

# PRODUCT SPECIFICATIONS FOR 140 / 140 AWD -TIER 4 / STAGE 5



## ENGINE

Net Power Range (Tier 4)	133 kW
Engine Model	Cat® C9.3
Bore	115 mm
Stroke	149 mm
Speed at Rated Power	2,000 rpm
Standard Capability	43 °C
Maximum Torque - VHP Plus	1138 N·m
VHP Plus - Gear - Net Power - Reverse 3rd-6th	149 kW
VHP Plus - Gear - Net Power - Forward 2nd	141 kW
VHP Plus - Gear - Net Power - Forward 5th	160 kW
VHP Plus - Gear - Net Power - Forward 3rd	149 kW
VHP Plus - Gear - Net Power - Forward 8th	172 kW
Torque Rise	38%
VHP Plus - Gear - Net Power - Reverse 2nd	141 kW
VHP Plus - Gear - Net Power - Forward 1st	133 kW
VHP Plus - Gear - Net Power - Forward 6th	164 kW
VHP Plus - Gear - Net Power - Reverse 1st	133 kW

<b>VHP Plus Range - Net</b>	133-172 kW (179-231 hp)
<b>Emissions</b>	U.S. EPA Tier 4 Final/EU Stage V
<b>VHP Plus - Gear - Net Power - Forward 7th</b>	168 kW
<b>VHP Plus Range - Net - Metric</b>	133-172 kW (181-234 hp)
<b>VHP Plus - Gear - Net Power - Forward 4th</b>	156 kW
<b>Base Power (1st Gear) - Net - Metric</b>	133 kW
<b>High Ambient - Fan Speed - Standard</b>	1,400 rpm
<b>Displacement</b>	9.3 l
<b>Number of Cylinders</b>	6
<b>Derating Altitude</b>	3050 m
<b>High Ambient - Fan Speed - Maximum</b>	1,550 rpm
<b>High Ambient - Fan Speed - Minimum</b>	500 rpm
<b>High - Ambient Capability</b>	50 °C

## POWER TRAIN

<b>Forward/Reverse Gears</b>	8 Forward/6 Reverse
<b>Transmission</b>	APECS, Direct Drive, Powershift
<b>Brakes - Service</b>	Multiple Oil Disc
<b>Brakes - Service - Surface Area</b>	23000 cm <sup>2</sup>
<b>Brakes - Parking</b>	Multiple Oil Disc

**Brakes - Secondary**

Dual Circuit

## HYDRAULIC SYSTEM

**Circuit Type**

Parallel

**Pump Type**

Variable Piston

**Pump Output**

210 l/min

**Maximum System Pressure**

24150 kPa

**Reservoir Tank Capacity**

64 l

**Standby Pressure**

6100 kPa

## OPERATING SPECIFICATIONS

**Top Speed - Forward**

46.6 km/h

**Top Speed - Reverse**

36.8 km/h

**Turning Radius - Outside Front Tires**

7.8 m

**Steering Range - Left/Right**

50°

**Articulation Angle - Left/Right**

20°

**Forward - 1st**

4.1 km/h

**Forward - 2nd**

5.5 km/h

**Forward - 3rd**

8 km/h

**Forward - 4th**

11 km/h

**Forward - 5th**

17.1 km/h

<b>Forward - 6th</b>	23.3 km/h
<b>Forward - 7th</b>	32 km/h
<b>Forward - 8th</b>	46.6 km/h
<b>Reverse - 1st</b>	3.2 km/h
<b>Reverse - 2nd</b>	6 km/h
<b>Reverse - 3rd</b>	8.7 km/h
<b>Reverse - 4th</b>	13.5 km/h
<b>Reverse - 5th</b>	25.3 km/h
<b>Reverse - 6th</b>	36.8 km/h

## SERVICE REFILL

<b>Fuel Capacity</b>	394 l
<b>Cooling System</b>	57 l
<b>Hydraulic System - Total</b>	100 l
<b>Hydraulic System - Tank</b>	64 l
<b>Diesel Exhaust Fluid</b>	22 l
<b>Transmission - Differential - Final Drives</b>	70 l
<b>Engine Oil</b>	30 l
<b>Tandem Housing - Each</b>	76 l
<b>Front Wheel Spindle Bearing Housing</b>	0.5 l
<b>Circle Drive Housing</b>	7 l

# FRAME

<b>Drawbar - Width</b>	76.2 mm
<b>Circle - Diameter</b>	1530 mm
<b>Circle - Blade Beam Thickness</b>	40 mm
<b>Drawbar - Height</b>	152 mm
<b>Front Frame Structure - Height</b>	321 mm
<b>Circle - Height</b>	138 mm
<b>Front Frame Structure - Width</b>	305 mm
<b>Drawbar - Thickness</b>	12.7 mm
<b>Front-Top/Bottom Plate - Width</b>	305 mm
<b>Front-Top/Bottom Plate - Thickness</b>	22 mm
<b>Front Axle - Height to Center</b>	596 mm
<b>Front Axle - Wheel Lean - Left/Right</b>	18°
<b>Front Axle - Total Oscillation per Side</b>	32°

# TANDEMS

<b>Height</b>	506 mm
<b>Width</b>	201 mm
<b>Sidewall Thickness - Inner</b>	16 mm
<b>Sidewall Thickness - Outer</b>	18 mm
<b>Drive Chain Pitch</b>	50.8 mm

Wheel Axle Spacing	1523 mm
--------------------	---------

Tandem Oscillation - Front Up	15°
-------------------------------	-----

Tandem Oscillation - Front Down	25°
---------------------------------	-----

## MOLDBOARD

Blade Width	3.7 m
-------------	-------

Moldboard - Height	610 mm
--------------------	--------

Moldboard - Thickness	22 mm
-----------------------	-------

Arc Radius	413 mm
------------	--------

Throat Clearance	166 mm
------------------	--------

Cutting Edge Width	152 mm
--------------------	--------

Cutting Edge Thickness	16 mm
------------------------	-------

End Bit - Width	152 mm
-----------------	--------

End Bit - Thickness	16 mm
---------------------	-------

Blade Pull - Base GVW	11462 kg
-----------------------	----------

Blade Pull - Maximum GVW	15541 kg
--------------------------	----------

Blade Down Pressure - Base GVW	7275 kg
--------------------------------	---------

Blade Down Pressure - Maximum GVW	13294 kg
-----------------------------------	----------

Moldboard - Blade Width	3.7 m
-------------------------	-------

## BLADE RANGE

Blade Pull - Base GVW	7000 kg
-----------------------	---------

<b>Circle Centershift - Right</b>	728 mm
<b>Circle Centershift - Left</b>	695 mm
<b>Moldboard Sideshift - Right</b>	660 mm
<b>Moldboard Sideshift - Left</b>	510 mm
<b>Maximum Blade Position Angle</b>	90°
<b>Blade Tip Range - Forward</b>	40°
<b>Blade Tip Range - Backward</b>	5°
<b>Maximum Shoulder Reach Outside of Tires - Right</b>	1978 mm
<b>Maximum Shoulder Reach Outside of Tires - Left</b>	1790 mm
<b>Maximum Lift Above Ground</b>	480 mm
<b>Maximum Depth of Cut</b>	715 mm

## RIPPER

<b>Ripping Depth - Maximum</b>	426 mm
<b>Ripper Shank Holder Spacing</b>	533 mm
<b>Ripper Shank Holders</b>	5
<b>Penetration Force</b>	9440 kg
<b>Pry-Out Force</b>	12607 kg
<b>Machine Length Increase, Beam Raised</b>	1031 mm

## SCARIFIER

<b>Front, V-Type, 5 or 11 Tooth - Scarifier Shank Holder Spacing</b>	116 mm
--	--------

Front, V-Type, 5 or 11 Tooth - Scarifier Shank Holder Spacing 116 mm

<b>Front, V-Type, 5 or 11 Tooth - Scarifying Depth, Maximum</b>	467 mm
<b>Mid, V-Type - Scarifier Shank Holders</b>	11
<b>Rear - Scarifying Depth, Maximum</b>	426 mm
<b>Front, V-Type, 5 or 11 Tooth - Working Width</b>	1031 mm
<b>Front, V-Type - Working Width</b>	1205 mm
<b>Mid, V-Type - Working Width</b>	1184 mm
<b>Mid, V-Type - Scarifying Depth, Maximum</b>	292 mm
<b>Mid, V-Type - Scarifier Shank Holder Spacing</b>	116 mm
<b>Front, V-Type, 5 or 11 Tooth - Scarifier Shank Holders</b>	11-May
<b>Rear - Working Width</b>	2133 mm
<b>Rear - Scarifier Shank Holders</b>	9
<b>Rear - Scarifier Shank Holder Spacing</b>	267 mm

## WEIGHTS

<b>Operating Weight - Typically Equipped</b>	19344 kg
<b>Gross Vehicle Weight - Maximum - Front Axle</b>	7745 kg
<b>Gross Vehicle Weight - Maximum - Rear Axle</b>	17268 kg
<b>Operating Weight - Typically Equipped - Front Axle</b>	5468 kg
<b>Operating Weight - Typically Equipped - Rear Axle</b>	13876 kg
<b>Gross Vehicle Weight - Base - Front Axle</b>	4238 kg
<b>Gross Vehicle Weight - Base - Rear Axle</b>	12736 kg



<b>Gross Vehicle Weight - Maximum - Total</b>	25013 kg
---	----------

<b>Gross Vehicle Weight - Base - Total</b>	16974 kg
--	----------

<b>Operating Weight - Typically Equipped - Total</b>	19344 kg
--	----------

## DIMENSIONS

<b>Height - Top of Cab</b>	3308 mm
----------------------------	---------

<b>Length - Counterweight to Ripper</b>	10136 mm
---	----------

<b>Width - Outside Front Tires</b>	2511 mm
------------------------------------	---------

<b>Length - Front Axle to Mid Tandem</b>	6123 mm
--	---------

<b>Length - Front Tire to Rear of Machine</b>	8912 mm
---	---------

<b>Length - Front Axle to Moldboard</b>	2552 mm
---	---------

<b>Length - Between Tandem Axles</b>	1523 mm
--------------------------------------	---------

<b>Width - Outside Rear Tires</b>	2511 mm
-----------------------------------	---------

<b>Width - Tire Center Lines</b>	2140 mm
----------------------------------	---------

<b>Height - Front Axle Center</b>	596 mm
-----------------------------------	--------

<b>Height - Exhaust Stack</b>	3256 mm
-------------------------------	---------

<b>Height - Top of Cylinders</b>	3040 mm
----------------------------------	---------

<b>Ground Clearance - Rear Axle</b>	339 mm
-------------------------------------	--------

## STANDARDS

<b>Brakes</b>	ISO 3450
---------------	----------

<b>Sound</b>	ISO 6394; ISO 6395
--------------	--------------------

**Sound** ISO 6394; ISO 6395

**Steering** ISO 5010

**ROPS/FOPS** ISO 3471/ISO 3449

## 140 / 140 AWD - TIER 4 / STAGE 5 STANDARD EQUIPMENT

### NOTE

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

### POWER TRAIN

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

Economy 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

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 cm<sup>3</sup> (6 in<sup>3</sup>)  
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 -TIER 4 / STAGE 5 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

## **POWER TRAIN**

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.