CASE

- Exclusive Hydra-leveling® loader
- 5000 lbs. full height lift
- Single lever loader control
- Return-to-dig
- Full power shuttle transmission and torque converter

680 CONSTRUCTION KING LOADER

FEATURES

• Speed, power and efficiency unmatched in the two-wheel drive loader class. Designed and built to handle big production loading assignments. Buckets to 1¾ cu. yd. SAE rated capacity, including 1 cu. yd. Drott 4-in-1® bucket. Here is a machine that offers the optimum in operator ease, low maintenance, long life.

• Exclusive Hydra-leveling design. Automatically keeps bucket level from ground to full lift. Provides exceptional 10,050 lbs. breakout (with Case bucket), fast dump, up to 105° grading angle. While grading, hydraulic lift cylinder rods are fully retracted, eliminating rod deflection.

• Single lever controls bucket rollback, lift, dump and lower. Simplifies operation, speeds cycling.

• Return-to-dig. Returns bucket to digging position after dump. Frees operator so he can concentrate on maneuvering. Readily overridden when desirable. Standard.

• Case built diesel engine. Famous for high torque characteristics, low maintenance and fuel economy.

• 4-speed forward and reverse transmission with full power shuttle and torque converter. Power shuttle eliminates clutching, adds speed, operator ease and convenience to loader operation. Travel forward or reverse simply by moving a hand lever. Torque converter automatically adjusts speed and power to load demands.

• Hydrostatic power steering. Operator maneuvers easily — even under full load. Unexcelled for close quarter work and sharp turns.

• Choice of extra equipment, including Case built 16½' backhoe.

OPERATING DATA	1¼ cu. yd. bucket	Drott 4-in-1 bucket
*Breakout force, SAE (pivot is 24" rear of cutting edge)	10,050 lbs.	9400 lbs.
*Maximum lift capacity (rear of unit not tied down from ground line to full height)	5000 lbs.	4700 lbs.
*Raising time — from ground line to maximum height (bucket empty)	5.5 sec.	5.5 sec.
*Dumping time — full bucket	1.5 sec.	1.5 sec.
*Lowering time — from full height to ground line (power down, bucket empty)	3.2 sec.	3.2 sec.
*Dump clearance at maximum height — At specified angle	8'1" @ 45°	8'4" @ 41°
Using clam	—	10'½"
*Dump reach — at maximum height	27" @ 45°	25½" @ 41°
— at 7' dump height (45° dump angle)	35"	34"
*Reach — bucket on ground	66½"	63⅝"
*Bucket rollback — at ground level	39°	43°
*Digging depth below ground — bucket level	5"	8½"
— at specified angle	10¾" @ 8°	10" @ 4°
*Maximum dump angle at maximum height	47°	41°
Grading angle	up to 105°	up to 106½°

*BUCKET CAPACITIES, WIDTHS AND WEIGHTS

TYPES	CAPACITIES		WIDTHS	WEIGHTS
	SAE rating (Nominal heaped)	Struck		(Less teeth)
Case	1¼ cu. yd.	1.060 cu. yd.	85"	806 lbs.
Case	1¾ cu. yd.	1.506 cu. yd.	96"	884 lbs.
Drott 4-in-1	1 cu. yd.	.814 cu. yd.	85½"	1120 lbs.

SPECIFICATIONS OF DROTT 4-in-1 BUCKET

Width of dozer cutting edge	82"
Dozing depth	4¼"
Digging depth using clam	39½"
Maximum clam opening	35¼"
Moldboard height	34"

*APPROXIMATE SHIPPING WEIGHTS

With 1¼ cu. yd. loader bucket (w/ctwt)	12,375 lbs.
With 1 cu. yd. Drott bucket (w/ctwt)	12,665 lbs.

Operating data and shipping weights include 1¼ cu. yd. Case bucket and standard equipment.

MANUFACTURED AND WARRANTED BY

J. I. CASE CO.

Racine, Wisconsin, U.S.A.

Specifications for CASE 680 CONSTRUCTION KING LOADER

DIMENSIONS	1¼ cu. yd. bucket	Drott 4-in-1 bucket
Overall operating height, SAE	13'6½"	13'2¾"
*Height to bucket hinge pin (maximum height)	10'3½"	10'3½"
Overall height — to top of exhaust stack	95¾"	95¾"
— *to top of steering wheel	79"	79"
*Overall width — at bucket	85"	85½"
— at rear tires	82"	82"
*Overall length — loader bucket flat on ground to rear of counterweight	16'2½"	16'1⅛"
*Ground clearance (at rear cross member)	13¼"	13¼"
*Turning clearance circle (with brakes)	29'3"	29'0"
(without brakes)	39'0"	38'9"
*Wheelbase	80½"	80½"

Dimensions taken with listed buckets and standard equipment.

ENGINE

Make and model	Case 267D
*Fuel	diesel, No. 2
Maximum rated horsepower	
(1) Gross	71 @ 2000 rpm
*(2) SAE net	64 @ 2000 rpm
Torque, maximum, lbs. ft.	
Sea level, 60° F (gross)	205 @ 1300 rpm
*500' altitude, 85° F (SAE net)	191 @ 1300 rpm
Torque, governed rpm, lbs. ft.	
Sea level, 60° F (gross)	182 @ 2000 rpm
*500' altitude, 85° F (SAE net)	167 @ 2000 rpm
*Cylinders, number (valve-in-head)	4
*Bore and stroke	4⅛" x 5"
*Displacement (cu. in.)	267
Compression ratio	15 to 1
Starting	12-volt electric
Batteries (capacity and quantity)	150 amp. hrs. (2)
Fuel induction	injectors (4)
Fuel supply	injection pump
Ignition	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
pump	impeller, lubricated bearing

(1) Manufacturer's rating of maximum engine horsepower at flywheel when equipped with oil and water pumps. Fuel set at maximum quantity for this application. 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 and water pumps, alternator, air cleaner, fan and muffler. Corrected to 500 ft. altitude with .38" Hg. vapor pressure (29.38" Hg. observed barometer) and 85° F air (per SAE J816a).

FRONT AXLE RATING

Dynamic	44,000 lbs.
Static	11,000 lbs.

***FUEL TANK (capacity)**

U.S. gals.	28
Imperial gals.	23.3

***STEERING**

Type (standard)	Hydrostatic
Turning ratio (stop to stop)	2½ turns

BRAKES

Foot, triple disc, differential type, hydraulically actuated. Individual rear wheel, lock together for park or travel (7" dia.). Two foot brake pedals provide independent braking of rear wheels. Brakes can be operated with or without interrupting power flow to rear wheels. Cut-off control located on dash. Over-center type parking brake.

POWER TRAIN

*Transmission	sliding gear with full power shuttle
*Torque converter	single stage, hydrokinetic type (2.42 to 1 ratio)
*Shuttle	full power (hydraulic clutch)

***TRAVEL SPEEDS (mph)**

With 16.9x24 tires @ governed engine speed

	1st	2nd	3rd	4th
Forward	2.5	3.8	8.5	18.0
Reverse	3.4	5.0	10.9	23.0

***TIRES**

Standard: Front (loader with counterweight)	8.25x15, 12PR super hi-miler truck tire
(loader and backhoe)	11.00Lx16, 14PR, F3
Rear	16.9x24, 8PR, R4
Optional: Front (loader and backhoe)	8.25x15, 12PR super hi-miler truck tire
Rear	12.00x24, 8PR Sure Grip Grader (L2)

***TREAD**

Front	70¾"
Rear	66¾"

LOADER HYDRAULIC SYSTEM

Cylinders: Double-acting with hardened and chrome-plated rods to resist damage, increase strength and resist corrosion.

Lift (2)	3½" dia. x 31" stroke, 2" rod
Bucket (2)	3" dia. x 23⅝" stroke, 1¾" rod
Hydra-Leveling® (2)	3" dia. x 7¼" stroke, 1¾" rod
Clam (2)	3½" dia. x 9¹¹⁄₁₆" stroke, 1½" rod

***Pump:** Front-mounted, two-stage, direct-drive, gear type. Combined flow of 42 gpm @ 2000 rpm @ 2000 psi with Case Hi-Lo TCH oil.

Control valve: Two or three-spool valve. *Relief valve pressure setting — 2150 psi @ 25 gpm. Single lever control for bucket rollback, lift, dump and lower with positive-hold "float" and raise positions in lift circuit.

Hydraulic lines: Steel tubing with silver-soldered, flared or split-flange fittings and wire-braid, high-pressure hose with crimped, full-flow fittings.

***Reservoir:** System capacity including backhoe — 17½ U.S. gals.; reservoir refill capacity is 9 U.S. gals. Wire mesh element on suction side; 40 micron element on return side.

STANDARD EQUIPMENT

Unitized design Hydra-leveling loader, less bucket, with controls and hydraulics. Return-to-dig bucket positioner on loader. Detented raise and float position in control valve. Heavy-duty industrial grille. Case built 267D diesel engine. Upright muffler with deflector. Electric fuel pump. Anti-freeze solution to —20° F. Oil filters (engine and hydraulic systems). Air cleaner (dry type). Service indicator for air cleaner. Tachometer (engine speed indicator). Hourmeter. Engine oil pressure gauge. Engine heat indicator gauge. Additional combination engine oil pressure and engine heat indicator warning light visible to backhoe operator. Fuel level gauge. Ammeter. Torque converter oil temperature gauge. Clutch pressure gauge. Instrument panel light. Tool box. Light switch. Circuit breaker. Electric manifold preheater. Rear wheel fenders. Two headlamps (shock mounted). Two rear working lights (shock mounted). Stop light and taillight. Directional signals. Warning flasher light. Hand and foot throttles. "All Traction Utility" rear tires, 16.9x24, 8PR, R4. 8.25x15, 12PR front truck tires (loader models with counterweight). 11.00Lx16, 14PR, F3 front tires (loader/backhoe models). Comfortable, weather-resistant, easy-ride, turn-around bucket-type seat for loader or backhoe operation. Floor plates. Torque converter. Full power shuttle. 4-speed transmission. Heavy-duty 44,000 lb. dynamic load front axle with 70¾" tread. 12-volt starter, 55 amp. alternator and transistorized voltage regulator. Hydrostatic power steering. Fuel filters. Suction fan. Two foot brake pedals provide independent braking of rear wheels (brakes can be operated with or without interrupting power flow to rear wheels) with cut-off control located on dash. Over-center type parking brake. Key switch. Safety start mechanism. Push button starter switch. 2850 lb.-cast rear counterweight in lieu of backhoe.

OPTIONAL OR EXTRA EQUIPMENT

Grader rear tires. Truck front tires on loader/backhoe models. 16½' Case built backhoe. Pusher fan. Engine side panels. §Cab with tinted glass and windshield wiper. Cab heater. Cab defroster (front and rear). Choice of 1 cu. yd. Drott 4-in-1 bucket, 1¼ cu. yd. or 1¾ cu. yd. loader bucket (SAE rating, nominal heaped). Digging teeth for Drott 4-in-1 bucket or 1¼ cu. yd. bucket. Spark arresting muffler. §Clamp-on pallet forks that attach to loader bucket. §Trench roller.

§Equipment approved for use on the 680 Construction King but not manufactured or warranted by J. I. Case Company. 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.

SOLD AND SERVICED BY

Form No. UD48668L

Printed in U.S.A.

CASE

- 16½′ backhoe
- Dual-pump hydraulics
- 10,640 lbs. digging force
- Single, turn around seat

BACKHOE FOR 680 CONSTRUCTION KING LOADER

FEATURES

• 680 Construction King equipped with backhoe challenges the productivity and profitability of single-purpose loaders and backhoes costing thousands of dollars more. Plenty of weight, muscle and stability to handle the big excavating assignments. Designed for long life and low maintenance cost.

• 16½′ Case built backhoe. Reaches over 19′ from swing pivot, loads to a height of 11′5″. Generates 30,000 lbs. or more pryout force, depending on location of fulcrum. 10,640 lbs. digging force.

• Revolutionary backhoe boom and dipper stick design. Ten times the torsional strength of conventional backhoe booms. Resists the twists of day in, day out production backhoe work.

• 190° swing. It's fast and accurate. Choice of foot swing or dual-lever hand control for operation of swing, boom, crowd and bucket action. Exclusive cushioned hydraulic stops prevent slamming into mechanical stops on full swings.

• Dual-pump hydraulic circuit. Combined flow of 42 gpm at 2050 psi powers bucket, boom and crowd while digging and lifting, then automatically splits to operate swing and stabilizers on one circuit — boom, crowd and bucket on the other (pump circuit splits are 25 gpm and 17 gpm). Gives the 680 backhoe greater operating speed, more capacity and power.

• Choice of buckets. Exceptionally rugged in design. Ideally matched to big production excavating jobs.

BACKHOE OPERATING DATA

*Overall reach (from tractor rear axle)	21′6⅞″
*Digging radius (from swing pivot)	19′1½″
Digging depth — *IEMC rated	16′0″
— Manufacturer's rated	16′4½″
*Loading height	11′5″
*Loading reach	7′9⅛″
*Swing arc (uninterrupted without change of linkage)	190°
*Bucket rotation	157°
*Stabilizer spread (operating position)	12′2″
(travel position)	7′2½″
*Digging force	10,640 lbs.
Pryout force (depending on location of fulcrum under bucket)	30,000 lbs. or more
Lift capacity (boom and dipper arm fully extended rearward)	3100 lbs.
Maximum grade on which backhoe will make vertical cut	12°

*APPROXIMATE SHIPPING WEIGHTS

With 1¼ cu. yd. loader bucket (w/ctwt)	14,500 lbs.
With 1 cu. yd. Drott bucket (w/ctwt)	14,790 lbs.

Operating data taken with 24″ trenching bucket.

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