

420CT

**COMPACT TRACK LOADER
TIER II CERTIFIED**

ENGINE

Model	
Case 422T/M2 diesel , Tier II certified	
Type	4-stroke, turbocharged
Cylinders	4
Bore/Stroke	3.3 x 3.93 in (84 x 100 mm)
Displacement	134 in ³ (2.2 L)
Fuel injection	Indirect
Fuel	#2 Diesel
Fuel filter	In-line strainer
Air intake	Cross-flow
Cooling	Liquid
Engine speeds (rpm)	
High idle – no load	3050±50
Rated – full load	2900
Low idle	1050±50
Horsepower per SAE J1349	
Gross	59 (44 kW) @ 2900 rpm
Net	56 (42 kW) @ 2900 rpm
Peak torque	
@ 1700 rpm	132 lb-ft (179 N-m)

ENGINE COOLING

Radiator	
Core type	Square wave serpentine
Core size area	450 in ² (.290 m ²)
Rows of tubes	3
Cap pressure	13 psi (89.6 kPa)
Fan	
Diameter	16.9 in (430 mm)
Ratio	1.25:1
Water pump	
Style	Centrifugal
Flow	18.5 gpm (70 L/min)
Engine lubrication	
Pump operating angle ratings	
Side-to-side	Rated 30°
Fore and aft	Rated 30°
Oil filtration	Replaceable, full-flow cartridge

POWERTRAIN

Drive pump	
Tandem, axial piston hydrostatic transmission with integral charge pump driven directly off engine flywheel	
Pump to engine ratio	1:1
Displacement	0 to 2.62 in ³ (42.9 cc)
Pump flow @ rated rpm	32.9 gpm (124 L/min)
Flow	Bi-directional
Charge pressure	360 psi (24.8 bar)
System relief	5000 psi (345 bar)
Controls	
Servo	
Drive motors	
Fixed displacement radial piston	
Maximum displacement	17.1 in ³ (280 cc)
Speed @ rated engine rpm @ max displacement	445 rpm
Torque @ max displacement and relief pressure	1,133 lb-ft (1536 N-m)
Travel speed	
0-6.3 mph (10.1 km/h)	
Final drive	
Single-reduction planetary	
Undercarriage	
Torque @ max displacement and relief pressure	4,147 lb-ft (5622 N-m)
Track adjustment	Hydraulic
Frame	Rigid
Length of track on ground	56.5 in (1436 mm)
Track rollers per side	3
Front idler diameter	13.7 in (350 mm)
Rear Idler diameter	11.4 in (290 mm)
Bottom Rollers	
Outer flange diameter	7.8 in (200 mm)
Center flange diameter	8.4 in (214 mm)
Sprocket Teeth	
Number	17
Width	1.8 in (46 mm)
Track rollers and idlers sealed with duo cone face seals and permanently lubricated bushings	
Parking brakes	
Spring applied, hydraulic release disc	
Engagement	
Depress on/off brake button, raise seat bar, get off seat, or stop engine	

HYDRAULIC SYSTEM

Standard equipment pump	
Type	Gear pump
Displacement	1.55 in ³ /rev (25.4 cc)
Pump flow @ rated engine rpm	
Total	19.5 gpm (73.8 L/min)
Optional high flow @ rated engine rpm	
Total	32.5 gpm (123 L/min)
Loader control valve	
3-spool open-center series with power beyond port	
Relief pressure	3050 psi (210 bar)
Port relief pressures	
#1B Raise	3350 psi (230 bar)
Hydraulic lines	
Tubing	37° JIC Flare
Loop hoses	SAE 100 R12
Hydraulic oil cooler	
Core type	Two row in-line
Hydraulic filter	
6 micron spin-on replaceable element on the return line with warning indicator	

INSTRUMENTATION

Indicators

- Digital Hourmeter
- Fuel level LCD bar graph with alarm

Warning lights with alarms

- Engine coolant temperature
- Engine oil pressure
- Air cleaner restriction
- Hydraulic charge pressure
- Hydraulic filter restriction
- Hydraulic oil temperature

Warning alarms

- Battery voltage (plus display)

Indicator light

- Engine preheat
- Parking brake
- Seat bar reminder

ELECTRICAL SYSTEM

Alternator 55 amp

Starter 2.0 kW

Battery

- 12-volt low-maintenance 850 cold-cranking amps @ 0° F (-18° C)

OPERATOR ENVIRONMENT

Tilt ROPS/FOPS canopy w/side screens

Water-shedding vinyl seat

Seat presence switch

2 in (51 mm) retractable seat belt

Seat bar w/integral armrests

Two servo-assist, adjustable, hands-only control levers

Hand throttle

Loader control lockout system

Front and rear halogen floodlights

Floor cleanout access

CYLINDERS

Lift cylinder

Bore diameter	2.25 in (57.2 mm)
Rod diameter	1.5 in (38.1 mm)
Stroke	35.2 in (893 mm)
Closed length	46.2 in (1173 mm)

Bucket cylinder

Bore diameter	2.5 in (63.5 mm)
Rod diameter	1.37 in (34.9 mm)
Stroke	14.5 in (369 mm)
Closed length	26.9 in (683 mm)

OPERATING WEIGHTS

Unit equipped with 12.6 in (320 mm) track, 66 in (1.67 m) foundry/excavating bucket, mechanical attachment coupler, full fuel tank and 165 lb (75 kg) operator

7,350 lb (3334 kg)

Shipping weight 6772 lb (3072 kg)

Add-on weights

Side cab glass	+70 lb (32 kg)
Glass door with wiper	+77 lb (35 kg)
Suspension seat	+10 lb (4.5 kg)

SERVICE CAPACITIES

Fuel tank 22.0 gal (83.3 L)

Engine oil w/filter 11 qt (10.5 L)

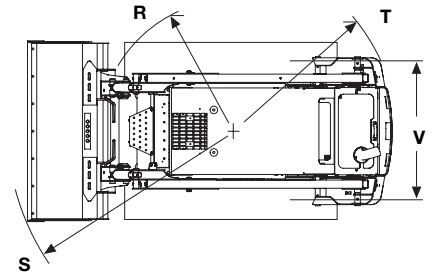
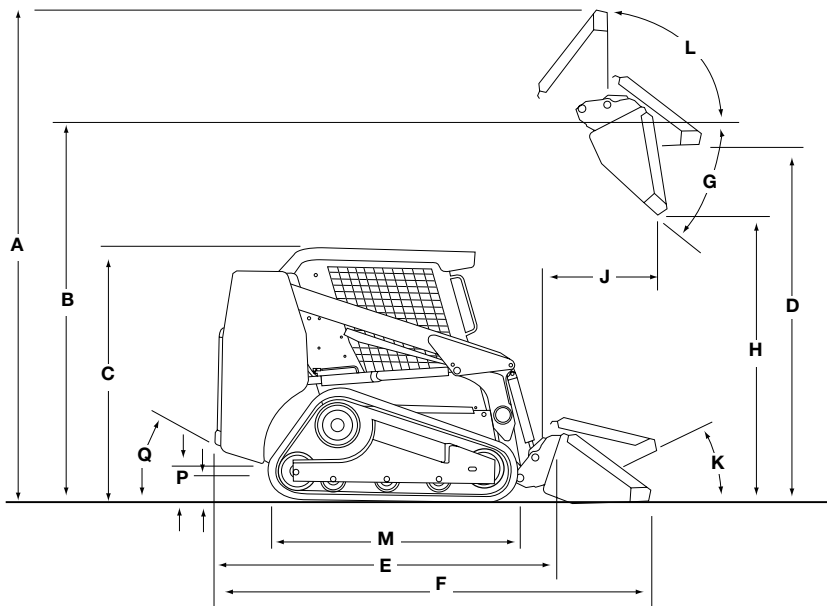
Engine cooling system 18 qt (17 L)

Hydraulic system

Reservoir	7.1 gal (26.8 L)
Total	13.2 gal (50.0 L)

TRACK SELECTION

	Area in ² (cm ²)	Ground Pressure psi (kPa)	Width to Outside of Track in (mm)
12.6 in (320 mm)	1,424 (9187)	5.2 (35.8)	65 (1651)



DIMENSIONS*

A. Overall operating height	
w/foundry/excavating bucket – short lip	145.3 in (3.69 m)
w/low profile bucket – standard lip	150.9 in (3.83 m)
w/low profile extended bucket – long lip	155.9 in (3.96 m)
Height to	
B. Bucket hinge pin	114.6 in (2.91 m)
C. Top of rollover protective structure	75.5 in (1.92 m)
D. Bottom of level bucket, loader arm fully raised	107.3 in (2.72 m)
Overall length	
E. w/o attachment w/coupler	100 in (2.54 m)
F. w/foundry/excavating bucket on ground	123.2 in (3.13 m)
F. w/low profile bucket on ground	129 in (3.28 m)
F. w/low profile extended bucket on ground	134 in (3.40 m)
G. Dump angle at maximum height	40°
H. Dump height – loader arm fully raised*	
w/foundry/excavating bucket	89.4 in (2.27 m)
w/low profile bucket	85.9 in (2.18 m)
w/low profile extended bucket	82.7 in (2.10 m)
J. Dump reach – loader arm fully raised	
w/foundry/excavating bucket	24.8 in (0.63 m)
w/low profile bucket	29.3 in (0.74 m)
w/low profile extended bucket	33.1 in (0.84 m)
Maximum attachment rollback	
K. Bucket on ground	32°
L. Bucket at full height	80°
M. Length of track on ground	56.5 in (1.4 m)
Ground clearance*	
P. Bottom of belly pan	8 in (203 mm)
Q. Angle of departure*	36°
Clearance circle front*	
R. Less bucket	50.3 in (1.28 m)
S. w/66 in (1.68 m) foundry/excavating bucket on ground	77.5 in (1.97 m)
S. w/66 in (1.68 m) low profile bucket on ground	81.2 in (2.06 m)
S. w/66 in (1.68 m) low profile extended bucket on ground	85.8 in (2.18 m)
T. Clearance circle rear	56.1 in (1.42 m)
V. Track gauge, centerline to centerline	52.4 in (1.3 m)

NOTE: *Equipped with 12.6 in (320 mm) track

PERFORMANCE SPECS

Operating load @ 35%	1,750 lb (794 kg)
Operating load @ 50%	2,500 lb (1134 kg)
Tipping load	5,000 lb (2268 kg)
Breakout force	
Lift cylinder	4,000 lbf (17 793 N)
Bucket cylinder	4,564 lbf (20 702 N)
Dig depth	
w/bucket flat	0 in (0 mm)
Cycle time	
Raise	3.6 seconds
Lower	2.1 seconds
Dump	1.8 seconds
Rollback	1.5 seconds

NOTE: SAE rated lift capacities. Breakout force and cycle time measured with rated load in F/E bucket.

OPTIONAL BUCKETS

Type	Width inch (m)	Weight lb (kg)	Heaped Capacity ft ³ (m ³)
Foundry/ Excavating	66 (1.6)	370 (168)	15.2 (0.43)
	72 (1.8)	390 (177)	16.7 (0.47)
	66 (1.6)	400 (181)	13.2 (0.37)
Low Profile	72 (1.8)	425 (193)	14.5 (0.41)
	66 (1.6)	434 (197)	15.5 (0.44)
Low Profile Extended	72 (1.8)	477 (216)	17.1 (0.48)
	72 (1.8)	434 (197)	23.7 (0.67)
Utility/Light Material	84 (2.1)	497 (225)	27.9 (0.79)
	66 (1.5)	474 (215)	13.3 (0.37)
Heavy Duty Dirt	72 (1.8)	501 (227)	14.6 (0.41)

STANDARD EQUIPMENT

OPERATOR'S COMPARTMENT

ROPS/FOPS canopy w/side screens
Tilt ROPS/FOPS
Instrument panel
Water-shedding vinyl seat
2 in (51 mm) retractable seat belt
Hand throttle
Ergonomic hand controls
Seat bar w/integral armrests
Rear window w/emergency escape feature
Loader control lockout system
Electric brake control
Floor cleanout panel

LOADER

Radial loader arm design
Lift cylinder plumbing guard
Mechanical attachment coupler

OPTIONAL EQUIPMENT

OPERATOR'S COMPARTMENT

Vinyl suspension seat w/2 in (51 mm) retractable seat belt or with shoulder restraint
Vinyl suspension seat w/3 in (76 mm) retractable seat belt
Auxiliary front electric controls
Electric auxiliary hydraulic control
Glass front door w/wiper & washer
Sliding side windows
Heater (deluxe)
Foot throttle
Rubber floor mat with foot rests
Headliner and seal strips
Accessory power outlet

LOADER

Ride control
Hydraulic attachment coupler
Hydraulic self-leveling (raise only)

HYDRAULICS

High-flow auxiliary hydraulics
3050 psi (210 bar) – 32.5 gpm (123 L/min)
Second auxiliary hydraulics
Attachment case drain plumbing

ENGINE

Case 422T/M2 diesel
Integral engine oil cooling
Fuel filter w/water trap
Dual element air cleaner
55 amp alternator
850 CCA 12-volt battery
Glow plug
Heavy-duty radiator

POWERTRAIN

Hydrostatic
Servo controls
SAHR disc parking brakes

HYDRAULICS

Auxiliary hydraulics 3050 psi
(210 bar) – 19.5 gpm (73.8 L/min)
Hydraulic circuit pedal lock
Loader arm-mounted ISO flat face connectors
Auxiliary function lockout override
Loader control lockout system
Loader lift lockout override
3-spool loader control valve
Loader arm float position

OTHER

Integral bumper counterweight
Lockable service access hood
Single-point daily servicing
Halogen lights, 2-front, 1-rear
Rear tail lights
Options harness

ENGINE

Coolant block heater
Aspirator

OTHER

Backup alarm/horn package
Rotating beacon
Lift hooks
Special paint
Language decals
Buckets – see page 3
Bolt-on bucket cutting edges
42 in (1.07 m) and 48 in (1.22 m) pallet forks
Battery disconnect switch / jump start terminals

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

NOTE: All engines meet current EPA emissions requirements.

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

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