

UPPERSTRUCTURE CAB

All-weather cab with safety glass windows, skylight, acoustical treatment, heater and defroster. Front window removeable, stored in cab.

UPPERSTRUCTURE CONTROLS

3 levers, 2 pairs of pedals for all boom and upperstructure movements.

Crawler-mounted: 2 propel levers (one per track) for crawler operation.

Dead-man type are self-centering: when controls are released, power for movement disengages.

2 throttles, 2 key-operated ignition/starter switches, 2 temperature gauges, 2 oil pressure gauges, voltmeter, hour meter.

UNDERCARRIAGE

8x4, Model DG-1000

Gross Vehicle Weight: 85,280 lbs (38,683 kg), limited by tire capacity.

Wheelbase: 175" (4.4 m)

Frame Width: 42" (107 cm)

UNDERCARRIAGE ENGINE

GM 6V-92TA turbocharged diesel, 312 net hp (233 kW) at 2100 rpm, 552 cid (9.1 L), 4.84" bore x 5" stroke (123 mm x 127 mm), 17:1 compression ratio, 890 ft-lbs (1209 Nm) net torque at 1300 rpm, 9B90 injectors.

TRANSMISSION

Fuller RTO-958LL, 10 speeds forward, 3 reverse.

Travel speed — mph (km/hr)

Lo-Lo: 3.7 (6.0) 4th: 20 (32)

Low: 5.4 (8.7) 5th: 26 (42)

1st: 8.2 (13) 6th: 35 (56)

2nd: 11 (18) 7th: 47 (76)

3rd: 15 (24) 8th: 58 (93)

14" (36 cm) dual plate clutch, Spicer needle bearing universal joints.

AXLES

Front: Rockwell FL-931 tandem, 32,000 lbs (14,515 kg), limited by tire capacity to 30,960 lbs (14,043 kg).

Rear: Rockwell SU-170 tandem, 58,000 lbs (26,309 kg), limited by tire capacity to 54,320 lbs (24,640 kg), single-reduction, 6.14:1 ratio. Total final reduction 80.4:1. Inter-axle differential on forward-rear axle.

FRAME

Wide-flange high-strength alloy steel beam, 14" (36 cm), 53 lb (24 kg). All welded. Channel bumper.

SUSPENSION

Hendrickson equalizer beam, front and rear, 8" (20 cm) oscillation.

BRAKES

8-wheel air brake system, with cam-type actuators front and rear, incorporating spring-applied emergency and parking brakes on rear.

Front drums: 16½" x 5" (419 mm x 127 mm)

Rear drums: 16½" x 7" (419 mm x 178 mm)

16.1 cfm (7.6 L/sec) compressor, air dryer.

WHEELS

Disc type

TIRES

Front: 12:00 x 20 16-ply rating, highway tread

Rear: dual 12:00 x 20 16-ply rating, mud and snow tread

STEERING

Ross, integral steering gear with hydraulic power assist cylinder on each front axle.

ELECTRICAL SYSTEM

12 volt. 85 amp alternator with integral voltage regulator, heavy-duty starter. Two batteries: SAE #8D CIM-900.

FUEL SYSTEM

60 gal (227 L) fuel tank

UNDERCARRIAGE CAB

One-man, insulated, with floor mat, sun visor. Bostrom T-bar seat, seat belt. Electric windshield wiper, washer, 24,000 BTU (7034 W) heater, defroster fan. Speedometer, odometer, tachometer, fuel gauge, oil pressure gauge, water temperature gauge, voltmeter, dual air pressure gauges, combination turn signal/parking brake light. All gauges illuminated.

LIGHTS

Dual headlights, directional signals, ICC lights, back-up light.

WEIGHT

Approximate working weight, including 48" (122 cm) full fuel tanks: 73,000 lbs (33,113 kg).

Includes 5300 lbs (2404 kg) counterweight.

ATTACHMENTS

8528-6002 48" (122 cm) Excavating bucket

8526-6001 34" (86 cm) Excavating bucket

M-8532 54" (137 cm) Pavement removal bucket

M-8529 8' (2.4 m) Ditching bucket

M-8534 6' (1.8 m) Ditching bucket

M-8530 9' (2.7 m) Grading blade

8531-6001 Single-tooth ripper

8' (2.4 m), 12' (3.7 m), and 16' (4.9 m) Boom extensions

Fluid capacities in U.S. gallons.

Specifications subject to change without notice.

G-1000

GRADALL® Hydraulic Excavator

Wheel Undercarriage

Specifications, Operating Ranges



WARNER & SWASEY

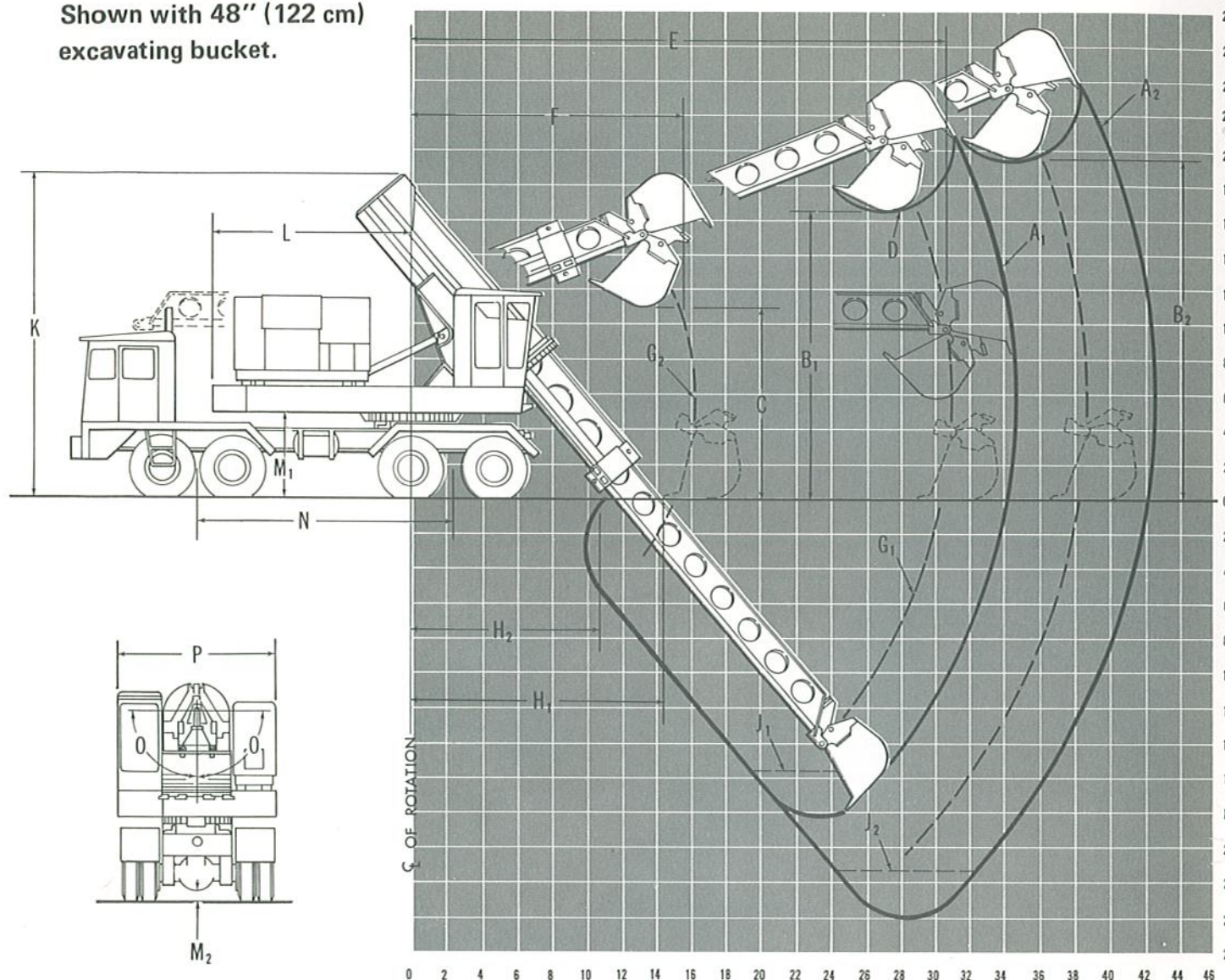
THE WARNER & SWASEY CO.

GRADALL DIVISION

NEW PHILADELPHIA OH 44663



Shown with 48" (122 cm)
excavating bucket.



- A₁ — Maximum range
Reach: 34'10" (10.6 m) at 5'6" (1.7 m)
above ground level
Surface reach: 34'6" (10.5 m)
Digging depth: 18'5" (5.6 m)
- B₁ — Loading height, boom extended: 16'4" (5 m)
- C — Loading height, boom retracted: 10'9" (3.3 m)
- D — Bucket pivot: 120°
- E — Boom length, extended: 30'9" (9.4 m)
- F — Boom length, retracted: 15'9" (4.8 m)
- G₁ — Attachment pivot point, boom extended
- G₂ — Attachment pivot point, boom retracted
- H₁ — Minimum reach for surface clean-up, bucket
level at ground line, boom retracted:
14'5" (4.4 m)
- H₂ — Minimum surface reach, digging: 10'9" (3.3 m)
- J₁ — 8' (2.4 m) of level bottom, 15'2" (4.6 m) deep
- K — Maximum working height: 18'4" (5.6 m)
- L — Tail swing: 11'8" (3.6 m)
- M₁ — Upperstructure ground clearance: 4'5½" (1.4 m)
- M₂ — Carrier ground clearance: 9¾" (24.7 cm)
- N — Wheelbase: 175" (4.4 m)
- O — Boom tilt: 90° each way, total 180°
- P — Overall width: 9' (2.7 m)

- Boom raise and lower — Above ground level: 22°
Below ground level: 50°
Total arc: 72°
- Boom telescoping action: 15' (4.6 m)
- Digging range: 270° Dumping range: 360°
- Swing: continuous
- Clearance between cross braces, at 3' (.9 m) below
ground level, for shored trench: 8' (2.4 m) minimum
for working with boom full down.

BOOM EXTENSIONS

- With 8' (2.4 m) boom extension and 34" (86 cm)
excavating bucket —
- A₂ — Maximum range
Reach: 42'10" (13.1 m) at 5'6" (1.7 m)
above ground level
Surface reach: 42'7" (13 m)
Digging depth: 24'1" (7.3 m)
- B₂ — Loading height, boom extended: 19'2" (5.8 m)
- J₂ — 8' (2.4 m) of level bottom, 21'6" (6.6 m) deep
- With 12' (3.7 m) boom extension and grading blade —
Surface reach: 45'10" (14 m)
- With 16' (4.9 m) boom extension and grading blade —
Surface reach: 49'10" (15.2 m)

G-1000 GRADALL RATED LIFT CAPACITY OVER END OR SIDE — Pounds (kg)

LOAD POINT HEIGHT	LOAD RADIUS					
	15' (4.6 m)	15'9" (4.8 m)	20' (6.1 m)	25' (7.6 m)	30' (9.1 m)	Maximum Radius
Above Ground Level	15' (4.6 m)	11,940 (5416)		8020 (3638)	5450 (2472)	
	10' (3 m)			9370 (4250)	6190 (2808)	3885 @ 30'8" (1762) (9.3 m)
	Boom Level 9'8" (2.9 m)		Minimum Reach 13,885 (6298)	9405 (4266)	6210 (2817)	4135 (1876)
	5' (1.5 m)			9285 (4212)	6210 (2817)	3830 @ 31'1" (1737) (9.5 m)
At Ground Level				8180 (3710)	5680 (2576)	3730 @ 30'6" (1692) (9.3 m)
Below Ground Level	5' (1.5 m)			6745 (3059)	4870 (2209)	
	10' (3 m)			5420 (2458)	4005 (1817)	

All loads shown are limited by hydraulic lift capacity rather than stability.

The above loads are in compliance with SAE Standard J-1097. 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 5300 lb (2404 kg) counterweight and 8528-6002 48" (122 cm) excavating bucket weighing 1200 lbs (544 kg). For other buckets, adjust the listed capacities as follows:
8526-6001 34" (86 cm) excavating — add 100 lbs (45 kg)
M-8532 54" (137 cm) pavement removal — subtract 770 lbs (349 kg)
M-8534 6' (1.8 m) ditching — subtract 225 lbs (102 kg)
M-8529 8' (2.4 m) ditching — subtract 400 lbs (181 kg)

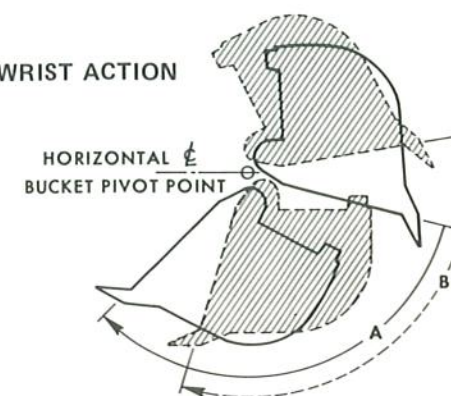
load point is located on the bucket pivot point, including

loads listed for maximum radius. Do not attempt to gain additional radius by wrapping the load line around the back of the bucket.

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 lifting devices must be deducted from the rated load to determine the net load that may be lifted.

CAUTION: All rated loads are based on the machine being level on a firm supporting surface. For safe working loads, the user is expected to make due 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 should fully acquaint themselves with the Operator's Manual furnished by the manufacturer before operating this machine, and rules for safe operation of equipment should be adhered to at all times.

BUCKET WRIST ACTION



- A — Standard linkage position
- B — Reverse linkage position
- Wrist action in either position is 120°.

TRAVEL POSITION (Without Bucket)

- Overall length, boom retracted —
boom on rack: 31'4" (9.6 m)
boom over rear: 36'6" (11.1 m)
- Overall width: 9' (2.7 m)
- Overall height: 12'8" (3.9 m)

UPPERSTRUCTURE ENGINES

Two GM 4-71N diesel, each 2 cycle, 4 cylinder, 136 hp (101 kW) at 1800 rpm (operating), 284 cid (4.7 L), 4¼" bore x 5" stroke (108 mm x 127 mm), 18.7:1 compression ratio, 400 ft-lbs (542 Nm) maximum torque at 1600 rpm, N-65 injectors.

Fuel tank capacity, total both engines: 100 gal (379 L).

Electric starter, air cleaner, oil filter on each engine. Alternator on one engine. 12-volt system.

HYDRAULIC SYSTEM

Two 3-section pumps, each 115 gpm (435 L/min) at 1800 rpm, 120°F (48.9°C), flange-mounted to engines with clutch for cold-weather starting.

Four double-acting cylinders:

- 2 boom hoist: 7" ID, 4" rod (178 mm x 102 mm)
- 1 boom telescoping: 6" ID, 4" rod (152 mm x 102 mm)
- 1 tool: 6" ID, 4" rod (152 mm x 102 mm)

One 20 hp (15 kW) hydraulic motor: boom tilt

Two 17 hp (13 kW) hydraulic motors: swing

Operating pressure: 1500 psi (10,342 kPa)

Oil capacity: 2 reservoirs, 170 gal (644 L) total; system 295 gal (1117 L).

Two filter elements, 55 micron, plus one magnet built into each reservoir, accessible from top of upperstructure.

Fin and tube type oil cooler, with relief valve, on each engine.

Pump relief valves on all circuits.