CASE CONSTRUCTION

# 440CT

**SERIES 3 COMPACT TRACK LOADER**
**TIER III CERTIFIED**

## ENGINE

| | |
|---|---|
| Model | |
| Case 445T/M3 diesel, Tier III certified | |
| Type | 4-stroke, turbocharged |
| Cylinders | 4 |
| Bore/Stroke | 4.1 in x 5.2 in (104 mm x 132 mm) |
| Displacement | 274 in³ (4.5 L) |
| Fuel injection | Direct |
| Fuel | #2 Diesel |
| Fuel filter | In-line strainer |
| Air intake | Cross-flow |
| Cooling | Liquid |
| Engine speeds (rpm) | |
| High idle – no load | 2415±60 |
| Rated – full load | 2300 |
| Low idle | 1075±75 |
| Horsepower per SAE J1349 | |
| Gross | 90 (67 kW) @ 2300 rpm |
| Net | 83 (63 kW) @ 2300 rpm |
| Peak torque | |
| @ 1300 rpm | 288 lb·ft (390 N·m) |

## ENGINE COOLING

| | |
|---|---|
| Radiator | |
| Core type | Square wave serpentine |
| Core size area | 377 in² (.243 m²) |
| Rows of tubes | 4 |
| Cap pressure | 14.0 psi (97.0 kPa) |
| Fan | |
| Diameter | 18.9 in (480 mm) |
| Ratio | 1.09:1 |
| Water pump | |
| Style | Integral |
| Flow | 29.0 gpm (110 L/min) |
| Engine lubrication | |
| Pump | Deep sump with plate cooler and pressurized under-piston nozzles |
| Pump operating angle ratings | |
| Side-to-side | Rated 35° |
| Fore and aft | Rated 35° |
| Oil filtration | Replaceable, full-flow cartridge |

## POWERTRAIN

| | |
|---|---|
| Drive pump | |
| Tandem, axial piston hydrostatic transmission w/integral charge pump driven directly off engine flywheel | |
| Pump to engine ratio | 1:1 |
| Displacement | 0 to 2.81 in³ (46 cc) |
| Pump flow @ high idle engine rpm | 29.4 gpm (111 L/min) |
| Flow | Bi-directional |
| Charge pressure | 360 psi (24.8 bar) |
| System relief | 5220 psi (360 bar) |
| Controls | Pilot |
| Drive motors | Fixed displacement radial piston |
| Maximum displacement | 18.9 in³ (309 cc) |
| Speed @ high idle engine rpm @ max displacement | 359 rpm |
| Torque @ max displacement and relief pressure | 1308 lb·ft (1774 N·m) |
| Travel speed mph (km/h) | |
| Low range | 5.1 (8.2) |
| High range | 8.0 (12.9) |
| Final drive | Single-reduction planetary |
| Undercarriage | |
| Torque @ max displacement and relief pressure | 3103 lb·ft (4208 N·m) |
| Track adjustment | Hydraulic |
| Frame | Rigid |
| Length of track on ground | 56.6 in (1438 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 on handle or instrument panel, raise seat bar, get off seat, or stop engine

## HYDRAULIC SYSTEM

| | |
|---|---|
| Standard equipment pump | |
| Type | Gear pump |
| Displacement | 2.2 in³/rev (36 cc) |
| Pump flow @ rated engine rpm | |
| Total | 21.9 gpm (83 L/min) |
| Optional high flow @ rated engine rpm | |
| Total | 37.8 gpm (143.1 L/min) |
| Loader control valve | |
| 3-spool open-center series with power beyond port | |
| Relief pressure | 3050 psi (210 bar) |
| Port relief pressures | |
| Loader Raise | 3120 psi (215 bar) |
| Bucket Dump | 3800 psi (260 bar) |
| Bucket Curl | 3350 psi (230 bar) |
| Hydraulic lines | |
| Tubing | 37° JIC Flare |
| Loop hoses | SAE 100 R12 |
| Hydraulic oil cooler | |
| Core type | 4 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 |
| 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 |

## ELECTRICAL SYSTEM

| | |
|---|---|
| Alternator | 95 amp |
| Starter | 2.7 kW |
| Battery | |
| 12-volt low-maintenance 1125 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 panels |
| Suspension vinyl seat |
| 2 in (51 mm) retractable seat belt |
| Hand throttle |
| Foot throttle |
| Alarm package |
| Headliner |
| Top window |
| Cup holder |
| 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 |

## CYLINDERS

| | |
|---|---|
| Lift cylinder | |
| Bore diameter | 2.5 in (63.5 mm) |
| Rod diameter | 1.5 in (38.1 mm) |
| Stroke | 35.8 in (910 mm) |
| Closed length | 46.8 in (1190 mm) |
| Bucket cylinder | |
| Bore diameter | 3.0 in (76.2 mm) |
| Rod diameter | 1.5 in (38.1 mm) |
| Stroke | 14.6 in (370 mm) |
| Closed length | 26.9 in (683 mm) |

## OPERATING WEIGHTS

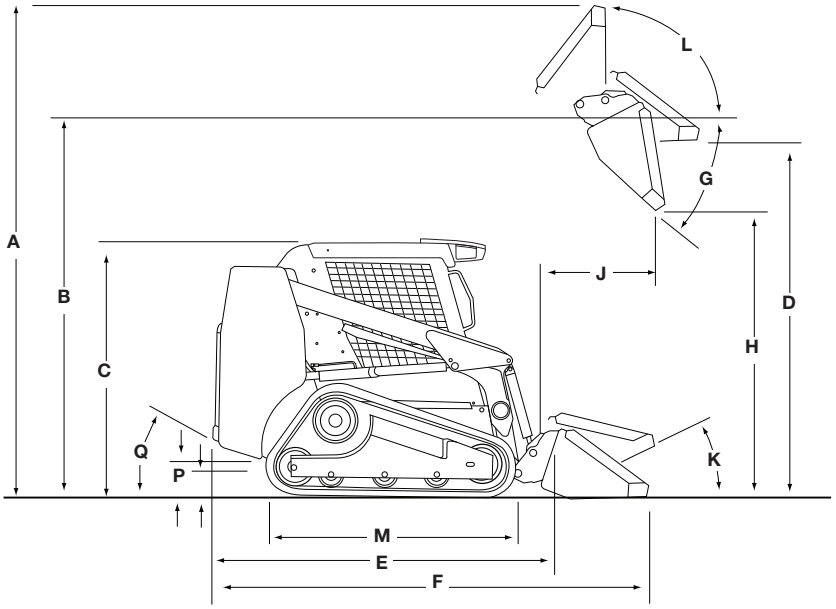
| | |
|---|---|
| Unit equipped with 15.7 in (400 mm) track, 72 in (1.8 m) foundry/excavating bucket, mechanical attachment coupler, full fuel tank and 165 lb (75 kg) operator | 8,925 lb (4048 kg) |
| Shipping weight | 8255 lb (3744 kg) |
| Add-on weights | |
| Side cab glass | +70 lb (32 kg) |
| Glass door with wiper | +77 lb (35 kg) |
| Suspension seat | +10 lb (4.5 kg) |

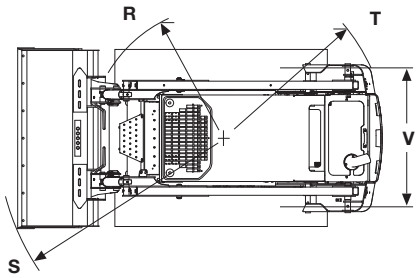
## SERVICE CAPACITIES

| | |
|---|---|
| Fuel tank | 23.3 gal (88.2 L) |
| Engine oil w/filter | 12.7 qt (12 L) |
| Engine cooling system | 3 gal (11.4 L) |
| Hydraulic system | |
| Reservoir | 7.1 gal (26.8 L) |
| Total | 13.2 gal (50 L) |
| Chain tanks (per side) | 8 qt (7.6 L) |

## TRACK SELECTION

| | Area<br>$in^2$ ($cm^2$) | Ground Pressure<br>psi (kPa) | Width to Outside of Track<br>in (mm) |
|---|---|---|---|
| 15.7 in (400 mm) | 1,780 (11 488) | 5.0 (34.5) | 71.3 (1812) |




## DIMENSIONS*

| | | |
|---|---|---|
| **A.** | Overall operating height | |
| | w/foundry/excavating bucket – short lip | 154.0 in (3.91 m) |
| | w/low profile bucket – standard lip | 159.6 in (4.05 m) |
| | w/low profile extended bucket – long lip | 164.6 in (4.18 m) |
| | Height to | |
| **B.** | Bucket hinge pin | 121.7 in (3.09 m) |
| **C.** | Top of rollover protective structure | 80.6 in (2.05 m) |
| **D.** | Bottom of level bucket, loader arm fully raised | 114.2 in (2.90 m) |
| | Overall length | |
| **E.** | w/o attachment w/coupler | 102.5 in (2.6 m) |
| **F.** | w/foundry/excavating bucket on ground | 129.4 in (3.29 m) |
| **F.** | w/low profile bucket on ground | 135.1 in (3.43 m) |
| **F.** | w/low profile extended bucket on ground | 143.6 in (3.65 m) |
| **G.** | Dump angle at maximum height | 39° |
| **H.** | Dump height – loader arm fully raised* | |
| | w/foundry/excavating bucket | 96.0 in (2.43 m) |
| | w/low profile bucket | 92.5 in (2.35 m) |
| | w/low profile extended bucket | 89.4 in (2.27 m) |
| **J.** | Dump reach – loader arm fully raised | |
| | w/foundry/excavating bucket | 24.6 in (0.62 m) |
| | w/low profile bucket | 29.1 in (0.74 m) |
| | w/low profile extended bucket | 32.9 in (0.84 m) |
| | Maximum attachment rollback | |
| **K.** | Bucket on ground | 29° |
| **L.** | Bucket at full height | 96° |
| **M.** | Length of track on ground | 56.6 in (1.4 m) |
| | Ground clearance | |
| **P.** | Bottom of belly pan | 9.3 in (236 mm) |
| **Q.** | Angle of departure | 34° |
| | Clearance circle front | |
| **R.** | Less bucket | 53.6 in (1.36 m) |
| **S.** | w/72 in (1.8 m) foundry/excavating bucket on ground | 79.4 in (2.02 m) |
| **S.** | w/72 in (1.8 m) low profile bucket on ground | 83 in (2.10 m) |
| **S.** | w/72 in (1.8 m) low profile extended bucket on ground | 87.5 in (2.22 m) |
| **T.** | Clearance circle rear | 57.0 in (1.45 m) |
| **V.** | Track gauge, centerline to centerline | 55.6 in (1.41 m) |

NOTE:*Equipped with 15.7 in (400 mm) track

## PERFORMANCE SPECS

| | |
|---|---|
| Operating load @ 35% | 2,100 lb (952 kg) |
| Operating load @ 50% | 3,000 lb (1361 kg) |
| Tipping load | 6,000 lb (2721 kg) |
| Breakout force | |
| Lift cylinder | 5,000 lbf (22 241 N) |
| Bucket cylinder | 7,400 lbf (32 917 N) |
| Dig depth | |
| w/bucket flat | 0 in (0 mm) |
| Cycle time | |
| Raise | 4.1 seconds |
| Lower | 2.6 seconds |
| Dump | 1.7 seconds |
| Rollback | 1.9 seconds |

NOTE: SAE rated lift capacities.

## OPTIONAL BUCKETS

| Type | Width inch (m) | Weight lb (kg) | Heaped Capacity ft³ (m³) |
|---|---|---|---|
| Foundry/ Excavating | 72 (1.8) | 390 (177) | 16.7 (0.47) |
| | 78 (2.0) | 435 (197) | 18.4 (0.52) |
| Low Profile | 72 (1.8) | 425 (193) | 14.5 (0.41) |
| Low Profile Extended | 72 (1.8) | 477 (216) | 17.1 (0.48) |
| | 78 (2.0) | 502 (228) | 18.6 (0.53) |
| Utility/Light Material | 72 (1.8) | 434 (197) | 23.7 (0.67) |
| | 84 (2.1) | 497 (225) | 27.9 (0.79) |
| Heavy Duty Dirt | 72 (1.8) | 501 (227) | 14.6 (0.41) |
| | 78 (2.0) | 527 (239) | 15.9 (0.45) |

## STANDARD EQUIPMENT

**OPERATOR'S COMPARTMENT**

ROPS/FOPS level 1 canopy w/side screens
Tilt ROPS/FOPS
Rear window w/emergency escape
Instrument panels
Suspension vinyl seat
2 in (51 mm) retractable seat belt
Hand throttle
Foot throttle
Alarm package
Headliner
Top window
Cup holder
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

**LOADER**

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

**ENGINE**

Case 445T/M3 diesel
Tier III certified
Automatic fan belt tensioner
Battery disconnect switch w/jumpstart terminals
Side-by-side radiator and oil cooler
Grid heater
Integral engine oil cooling
Fuel filter w/water trap
Dual element air cleaner
95 amp alternator
1125 CCA 12-volt battery

**POWERTRAIN**

Pilot controls
SAHR disc parking brakes
2 speed ground drive

**HYDRAULICS**

Auxiliary hydraulics 3050 psi
(210 bar) – 23.8 gpm (90 L/min)
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

**OTHER**

Integral bumper counterweight
Lockable service access hood
Single-point daily servicing
Halogen lights, 2-front, 2 side, 1-rear (halogen)
Rear tail lights
Two speed ground drive
Lift cylinder plumbing guards
Remote oil drain

## OPTIONAL EQUIPMENT

**OPERATOR'S COMPARTMENT**

Deluxe cloth suspension seat w/heater and lumbar support
Interior mirror
Electric auxiliary hydraulic control
Glass front door w/wiper & washer
Sliding side windows
3 inch retractable seat belt
Heater (deluxe)
Heater and AC
Radio
Demolition door

**LOADER**

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

**HYDRAULICS**

High-flow auxiliary hydraulics
3050 psi (210 bar) – 33.2 gpm (126 L/min)
Second auxiliary hydraulics
Attachment case drain plumbing

**ENGINE**

Coolant block heater

**OTHER**

Deluxe instrument panel
Road lights
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

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

NOTE: All engines meet current EPA emissions requirements.

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