

TIER III

ENGINE: Cummins QSK19

455 kW **POWER:** (610 HP)

OPERATING WEIGHT:

70 800 kg

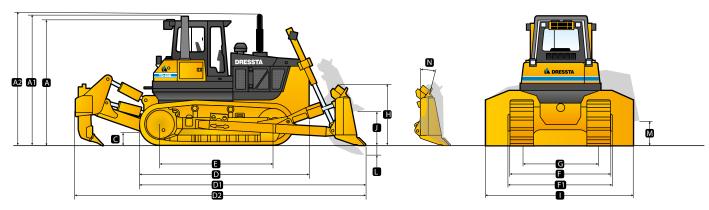
BLADE 18.6 - 39.8 m³ (24.3 - 52 yd³) **CAPACITY:**



SPECIFICATIONS

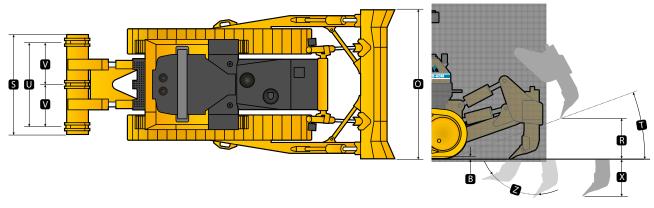
MODEL		TD-60M		
ENGINE				
Make and model		Cummins QSK19		
Emissions Standard		EPA Tier 3/EU Stage IIIA		
Displacement		19		
Bore and stroke		159 x 159 mm		
Gross Horsepower, SAE J1995		455 kW (610 HP)		
Net Horesepower, SAE J1349/ISO 9249		421 kW (565 HP)		
Rated rpm		2 000		
Max. Torque		2 696 Nm		
Air Cleaner		2-stage, dry type , with dash mounted electronic service indicator		
Cold-Starting Aid	d	intake- mounted air -inlet grid hater		
Slope Operation	, Max. angle	45 deg		
COOLING				
Туре		Suction- type variable-speed fan, hydraulically diven with perforated engine side sheets and heavy duty louvered front grill		
Engine Cooling F	Rating	−37 deg C (−34 deg F)		
POWERTRA	IN			
Transmission		Single stage 445 mm (17.5 in) torque converter with a 2.3:1 stall ratio drives to transmission through a double universal joint. Modular, countershaft type power shift transmission, electro-hydraulic control. Preset travel speed and auto-downshift		
Steering		Exclusive 2-speed geared steering module provides gradual turns while maintaining full power to both tracks plus conventional clutch-brake performance for tight or pivot turns. Coupled to 3-speed transmission, the 2-speed steering provides 6 speeds forward and 6 reverse. The left hand joystick controls transmission and steering drive for up and down shifting, steering, Hi/Lo selection and LH/RH gradual turn.		
Final drives		Double-reduction final drive of spur and planetary gear mounted independently of track frames and dozer push arms for isolation from shock loads		
Total ratio		28.1 to 1		
TRAVEL SPEED	os			
Gear	Range	Forward	Reverse	
		km/h (mph)	km/h (mph)	
1 st	Low	3.2 (2.0)	4.1 (2.5)	
	High	4.1 (2.5)	5.2 (3.2)	
2 nd	Low	5.2 (3.2)	6.5 (4.0)	
	High	6.7 (4.2)	8.4 (5.2)	
3 rd	Low	9.4 (5.8)	11.7 (7.3)	
	High	12.0 (7.5)	14.9 (9.3)	
DRAWBAR PU	LL	1		
Maximum		1157 kN		
		V. Speed		

BRAKES			
Service	"Spring applied hydraulically released multi-disc wet brakes. Foot pedal piloted control"		
Parking	The steering brakes also act as service and parking brakes. Service brakes are locked automatically when the transmission safety lever is actuated or when the engine is cut of		
HYDRAULICS			
Туре	Open-center hydraulic system with fixed-displacement multiple-pump vane type		
Pump displacement	313.5 l/min (35.7 gpm)		
System relief pressure	"Blade lift & ripper 17.2 MPa (3 481 psi); blade tilt 18.4 MPa (2,670 psi)"		
Control	single joystick lever		
Cylinders,bore and stroke			
Lift	135×1 760 mm		
Tilt	210×175 mm		
Tilt/pitch	220 /254 x 175 mm (8.6"/10" x 6.9")		
ELECTRICAL			
Voltage	24 V		
Number of Batteries	4		
Battery Capacity	1 000 CCA		
Alternator Rating	130 A		
Lights	13 total; cab mounted (2 front, 2 sides, 2 rear), 2F lift cylinders, 2F guards 2R fuel tank and 1R ripper mounted		
OPERATOR STATION			
ROPS (ISO 3471 - 2008) and FOPS (ISO	3449 - 2005)		
SERVICEABILITY			
Refill Capacities			
Fuel Tank	1500 l (356.6 US gal)		
Cooling System	89.5 I (23.6 US gal)		
Engine Oil	59.3 l (15.7 US gal)		
Transmission System	340		
Final drive, each side	85 I (22.5 US gal)		
Hydraulic Reservoir	184 I (48.6 US gal)		
OPERATING WEIGHTS			
Base Weight with Semi-U blade w/ tilt, single-shank ripper, standard equipment, Cab ROPS/FOPS, full fuel tank, and 79-kg [175 lb.] operator	70 800 kg (156 087 lb)		
OPTIONAL COMPONENTS			
Ripper w/3 shank	-1 288 kg		
Track Shoes			
660 mm (26 in)	335 kg (740 lb)		
762 mm (30 in.)	870 kg (1 918 lb)		
800 mm (31.5 in)	920 kg (2 030 lb)		



TD-60M Semi-U Blade and Ripper

TYPE		TD-60M				
MACHINE DIMENSIONS						
A Overall Height -FOPS Cab	4 060 mm (13 ft 10 in)					
A1 Overall Height -ROPS	4 220 mm (13 ft 10 in)					
A2 Overall Height -end of exhaust pipe	4 410 mm (14 ft 6 in)					
B Grouser height	93 mm (3.66 in)					
C Ground Clearance	600 mm (23.7 in)					
D Overall Length, base machine	5 750 mm (18 ft 10 in)					
D1 Length with Blade	7.93 m (26 ft)					
D2 Length with Blade and 1-shank /3-shank Ripper	10.35 m / 9.76 m (34 ft / 32 ft)					
E Track Length on Ground	3 610 mm (11 ft 10 in)					
F Width Over Track	3 110 mm (10 ft 2 in)					
F1 Width Over Trunnions	3 730 mm (12 ft 3 in)					
G Track Gauge	2 500 mm (8 ft 2 in)					
BLADE SPECS						
Туре	Semi-U	Full-U	Coal			
SAE Capacity	18.6 m3 (24.3 cu yd)	22.8 m3 (29.8 cu yd)	39.8 m3 (52 cu yd)			
H Blade Height	2 230 mm (7 ft 4 in)	2 260 mm (7 ft 5 in)	2 500 mm (8 ft 2 in)			
I Blade Width	4 810 mm (15 ft 9 in)	5 180 mm (17 ft)	6 850 mm (22 ft 6 in)			
J Blade Lift Height	1 530 mm (5 ft 0.2 in)	1 530 mm (5 ft 0.2 in)	1 460 mm (4 ft 9.5 in)			
K Blade Angle	-	-	-			
L Blade Digging Depth	830 mm (32.7 in)	830 mm (32.7 in)	875 mm (34.4 in)			
M Maximum Tilt	1 150 mm (45.3 in)	1 250 mm (49.2 in)	1 650 mm (65 in)			
N Maximum Blade Pitch Adjustment	10 deg	10 deg	10 deg			
O Overall Width with Blade Angled	-	-	-			



TD-60M with Semi-U Blade and Ripper

TYPE	TD-60M						
RIPPER							
Туре	Parallelogram ripper with hydraulic pitch adjustment						
	Single-shank		Multi-shank (3-shank)				
	Standard	Deep					
R Maximum Clearance Under Tip (raised)	1 000 mm (39 in)	720 mm (28 in)	950 mm (37 in)				
S Overall Beam Width	1 670 mm (65.7 in)	1 670 mm (65.7 in)	2 880 mm (113.5 in)				
T Slope Angle (full raise)	30.8 deg	30.8 deg	30.8 deg				
U Ripping Width	-	-	2 380 mm (94 in)				
V Spacing Center to Center	-	-	1 190 mm (47 in)				
X Maximum Penetration	1 290 mm (51 in)	1 670 mm (66 in)	1 000 mm (39 in)				
Z Maximum Pitch Adjustment	25.1 deg	25.1 deg	25.1 deg				
Penetration Force	200 kN (44 960 lb)	200 kN (44 960 lb)	205 kN (46 084 lb)				
Pryout Force	612 kN (137 578 lb)	612 kN (137 578 lb)	622.5 kN (139 938 lb)				
Shank positions (vertical)	4	4	2				
Weight of Ripper	10 016 kg	8 461 kg (18 653 lb)	8 728 kg				
Weight of Shank	668 kg (1 473 lb)	773 kg (1 704 lb)	570 kg (1 260 lb)				

