

ENGINE

Model	Case 434T/E4
Type	Diesel 4-stroke, Turbo, D.I.
Cylinder	4
Bore/Stroke	3.9 in x 4.3 in (99 mm x 110 mm)
Displacement	207 in ³ (3.4 L)
Fuel injection	Direct, high pressure common rail
Fuel	#2 Diesel
Fuel filter:	
Pre-filter	99.8% efficiency @ 30 microns
Main filter	95% efficiency @ 4 microns
Air intake	Turbocharged w/ external EGR
Exhaust aftertreatment	Diesel particulate filter
Cooling	Liquid
Engine speeds	RPM
High idle – no load	2500 +/- 25
Rated – full load	2500
Low idle	1150 +/- 25
Horsepower @ 2500 RPM – SAE J1349:	
Gross	90 hp (67 kW)
Net	84 hp (63 kW)
Peak torque @ 1400 RPM	282 lb-ft (383 N-m)
Radiator:	
Core type	All aluminum
Core size area	2.056 ft ² (0.191 m ²)
Rows of tubes x columns	31 x 4
Cap pressure	13 +/- 2 psi (0.90 +/- 0.14 bar)
Fan:	
Diameter	22 in (560 mm)
Ratio	1.1:1
Water pump:	
Style	Centrifugal
Flow	47.8 gpm (181 L/min)
Engine lubrication pump:	
Rotor pump w/ deep sump pan, plate cooler, and pressurized under-piston nozzles	
Pump operating angle ratings:	
Side to side	45°
Bucket up	35°
Bucket down	45°

POWERTRAIN

Drive pump	Mechanical
Pump to engine ratio	1:1
Displacement	2.81 in ³ (46 cc)
Flow @ rated engine RPM:	
@ 100% efficiency	30.4 gpm (115 L/min)
Charge pressure	363 psi (25 bar)
System relief	5,220 psi (360 bar)
Control	Mechanical servo
Drive pump	Electro hydraulic
Pump to engine ratio	1:1
Displacement	2.75 in ³ (45 cc)
Flow @ rated engine RPM:	
@ 100% efficiency	29.8 gpm (113 L/min)
Charge pressure	363 psi (25 bar)
System relief	5,220 psi (360 bar)
Control	Electro hydraulic

POWERTRAIN (cont.)

Drive motors:	
Max. displacement	3.10 in ³ (50.9 cc)
Displacement – optional:	
High speed	2.02 in ³ (33.1 cc)
Speed @ high idle engine RPM:	
(100% eff. @ rated engine RPM)	101
Speed @ optional high speed RPM	15.6
Torque @ max. displacement and relief pressure, calculated @ 5,220 psi (360 bar):	4,654 lb-ft (6310 N-m)
Travel speed:	
Low range	5.0 mph (8.0 kph)
High range	7.6 mph (12.2 kph)
Final drive	Double-reduction planetary
Sprocket torque:	
Torque @ 5,220 psi (360 bar) relief pressure:	4,189 lb-ft (5598 N-m)
Max. tractive effort	9,267 lb (41,222 N)
Parking brake:	
Type	Spring-applied, hydraulic release disc.
Engagement	Depress on/off brake button on handle or instrument panel, raise seat bar, get off seat, or stop engine.

ELECTRICAL

Alternator	120 amp
Starter	3.2 kW
Battery	12-volt low-maintenance 1000 cold-cranking amps @ 0° F (-18° C)

OPERATOR ENVIRONMENT

ROPS/FOPS level 1 canopy w/ side screens;
Tilt ROPS/FOPS; Rear window w/ emergency
escape; Instrument panel w/ : hour meter,
tachometer, fuel level, hydraulic oil temperature,
engine coolant temperature, diagnostic features,
security lockout; Non-suspension vinyl seat;
2 in (51 mm) retractable lap seat belt; Hand
and foot throttles; Alarm package – back-up
and horn; Headliner; Dome light; Top window;
Cup holder; 12-volt power plug socket; Foot
rest; Storage tray; Low effort ergonomic hand
controls; Padded seat bar w/ integral armrests;
Loader control lockout system; Electric parking
brake control; Floor cleanout panel; Proportional
auxiliary hydraulic control – on joystick.

Indicators:	
Digital hourmeter;	
Fuel level LCD bar graph with alarm.	
Warning lights with alarms:	
Engine coolant temperature; Engine oil pressure; Engine malfunction; Hydraulic charge pressure; Hydraulic filter restriction; Hydraulic oil temperature.	
Warning alarms:	
Battery voltage – plus display.	
Indicator light:	
Engine preheat; Parking brake; Seat bar reminder.	

OPERATING WEIGHT

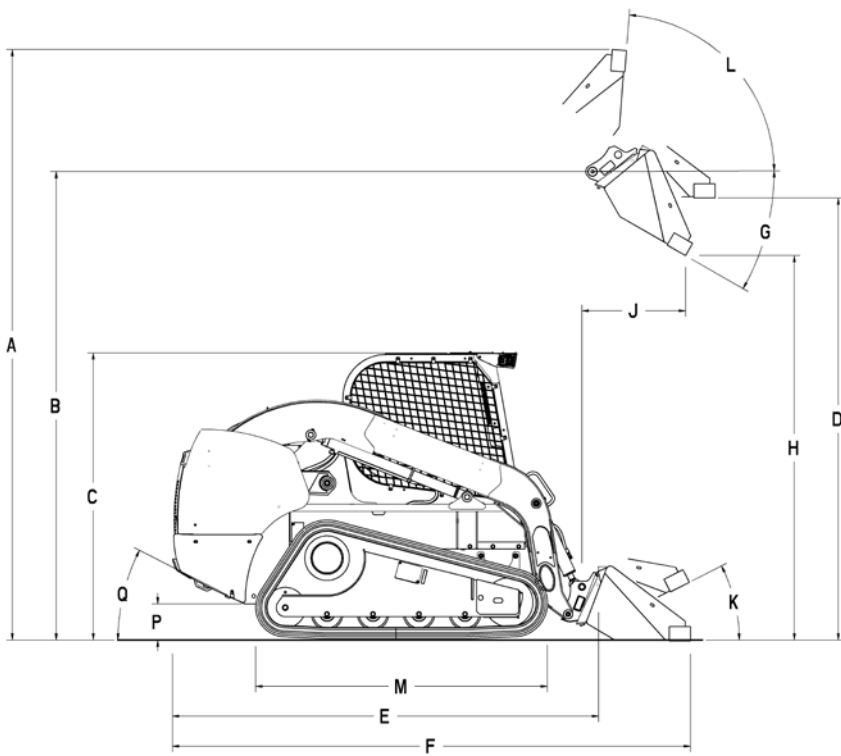
Operating weight	10,200 lb (4625 kg)
Shipping weight	9,865 lb (4475 kg)
Add-on weights:	
Side cab glass	47 lb (21.3 kg)
Polycarbonate cab door	74 lb (33.6 kg)
Glass cab door w/ wiper	134 lb (60.8 kg)
Suspension seat	22 lb (10 kg)
Additional counterweight	600 lb (272 kg)

HYDRAULICS

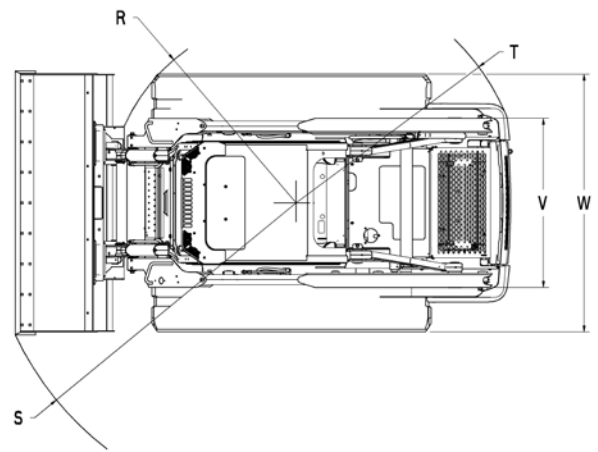
Standard equipment pump type	Gear
Displacement:	
Standard aux.	2.23 in ³ (36.6 cc)
High flow aux.	1.24 in ³ (20.4 cc)
Pump flow @ rated engine RPM:	
@ 100% efficiency	24.2 gpm (92 L/min)
Optional high flow @ rated engine RPM:	
@ 100% efficiency	35 gpm (132.5 L/min)
Loader control valve:	
Type	3 spool/open center/series
Relief pressure	3,050 psi (210 bar)
Port relief pressures:	
Loader raise	3,263 psi (225 bar)
Bucket curl	3,481 psi (240 bar)
Bucket dump	3,336 psi (230 bar)
Hydraulic lines:	
Tubing	37° JIC Flare
Loop hoses	SAE 100 R13
Hydraulic oil cooler:	
Number of fins	10 per in (3.94 per cm)
Number of tube rows x columns	11 x 2
Area	130.7 in ² (843 cm ²)
Hydraulic filter	6 micron/spin on
Lift cylinder:	
Bore diameter	2.75 in (69.8 mm)
Rod diameter	2.0 in (50.8 mm)
Stroke	34.9 in (886.5 mm)
Closed length	47.4 in (1205 mm)
Bucket cylinders:	
Bore diameter	3.0 in (76.2 mm)
Rod diameter	1.5 in (38.1 mm)
Stroke	16.14 in (410.0 mm)
Closed length	24.0 in (610.0 mm)

SERVICE CAPACITY

Fuel tank	25.5 gal (96.5 L)
Engine oil with filter	8.9 qt (8.5 L)
Hydraulic system:	
Reservoir	6 gal (22.75 L)
Total	11.75 gal (44.5 L)



Line drawings are for illustrative purpose only and may not be exact representation of unit.



PERFORMANCE SPECS

Rated operating capacity (ROC):	
50% of tipping load	3,800 lb (1723 kg)
with additional counterweight	4,200 lb (1905 kg)
35% of tipping load	2,660 lb (1209 kg)
Tipping load	7,600 lb (3447 kg)
Breakout forces @ 3,150 psi (217 bar):	
Lift cylinder	6,020 lb (26.8 kN)
Bucket cylinder	7510 lb (33.4 kN)
with 78 in (1.98 m) heavy duty dirt bucket	
Cycle times:	
Raise	4.7 sec
Lower	2.7 sec
Dump	2.6 sec
Roll back	2.0 sec

DIMENSIONS

A. Overall operating height:	
with foundry/excavating bucket short lip	161.9 in (4.11 m)
with heavy duty dirt bucket	166.0 in (4.26 m)
with low profile extended/long lip bucket	171.0 in (4.34 m)
Height to:	
B. Bucket hinge pin	131.6 in (3.34 m)
C. Top of ROPS	80.4 in (2.04 m)
D. Bottom of level bucket, fully raised	124.8 in (3.17 m)
Overall length:	
E. without attachment with coupler	117.7 in (2.99 m)
F. with foundry excavation bucket on ground	141.9 in (3.60 m)
with heavy duty dirt bucket	146.0 in (3.71 m)
with low profile extended bucket	151.0 in (3.83 m)
G. Dump angle	53.5°
H. Dump height:	
with foundry/excavating bucket short lip	105.1 in (2.67 m)
with heavy duty dirt bucket	102.2 in (2.60 m)
J. Dump reach – max. height with heavy duty dirt bucket	31.4 in (0.80 m)
Maximum attachment rollback:	
K. Bucket on ground	34.2°
L. Bucket at full height	86°
M. Track on ground	64.5 in (1.64 m)
P. Ground clearance – bottom of belly pan	9.5 in (0.24 m)
Q. Angle of departure	32°
Clearance circle:	
R. without bucket	56.2 in (1.43 m)
S. with 78 in (2.0 m) foundry bucket in carry position	84.8 in (2.16 m)
with 78 in (2.0 m) heavy duty dirt bucket on ground	88.4 in (2.25 m)
with 78 in (2.0 m) extended low profile on ground	92.6 in (2.35 m)
T. Clearance circle rear	70.4 in (1.78 m)
V. Track gauge	58.3 in (1.48 m)
W. Over the track width	76.0 in (1.93 m)

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

Case 434T/E4 diesel
 No maintenance belt
 Over and under radiator and oil cooler
 Glow plugs
 Integral engine oil cooling
 Fuel filter with water trap
 Dual element air cleaner
 120 amp alternator
 1000 CCA 12-volt battery
 Master electrical disconnect

POWERTRAIN

2-speed hydrostatic drive
 Servo assist controlled pumps
 SAHR disc parking brake

HYDRAULICS

Auxiliary hydraulics @ 3,050 psi (210 bar)
 24.2 gpm (92 L/min)
 Auxiliary hydraulic disconnects, ISO flat-face –
 connect-under-pressure with case drain
 Hydraulic circuit pedal lock
 Loader arm-mounted ISO flat face connectors
 Auxiliary function lockout override
 Loader function lockout system
 Loader lift lockout override
 3-spool loader control valve
 Heavy-duty oil cooler
 Loader arm float position

LOADER

Vertical loader arm design
 Mechanical attachment coupler
 Loader lift arm support strut

OTHER

Machine protection auto shutdown
 Mounting points for add-on counterweights
 Halogen lights:
 2 front
 2 side
 2 rear
 Rear tail lights
 Lockable service access hood
 Single-point daily servicing
 Pre-wired for rotating beacon
 Remote oil drain
 Remote oil and fuel filters

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

Electro-hydraulic controls:
 for drive/steering, loader functions
 switchable between H and ISO patterns
 adjustable sensitivity of controls
 Foot controls, servo-assist mechanical
 Deluxe cloth, air suspension seat,
 with heater and lumbar support
 Interior mirror
 Enclosed cab including glass door with
 wiper and washer, sliding side windows,
 heater, shoulder belt, radio with speakers,
 keyless start
 3 in (76.2 mm) retractable seat belt
 Heater and air conditioner
 Open cab interior trim package
 FOPS level 2
 Demolition cab door with polycarbonate

ENGINE

Coolant block heater
 Battery disconnect switch

HYDRAULICS

High-flow auxiliary hydraulics – combined
 @ 3,050 psi (210 bar) – 35 gpm (132.5 L/min)
 Second auxiliary hydraulics with high pressure
 circuit with attachment case drain plumbing

LOADER

Auxiliary front electric control
 Ride control
 Hydraulic attachment coupler
 Hydraulic one-way self-leveling

OTHER

Add-on counterweights
 Road lights
 Rotating beacon
 Four-corner LED strobe
 Lift points – four-point or single-point
 Language decals
 Factory-installed track – see page 3
 Buckets – see page 3
 Bolt-on bucket cutting edges
 42 in (1.07 m) and 48 in (1.22 m) pallet forks
 Rear door guard insert
 Special paint

TRACK SELECTION

Type	Area	Ground Pressure	Width to Outside of Track
17.7 in (450 mm)	2,293 in ² (13 776 cm ²)	4.5 psi (31 kPa)	76 in (1.93 m)

OPTIONAL BUCKETS

Type	Width	Weight	Heaped Capacity
Dirt & Foundry	78 in (2.0 m)	435 lb (197 kg)	18.4 ft ³ (0.52 m ³)
Low Profile Extended	78 in (2.0 m)	502 lb (228 kg)	18.6 ft ³ (0.53 m ³)
	84 in (2.1 m)	607 lb (275 kg)	20.2 ft ³ (0.57 m ³)
Light Material	84 in (2.1 m)	497 lb (225 kg)	27.9 ft ³ (0.79 m ³)
Manure & Slurry	84 in (2.1 m)	535 lb (243 kg)	22.5 ft ³ (0.64 m ³)
Heavy Duty	78 in (2.0 m)	527 lb (239 kg)	15.9 ft ³ (0.45 m ³)
	84 in (2.1 m)	758 lb (344 kg)	25.7 ft ³ (0.473 m ³)

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NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines meet current EPA emissions requirements.

IMPORTANT: Case Construction Equipment Inc. reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Case Construction Equipment Inc. does not warrant the safety or reliability of attachments from other manufacturers.

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All Case construction equipment is biodiesel ready.