 8  
 Weight of plate ..... 154 kg (340 lb)

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