

Specifications of "Caterpillar" Diesel No. 212 Motor Grader

Tandem or Single Drive, Single Low Pressure Tires

	Single Drive	Tand'm Drive			
Weight:					
Shipping (approx.)	11,390	13,670			
Weight carried by front wheels	3,740	3,740			
Weight carried by rear wheels	7,650	9,930			
Dimensions:					
Length overall	21'-0"	21'-11"			
Width overall	6'-4½"	6'-9½"			
Height overall, with cab	9'-6"	9'-6"			
Height overall, without cab	7'-0"	7'-0"			
Wheelbase	16'-6"	16'-6"			
Tread, front (center to center of tires)	5'-8"	5'-8"			
Tread, rear (center to center of tires)	5'-3"	5'-7¾"			
Distance between centers of tandem drive wheels		4'-3"			
Turning radius, measured to outside of front tire	28'-8"	28'-8"			
Speeds: (at maximum R.P.M.)					
Gear	1st	2nd	3rd	4th	R
M.P.H.	2.0	3.1	4.9	11.9	2.8
(Lower speeds available by throttle control.)					
Controls:					
Type, mechanical	Power Operated				
Blade Assembly:					
Blade	10'x20"x½"				
Blade base	7'-0"				
Blade beams	4½"x1½"				
Blade reinforcing angle	4"x3"x½"				
Blade Range:					
Lift above ground	15½"				
Lift adjustment, minimum	½"				
Side shift, power operated	33¾" R. or L.				
Pitch positions, number	17				
Maximum bank cutting angle	90°				
Shoulder reach, maximum outside of rear wheels	60"				
Circle:					
Diameter	4'-6"				
Section, structural steel	Reinforced Box Section				
Circle center to front axle distance	6'-6"				
Circle reversing control (360 degrees)	Power operated				
Drawbar:					
Welded structural steel A-shape—section	4½"x3"x¾" box				
Draft connections	Ball and socket				
Lifting Mechanism:					
Type	Worm and gear, power operated				
Lifting speed, inches per second	2.6				
Material, worm/gear	Steel/Iron casting				
Lifting shaft diameter	2¾"				
Lifting shaft bearings	Bronze (self-aligning, front)				
Lifting crank material	Steel forging				
Lifting link diameter, tube O.D. x I.D.	2¼"x1½"				
Lifting link construction	Telescoping				
Connections to circle assembly	Ball and socket				
Adjustments for wear	Split bearings—shims				
Frame:					
Section, welded rectangular unit	8½"x10"				
Weight per foot, lbs.	85½"				
Clearance above ground	4'-3½"				
Operator's Platform:					
Size	27"x53"				
Height, above ground	3'-6"				
Axle, Front, Arched, Leaning Wheel:					
Material	Built up steel—welded				
Spindles, diameter at bearings	1¾" & 1½"				
Spindle material	Forged—heat-treated alloy steel				

Axle, Rear:	
Construction	Rigid
Diameter, at bearings	3¼"
Wheel axle diameter at bearings	2½"
Material	Forged—heat-treated alloy steel
Tandem Drive Housings:	
Section, welded unit	16"x6"
Wall thickness	¼"
Drive chain—roller pitch	1½"
Wheels, Front:	
Bearings, type	Tapered roller
Hubs	Dust proof
Tires, pneumatic, 8 plies	10:00-24
Tire rims	Demountable
Wheels, Rear:	
Bearings	Tapered roller
Hubs	Dust proof
Tires, pneumatic, 8 plies (single drive)	13:00-20
Tires, pneumatic, 8 plies (tandem drive)	10:00-24
Tire rims	Demountable
Brake diameter x width	16"x3"
Lubrication Pressure	

Engine—four-cycle, water cooled:	
Fuel	Commercial Diesel Fuel
Number of cylinders	4
Bore and stroke	4"x5"
Piston displacement, cu. in.	252
R.P.M. governed at full load	1750
Piston speed, ft. per min. (per 100 r.p.m.)	88.4
N.A.C.C. horsepower rating for tax purposes	25.6
Lubrication	Force Feed
Crankshaft:	
No. and diameter of main bearings	5—2¾"
Total area main bearing surface	87.9 sq. in.
Capacities:	
Fuel tanks, in U.S. Std. gals.	25
Cooling system, in U.S. Std. gals.	7¾
Crankcase, in quarts	16
Transmission, in quarts	33
Tandem drive housings, each, in quarts	16
Brake horsepower: Maximum (at governed speed corrected to sea level barometric pressure and standard air temperature of 60° F.)	50

Starting Method:
Independent 2 cylinder, 4 cycle, gasoline engine, equipped with 6 volt electric starting motor.

Scarifier, V-Type (Attachment):	
Weight, lbs.	980
Block material	Cast Steel
Block length	3'-6¾"
Swath width	3'-5"
Teeth, number and size	9—2½"x1"
Teeth, spacing, center to center	5"
Lifting links, diameter	1¾"
Drawbar size	4"x1½"
Lift above ground, maximum	12"
Pitch positions, number	4
Center tooth to front axle, distance	29"
Lift control	Power operated
Lifting mechanism, power operated	Worm and gear
Pressure, maximum, lbs.	5,180

CATERPILLAR TRACTOR CO. PEORIA, ILLINOIS
DIESEL ENGINES—TRACTORS—MOTOR GRADERS—EARTHMOVING EQUIPMENT

BECKWITH
MACHINERY COMPANY
PITTSBURGH, PA. CLEARFIELD, PA. BRADFORD, PA.