

321 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/wai	Dry type element rning restriction indicator
Radiator	
Core type	Staggered
Fan	
Style	Direct drive
Lubrication/cooling of	oil pump
Style	Integral
Engine oil	
Pump Pump operating ar	Deep sump plate cooler with pressurized under-piston nozzles
Side-to-side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, ull flow spin-on cartridge
Engine speeds (rpm)	
Rated speed, full lo Low idle High idle, no load	825–875 2650-2750
Horsepower - Rated	

NOTE: Gross horsepower and torque per ISO 9249. Net horsepower and torque per ISO 9249.

82 (61 kW) @ 2500 rpm

77 (57 kW) @ 2500 rpm

229 lb·ft (310 N·m)

226 lb·ft (306 N·m)

Gross

Gross

Torque rise

Net

Peak torque @ 1400 rpm

Net

DRIVETRAIN

Transmission		Hydrostatic transmission
Pump reli	ef	6,773 psi (46 700 kPa)
Pump flov	N	43.1 gpm (163.3 L/min)
Differentia	••	Limited slip % transfer on front axles
Front and	rear axle	
Differen	tial ratio	3.46
Planeta	ry ratio	6.00
Final ax	le ratio	22.00
Planetaries		Outboard
Service b	rakes	
•	•	ted, dry disc ront axle & joint shaft
Parking b	rake	Mechanical
•		
Travel spe w/405/70	eds – mph	(km/h)
•	eds – mph	(km/h)
	eeds – mph R20 tires	Reverse

Optional HTS (High Travel Speed)

	Forward	Reverse
Low	0-3.7 (0-6)	0-3.7 (0-6)
High	0-10.3 (0-16.5)	0-10.3 (0-16.5)
HTS enga	ged	
	0-21.7 (0-35)	0-21.7 (0-35)

NOTE: Travel speeds at full engine throttle.

ELECTRICAL

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

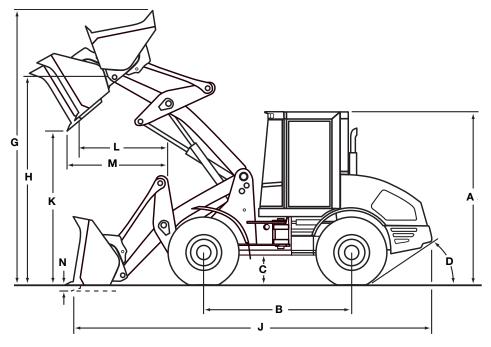
HYDRAULICS

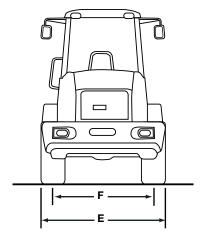
Pump (steering/implement)	
Open-centered pressure/flow compensated	
Fixed gear type	
21.1 gpm @ 2500 rpm @ 3916 psi (80 L/min @ 2500 rpm @ 27 000 kPa)	
Loader control valve	
Open-center, 1 lever loader control w/ forward/reverse switch, detents in float	
Loader auxiliary steering	
Hydraulic orbital center-pivot articulating w/on-demand oil flow	
Main relief pressure @ valve 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)





DIMENSIONS

	Height to –	
<u>A.</u>	Top of ROPS cab	110.5 in (2806 mm)
В.	Wheelbase	92.5 in (2350 mm)
C.	Ground clearance under shaft	16.0 in (415 mm)
C.	Ground clearance under axles	13.0 in (330 mm)
D.	Angle of departure	35°
	Width –	
E.	Overall* w/o bucket	79.6 in (1981 mm)
F.	Centerline tread	61.8 in (1570 mm)
	Turning radius* – outside	163.5 in (4154 mm)
	Turning angle –	
	From center	41°
	Total angle	82°
	Rear axle oscillation, total	24°

NOTE: *Dimensions taken with 405/70 R20 tires. Additional dimensions on pages 3 & 4.

PERFORMANCE DATA

	1.44 yd³ GP (1.10 m³)	1.31 yd³ GP (1.00 m³)
321E Versa-Boom	Bucket w/Bolt-on Edge	Bucket w/Bolt-on Edge
SAE bucket capacity – struck	1.18 yd³ (0.90 m³)	1.09 yd³ (0.84 m³)
Heaped	1.44 yd³ (1.10 m³)	1.31 yd³ (1.00 m³)
Bucket width - outside	82.7 in (2100 mm)	82.7 in (2100 mm)
Bucket weight	999 lb (453 kg)	948 lb (430 kg)
Operating height – fully raised w/spillguard	178.7 in (4539 mm)	176.2 in (4476 mm)
Hinge pin height – fully raised	136.2 in (3459 mm)	136.2 in (3459 mm)
Overall length – bucket level on ground	226.6 in (5755 mm)	224.5 in (5703 mm)
Dump angle – fully raised	45°	45°
C. Dump height – fully raised, 45° dump	103.8 in (2635 mm)	105.2 in (2671 mm)
. Bucket reach - fully raised, 45° dump	34.9 in (888 mm)	33.6 in (852 mm)
1. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	51.7 in (1314 mm)	51.2 in (1300 mm)
J. Dig depth	3.5 in (88 mm)	3.5 in (88 mm)
Operating load - ISO	4,139 lb (1877 kg)	4,140 lb (1878 kg)
Maximum material density – ISO	2,877 lb/yd³ (1707 kg/m³)	3,166 lb/yd³ (1878 kg/m³)
Tipping load – ISO		
Straight	9,744 lb (4420 kg)	9,741 lb (4418 kg)
Straight w/ optional counterweight	10,302 lb (4673 kg)	10,299 lb (4671 kg)
40° turn	8,277 lb (3,755 kg)	8,281 lb (3756 kg)
40° turn w/ optional counterweight	8,750 lb (3969 kg)	8,754 lb (3970 kg)
Lift capacity –		
Full height	7,100 lb (3221 kg)	7,150 lb (3243 kg)
Maximum reach	9,564 lb (4338 kg)	9,615 lb (4361 kg)
Ground	13,355 lb (6058 kg)	13,405 lb (6080 kg)
Breakout force w/tilt cylinder	11,241 lb (5099 kg)	11,982 lb (5435 kg)
Maximum rollback –		
Ground	47°	47°
Carry position	52°	52°
@ Maximum reach	54°	54°
@ Full height	54°	54°
Maximum grading angle w/bucket – back dragging	111°	109°
Loader clearance circle	367.6 in (9337 mm)	366.5 in (9310 mm)

47.2 in	(1200 mm	ı) Forks
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Fork weight	816 lb (370 kg)
Operating load – level ground	4,885 lb (2216 kg)
Tipping load – straight	7,197 lb (3265 kg)
Tipping load - 40° turn	6,106 lb (2770 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

Speed range selected

Shift pressure*

Turn signal indicator

Engine oil temperature

Engine oil pressure

Preheating indicator lamp

High beam lights

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

LOADER

Versa-Boom loader linkage
Single control for lift and tilt
Positive hold float
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

SERVICE CAPACITIES

Fuel tank	26.0 gal (100 L)
Hydraulic system	
Total	19.5 gal (74 L)
Reservoir	10.5 gal (40 L)
Front and rear axle	
Total axle (each)	2.11 gal (8.0 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, 405/70 R20 Dunlop tires, front and rear fenders, 1.31 yd³ (1.0 m³) general purpose loader bucket w/edge, full fuel, 165 lb (75 kg) operator 12,676 lb (5750 kg)

With optional	
counterweight	12,997 lb (5896 kg)

STANDARD EQUIPMENT

OPERATOR'S ENVIRONMENT

See page 4

ENGINE

Case 432T/M3

Fuel filter w/water trap

Dual element air cleaner

95 amp alternator

(1) 900 CCA 12-volt battery

Liquid-cooled radiator

LOADER

See page 4

DRIVETRAIN

4-wheel drive

Hydrostatic transmission

Single lever electronic speed shift control,

F/N/R switch in loader control handle

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

Auxiliary hydraulics

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

Cab air conditioning w/heater

Rotating beacon

Limited slip rear axle

High travel speed (HTS)

0-21.7 mph (0-35 km/h)

Radio ready antenna and speakers

OTHER

(2) Rear flood lights

Tool box

LOADER

Buckets (see page 3)

General Purpose

4-IN-1

Forks

Ride Control

Return To Dig

TIRES

405/70 R20 EM SPT9 405/75 R20 XM27

14.5 x 20 MPT E91

COUNTERWEIGHT

321 lb (146 kg)

Mounts on rear chassis

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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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