

CASE®

- 14½' backhoe or 16½' Extendahoe
- 3800 lb. Hydra-leveling® Loader
- 52† HP gasoline or diesel engine
- Transmission: 8 speed direct drive with shuttle or 4 speed with torque converter and power shuttle

580 CONSTRUCTION KING LOADER / BACKHOE

FEATURES

• Strength, ruggedness and versatility to match big loading or trenching assignments. Capable of matching anything in its class and even many much larger outfits.

• Case-built gasoline or diesel engine. Both high in efficiency, low on fuel consumption. Develop peak torque at ¾ rated rpm. Plenty of lugging power. Safety starting.

• 4-speed transmission with full power shuttle and torque converter. Power shuttle eliminates clutching. Torque converter increases loader push power as needed to match load requirements.

• Manual 8-speed synchronized shuttle transmission with direct drive. Right speed for any job need.

• Massive alloy steel, box section design boom. Hardened pins and replaceable bushings at points of greatest stress. Exposed cylinders for time-saving, easy maintenance. Wide selection of alloy steel buckets.

• 190° foot-controlled swing or dual-lever hand control for operation of swing, boom, crowd and bucket action. Precise cutting. Extra fast for more dig-dump cycles per hour.

• Hydra-leveling® Loader. 3800 lbs. lift to full height, 7400 lbs. breakout with backhoe attached. Bucket rolls back 40°, stays level to full dump height. Single lever loader control and bucket return-to-dig feature help simplify operation and speed production. Choice of buckets to ¾ cu. yd., SAE rated nominal heaped capacity. Also 4-in-1® bucket.

• One hydraulic system serves both loader and backhoe. No-lag hydraulics permit continuous operation, even after dropping the bucket fast.

• Hydrostatic power steering. Takes the work out of maneuvering. Ideal for close quarter jobs and for production loading.



LOADER OPERATING DATA

†*Dump clearance at maximum height — 45° dump	8'7½"
†*Dump reach at maximum height — 45° dump	29'½"
*Dump reach at 7' dump height — 45° dump	41'¼"
*Reach — bucket on ground	77'⅞"
*Bucket rollback (at ground line) 40° (at 18" carry)	45°
*Digging depth below ground line — bucket flat	4'¾"
*Maximum dump angle at maximum height	45°
Grading angle	up to 110°
*Breakout force, maximum (with backhoe)	7400 lbs.
*Maximum lift capacity to full height — rear of unit not tied down	3800 lbs.
*Raising time — from ground line to full height (bucket empty)	4.8 sec.
*Dumping time (full bucket)	1.0 sec.
*Lowering time (power down, bucket empty)	3.0 sec.

†See loader specification sheet for details.

BACKHOE/LOADER OPERATING DATA

	Standard Backhoe	Extendahoe (Retracted) (Extended)	
*Overall reach (from tractor rear axle)	20'1½"	20'1½"	22'¼"
*Digging radius (from swing pivot)	17'1½"	17'1½"	19'¼"
Digging depth — *IEMC rated	14'0"	14'0"	16'0"
Mfrs. rated	14'4"	14'4"	16'4"
Loading height (clearance)			
*IEMC rated	10'1¾"	10'1¾"	11'5"
Mfrs. rated	10'8½"	10'8½"	11'5"
*Loading reach	7'1"	7'1"	9'5½"
*Swing arc (uninterrupted without change of linkage)	190°	190°	190°
*Bucket arc	157°	157°	157°
Stabilizer spread (operating position)	8'11"	8'11"	8'11"
(travel position)	81"	81"	—
*Digging force	9640 lbs.	9640 lbs.	9640 lbs.
Pryout force (depending on location of fulcrum under bucket)	26,000 lbs. or more		
Lift capacity (boom and dipper arm fully extended)	2000 lbs.	2000 lbs.	1500 lbs.
Maximum grade on which backhoe will make vertical cut	12°	12°	12°



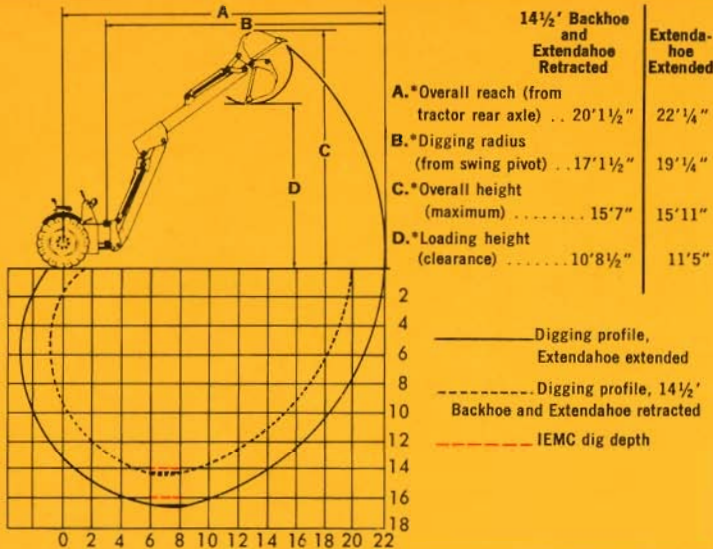
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Racine, Wisconsin, U.S.A.



†See specifications reverse side

SPECIFICATIONS

580 CONSTRUCTION KING LOADER / BACKHOE



	14 1/2' Backhoe and Extendahoe Retracted	Extendahoe Extended
A.*Overall reach (from tractor rear axle) .. 20'1 1/2"	22'1 1/4"	
B.*Digging radius (from swing pivot) .. 17'1 1/2"	19'1 1/4"	
C.*Overall height (maximum) .. 15'7"	15'11"	
D.*Loading height (clearance) .. 10'8 1/2"	11'5"	

— Digging profile, Extendahoe extended
 - - - Digging profile, 14 1/2' Backhoe and Extendahoe retracted
 - - - IEMC dig depth

LOADER DIMENSIONS

*Height to bucket hinge pin (maximum height)	10'8 1/4"
*Overall height (to top of loader frame)	6'4"
*Overall width (at bucket)	61 3/4" to 79 3/8"
(at rear tires — loader model)	71" to 79"
(at rear tires — loader/backhoe model)	77"
*Ground clearance — at drawbar	15 1/2"
*Turning clearance circle — bucket rolled back, hinge pin 3' above ground	31'5" (With brakes) / 33'5" (Without brakes)
*Wheelbase: Gasoline	77 1/4"
Front axle rating (dynamic)	34,000 lbs. Diesel (static) 8500 lbs.

LOADER BUCKET SIZES

OUTSIDE WIDTH	CAPACITIES SAE rating (Nominal heaped)	Struck	WEIGHTS
63 3/8" (short lip)	18 cu. ft.	15,372 cu. ft.	496 lbs.
63 3/8" (long lip)	20 cu. ft.	17,510 cu. ft.	538 lbs.
**73 3/8" (short lip)	3/4 cu. yd.	17,807 cu. ft.	550 lbs.
**73 3/8" (long lip)	7/8 cu. yd.	20,016 cu. ft.	575 lbs.
79 3/8" (snow and light materials)	7/8 cu. yd.	21,962 cu. ft.	600 lbs.
61 3/4" 4-in-1®	15 cu. ft.	10,422 cu. ft.	575 lbs.

**Treadwidth bucket when 56" rear tread is used.

LOADER/BACKHOE DIMENSIONS AND WEIGHTS (with standard equipment)

	Standard Backhoe	Extendahoe (Retracted)	(Extended)
Overall height (maximum)	15'7"	15'7"	15'11"
(*travel position)	11'0"	12'10"	—
Overall width (travel position — stabilizers raised)	81"	81"	81"
Width at rear wheels	77"	77"	77"
Overall length (short lip bucket)	21'7"	21'7"	—
(long lip bucket)	22'1"	22'1"	—

††Approximate shipping weights:

With converter		
Gasoline	9220 lbs.	9300 lbs.
Diesel	9420 lbs.	9500 lbs.
Less converter		
Gasoline	9100 lbs.	9180 lbs.
Diesel	9300 lbs.	9380 lbs.

††Shipping weights include standard equipment and 73" long lip loader bucket plus 24" backhoe trenching bucket.

*BACKHOE BUCKETS

12", 18", 24" and 36" trenching, 12", 16", 30" and 36" bellhole.

ENGINE

Make and model	Gasoline Case G159 gasoline, reg.	Diesel Case G188 diesel, No. 2
*Fuel		
§*Horsepower, maximum @ 2100 rpm w/torque conv.	52	52
@ 1900 rpm w/direct drive	47.5	48.0
§§*Horsepower, SAE net @ 2100 rpm w/torque conv.	46.0	46.5
@ 1900 rpm w/direct drive	42.5	43.0
Torque, maximum, lbs.-ft.		
Sea level @ 60°F	139 @ 1250 rpm	139 @ 1350 rpm
*500' altitude @ 85°F	122 @ 1250 rpm	124 @ 1300 rpm
Torque, governed rpm, lbs.-ft.		
Sea level @ 60°F		
(with torque converter)	130 @ 2100 rpm	130 @ 2100 rpm
(with direct drive)	132 @ 1900 rpm	133 @ 1900 rpm
*500' altitude @ 85°F		
(with torque converter)	115 @ 2100 rpm	117 @ 2100 rpm
(with direct drive)	117 @ 1900 rpm	117 @ 1900 rpm
*Cylinders, no. (valve in head)	4	4
*Bore and stroke	3 1/2" x 4 1/8"	3 3/8" x 4 1/8"
*Displacement (cu. in.)	159	188
Compression ratio	7.4 to 1	17.5 to 1
Starting	12 V electric	12 V electric
Battery	55 amp. hrs. (1)	105 amp. hrs. (2)
Fuel induction	up-draft carburetor	injectors (4)
Fuel supply	gravity feed	injection pump
Ignition	coil and distributor	diesel cycle
Air cleaner		oil bath
Oil filter — full flow type		renewable cartridge
Governor		mechanical flyweight
Lubrication		positive pressure
Cooling system, type		pressurized, 4 psi
pump		impeller, permanently lubricated bearing

§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.

§§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 .38" Hg. vapor pressure (29.38" Hg. observed barometer) and 85°F. air (per SAE J816a).

*FUEL TANK (capacity): U.S. gal. 22 Imperial gal. 18 1/4

STEERING

Type (standard) Hydrostatic

Turning ratio (stop to stop) 2 3/4 turns

BRAKES

Foot, hand/disc. Individual rear wheel, lock together for park or travel, parking lock 6 1/2" dia.

POWER TRAIN

*Standard transmission: 8-speed sliding spur gear with dual range lever, synchronized shuttle shift and ferrometallic clutch.

*Optional transmission: 4-speed sliding spur gear with full power shuttle and torque converter.

*Torque converter: Single-stage hydrokinetic type (2.31 to 1 ratio).

*Final drive: Spur gear.

*Clutch: Foot operated, mechanical, single plate, dry disc, 11" diameter with ferrometallic lining (with standard transmission).

*Shuttle: Standard — synchronized sliding gear (manual). Optional — full power (hydraulic clutch).

*TRAVEL SPEEDS (mph)

STANDARD: With synchronized shuttle shift transmission and direct drive @ 1900 engine rpm, 14.9 x 24 tires.

	1st	2nd	3rd	4th
Low range				
Forward	1.7	3.3	4.0	11.7
Reverse	2.1	4.1	5.0	14.5
Direct range				
Forward	2.8	5.3	6.5	18.8
Reverse	3.4	6.7	8.1	23.4

OPTIONAL: With power shuttle transmission and torque converter @ 2100 engine rpm, 14.9 x 24 tires.

	1st	2nd	3rd	4th
Forward	3.1	5.9	7.2	20.8
Reverse	3.7	7.1	8.6	24.9

*TIRES

Standard: Front ... 7.50 x 16, 10 ply (1) Rear ... 14.9 x 24, 6 ply (R₁)

Optional: Front ... 7.50 x 16, 10 ply, truck tread Rear ... 14.9 x 24, 6 ply (R₁)

Rear ... 14.9 x 24, 6 ply (R₂)

*TREAD: Front ... 53" Rear, fixed ... 62"

BACKHOE HYDRAULIC SYSTEM

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

Boom cylinder (1) 4" dia. x 39 3/8" stroke, 2" rod

Crowd cylinder (1) 4" dia. x 35 1/8" stroke, 2" rod

Bucket cylinder (1) 3 1/2" dia. x 27 1/4" stroke, 1 1/2" rod

Swing cylinders (2) 4" dia. x 11" stroke, 1 1/2" rod

Stabilizer cylinders (2) 3 1/2" 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 phenolic guide rings for positive action. Nylon wiper rings and self-locking cap screw or nut on rod with "U" cup packing.

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

*Pump: Front-mounted, direct-drive, gear-type. 20 gpm capacity @ 1900 rpm (direct drive models) or 22 gpm @ 2100 rpm (torque converter models) @ 2200 psi with Case Hi-Lo TCH oil.

Backhoe control valve: Heavy-duty, six-spool sectional valve. Exclusive foot swing pedals (dual-lever control optional) control backhoe swing with cushioned stops. *Relief valve pressure set at 2200 psi @ 22 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 78 3/8" short lip loader bucket and 24" backhoe trenching bucket.

STANDARD EQUIPMENT

All tractor and loader standard equipment plus 14 1/2' Case-built easy on/off backhoe, less bucket. Stabilizer pads. Exclusive foot-controlled swing. Deluxe, single, swing-around seat for loader or backhoe operation (except on models with PTO or Draft-o-matic).

OPTIONAL TRACTOR EQUIPMENT

R₁ and R₂ rear tires. Truck tread front tires. Pre-cleaner for engine. Wheel weights (front and rear). Differential lock. PTO (standard or independent for direct drive models — independent on torque converter models). Remote hydraulics (dual). Swinging drawbar (for field installation). Torque converter with power shuttle and 4-speed transmission. Anti-freeze to -40°F. 580 lb. front counterweight. Combination rear stop and taillight. Warning light and flasher attachment. Engine block heater. Horn. Locking gas cap. Directional signals. 3-point hitch with Draft-o-matic hydraulic control and matched equipment including Case-Danuser landscaper's blade, scarifier-scraper and Case agricultural equipment. Side mounted rotary and sickle bar mowers. Rear-mounted rotary mowers. †Sweepers. ‡Snow plow. †Drop hammer.

†Equipment approved for use with the 580 Construction King, but not manufactured or warranted by J. I. Case Co. See your dealer for details.

OPTIONAL BACKHOE EQUIPMENT

16 1/2' Extendahoe (use of front counterweight recommended). Backhoe dipper light. Street-cemetery pads for stabilizers. Rubber pads for street-cemetery pads. Quick-detach counterweight for use when backhoe is removed. Dual-lever backhoe control. Heavy-duty points for backhoe bucket teeth (field installation only). 1860 lb. quick-detach rear counterweight.

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

IMPORTANT

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CASE®

- 52† hp gas or diesel engine
- Choice of transmissions
- 34,000 lb. dynamic load front axle
- Effortless Hydrostatic power steering

580 CONSTRUCTION KING DRAWBAR TRACTOR

FEATURES

• Here is a rig particularly well suited to pulling tampers, rollers, water wagons, scrapers, mixers, disks. A highly versatile unit on park maintenance and public works projects. Surprisingly low priced.

• 52 hp gasoline or diesel engine. Both are Case-built, big bore, long stroke performers that supply plenty of power. Low maintenance features include aluminum pistons and pressure lubrication with full-filtered oil.

• Choice of transmissions. 4-speed forward and reverse with full power shuttle and torque converter or 8-speed synchronized shuttle with direct drive. Torque converter automatically matches power to loads. Power shuttle provides direction change without clutching. 8-speed transmission matches speed to individual job needs.

• Massive front axle. Made from solid alloy steel with dynamic rated load capacity of 34,000 lbs. Heavy-duty spindles and bearings absorb shock, twist and strain.

• Hydrostatic power steering. Effortlessly turns front wheels full left to full right in just 2¾ turns of the steering wheel.

• Suspended clutch and brake pedals provide extra operator leg room. On torque converter models, left foot pedal serves as master brake with clutch cutout. Individual pedals on right provide extra steering assist. Foot controlled differential lock available for both torque converter and direct drive rigs.

• Optional power takeoffs. Transmission-type or independent power takeoffs available for direct drive 580. Independent power takeoff for power shuttle and torque converter.

• Exclusive Draft-o-matic control. Simple, one-lever operation. Fits all Category 1, 3-point hitch fully mounted or semi-mounted ground working tools.

• Wide selection of 3-point hitch matched tools, including plows, cultivators, scarifiers, scrapers, land-scrapers blades, mowers.



DIMENSIONS (with standard equipment)

*Overall width	71"-79"
Overall height (to top of exhaust stack)	80½"
" (to top of steering wheel)	60½"
*Overall length (gasoline)	9'8¾"
(diesel)	9'10½"
*Ground clearance (at drawbar)	15½"
*Tread — front	53"
— rear, adjustable (standard)	56" to 76"
fixed (optional)	62"
reversible disc (optional)	58" or 66"
*Wheelbase (gasoline)	77¾"
(diesel)	78¾"
*Curb clearance circle (without brakes)	20'7"

*TRAVEL SPEEDS (mph)

STANDARD: Synchronized shuttle shift transmission with Ferrametallitic clutch @ 1900 engine rpm, 14.9 x 24, R₁ tires.

Low range	1st	2nd	3rd	4th
Forward	1.7	3.3	4.0	11.7
Reverse	2.1	4.1	5.0	14.5

Direct range

Forward	2.8	5.3	6.5	18.8
Reverse	3.4	6.7	8.1	23.4

OPTIONAL: Full power shuttle transmission and torque converter @ 2100 engine rpm, 14.9 x 24, R₁ tires.

	1st	2nd	3rd	4th
Forward	3.1	5.9	7.2	20.8
Reverse	3.7	7.1	8.6	24.9

*APPROXIMATE SHIPPING WEIGHTS

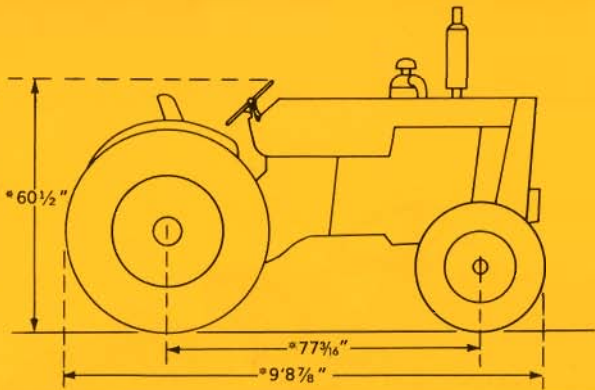
	With Converter	Less Converter
Gasoline	3750 lbs.	3630 lbs.
Diesel	3950 lbs.	3830 lbs.

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† See specifications reverse side

580 CONSTRUCTION KING DRAWBAR TRACTOR



ENGINE	Gasoline	Diesel
Make and model	Case G159	Case G188
*Fuel	gasoline, reg.	diesel, No. 2
(1)Horsepower (maximum) @ 2100 rpm with torque converter	52.0	52.0
@ 1900 rpm with standard clutch	47.5	48.0
(2)*Rated horsepower (SAE net) @ 2100 rpm with torque converter	46.0	46.5
@ 1900 rpm with standard clutch	42.5	43.0
Torque, maximum, lbs. ft. Sea level, 60° F	139 @ 1250 rpm	139 @ 1350 rpm
*500' altitude, 85° F	122 @ 1250 rpm	124 @ 1300 rpm
Torque, governed rpm, lbs. ft. Sea level, 60° F (with torque converter)	130 @ 2100 rpm	130 @ 2100 rpm
(with standard clutch)	132 @ 1900 rpm	133 @ 1900 rpm
*500' altitude, 85° F (with torque converter)	115 @ 2100 rpm	117 @ 2100 rpm
(with standard clutch)	117 @ 1900 rpm	117 @ 1900 rpm
*Cylinders, no. (valve-in-head)	4	4
*Bore and stroke	3 1/2" x 4 1/8"	3 1/16" x 4 1/8"
*Displacement (cu. in.)	159	188
Compression ratio	7.4 to 1	17.5 to 1
Starting	12 volt electric	12 volt electric
Batteries (capacity & quantity)	55 amp.hrs. (1)	105 amp.hrs. (2)
Fuel induction	up-draft carburetor	injectors (4)
Fuel supply	gravity feed	injection pump
Ignition	coil and distributor	diesel cycle
Air cleaner	oil bath	
Oil filter, full flow type	renewable cartridge	
Governor	mechanical flyweight	
Lubrication	positive pressure	
Cooling system, type	pressurized, 4 psi	
pump	impeller, permanently lubricated bearing	

(1)Manufacturer's rating of maximum engine horsepower at flywheel when equipped with oil, water and fuel pumps. 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 .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)2 3/4 turns

BRAKES

Foot, band/disc. Individual rear wheel, lock together for park or travel, parking lock6 1/2" dia.

POWER TRAIN

*Standard transmission: 8-speed sliding spur gear with dual range lever and synchronized shuttle shift. Ferrometallic clutch.

*Optional transmission: 4-speed sliding spur gear with full power shuttle and torque converter.

*Torque converter: Single-stage hydrokinetic type (2.31 to 1 ratio).

*Final drive: Spur gear.

*Clutch: Foot-operated, mechanical, single plate, dry disc, 11" diameter with Ferrometallic lining (not on converter models).

*Shuttle: Standard — synchronized sliding gear (manual). Optional — full power (hydraulic clutch).

*TIRES

Standard: Front7.50 x 16, 10 PR (L)
Rear14.9 x 24, 6 PR (R)

Optional: Front7.50 x 16, 10 PR, truck-type tread
Rear14.9 x 24, 6 PR (R₂)

14.9 x 24, 6 PR (R₄)

Dual rear12.4 x 24, 4 PR (R₁)

12.4 x 24, 4 PR (R₂)

FRONT AXLE RATING

Dynamic34,000 lbs.

Static8500 lbs.

STANDARD EQUIPMENT

Choice of Case-built gasoline or diesel engine. Choice of torque converter with power shift shuttle or synchronized shuttle with Ferrometallic clutch. 8-speed transmission or 4-speed transmission. Heavy duty, 34,000 lb. dynamic load front axle with 53" tread. 14.9 x 24, 6 PR (R₁) rear tires. 7.50 x 16, 10 PR (L) front tires. 56" to 64" adjustable tread rear wheels. Heavy duty, industrial front grille. Anti-freeze solution to -20° F. Engine oil filter. Air cleaner (oil bath type). Speedometer. Tachometer (engine speed indicator). Hourmeter. Engine oil pressure warning light. Fuel level gauge. Generator warning light. Engine heat indicator gauge. Torque converter temperature warning light and torque converter pressure gauge (torque converter models only). 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. Comfortable, weather resistant, easy ride seat (adjustable fore and aft). Floor plates. 12-volt starter, generator and voltage regulator. Hydrostatic steering. Fuel filters (diesel). Suction-type fan. Foot clutch (except on torque converter models). Three foot brake pedals for torque converter models. (Two on right provide independent braking of rear wheels while left pedal engages both wheels simultaneously after interrupting power flow to rear wheels.) Two foot brake pedals for clutch models (two on right provide independent braking of rear wheels). Key switch with safety start mechanism. Heavy duty, swinging drawbar.

OPTIONAL EQUIPMENT

Combination rear stop and taillight. Warning light and flasher attachment. Engine block heater. Horn. Locking gas cap. Directional signals. R₃ and R₄ rear tires. Dual rear wheels. Truck-type tread front tires. Pre-cleaner for engine. Wheel weights (front and rear). Differential lock. PTO (standard or independent for clutch models — independent on converter models). Remote hydraulics. Upright muffler with rain cap. Anti-freeze to -40° F. Rear wheels (62" tread). Rear wheels (58" or 66" tread). 3-point hitch with Draft-o-matic® hydraulic control and matched equipment, including Case-Danuser landscaper's blade, scarifier-scraper-rake, depth gauge wheel. Case agricultural implements. §Side mounted rotary and sickle bar mowers. §Rear mounted rotary mowers.

§Equipment approved for use with the 580 Construction King, but not manufactured or warranted by J. I. Case Company. See your dealer for complete details on these and other items.

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