

GRADALL®

D152

HYDRAULIC EXCAVATOR



SPECIFICATIONS

Undercarriage

4 x 2 or 4 x 4
Wheelbase: 180" (4.57 m)
Width 102" (2.6 m)

Gross vehicle axle weight rating:

4 x 2 33,000 lb (15.0 kg)
4 x 4 33,000 lb (15.0 kg)

Front axles:

4 x 2 12,000 lb (5,443 kg) rating
4 x 4 12,000 lb (5,443 kg) rating, 6.14 ratio

Rear axle:

23,000 lb (10,433 kg) rating 6.14 ratio,
single reduction with driver controlled
differential lock.

Suspension:

Front: leaf springs with automatic lock-out
cylinders.

Rear: Solid mount.

Brakes:

4 x 2 Front: Meritor "Q" Series Cam-Master.
Size: 16.5" x 5" (419 mm x 127 mm).
Automatic Slack Adjusters.

4 x 4 Front: Meritor "Q" Series Cam-Master.
Size: 16.5" x 6" (419 mm x 153 mm).
Automatic Slack Adjusters.

4 x 4 Rear and 4 x 2 Rear: Meritor "P" Series
Cam-Master.
Size: 16.5" x 7" (419 mm x 178 mm).
Automatic Slack Adjusters.

Spring brake system incorporates emergency
and parking brakes on the rear axle.

Wheels:

Hub piloted disc 10-stud, 11.25" (286 mm)
bolt circle.

Tires:

4 x 2 front and 4 x 2 rear: 275/80R22.5 14-ply
highway traction tread.

Steering:

Integral hydraulic power steering.

Standard chassis equipment:

Halogen headlights, tail lights, back-up lights
and alarm, stoplights, identification lights
front and rear, directional lights, 4-way hazard
lights, work lights, and instrument panel lights.
Windshield wiper/washer, West Coast style
mirror system with plane and convex mirrors,
front and rear tow hooks, desiccant type air
dryer with automatic purge valve and
thermostatically controlled heater.

Hydraulic System

PUMPS

One load-sensing bent axis piston pump;
8-55 GPM (30-208 L/min) total.

SYSTEM SPECIFICATIONS

Four double acting cylinders:

- 2 hoist cylinders: 3.25" bore x 2.25" rod x
28.5" stroke (83 mm x 57 mm x 724 mm).
- 1 tool cylinder: 4.5" bore x 2.5" rod x 18.88
stroke (114 mm x 63.5 mm x 479 mm).
- 1 boom cylinder: 3.25" bore x 2.25" rod x
123" stroke (83 mm x 57 mm x 31.24 m).

Two hydraulic motors:

Swing, 51 Hp (38kW); tilt, 21 Hp (16kW).

Operating pressures:

Hoist.....	4,300 psi (296 BAR)
Tilt.....	2,500 psi (172 BAR)
Swing.....	4,000 psi (275 BAR)
Tool.....	4,300 psi (296 BAR)
Telescope.....	4,300 psi (296 BAR)
Pilot system.....	550 psi (38 BAR)

Oil capacity:

Reservoir 54 gallons (204 L), system
62 gallons (235 L). Pressurized reservoir
with visual oil level gauge.

Filtration system:

5 micron return filter with magnet. 10 micron
pilot filter.

Fin and tube-type oil cooler with
thermostatically controlled cooling fan.

Pressure-compensated, load-sensing valves
with circuit reliefs in all circuits.

Chassis Cab

Two-person cab. Sun visor. Gauges for
oil pressure, coolant temperature, air tank
pressures, fuel level, DEF level, voltmeter,
speedometer with odometer, tachometer,
hour meter. Engine and transmission monitor
lights. Engine shutdown controlled by engine
electronics. Indicator lights and controls for
front axle engagement (4 x 4 only) and rear
axle differential lock. Park brake control.
Tinted safety glass. Sliding side windows.
Fresh air heater and defroster. Dome light. Air
suspension seat with seat belt. Vent in door.

Upperstructure Cab

All-weather cab isolated from frame on
rubber mounts. Tinted safety glass windows,
skylight, acoustical lining, four-way adjustable
operator's seat, dome light, filtered air heater
and defroster. AM/FM Radio, Air-Conditioning,
work light package.

The heat source is provided by a fast
response, closed circuit hydraulic heater with
20,000 BTU/Hr. capacity.

Front window slides to overhead storage.
Rearview mirrors on right and left sides of the
machine. Windshield wiper and washer.

Hydraulic Remote Control

Upperstructure powered by chassis
hydraulics through PTO. Travel and steering
pedals in upperstructure cab. Digging
brakes and front axle lockout cylinders set
automatically with travel pedal in neutral.
Parking brakes controlled by toggle.

Electrically operated alarm mounted on
undercarriage signal remote control
movement in either direction, reverse
movement when driven from
undercarriage cab.

Engine

Cummins

Air Filter: 2-stage dry type with safety element, ejector valve and service indicator.

Electrical System: 12 volt, 160 amp alternator with integral voltage regulator. 2 SAE Group 31 1900 CCA batteries.

Fuel Tank Capacity: 90 gal (378 L)

Area Tank Capacity: 13 gal (49 L)

Transmission: Allison 3500 RDS automatic.

Gear Speeds: (with 80R22.5 tires)

Gear	1	2	3	4	5
MPH	9.6	19.5	28.5	43.9	58.5
Km/hr	(15.4)	(31.4)	(45.9)	(70.7)	(94.1)

Gear	REV
MPH	8.8
Km/hr	(14.2)

Drivelines: Spicer 1710 Series with "Half Round" yokes.

Upperstructure Controls

Two electronic joysticks (hoist & bucket, telescope & swing), one rocker switch (tilt) control. Joysticks are mounted on arm pods that are adjustable for individual operator comfort and convenience. Quick change joystick pattern switch located on instrument panel.

Two foot pedals for remote control of undercarriage travel and brakes. Steering is handled with a rocker switch on top of the left hand joystick.

Joysticks and pedals are self-centering; when controls are released, power for movement disengages and swing and travel brakes set automatically.

Engine Controls

Key ignition switch with neutral start and indicator lights for low air, engine status, park brake, travel status, hydraulic fluid temperature and level.

Swing

Automatic engine shut down occurs with low oil pressure or high coolant temperature.

Priority swing circuit with axial piston motor. Planetary transmission. Swing speed: 8 rpm.

Swing brake: Automatic spring-set/hydraulic release wet disc parking brake. Dynamic braking is provided by the hydraulic system.

GRADALL Model D-152 4x2 Lift Capacity Over Side or Rear - LB. (kg)

LOAD POINT HEIGHT		LOAD RADIUS						
		15' (4.6 m)		20' (6.1 m)		Maximum radius	Over End	Over Side
		Over End	Over Side	Over End	Over Side			
ABOVE GROUND LEVEL	19' 7" (6 m)					19' 10" (6.1 m)	3000 (1360)	3000 (1360)
	15' (4.6 m)	4985 (2260)	4985 (2260)	3440 (1560)	3440 (1560)	22' 5" (6.8 m)	2935 (1330)	2935 (1330)
	10' (3.0 m)	5805 (2635)	5805 (2635)	3835 (1740)	3835 (1740)	23' 9" (7.2 m)	2940 (1335)	2940 (1335)
	BOOM LEVEL 8' 8" (2.7 m)	5925 (2690)	5925 (2690)	3900 (1770)	3900 (1770)	23' 11" (7.3 m)	2950 (1340)	2950 (1340)
	5' (1.5 m)	5950 (2700)	5950 (2700)	3950 (1790)	3950 (1790)	23' 11" (7.3 m)	2990 (1355)	2990 (1355)
AT GROUND LEVEL		5225 (2370)	5225 (2370)	3710 (1685)	3710 (1685)	23' 0" (7 m)	3055 (1385)	3055 (1385)
BELOW GROUND LEVEL	5' (1.5 m)	4120 (1870)	4120 (1870)	3220 (1460)	3220 (1460)	20' 9" (6.3 m)	3095 (1405)	3095 (1405)
	10' (3.0 m)	3075 (1395)	3075 (1395)			16' 7" (5.1 m)	2965 (1345)	2965 (1345)
	14.3' (4.4 m)					14' 8" (4.5 m)	2795 (1270)	2795 (1270)

NOTE: The above loads are in compliance with the SAE standard J1097 DEC2005. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

The rated lift capacity is based on the machine being equipped with 4,500 lb (2,040 kg) counterweight, standard boom, standard tires, no auxiliary hydraulics, and no bucket. Adjust the listed rated capacities by subtracting the value for bucket/attachment used:

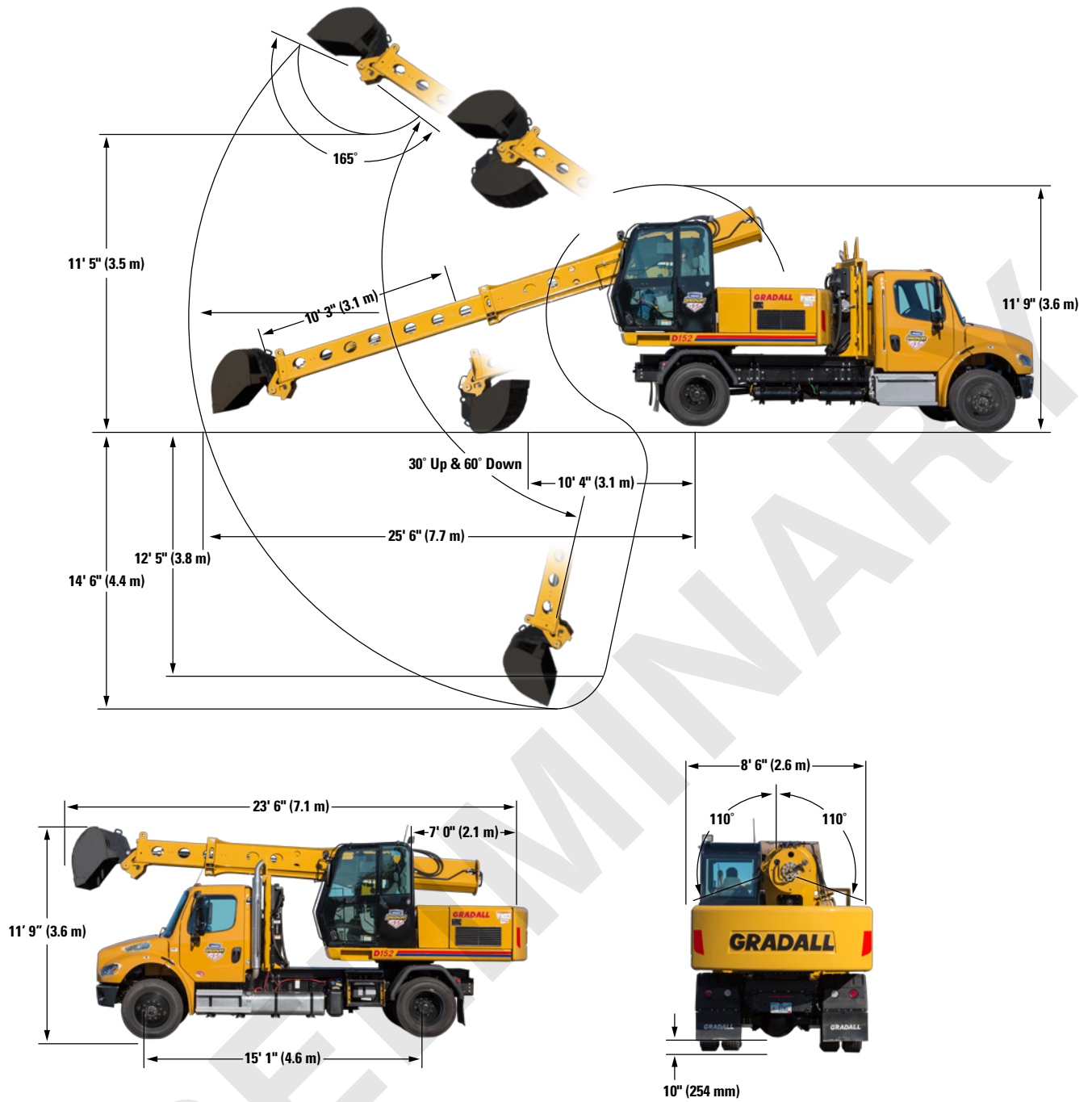
8210-6011 60" (1.5 m) Ditching - 639 lbs (290 kg)
8210-6029 36" (914 mm) Excavating - 685 lbs (311 kg)

The load point is located on the bucket pivot point, including load listed for maximum radius.

Do not attempt to lift or hold any load greater than these rated values at specified load radii and heights. The weight of slings and any auxiliary devices must be deducted from the rated load to determine the net load that may be lifted.

ATTENTION: All rated loads are based on the machine being stationary and level on a firm supporting surface. For safe working loads, the user must make allowance for his particular job conditions such as soft or uneven ground, out of level conditions, side loads, hazardous conditions, experience of personnel, etc. The operator and other personnel must fully acquaint themselves with the Operator's Manual furnished by the manufacturer before operating this machine. Rules for safe operation of equipment must be adhered to at all times.

NOTE: Bucket adjustment values are 87% of the actual bucket weights.



OPERATIONS & PERFORMANCE

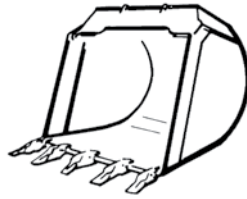
- Rated Boom Force: 18,143 lb (80.7 kN)
- Rated Bucket Breakout Force: 12,000 lb (53.4 kN)
- Maximum Lift Capacity: 5,950 lb (2,700 kg)
- Operating Weight: 32,200 (14.6 kg)
- Drive: 4x2 or 4x4
- Gross Vehicle Axle Rating: 33,000 lb (15.0 kg)
- Engine Standard Cummins: 6.7 ISB
- HP @ RPM: 220/1900
- Travel Speed - MPH: 55 mph (88.5 kph)

Optional Equipment

- Set of five working lights
- Radio in operator cab
- Passenger side door step
- Auxiliary hydraulics
- Rear step

Attachments

Quick change and reversible buckets fabricated of steel plate, with high strength, low alloy cutting edges and wear strips. Standard attachments available for wide range of applications. Capacities shown are in heaped cu. yd.



8045-6020 24" (610 mm)
Excavating bucket

8045-6021 30" (762 mm)
Excavating bucket

8045-6022 36" (914 mm)
Excavating bucket

8045-6023 42" (1.07 m)
Excavating bucket

8045-6024 48" (1.22 m)
Excavating bucket

Cu.
yd. m³

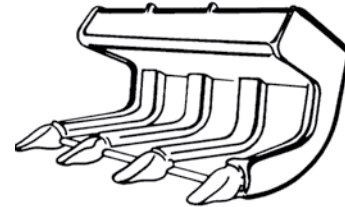
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1/2 0.41

5/8 0.54

3/4 0.64

1 0.76

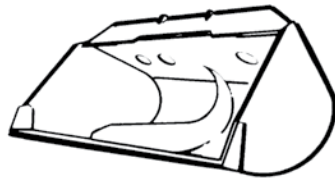


8065-6102 40" (1.02 m)
Pavement removal bucket

8065-6115 18" (0.457 m)
Pavement removal bucket

8065-6116 24" (0.610 m)
Pavement removal bucket

8065-611 28" (0.711 m)
Pavement removal bucket



8065-6040 30" (0.762 m)
Ditching bucket

8065-6007 60" (1.52 m)
Ditching bucket

8065-6006 66" (1.68 m)
Ditching bucket

8065-6002 72" (1.83 m)
Ditching bucket

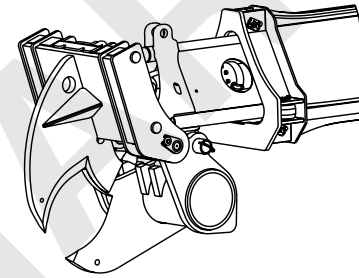
Cu.
yd. m³

3/8 0.3

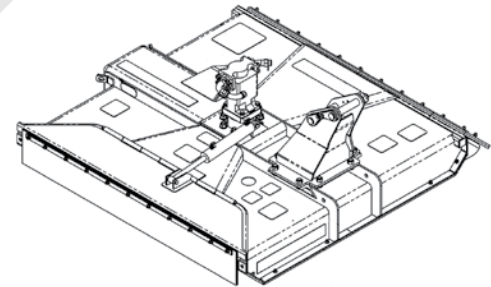
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1 0.76

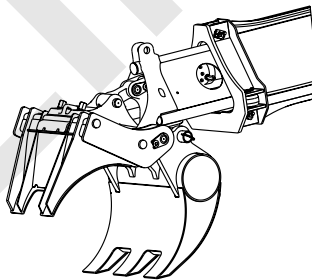
1 1/8 0.87



8045-5052 Tree Limb Shear Attachment



Mower



8075-5023 Fixed thumb grapple

It is Gradall Policy to continually improve its products. Therefore designs, materials and specifications are subject to change without notice and without incurring any liability on units already sold. Units shown may have optional equipment.

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