

Product Specifications For 140 / 140 AWD JOY



Engine

Net Power Range (Tier 4)	179 hp
Engine Model	Cat® C9.3
Bore	4.5 in
Stroke	5.9 in
Speed at Rated Power	2,000 rpm
VHP Plus - Gear - Net Power - Forward 4th	210 hp
VHP Plus - Gear - Net Power - Forward 8th	231 hp
Base Power (1st Gear) - Net - Metric	181 hp
Maximum Torque - VHP Plus	840 lb/ft
VHP Plus Range - Net - Metric	133-172 kW (181-234 hp)
Standard Capability	109 °F
VHP Plus - Gear - Net Power - Forward 2nd	189 hp
VHP Plus - Gear - Net Power - Forward 3rd	200 hp
VHP Plus - Gear - Net Power - Forward 1st	179 hp
Emissions	U.S. EPA Tier 4 Final/EU Stage V
VHP Plus - Gear - Net Power - Reverse 2nd	189 hp
VHP Plus - Gear - Net Power - Forward 5th	215 hp

VHP Plus - Gear - Net Power - Reverse 1st	179 hp
VHP Plus - Gear - Net Power - Forward 7th	225 hp
VHP Plus - Gear - Net Power - Forward 6th	220 hp
VHP Plus - Gear - Net Power - Reverse 3rd-6th	200 hp
High Ambient - Fan Speed - Standard	1,400 rpm
VHP Plus Range - Net	133-172 kW (179-231 hp)
Torque Rise	38%
Displacement	567.5 in ³
Number of Cylinders	6
Derating Altitude	10000 ft
High Ambient - Fan Speed - Maximum	1,550 rpm
High Ambient - Fan Speed - Minimum	500 rpm
High - Ambient Capability	122 °F

Weights

Operating Weight - Typically Equipped	42647 lb
Gross Vehicle Weight - Maximum - Front Axle	17075 lb
Gross Vehicle Weight - Maximum - Rear Axle	38069 lb
Operating Weight - Typically Equipped - Front Axle	12055 lb
Operating Weight - Typically Equipped - Rear Axle	30592 lb

Gross Vehicle Weight - Base - Front Axle	9343 lb
Gross Vehicle Weight - Base - Rear Axle	28077 lb
Gross Vehicle Weight - Maximum - Total	55144 lb
Gross Vehicle Weight - Base - Total	37420 lb
Operating Weight - Typically Equipped - Total	42647 lb

Moldboard

Blade Width	12 ft
Moldboard - Height	24 in
Moldboard - Thickness	0.87 in
Arc Radius	16.3 in
Throat Clearance	6.5 in
Cutting Edge Width	6 in
Cutting Edge Thickness	0.6 in
End Bit - Width	6 in
End Bit - Thickness	0.6 in
Blade Pull - Base GVW	25269 lb
Blade Pull - Maximum GVW	34262 lb
Blade Down Pressure - Base GVW	16038 lb
Blade Down Pressure - Maximum GVW	29309 lb

Moldboard - Blade Width	12 ft
Operating Specifications	
Top Speed - Forward	29 mile/h
Top Speed - Reverse	23 mile/h
Turning Radius - Outside Front Tires	25.59 ft
Steering Range - Left/Right	50°
Articulation Angle - Left/Right	20°
Forward - 1st	2.5 mile/h
Forward - 2nd	3.4 mile/h
Forward - 3rd	5 mile/h
Forward - 4th	6.9 mile/h
Forward - 5th	10.6 mile/h
Forward - 6th	14.5 mile/h
Forward - 7th	19.9 mile/h
Forward - 8th	29 mile/h
Reverse - 1st	2 mile/h
Reverse - 2nd	3.7 mile/h
Reverse - 3rd	5.4 mile/h
Reverse - 4th	8.4 mile/h

Reverse - 5th	15.7 mile/h
Reverse - 6th	23 mile/h

Service Refill

Fuel Capacity	104 gal (US)
Cooling System	15 gal (US)
Hydraulic System - Total	26.4 gal (US)
Hydraulic System - Tank	16.9 gal (US)
Diesel Exhaust Fluid	5.8 gal (US)
Transmission - Differential - Final Drives	18.5 gal (US)
Engine Oil	7.9 gal (US)
Tandem Housing - Each	20 gal (US)
Front Wheel Spindle Bearing Housing	0.13 gal (US)
Circle Drive Housing	1.8 gal (US)

Power Train

Forward/Reverse Gears	8 Forward/6 Reverse
Transmission	APECS, Direct Drive, Powershift
Brakes - Service	Multiple Oil Disc
Brakes - Service - Surface Area	3565 in²
Brakes - Parking	Multiple Oil Disc
Brakes - Secondary	Dual Circuit

Hydraulic System

Circuit Type	Parallel
Pump Type	Variable Piston
Pump Output	55.7 gpm
Maximum System Pressure	3500 psi
Reservoir Tank Capacity	16.9 gal (US)
Standby Pressure	885 psi

Frame

Drawbar - Width	3 in
Circle - Diameter	60.2 in
Circle - Blade Beam Thickness	1.6 in
Drawbar - Height	6 in
Front Frame Structure - Width	12 in
Circle - Height	5.4 in
Front Frame Structure - Height	12.6 in
Drawbar - Thickness	0.5 in
Front-Top/Bottom Plate - Width	12 in
Front-Top/Bottom Plate - Thickness	0.87 in
Front Axle - Height to Center	23.5 in

Front Axle - Wheel Lean - Left/Right	18°
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Front Axle - Total Oscillation per Side

32°

Blade Range

Circle Centershift - Right

28.7 in

Circle Centershift - Left

27.4 in

Moldboard Sideshift - Right

26 in

Moldboard Sideshift - Left

20.1 in

Maximum Blade Position Angle

90°

Blade Tip Range - Forward

40°

Blade Tip Range - Backward

5°

Maximum Shoulder Reach Outside of Tires - Right

77.9 in

Maximum Shoulder Reach Outside of Tires - Left

70.5 in

Maximum Lift Above Ground

18.9 in

Maximum Depth of Cut

28.1 in

Ripper

Ripping Depth - Maximum

16.8 in

Ripper Shank Holder Spacing

21 in

Ripper Shank Holders

5

Penetration Force

20812 lb

Pry-Out Force

27794 lb

Machine Length Increase, Beam Raised

40.6 in

Scarifier

Mid, V-Type - Working Width	46.6 in
Front, V-Type, 5 or 11 Tooth - Scarifying Depth, Maximum	18.4 in
Mid, V-Type - Scarifying Depth, Maximum	11.5 in
Rear - Scarifying Depth, Maximum	16.8 in
Front, V-Type - Working Width	47.4 in
Front, V-Type, 5 or 11 Tooth - Scarifier Shank Holder Spacing	4.6 in
Front, V-Type, 5 or 11 Tooth - Working Width	40.6 in
Mid, V-Type - Scarifier Shank Holders	11
Mid, V-Type - Scarifier Shank Holder Spacing	4.6 in
Front, V-Type, 5 or 11 Tooth - Scarifier Shank Holders	11-May
Rear - Working Width	84 in
Rear - Scarifier Shank Holders	9
Rear - Scarifier Shank Holder Spacing	10.5 in

Standards

Brakes	ISO 3450
Steering	ISO 5010
Sound	ISO 6394; ISO 6395
ROPS/FOPS	ISO 3471/ISO 3449

Air Conditioning System

Air Conditioning	The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf. See the label or instruction manual for identification of the gas.
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Tandems

Height	19.9 in
Width	7.9 in
Sidewall Thickness - Inner	0.63 in
Sidewall Thickness - Outer	0.71 in
Drive Chain Pitch	2 in
Wheel Axle Spacing	60 in
Tandem Oscillation - Front Up	15°
Tandem Oscillation - Front Down	25°

Dimensions

Height - Top of Cab	130 in
Length - Counterweight to Ripper	399 in
Width - Outside Front Tires	98.9 in
Length - Front Axle to Mid Tandem	241 in
Length - Front Tire to Rear of Machine	351 in
Length - Front Axle to Moldboard	100 in
Length - Between Tandem Axles	60 in
Width - Outside Rear Tires	98.9 in

Width - Tire Center Lines	84.3 in
Height - Front Axle Center	23.5 in
Height - Exhaust Stack	128 in
Height - Top of Cylinders	120 in
Ground Clearance - Rear Axle	13.3 in

140 / 140 AWD JOY Standard Equipment

NOTE

Standard and optional equipment may vary. Consult your Cat dealer for details.

POWERTRAIN

Air cleaner, dual stage, dry type, diesel, with automatic engine derate and automatic dust ejector, service indicator through Cat Messenger

Air-to-air after cooler (ATAAC)

Belt, serpentine, automatic tensioner

Brakes, oil disc, four-wheel, hydraulic

Demand fan, hydraulic, swing-out

Diesel exhaust fluid tank, 22.0 L (5.8 gal) ground level access, and sediment drain

Differential Lock/Unlock, Automatic

Drain, engine oil, ecology

Eco mode

Electronic over speed protection

Engine C9.3 U.S. EPA Tier 4 Final/EU Stage V emission standards

Fuel tank, 394 L (104 gal), ground level access and sediment drain

Parking brake - multi-disc, sealed, oil-cooled

Priming pump, fuel

Rear axle, modular

Sediment drain, fuel tank

Tandem drive

Transmission, 8F/6R, powershift, direct drive, Advanced Productivity Electronic Control Strategy (APECS)

ELECTRICAL

Alarm, back up

Alternator, 150 ampere, sealed

Batteries, maintenance free, heavy duty, 1125 CCA

Breaker panel, ground accessible

Cab harness and electrical hydraulic valves

Electrical system, 24V

Grade Control Ready - Cab harness, software, electrical hydraulic valves, bosses and brackets
Lights, roof-mounted roading, reversing, LED stop and tail
Product Link
Starter, electric

OPERATOR ENVIRONMENT

Accelerator
Air conditioning with heater
Arm and wrist rest, electronically adjustable
Articulation, automatic Return-to-Center
Cat Messenger operator information system
Centershift pin indicator
Coat hook
Cup holder
Display, digital speed and gear
Doors, left and right side with wiper
Gauge, machine level
Gauge cluster (analog) - fuel, articulation, engine coolant temp, engine RPM, hydraulic oil temp, regen, DEF
Hour meter, digital
Joystick hydraulic controls right/left blade lift with float position, circle drive, blade sideshift and tip, centershift, front wheel lean, articulation and power steering
Joystick, adjustable armrests
Joystick gear selection
Joystick hydraulic power steering
Ladders, cab, left and right side
Lights, night time cab
Mirror, inside rearview, wide angle
Power port, 12V
Radio Ready, Entertainment
ROPS cab, sound suppressed 70 dB(A)
Seat, cloth-covered, comfort suspension
Seat belt, retractable 76 mm (3 in)
Storage area for cooler/lunchbox
Throttle control, electronic
Windows, laminated glass: - fixed front with intermittent wiper - door with intermittent wipers (3)
Windows: tempered: - left and right side wipers - rear and intermittent wiper

FLUIDS

Antifreeze
Extended Life Coolant to -35° C (-30° F)

TIRES, RIMS AND WHEELS

Partial allowance for tires on 254 — 607 mm (10 — 24 in) multi-piece rims is included in the base machine price and weight

OTHER STANDARD EQUIPMENT

Accumulators, brake, dual certified
Anti-glare paint
Bumper, rear, integrated with hitch
CD ROM Parts Book
Clutch, circle drive slip
Cutting edges: - 152 — 16 mm (6 — 5/8 in) - curved DH-2 steel - 19 mm (3/4 in) mounting bolts
Doors (3), engine compartment, locking
Drawbar - 6 shoes, replaceable wear strips
Electrical hydraulic valves, hydraulic lines for base 8 functions
Endbits: - 16 mm (5/8 in) DH-2 steel - 19 mm (3/4 in) mounting bolts
Fluid check, ground level
Frame, articulated, with safety lock
Ground level engine shutdown
Hammer (emergency exit)
Horn, electric
Hydraulic lines for base functions
Lockout, hydraulic implement (for roading and servicing)
Moldboard
Mounting, cab roof accessories
Pump, hydraulic, high capacity, 98 cm³ (6 in³)
Radiator, cleanout access (both sides with swing doors)
Secondary steering
Serviceability, LH side
S·O·S ports: engine, hydraulic, transmission, coolant, fuel
Tandem walkway/guards
Tool box

140 / 140 AWD JOY Optional Equipment

NOTE

Standard and optional equipment may vary. Consult your Cat dealer for details.

ELECTRICAL

Alternator, 280 ampere
Batteries: extreme duty, 1,400 CCA
Lights: Headlights, high
Lights: Headlights, low
Lights: Working lights, basic
Lights: Working lights, plus, LED
Lights: Warning: beacon or strobe
Lights: Mounting for warning light

GUARDS

Articulation guard
Fenders, front
Fenders, rear

Front axle guard
Sound suppression (bottom)
Sound suppression (enclosure)
Transmission

OPERATOR ENVIRONMENT

Mirrors, outside: heated 24V
Mirrors, outside: mounted
Comfort Plus Arrangement
Comfort Premium Arrangement

POWERTRAIN

All Wheel Drive
Precleaner, snow
Starter, extreme duty, 1,000 Amps
Transmission, autoshift

OTHER ATTACHMENTS

Attachment Ready Option (ARO)
Integrated cross slope
Accumulators, blade lift
Camera, rearview
Cat Product Link 321SR
Cat Product Link 522
Drain, ecology, engine Wiggins
Heater, engine coolant: 120V
Heater, engine coolant: 240V
Hydraulic arrangements with one or more additional hydraulic valves are available for rear ripper, dozer, snow plow and snow wing.
Snow wing mounting, frame ready
Starting aid, ether
Reversing fan, automatic or manual
Cat Grade with 3D

WORK TOOLS/G.E.T.

Blade extension, left hand, 610 mm (2 ft)
Blade extension, right hand, 610 mm (2 ft)
Counterweight
Cutting edges, curved
Endbits, overlay
Front lift group, mounting
Front lift group, mechanical
Grader bit, narrow and super penetration
Mid-Mount Scarifier, Package
Moldboard: 4267 mm — 610 mm — 22 mm (14 ft — 24 in — 7/8 in)
Moldboard: 4267 mm — 686 mm — 25 mm (14 ft — 27 in — 1 in)

Push plate
Ripper, rear
Ripper tooth
Scarifier, front
Snow Arrangement
Snow Wing Ready Package
Tow hitch

MACHINE ARRANGEMENTS

Canadian Arrangement
European Arrangement
TUV Rooding Arrangement

OPTIONAL TIRE ARRANGEMENTS

Rim Size - 9 × 24; Wheel Group - Single-Piece; Tires - 14.0R24
Rim Size - 13 × 25; Wheel Group - Single-Piece; Tires - 17.5R25
Rim Size - 10 × 24; Wheel Group - Multi-Piece; Tires - 14.0R24
Rim Size - 10 × 24; Wheel Group - Multi-Piece; Tires - 14.0-24
Rim Size - 14 × 25; Wheel Group - Multi-Piece; Tires - 17.5R25
Rim Size - 14 × 25; Wheel Group - Multi-Piece; Tires - 17.5-25
Note: Consult your dealer for individual tire width, size and brand.