

UPPERSTRUCTURE ENGINE

G.M. 4-71N Diesel, 160 h.p. at 2300 r.p.m. (operating), 2 cycle, 4 cylinders, 284 c.i.d. (4.7 l), 4 1/4" (108 mm) bore, 5" (127 mm) stroke, 17:1 compression ratio, 400 ft. lbs. (55.3 mkg) max. torque at 1600 r.p.m.

-or-
Cat 3208 Diesel, 172 h.p. at 2300 r.p.m. (operating), 2 valves per cylinder, 636 c.i.d. (10.4 l), 4 1/2" (114 mm) bore, 5" (127 mm) stroke, 16.4:1 compression ratio, 486 ft. lbs. (67.2 mkg) max. torque at 1280 r.p.m.

Fuel tank capacity: 75 gal. (284 l)

Electric starter, 55 amp. alternator (12-volt system), dry type air cleaner with service indicator, oil filter.

HYDRAULIC SYSTEM

Two-section P-75 in tandem with single P-50 pump, 151 g.p.m. (572 l/min.) at 2300 r.p.m., 120° F (48.9° C), flange-mounted to engine with clutch for cold-weather starting.

Four double-acting cylinders:

2 boom hoist: 6" I.D., 3/4" rod (152 mm x 83 mm)

1 tool: 6" I.D., 3/4" rod (152 mm x 83 mm)
1 boom telescoping 5" I.D., 3/4" rod (127 mm x 83 mm)

Two 43 h.p. hydraulic motors: tilt and swing

Operating pressure: 1750 and 2000 p.s.i. (123 and 141 kg/cm²)

Oil capacity: reservoir 147 gal. (556 l), system 170 gal. (644 l). Visual oil level gauges on reservoir.

Filtration system, built into reservoir: four filter elements (15 micron) with visual indicators, plus two magnet clusters built into filter housings; air filter on reservoir breather.

Fin and tube type oil cooler, with relief valve.

Pump relief valves, hose relief valves on all circuits.

UPPERSTRUCTURE CAB

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

UPPERSTRUCTURE CONTROLS

3 levers, 2 pairs of pedals for all boom and upperstructure movements. Dead-man type are self-centering: when controls are released, machine movements stop automatically.

Crawler-mounted: 2 propel levers (one per track), digging brake lever for crawler operation. Propel levers are self-centering.

Engine controls: Key-operated ignition/starter switch with key-on warning light, throttle. Oil pressure and water temperature gauges, voltmeter, hour meter.

CARRIER

6 x 4, Warner & Swasey Model G-604-88. Gross Vehicle Weight: 60,000 lbs. (27,216 kg) axle rating.

Wheelbase: 176" (4.5 m)

Frame width: 42" (107 cm)

CARRIER ENGINE

G.M. 6V-53N Diesel, 210 h.p. at 2800 r.p.m., 318 c.i.d. (5.2 l), 3-7/8" bore x 4 1/4" stroke (98 mm x 114 mm), 17:1 compression ratio, 446 ft. lbs. (61.7 mkg) max torque at 1500 r.p.m.

TRANSMISSION

Spicer 6352B main transmission, 5 speeds forward, 1 reverse, synchromesh 2nd through 5th. Spicer 7041 4-speed auxiliary transmission.

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

AXLES

Front: Rockwell FH-931, 16,000 lbs. (7,258 kg). Chain snubbers.

Rear: Rockwell SRD tandem, 44,000 lbs. (19,958 kg), double reduction, straight line drive. 7.54:1 ratio, total final reduction 127:1. Non-spin differential on forward-rear axle.

FRAME

Wide-flange beam, 12" (30.5 cm), 45 lb. (20.4 kg). All welded.

SUSPENSION

Front: 13-leaf main spring, 41-3/8" x 3" (105 cm x 7.6 cm); 4-leaf auxiliary spring, 30" x 3" (76 cm x 7.6 cm).

Rear: Cast steel walking beam, 5-3/4" (15 cm) oscillation.

BRAKES

Rockwell Stopmaster, spring set wedge brakes on rear, self-adjusting; cam brakes on front.

Front drums: 16 1/2" x 6" (419 mm x 152 mm)

Rear drums: 15" x 7" (381 mm x 178 mm)

Spring brake system incorporates emergency and parking brakes on both rear axles.

Thermostat-controlled heated spitter valves on both air tanks.

WHEELS

Disc, 10-stud, 11 1/4" (28 cm) bolt circle.

TIRES

11:00 x 20 12-ply. Single front with highway tread, dual rear with all-traction heavy-duty tread.

STEERING

Ross hydraulic power steering.

ELECTRICAL SYSTEM

12-volt. 62 amp alternator, voltage regulator, heavy-duty starter, 225 amp battery.

COOLING SYSTEM

Fin and tube type radiator, with fan shroud. 6-blade 22 1/2" (57 cm) fan.

FUEL SYSTEM

50 gal. (189 l) fuel tank, mechanical fuel pump on engine.

AIR FILTER

Dry type.

OIL FILTER

Full flow, replaceable element.

CAB

One-man. Bostrum T-bar seat, adjustable fore and aft. Adjustable side windows, ventilator in cowl. Tinted safety glass windows.

HYDRAULIC REMOTE CONTROL

Carrier powered by upperstructure engine through hydraulic motor and PTO attached to transmission; propel, steering, and air brake levers in upperstructure cab. (Carrier engine off when hydraulic remote in use.)

WEIGHT

Approximate working weight, including 46" bucket, full fuel tanks: 51,268 lbs. (23,255 kg). Includes 3,300 lbs. (1,497 kg) counterweight.

STANDARD EQUIPMENT

Sealed beam headlights, tail lights, directional signals, marker lights on cab, identification light cluster on rear of frame, instrument lights. Gauges for oil pressure, water temperature, speedometer, odometer. Heater and defroster, air-operated windshield wiper, windshield washer, bus-type mirrors, wheel and axle wrenches.

ATTACHMENTS

Buckets fabricated of steel plate, with T-steel cutting edges and wear strips, heat-treated operating shafts. Standard attachments available for wide range of applications.

46" (117 cm) Excavating bucket

28" (71 cm) Excavating bucket

36" (91 cm) Excavating bucket

60" (152 cm) Excavating bucket

15" (38 cm) Trenching bucket

48" (122 cm) Pavement removal bucket

72" (183 cm) Ditching bucket

8' (2.4 m) Grading blade

Single-tooth ripper

6' (1.8 m), 8' (2.4 m), 12' (3.7 m) Boom

Extensions

Steel mill ripper

Scaling tool

Air breaker

Travel speed — m.p.h. (km/hr):

Aux. Trans.	Main Transmission				
	1st	2nd	3rd	4th	5th
Low	2.6 (4.2)	4.5 (7.2)	7 (11.3)	12 (19.3)	19 (30.6)
Second	5 (8)	8 (12.9)	13 (20.9)	22 (35.4)	37 (59.5)
Direct	6 (9.7)	10 (16.1)	16 (25.7)	27 (43.5)	44 (70.8)
Overdrive	7 (11.3)	12 (19.3)	20 (32.2)	33 (53.1)	53 (85.3)

Fluid capacities in U.S. gallons. Specifications subject to change without notice.

G-880 Gradall

Hydraulic Excavator

CARRIER

Specifications, Operating Ranges



WARNER & SWASEY

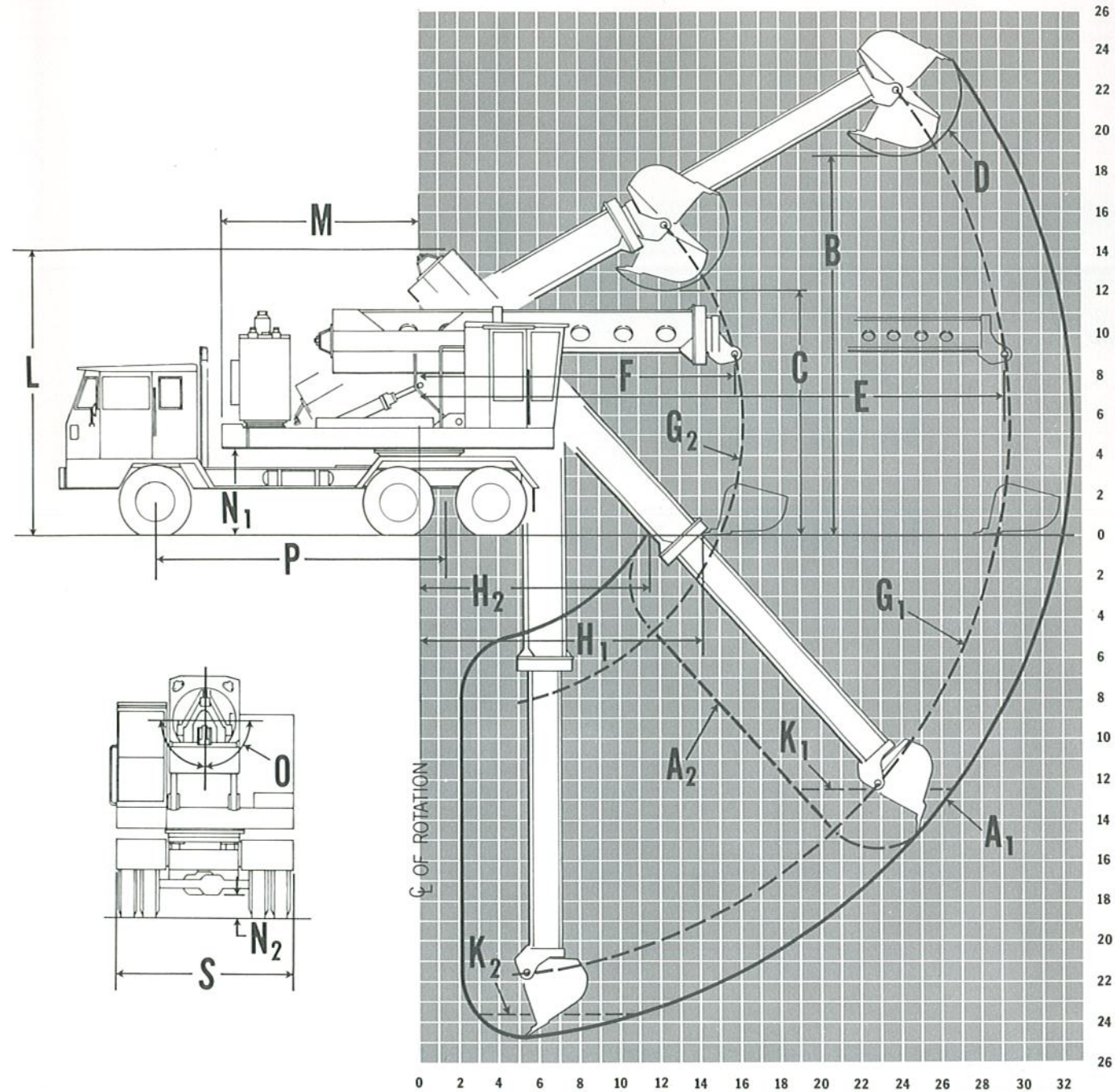


THE WARNER & SWASEY CO.
CONSTRUCTION EQUIPMENT
SOLON, OHIO 44139

Form No. 7536
(Replaces 7232)

107515MC
Printed in U.S.A.





Shown with 46" (117 cm) excavating bucket.

- A₁ – Maximum range
Reach: 32'8" (10 m) at 5'8" (1.7 m) above ground line
Surface reach: 32'2" (9.8 m)
Digging depth: 24'11" (7.6 m)
- A₂ – Maximum range with boom down 48°
Digging depth: 15'6" (4.7 m)
- B – Loading height, boom extended: 18'11" (5.6 m)
- C – Loading height, boom retracted: 12'6" (3.8 m)
- D – Bucket wrist action: 165°
- E – Boom length, extended: 29'3" (8.9 m)
- F – Boom length, retracted: 15'9" (4.8 m)
- G₁ – Attachment pivot point, full range, boom extended
- G₂ – Attachment pivot point, full range, boom retracted
- H₁ – Minimum reach for surface clean-up, bucket level at ground line, boom retracted: 14'1" (4.3 m)
- H₂ – Minimum surface reach, digging: 11'4" (3.5 m)
- K₁ – 8' (2.4 m) of level bottom, 12'6" (3.8 m) deep with boom down 48°
- K₂ – 8' (2.4 m) of level bottom, 23'10" (7.3 m) deep with boom down 90°
- L – Maximum working height:
14'2" (4.3 m) with boom down 50°
12'11" (3.9 m) with boom down 90°
- M – Tail swing: 10'2" (3.1 m)
- N₁ – Upperstructure ground clearance: 4'4" (1.3 m)
- N₂ – Carrier ground clearance: 11" (28 cm)
- O – Boom tilt: 90° each way, total 180°
- P – Wheelbase: 176" (4.5 m)
- S – Overall width: 9' (2.7 m)

Boom raise and lower:
Above ground level 30°
Below ground level 90°
Total arc 120°

Boom telescoping action: 13'6" (4.1 m)

Swing: continuous

Digging range: 270°

Dumping range: 360°

Clearance between cross-braces, at 3' (.9 m) below ground level, for shored trench: 6' (1.8 m) minimum for working with boom down 48°; 10' (3 m) minimum for working with boom down 90°.

LIFTING CAPACITIES
(Without bucket)

- At 15'9" (4.8 m) radius 10,000 lbs (4,536 kg)
- At 22'6" (6.9 m) radius 5,700 lbs (2,586 kg)
- At 29'3" (8.9 m) radius 3,600 lbs (1,633 kg)

Capacities shown are with boom level and are based on 87% of hydraulic system capacity.