



# Specifications for CASE BACKHOE ON 480 CONSTRUCTION KING LOADER

## LOADER/BACKHOE DIMENSIONS AND WEIGHTS (with standard equipment)

Overall height (maximum)	14'1 1/2"
*Overall height (travel position)	10'3 1/2"
Overall width (travel position — stabilizers raised)	74"
Width at rear wheels	77"
Overall length — loader bucket flat	
(short lip bucket)	21'7 3/4"
(long lip bucket)	21'1 3/8"
Ground clearance (at backhoe)	12 1/4"
Approximate shipping weights:	
Gasoline	8185 lbs.
Diesel	8385 lbs.

Shipping weights include standard equipment and 63 3/8" short lip loader bucket plus 24" backhoe trenching bucket.

## \*BACKHOE BUCKETS

OUTSIDE WIDTHS	CAPACITIES		WEIGHTS
	SAE rated (Nominal heaped)	Struck	
12" (trenching)	2.25 cu. ft.	2.21 cu. ft.	217 lbs.
18" (trenching)	4.10 cu. ft.	3.68 cu. ft.	258 lbs.
24" (trenching)	6.10 cu. ft.	5.20 cu. ft.	295 lbs.
30" (trenching)	8.05 cu. ft.	6.75 cu. ft.	330 lbs.
36" (trenching)	10.28 cu. ft.	8.54 cu. ft.	377 lbs.
12" (bellhole)	1.30 cu. ft.	1.29 cu. ft.	122 lbs.
16" (bellhole)	1.79 cu. ft.	1.59 cu. ft.	151 lbs.
30" (bellhole)	3.84 cu. ft.	3.19 cu. ft.	217 lbs.
36" (bellhole-graveyard)	4.92 cu. ft.	4.10 cu. ft.	256 lbs.

NOTE: See loader specification sheet for information on loader operating data, loader dimensions and weights, loader bucket sizes, engine, fuel tank capacity, steering, brakes, power train, travel speeds, tires, tread, loader hydraulic system. 8-speed synchronized transmission only for 480 Loader equipped with backhoe.

## BACKHOE HYDRAULIC SYSTEM

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

Boom cylinder (1)	3 1/2" dia. x 37 7/8" stroke, 1 3/4" rod
Crowd cylinder (1)	3 1/2" dia. x 33 1/8" stroke, 2" rod
Bucket cylinder (1)	3" dia. x 26 1/2" stroke, 2" rod
Swing cylinders (2)	3 1/2" dia. x 11" stroke, 1 1/2" rod
Stabilizer cylinders (2)	3" dia. x 16 3/8" stroke, 1 1/2" rod

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 metal guide rings for positive action. Nylon wiper rings and self-locking cap screw on rod with "U" cup packing. Cylinders have micro smooth bore for long packing life.

Reservoir: 11 U.S. gals. refill capacity. \*40 micron filter element on return side. Condition gauge for filter.

\*Pump: Front-mounted, direct-drive, gear-type. 17.5 gpm capacity @ 1750 rpm @ 2000 psi with Case Hi-Lo TCH oil.

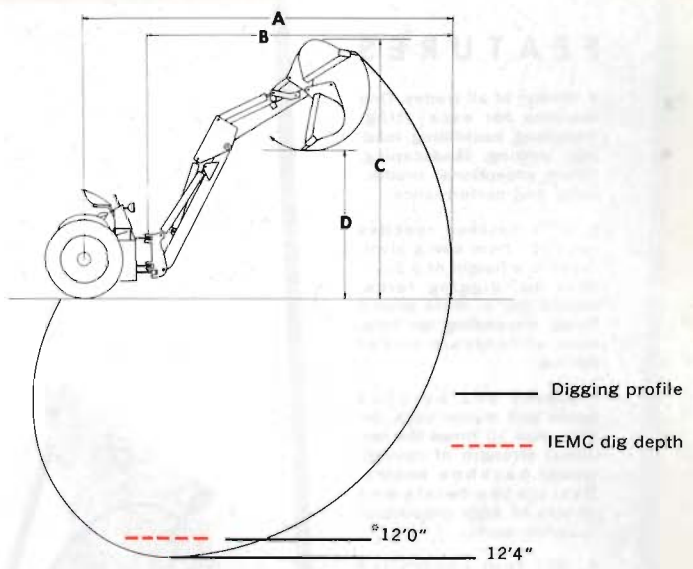
Backhoe control valve: Heavy-duty, six-spool sectional valve. Exclusive foot swing pedals control backhoe swing with cushioned stops in swing cylinders. \*Relief valve pressure set at 2000 psi @ 17.5 gpm.

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

NOTE: Data taken with 63 3/8" short lip loader bucket and 24" backhoe trenching bucket.

## STANDARD EQUIPMENT

All loader standard equipment plus 12 1/2' Case built backhoe, less bucket, with controls and hydraulics. Stabilizer pads. Exclusive foot controlled swing. 13.6 x 24, 6 ply (R) rear tires. 7.50 x 16, 6 ply (L) front tires. Padded-pan backhoe seat.



A. *Overall reach (from tractor rear axle)	18'5"
B. *Digging radius (from swing pivot)	15'5"
C. Overall height (maximum)	14'1 1/2"
D. *Loading height	8'7"

## OPTIONAL BACKHOE EQUIPMENT

Various sizes and types of backhoe buckets. Exclusive backhoe dipper light. Street-cemetery pads for stabilizers. Rubber pads for street-cemetery pads. Quick detach rear counterweight for use on loader models when backhoe is removed. Dual lever backhoe controls in lieu of hand-foot swing control. Heavy duty points for backhoe bucket teeth (field installed only). Ripper tooth (frost point). §Earth auger. §"Big Thumb" attachment for backhoe.

§Equipment approved for use with the Case 12 1/2' backhoe but not manufactured or warranted by J. I. Case Company. See your dealer for complete details on these and other items.

NOTE: See loader specifications sheet for information regarding standard equipment on loader and optional or extra loader equipment.

\*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**

# CASE

- 2200 lbs. lift to full height
- 38.5† hp gasoline or 41.5† hp diesel engine
- Choice of 4-speed or 8-speed transmission — both with shuttle
- Hydrostatic power steering

# 480 CONSTRUCTION KING LOADER

## FEATURES

• Power, mobility and versatility to handle production loading assignments. Ideal for clean up work around building and construction sites. Offers many big loader features at a small loader price. Especially designed for maximum operating economy, low maintenance.

• Choice of Case built gasoline or diesel engines. Both are rugged. Both offer abundant torque for utmost efficiency and production.

• 4-speed transmission with synchronized shuttle or optional 8-speed transmission with synchronized shuttle. 8-speed transmission matches speed requirements to individual job needs. Both transmissions offer 25% faster reverse speed to step up cycle time. Each has Ferro-metallic clutch, which outlasts automotive-type clutches by as much as 8 to 1.

• Power linkage loader cylinder design provides 5500 lbs. breakout force, 42° bucket rollback at 18" carry. Up to 110° bucket grading angle for unexcelled grading and leveling. While grading, bucket cylinder is fully retracted, eliminating rod deflection. With bucket rolled back, power linkage protects cylinder rod.

• Hydrostatic power steering. Makes close quarter work and sharp turn maneuvering easy.

• Loader lifts, dumps and clears 8'3 3/8" for fast dump-and-run operation.

• Unit designed loader main frame provides great strength and ruggedness for dependable performance and long life.

• Heavy-duty, 34,000 lb. dynamic load front axle. Equipped with extra sturdy front wheel bearings and spindles for high load carrying ability, long life.

• Wide choice of matched equipment, including landscaper's blade, scarifier, agricultural tools and 12 1/2' Case built backhoe.



## LOADER OPERATING DATA

*Height to bucket hinge pin (maximum height)	10'8 1/4"
‡*Dump clearance at maximum height — 45° dump	8'3 3/8"
‡‡*Dump reach (at maximum height — 45° dump)	29 1/2"
(at 7' dump height — 45° dump)	41 1/4"
*Bucket rollback (at ground line)	35°
(at 18" carry)	42°
*Digging depth below ground line — bucket flat	5"
*Maximum dump angle at maximum height	45°
Grading angle	up to 110°
*Breakout force, maximum (rear of unit not tied down)	5500 lbs.
*Maximum lift capacity — rear of unit not tied down	
(from ground line to full height)	2200 lbs.
(from ground line to 18" carry)	4000 lbs.
Hydraulic lift capacity (at ground)	4700 lbs.
*Raising time — from ground line to full height (bucket empty)	5.0 sec.
*Dumping time (full bucket)	1.8 sec.
*Lowering time (power down, bucket empty)	2.5 sec.
‡Long lip bucket	
‡‡Long lip bucket — gasoline	

## \*BUCKET CAPACITIES, WIDTHS AND WEIGHTS

TYPES	CAPACITIES		WIDTHS	WEIGHTS
	SAE rating (Nominal heaped)	Struck		
Case short lip	18 cu. ft.	15.372 cu. ft.	63 3/8"	505 lbs.
Case long lip	20 cu. ft.	17.510 cu. ft.	63 3/8"	540 lbs.
Case short lip	3/4 cu. yd.	17.807 cu. ft.	73 3/8"	550 lbs.
*Manure bucket	—	—	46 3/8"	440 lbs.
Dirt plate for manure bucket	—	—	—	105 lbs.
**Tread width bucket when 56" rear tread is used.				

## \*APPROXIMATE SHIPPING WEIGHTS

Gasoline	5430 lbs.
Diesel	5630 lbs.
Counterweight (optional)	add 1400 lbs.
Counterweight mounting brackets	add 280 lbs.
Shipping weights include 63 3/8" short lip Case bucket and standard equipment.	

† See specifications reverse side

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AND WARRANTED BY  
**J. I. CASE CO.**  
Racine, Wisconsin, U.S.A.



# Specifications for CASE 480 CONSTRUCTION KING LOADER

## DIMENSIONS (with standard equipment)

*Overall height (to top of loader frame)	64"
(to top of exhaust stack)	80½"
*Overall length — bucket flat on ground to rear of optional counterweight (short lip bucket)	14'10"
(long lip bucket)	15'4"
*Overall width — 7.50 x 16 front tires and 14.9 x 24 rear tires	
(at bucket)	63¾" to 73¾"
(at rear tires — loader model)	71" to 79"
(at rear tires — loader/backhoe model)	77"
*Ground clearance (at loader)	13½"
(at drawbar)	15½"
*Wheelbase: Gasoline	77¾"
Diesel	78½"
Front axle rating (dynamic)	34,000 lbs.
(static)	8500 lbs.
*Turning clearance circle — 73¾" short lip bucket rolled back, hinge pin 3' above ground	With brakes 31'5" Without brakes 33'5"
*Curb clearance circle (tractor only)	20'7"

ENGINE	Gasoline	Diesel
Make and model	Case G148B gasoline, reg.	Case G188D diesel, No. 2
*Fuel		
Maximum rated horsepower		
(1) Gross	38.5 @ 1750 rpm	41.5 @ 1750 rpm
(2) SAE net	34 @ 1750 rpm	37 @ 1750 rpm
Torque, maximum, lbs.-ft.		
Sea level, 60°F (gross)	127 @ 1200 rpm	133 @ 1250 rpm
*500' altitude, 85° F (SAE net)	111 @ 1200 rpm	119 @ 1200 rpm
Torque, governed rpm, lbs.-ft.		
Sea level, 60°F (gross)	115 @ 1750 rpm	124 @ 1750 rpm
*500' altitude, 85° F (SAE net)	103 @ 1750 rpm	111 @ 1750 rpm
*Cylinders, no. (valve-in-head)	4	4
*Bore and stroke	3¾" x 4½"	3½" x 4½"
*Displacement (cu. in.)	148	188
Compression ratio	7.1 to 1	17.5 to 1
Batteries (capacity & quantity)	12-volt electric 55 amp. hrs. up-draft carburetor coil and distributor	12-volt electric 6-volt (2) 100 amp. hrs. injectors (4) injection pump diesel cycle
Fuel induction	oil bath	
Fuel supply	renewable cartridge	
Ignition	mechanical flyweight	
Air cleaner	positive pressure	
Oil filter — full flow type	pressurized, 4 psi	
Governor	impeller, permanently lubricated bearing	
Lubrication		
Cooling system, type		

- (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 horsepower of engine applied to this vehicle when equipped with operating accessories including oil, water and fuel pumps, generator, 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).

*FUEL TANK (capacity)	22 U.S. gals.
*STEERING	
Type (standard)	Hydrostatic
Turning ratio (stop to stop)	2¾ turns

**BRAKES**  
Foot, band/disc. Individual rear wheel, lock together for park or travel, parking lock 6½" dia.

**POWER TRAIN**  
\*Standard transmission: 4-speed sliding spur gear with synchronized shuttle shift and clutch.  
\*Optional transmission: 8-speed sliding spur gear with dual-range lever, synchronized shuttle shift and clutch.  
\*Final drive: Spur gear  
\*Clutch: Foot operated, mechanical, single plate, dry disc, 11" diameter with Ferrometallic lining.  
\*Shuttle: Standard, synchronized sliding gear (manual).

\*TRAVEL SPEEDS (mph)  
STANDARD: With 4-speed synchronized shuttle shift transmission @ 1750 engine rpm — 14.9 x 24 tires.

	1st	2nd	3rd	4th
Forward	2.6	4.9	6.0	17.3
Reverse	3.2	6.1	7.5	21.6

OPTIONAL: With 8-speed synchronized shuttle shift transmission @ 1750 engine rpm — 14.9 x 24 tires.

Low range	1st	2nd	3rd	4th
Forward	1.6	3.0	3.7	10.6
Reverse	2.0	3.8	4.6	13.4

Direct range	1st	2nd	3rd	4th
Forward	2.6	4.9	6.0	17.3
Reverse	3.2	6.1	7.5	21.6

## \*TIRES

Standard: Front	7.50 x 16, 6 ply (I)
Rear	13.6 x 24, 4 ply (R)
Optional: Front	7.50 x 16, 10 ply, truck tread 7.50 x 16, 10 ply (I)
Rear	14.9 x 24, 6 ply (R) 14.9 x 24, 6 ply (R) 14.9 x 24, 6 ply (R)

## \*TREAD

Front	53"
Rear, fixed	62"

## LOADER HYDRAULIC SYSTEM

\*Cylinders: Double-acting with hardened and chrome-plated rods to resist damage, increase strength and resist corrosion.  
Lift (2) 2½" dia. x 31¾" stroke, 1½" rod  
Bucket (1) 3" dia. x 20" stroke, 1½" rod

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. Cylinders have micro smooth bore for long packing life.

Reservoir: 5½ U.S. gallons refill capacity. #40 micron element on return side. Condition gauge for filter.

\*Pump: Front-mounted, direct-drive, gear-type. 13.5 gpm capacity @ 1750 rpm @ 1750 psi with Case Hi-Lo TCH oil.

Control valve: Two-spool valve. Lift lever has positive hold "float" position. Relief valve pressure setting — 1750 psi @ 13.5 gpm.

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

## STANDARD EQUIPMENT

2200 lbs. to full height capacity loader, less bucket, with controls and hydraulics. Detent float position in control valve. Heavy duty industrial grille. Choice of Case built gasoline or diesel engine. Upright muffler. Anti-freeze solution to -20°F. Oil filters (engine and hydraulic system). Air cleaner (oil bath type). Combination tachometer (engine speed indicator) and hourmeter. Engine oil pressure warning light. Generator warning light. Engine heat indicator gauge. Electric manifold pre-heater (diesel). Rear wheel fenders. Tool box. Fuses. Instrument panel light. Light switch. Two headlamps (shock mounted). Combination rear working light and rear taillight. Hand and foot throttles. Bar-type rear tires, 13.6 x 24, 4 ply (R). 7.50 x 16, 6 ply (I) front tires. Comfortable, weather resistant, easy-ride seat (adjustable fore and aft.) Heavy-duty ferrometallic clutch. Rear 12-volt electrical outlet. Floor plates. Condition gauge for loader hydraulic system filter. 4-speed transmission with shuttle. Heavy-duty, 34,000 lb. dynamic load front axle with 53" tread. 62" tread rear wheels. 12-volt starter, generator and voltage regulator. Hydrostatic power steering. Fuel filters (diesel). Suction-type fan. Foot clutch. Two foot brake pedals (provide independent braking of rear wheels). Parking brake. Key switch with safety start mechanism. Swinging drawbar.

## OPTIONAL TRACTOR EQUIPMENT

R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> rear tires. 10 ply I<sub>1</sub> or truck tread front tires. Pre-cleaner for engine. Combination rear stop and taillight. Warning light and flasher attachment. Engine block heater. Horn. Locking gas cap. Directional signals. Wheel weights (front and rear). Differential lock. PTO (standard or independent). Remote hydraulics (dual). Swinging drawbar (field installed when backhoe is removed). 8-speed, dual-range shuttle transmission with clutch. 1400 lb. rear counterweight (1875 lbs. with mounting bracket). Anti-freeze to -40°F. 3-point hitch with Draft-o-matic® hydraulic control and matched equipment including Case-Danuser landscaper's blade, scarifier-scraper-rake and Case agricultural equipment. Side-mounted rotary and sickle bar mowers. Rear mounted rotary mowers. S Sweepers. S Snow plows. S All steel cab.

§Equipment approved for use with the 480 Construction King Loader but not manufactured or warranted by J. I. Case Co. See your dealer for details.

## IMPORTANT

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