

# CASE<sup>®</sup>

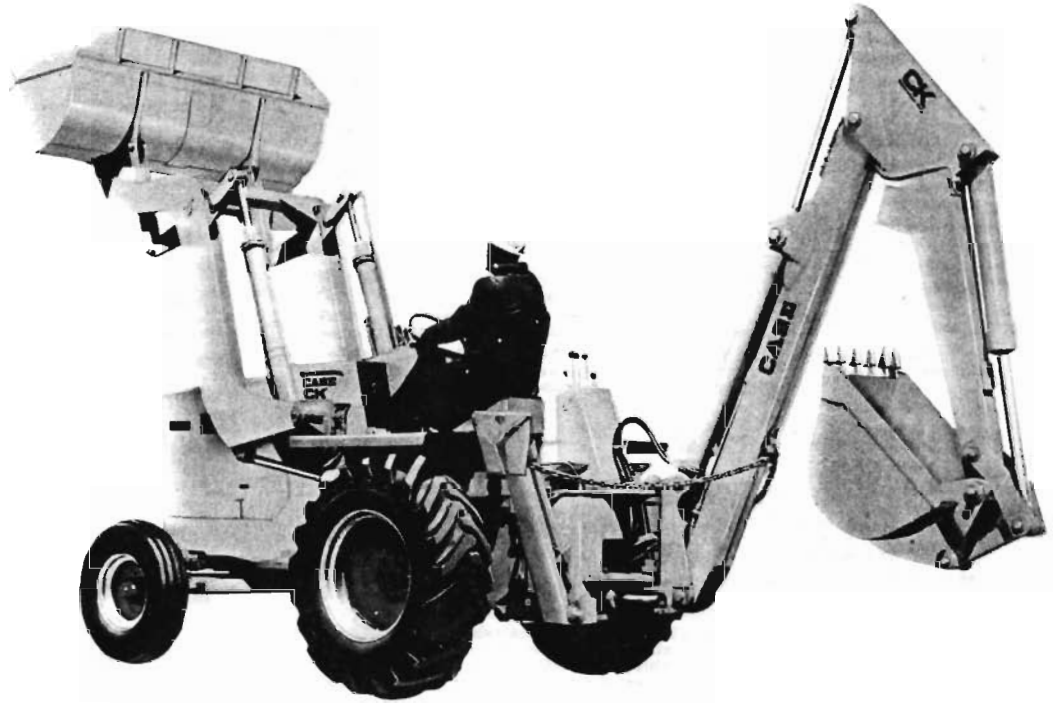
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## 680 CONSTRUCTION KING LOADER / BACKHOE

- 14½' backhoe or 16½' Extendaohoe
- 5000 lb. lift full height loader
- 71† HP Case-built gasoline or diesel engine
- Torque converter, power shuttle

### FEATURES

- 680 Construction King is a step up from average-sized rigs — challenges single-purpose, far costlier loaders and backhoes. Plenty of muscle, weight and stability to handle big loads and exceptional dig depths. Designed for high production and low upkeep.
- 71 HP Case-built diesel or gasoline engine — famous for long life, exceptional lugging ability and low fuel consumption.
- Torque converter doubles the push-pull power of the 680 Construction King — provides tremendous crowding power for loading; easy maneuvering.
- Power shuttle with four speed transmission — flip a lever, no clutching, to cycle forward and reverse. Reverse is 30% faster than forward. Save time, effort. Right speed for every job.
- Big load handling capacity — loader lifts 5000 lbs. to full height, has breakout force of 8200 lbs. Backhoe handles buckets to 10.56 cu. ft., has exceptional bucket dig power.
- Unit-design construction — features a massive mainframe that carries loader and backhoe, protects engine and drive train from shock, strain.
- Hydrostatic steering helps you maneuver easily even with full bucket.
- Famous Case hi-power backhoe design features boom with 10 times the torsional strength of ordinary booms, 190° swing, hydraulic regeneration that eliminates hesitation and choice of foot or dual-lever, hand-controlled swing. Hardened pins and replaceable bushings at points of greatest wear.



### LOADER OPERATING DATA

- \*Dump clearance at maximum height — 45° dump ..... 8'1"
- \*Dump reach at maximum height — 45° dump ..... 34"
- \*Dump reach at 7' dump height — 45° dump ..... 42"
- \*Reach — bucket on ground ..... 68¾"
- \*Bucket rollback (at ground line) ..... 39° (at 36" carry) ..... 42"
- \*Digging depth below ground line — bucket flat ..... 4"
- \*Maximum dump angle at maximum height ..... 48°
- Grading angle ..... up to 44°
- Breakout force, maximum (with backhoe) ..... 8200 lbs.
- \*Maximum lift capacity to full height — rear of unit not tied down 5000 lbs.
- \*Raising time — from ground line to full height (bucket empty) ... 6.0 sec.
- \*Dumping time (full bucket) ..... 2.0 sec.
- \*Lowering time (power down, bucket empty) ..... 3.0 sec.

### BACKHOE/LOADER OPERATING DATA

	STANDARD BACKHOE	EXTENDAHOE	
		Retracted	Extended
*Swing arc, uninterrupted, without change of linkage	190°	190°	190°
*Bucket arc	157°	157°	157°
*Digging force	11,440 lbs.	11,440 lbs.	11,440 lbs.
Pryout force (depending on location of fulcrum under bucket)	30,000 lbs. or more		
Stabilizer spread (operating position)	8'11"	8'11"	8'11"
(transport)	81"	81"	81"
*Overall reach (from tractor rear axle)	20'6¼"	20'6¼"	22'5"
*Digging radius (from swing pivot)	17'1½"	17'1½"	19'¼"
Digging Depth *IEMC rating	14'0"	14'0"	16'0"
Mfrs. rating	14'4"	14'4"	16'4"
Loading height (clearance)	10'8½"	10'8½"	11'5"
*Loading height	10'1¾"	10'1¾"	11'5"
*Loading reach	85"	85"	9'5½"
Maximum grade on which backhoe will make vertical cut	12°	12°	12°



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Racine, Wisconsin, U.S.A.

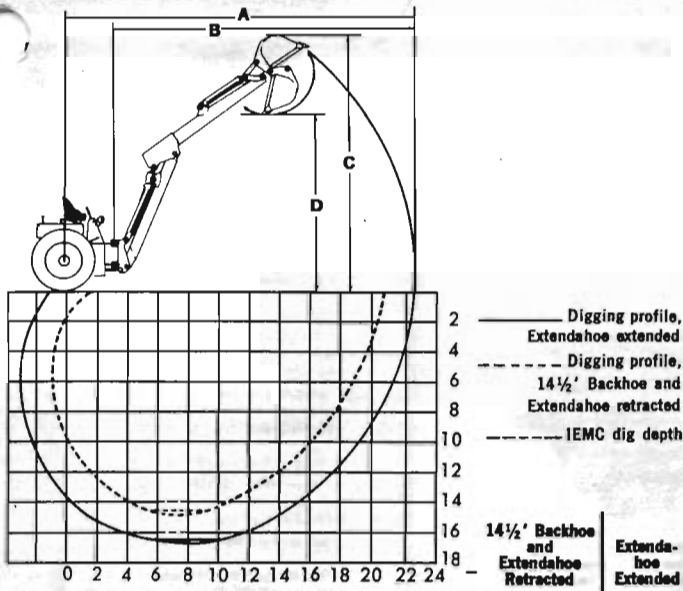


† See specifications reverse side



# SPECIFICATIONS

## BACKHOE



A. *Overall reach (from tractor rear axle)	20'6 1/4"	22'5"
B. *Digging radius (from swing pivot)	17'1 1/2"	19'3/4"
C. *Overall height (maximum)	15'7"	15'11"
D. *Loading height (clearance)	10'8 1/2"	11'5"

### LOADER DIMENSIONS

*Height to bucket hinge pin (maximum height)	9'10"
*Overall height (to top of steering wheel)	78"
*Overall width — (at bucket)	81 3/4" (at rear tires) 82"
*Ground clearance — (at transmission)	12"
*Turning clearance circle (with backhoe) — bucket rolled back, hinge in 3' above ground	32'4"
heelbase	80 1/2"
front axle rating (dynamic)	40,000 lbs. (static) 10,000 lbs.

### \*LOADER BUCKET SIZES

OUTSIDE WIDTH	CAPACITIES SAE rating (Nominal heaped)	Struck	WEIGHTS
81 3/4"	1 cu. yd.	.75 cu. yd.	660 lbs.
92"	1 1/2 cu. yd.	1.200 cu. yd.	915 lbs.

### BACKHOE/LOADER DIMENSIONS AND WEIGHTS

	STANDARD BACKHOE		EXTENDAHOE	
	Retracted	Extended	Retracted	Extended
*Overall height (maximum)	15'7"	15'11"	15'7"	15'11"
(travel position)	11'0"	11'0"	11'0"	11'0"
Overall width (travel position)	81 3/4"	81 3/4"	81 3/4"	81 3/4"
Overall length (backhoe in transport position — loader bucket flat on ground)	22'9"	22'9"	—	—

† Approximate shipping weight: Gasoline 12,700 lbs. Diesel 12,800 lbs.

‡ Above weights and dimensions include standard equipment, 1 cu. yd. loader bucket and backhoe with 24" trenching bucket, 11.00 L x 16 front tires and 14.9 x 24, 8 PR, R<sub>4</sub> rear tires.

### \*BACKHOE BUCKETS

12", 18", 24", 30", 36" trenching. 12", 16", 30", bellhole. 36" bellhole-graveyard.

### ENGINE

	Gasoline Case 251G gasoline, reg.	Diesel Case 267D diesel, No. 2
(1) *Maximum horsepower	71 @ 2000 RPM	71 @ 2000 RPM
(2) *Rated horsepower (SAE net)	63.5 @ 2000 RPM	64 @ 2000 RPM
(3) *Torque, maximum, lbs.-ft.	203 @ 1300 RPM	205 @ 1300 RPM
(3) *Torque, governed RPM, lbs.-ft.	180 @ 2000 RPM	182 @ 2000 RPM
*Cylinders, no. (valve in head)	4	4
*Bore and stroke	4" x 5"	4 1/8" x 5"
*Displacement (cu. in.)	251	267
Compression ratio	7.5 to 1	15 to 1
Starting	12-V electric (1 — 12 volt)	12-V electric (2 — 6 volt)
Battery	90 amp. hrs.	150 amp. hrs.
Fuel induction	up-draft carburetor	injection pump
Fuel supply	low pressure pump	injection pump
Ignition	coil and distributor	diesel cycle
Air cleaner	dry type	
Oil filter — full flow type	renewable cartridge	
Governor	mechanical flyweight	
Lubrication	positive pressure	
Cooling system, type	pressurized, 7 psi lubricated bearing	

(1) Manufacturer's rating of maximum engine horsepower at flywheel when equipped with oil, water and fuel pumps, with fuel set at approximate mean delivery. Corrected to sea level — 29.92" Hg. and 60°F. dry air.

(2) SAE net flywheel horsepower of engine as applied to this vehicle when equipped with operating accessories including oil, water and fuel pumps, generator, air cleaner, fan and muffler. Corrected to 500' altitude with .28" Hg. vapor pressure (29.38" Hg. observed barometer) and 85°F. air (per SAE J816a).

(3) Corrected to same temperature and altitude as shown in (2) above.

\*FUEL TANK (capacity): U.S. gal. . . . . 23 Imperial gal. . . . . 19.2

### \*STEERING

Type (standard) . . . . . Hydrostatic  
Turning ratio (stop to stop) . . . . . 2 1/2 turns

### BRAKES

Foot, triple disc, differential type. Individual rear wheel, lock together for park or travel, parking lock . . . . . 7" dia.

### POWER TRAIN

\*Transmission — Sliding gear with full power shuttle.  
\*Torque converter — Single stage hydrokinetic type (2.42 to 1 ratio).  
\*Final drive (type) — Spur gear.  
\*Shuttle — Full power (hydraulic clutch).

### \*TRAVEL SPEEDS (mph)

	With 14.9 x 24 tires @ governed engine speed.			
	1st	2nd	3rd	4th
Forward	2.4	3.6	8.0	17.0
Reverse	3.2	4.7	10.3	21.7

### \*TIRES

Standard: Front . . . 11.00L x 16, 10 PR, multi-rib Rear . . . 14.9 x 24, 8 PR, R<sub>4</sub>  
Optional: Front . . . . . 8.25 x 15, 12 ply truck tire  
Rear . . . . . 12.00 x 24, 8 ply, sure-grip grader 16.9 x 24, 8 PR, R<sub>4</sub>

### \*TREAD

Front . . . . . 70 3/4" Rear . . . . . 66 1/4"

FRONT AXLE OSCILLATION (up or down) . . . . . 25°

### HYDRAULIC SYSTEM

\*Pump: Front mounted, direct drive, vane-type, 27 GPM @ 2000 RPM @ 1600 PSI on loader and 1950 PSI on backhoe with Case Hi-Lo TCH Oil.

Loader control valve: 2 or 3 spool (depending on model). Lift lever with positive hold "float" and "lift" positions. \*Relief valve setting @ 1600 PSI @ 27 GPM. Automatic return-to-dig feature optional.

Backhoe control valve: Heavy duty, six spool sectional valve. Exclusive foot swing pedals (two lever control optional) control backhoe swing with cushioned stops. \*Relief valve setting @ 1950 psi @ 27 gm.

Hydraulic lines: Hydraulic lines are steel tubing with brazed or flared fittings and wire braid, high pressure hose with crimped, full-flow fittings.

Reservoir: Refill capacity is 32 U.S. quarts \*with wire mesh element on suction side, 25 micron element on return side.

Loader and backhoe cylinders: Double-acting with hardened and chrome-plated rods to resist damage, increase strength and resist corrosion. Cylinders have micro-smooth bore for long packing life.

### LOADER CYLINDERS

Lift (2) . . . . . 4" dia. x 25 1/2" stroke, 2" dia. rod  
Bucket (2) . . . . . 2 1/2" dia. x 10 3/8" stroke, 1 3/4" dia. rod

### BACKHOE CYLINDERS

Boom cylinder (1) . . . . . 4 1/2" dia. x 39 3/8" stroke, 2 1/4" dia. rod  
Crowd cylinder (1) . . . . . 4 1/2" dia. x 35 1/8" stroke, 2 1/4" dia. rod  
Bucket cylinder (1) . . . . . 4" dia. x 27 1/4" stroke, 2 1/4" dia. rod  
Swing cylinders (2) . . . . . 4" dia. x 11" stroke, 1 3/4" dia. rod  
Stabilizer cylinders (2) . . . . . 3 1/2" dia. x 16 3/8" stroke, 1 3/4" dia. rod

Loader Cylinder Design and Packing: Hardened and chrome plated rods. Cylinders equipped with chevron (4 stack) seal packing and guide rings for positive action. Wiper rings and self-locking nut on rod.

Backhoe Cylinder design and packing: Easy to service with threaded end cap. Hardened and chrome plated rods. Cylinder equipped with two-way, triple seal packing and phenolic guide rings for positive action. Nylon wiper rings and self-locking cap screw or nut on rod with "U" cup packing.

### STANDARD LOADER/BACKHOE EQUIPMENT

Integrally designed, 5000 lbs. (SAE rated) lift capacity loader to full height, less bucket, with controls and hydraulics. 14 1/2" Case-built backhoe, less bucket, with controls and hydraulics. Stabilizer pads (cleated). Exclusive foot swing. Heavy duty industrial grille. Choice of Case-built gasoline or diesel engines. Detented float position in control valve. Underneath muffler. Electric fuel pump. Anti-freeze solution to -20°F. Oil filters (engine and hydraulic systems). Air cleaner (dry type). Service indicator for dry type air cleaner. Tachometer (engine speed indicator). Hourmeter. Engine oil pressure gauge. Engine oil pressure and engine heat indicator warning lights visible to backhoe operator. Fuel level gauge. Ammeter. Light switch. Circuit breaker. Engine heat indicator gauge. Torque converter oil temperature gauge. Clutch pressure gauge. Electric manifold pre-heater (diesel). Rear wheel fenders. Engine side panels. Instrument panel light. Two headlamps (shock mounted). Two rear working lights (shock mounted). Stoplight and taillight. Hand and foot throttles. "All traction utility" rear tires, 14.9 x 24, 8 PR, 11.00 L x 16, 10 PR, 1 front tires. Comfortable, weather-resistant, easy-ride seat (bucket type). Single turn-around seat for loader or backhoe operations. Floor plates. Torque converter. Full power shuttle. 4-speed transmission. Heavy duty 40,000 lb. dynamic load front axle with 70 3/4" tread, 12 volt starter, alternator and voltage regulator. Hydrostatic steering. Fuel filters (diesel). Suction type fan. Foot brake. Key switch. Safety start mechanism. Push button starter switch.

### OPTIONAL OR EXTRA LOADER EQUIPMENT

Motor grader and "all traction utility" rear tires. Truck tread front tires. Tool box. Return-to-dig mechanism for loader. 2850 lb. cast rear counterweight for use when backhoe is removed. 3-spool loader control valve in lieu of 2 spool valve. Cab, cab heater, cab dome light, cab defroster. Choice of 1 cu. yd. or 1 1/2 cu. yd. loader buckets (SAE rating — nominal heaped). Digging teeth for 1 cu. yd. loader bucket.

### OPTIONAL OR EXTRA BACKHOE EQUIPMENT

16 1/2" Case-built Extendahoe. Backhoe dipper light. Street-cemetery pads for stabilizers. Rubber pads for street-cemetery pads. §Earth Auger. Two lever backhoe control. Heavy duty points for backhoe bucket teeth (field installed only). Choice of 12" to 36" trenching buckets to 10.56 cu. ft. 12" to 36" bellhole buckets to 4.32 cu. ft.

§Equipment approved for use with the 680 Construction King, but not manufactured or warranted by J. I. Case Co. See your dealer for details.

\*These specifications conform to IEMC definitions. IEMC definitions are not established for specifications not preceded by an \*.

### IMPORTANT

J. I. Case Co. reserves the right to change these specifications without notice and without incurring any obligation relating to such changes.

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