

21 E ARTICULATED WHEEL LOADER TIER III CERTIFIED | SERIES 3

ENGINE

Model	Case 432T/M3
Туре	4-stroke
Cylinders	4
Bore/Stroke	3.89 in x 4.09 in (99 X 104 mm)
Displacement	195 in³ (3.2 L)
Fuel injection	Direct
Fuel	#2 Diesel
Fuel filter	Replaceable, full flow spin-on cartridge
Air filter w/wa	Dry type element rning restriction indicator
Radiator	
Core type	Staggered
Fan	
Style	Direct drive
Lubrication/cooling	oil pump
Style	Integral
Engine oil	
Pump	Deep sump plate cooler with pressurized under-piston nozzles
Pump operating ar	•
Side-to-side	Rated 35°
Fore and aft Oil filtration	Rated 35°
	Replaceable, full flow spin-on cartridge
Engine speeds (rpm))
Rated speed, full le Low idle High idle, no load	oad 2300 825–875 2650-2750
Horsepower - Rated	1

Torque rise @ 2000 rpm NOTE: Gross horsepower and torque per ISO 9249.

Net horsepower and torque per ISO 9249.

Gross

Gross

Net

Peak torque @ 1400 rpm

Net

54 (41.0 kW) @ 2300 rpm

50 (38.0 kW) @ 2300 rpm

163 lb·ft (221 N·m)

160 lb·ft (217 N·m)

DRIVETRAIN

Transmission	Hydrostatic transmission	
Pump relief 6,743 psi (46 500 kl		
Pump flow	23.3 gpm (88 L/min)	
Differential w/45%	Front limited slip transfer on front axles	
Front axle		
Differential ratio	2.91	
Planetary ratio	6.00	
Final axle ratio	17.45	
Planetaries	Outboard	
Service brakes		
Hydraulically actuated, dry disc w/accumulator to front axle & joint shaft		
Parking brake	g brake Mechanical	
Travel speeds – mph (km/h) w/335/80 R18 tires		
Forward	Reverse	

ELECTRICAL

Voltage	12 Volts, negative ground	
Alternator	95 amp	
Batteries	95 AHR, 900 CCA	

0-3.1 (0-5)

0-12.4 (0-20)

0-3.1 (0-5)

0-12.4 (0-20)

NOTE: Travel speeds at full engine throttle.

LOADER

Low

High

Versa-Boom loader linkage
Single control for lift and tilt
Positive hold float
Hydraulic skid steer compatible attachment coupler

CYCLE TIME

Raise w/rated bucket load	6.0 sec
Dump w/rated bucket load	
Versa-Boom	1.0 sec
Lower (empty)	
Float down	3.0 sec

HYDRAULICS

Pump (steering/ implement)	
Open-centered pressure/flow compensated	
Fixed gear type	
13.7 gpm @ 2300 rpm @ 3625 psi (52 L/min @ 2300 rpm @ 25 000 kPa)	
Loader control valve	
Open-center, 1 lever loader control w/forward/neutral/reverse switch, float deter	
Loader auxiliary steering	
Hydraulic orbital center-pivot articulating w/on-demand oil flow	
Main relief pressure 3,626 psi (25 000 kPa)	
Filtration	
15-micron, full flow replaceable cartridges on return line	

CYLINDERS

Lift cylinder			
Bore diameter	3.5 in (90 mm)		
Rod diameter	2.0 in (50 mm)		
Stroke	28.4 in (721 mm)		
Dump cylinder			
Dump cylinder Bore diameter	3.5 in (90 mm)		
	3.5 in (90 mm) 2.0 in (50 mm)		

SERVICE CAPACITIES

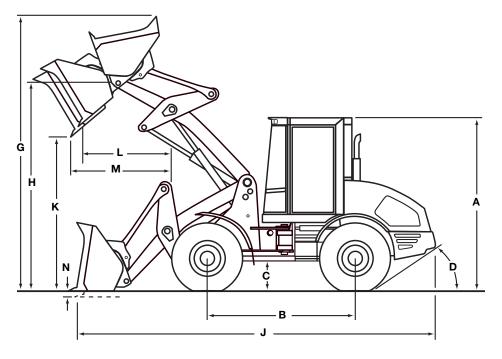
Fuel tank	26.0 gal (100 L)
Hydraulic system	
Total	14.8 gal (56 L)
Reservoir	10.5 gal (40 L)
Front and rear axle	
Total axle (each)	2 gal (7.5 L)
Engine oil w/filter	2.3 gal (8.5 L)
Cooling	4.4 gal (16.5 L)

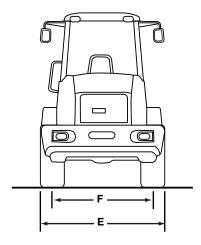
OPERATING WEIGHTS

Versa-Boom

Unit equipped with ROPS cab with heater, standard counterweight, 335/80 R18 Dunlop tires, front and rear fenders, 0.9 yd3 (0.7 m3) general purpose loader bucket w/edge, full fuel, 165 lb (75 kg) operator 10,173 lb (4615 kg)

With optional	
counterweight	10,459 lb (4745 kg)





DIMENSIONS

	Height to -	
A.	Top of ROPS cab	106.7 in (2711 mm)
3.	Wheelbase	85.9 in (2182 mm)
Э.	Ground clearance under shaft	16.0 in (415 mm)
Э.	Ground clearance under axles	13.0 in (330 mm)
) .	Angle of departure	35°
	Width –	
E.	Overall* w/o bucket	73.1 in (1857 mm)
	Centerline tread	58.3 in (1480 mm)
	Turning radius* – outside	151.4 in (3847 mm)
	Turning angle –	
	From center	41°
	Total angle	82°
	Rear axle oscillation, total	24°

NOTE: *Dimensions taken with 335/80 R18 tires. Additional dimensions on pages 3 & 4.

PERFORMANCE DATA

	1.0 yd ³ GP (0.8 m ³)	0.9 yd³ GP (0.7 m³)
21E Versa-Boom	Bucket w/Bolt-on Edge	Bucket w/Bolt-on Edge
SAE bucket capacity – struck	0.92 yd³ (0.70 m³)	0.73 yd³ (0.56 m³)
Heaped	1.05 yd³ (0.80 m³)	0.92 yd³ (0.70 m³)
Bucket width - outside	74.8 in (1900 mm)	74.8 in (1900 mm)
Bucket weight	765 lb (347 kg)	731 lb (331 kg)
G. Operating height – fully raised w/spillguard	165.6 in (4207 mm)	163.8 in (4160 mm)
Hinge pin height – fully raised	127.7 in (3243 mm)	127.7 in (3243 mm)
Overall length – bucket level on ground	211.8 in (5380 mm)	209.8 in (5330 mm)
Dump angle – fully raised	45°	45°
C. Dump height – fully raised, 45° dump	98.2 in (2494 mm)	99.6 in (2529 mm)
Bucket reach – fully raised, 45° dump	33.9 in (860 mm)	32.5 in (825 mm)
1. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	46.5 in (1182 mm)	46.1 in (1172 mm)
J. Dig depth	3.6 in (92 mm)	3.6 in (92 mm)
Operating load – ISO	3,228 lb (1464 kg)	3,245 lb (1472 kg)
Maximum material density – ISO	3,084 lb/yd³ (1830 kg/m³)	3,543 lb/yd3 (2102 kg/m3)
Tipping load - ISO		
Straight	7.344 lb (3331 kg)	7,377 lb (3346 kg)
Straight w/optional counterweight	7,831 lb (3552 kg)	7,864 lb (3567 kg)
40° turn	6,457 lb (2929 kg)	6,489 lb (2944 kg)
40° turn w/optional counterweight	6,944 lb (3116 kg)	6,976 lb (3131 kg)
Lift capacity –		
Full height	4,729 lb (2145 kg)	4,767 lb (2162 kg)
Maximum reach	6,522 lb (2958 kg)	6,553 lb (2973 kg)
Ground	9,368 lb (4249 kg)	9,397 lb (4262 kg)
Breakout force w/tilt cylinder	7,801 lb (3,538 kg)	8,386 lb (3804 kg)
Maximum rollback –		
Ground	46°	46°
Carry position	52°	52°
@ Maximum reach	53°	53°
@ Full height	54°	54°
Maximum grading angle w/bucket – back dragging	111°	109°
Loader clearance circle	341.3 in (8669 mm)	340.2 in (8641 mm)

47.2 in (1200 mm) Forks

Fork weight	816 lb (370 kg)
Operating load – level ground	3,619 lb (1642 kg)
Tipping load – straight	5,176 lb (2348 kg)
Tipping load – 40° turn	4,524 lb (2052 kg)
Fork load center	19.7 in (500 mm)

INSTRUMENTATION

ELECTRONIC INFORMATION CENTER

DISPLAYS/GAUGES

Fuel level

Hourmeter

Engine oil temperature

INDICATOR LIGHTS

Hydraulic oil temperature

Alternator

Work lights*

Brake pressure

Parking brake

Air conditioning

Air filter restriction

Travel direction F/R

INDICATOR LIGHTS (CONTINUED)

Speed range selected

High beam lights

Turn signal indicator

Engine oil temperature

Engine oil pressure

Preheating indicator lamp

AUDIBLE ALARMS

Caution alarm

Critical alarm

Backup alarm

HORN

NOTE: *If equipped with option.

OPERATOR ENVIRONMENT

Cab w/heat

Key start

Articulated power steering w/tilt column

Fully adjustable, cloth suspension seat

Foot throttle

Single lever electronic speed shift control, F/N/R switch in loader control handle

Cup holder

Retractable seat belt

Storage tray

Sun screen - front

Defroster

Opening side window - 180°

Dome light

Wipers rear & front

12-volt auxiliary power

External rearview mirrors

R.H. steps

Coat hook

Loader control lockout

STANDARD EQUIPMENT

FNGINE

Case 432T/M3

Fuel filter w/water trap

Dual element air cleaner

LOADER

See page 1

DRIVETRAIN

4-wheel drive

Hydrostatic transmission

Single lever electronic speed shift control, F/N/R switch in loader control handle

Tiyulostati

DRIVETRAIN (CONTINUED)

Outboard planetary axles

Limited slip differential, front axle

Transmission oil cooler

Hydraulic dry disc brakes

Mechanical parking brake

HYDRAULICS

3-spool loader control valve

(8) Diagnostic quick couplers

OTHER

Front and rear fenders

Lights -

(2) Front flood lights

(2) Front driving headlights (high/low beam)

(2) Stop/tail lights and backup light

Front and rear turn signal/flash

Drawbar pin

Articulation locking pin

Tie-down points - front/rear

Backup alarm

Wired for radio

Bucket position indicator

OPTIONAL EQUIPMENT

OPERATOR'S COMPARTMENT

Rotating beacon

Limited slip option, rear axle

Air conditioning

Radio ready antenna and speakers

Open ROPS

OTHER

(2) Rear flood lights

Tool box

LOADER

Buckets (see page 3)

General Purpose

4-IN-1

Forks

Ride control

Return To Dig

TIRES

335/80 R18 SPT9

335/80 R20 VUT

COUNTERWEIGHT

286 lb. (130 kg)

Mounts on rear chassis

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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