



2290 • 2390 • 2391 • 2491
ZTS Track Feller Bunchers



Built Better Than It Needs To Be

Prentice Zero Tail Swing (ZTS) Feller Bunchers and Harvesters were designed from the ground up for maximum productivity and efficiency under a wide variety of logging conditions. Reliability starts with a rugged undercarriage that can be customized to meet the most challenging forestry applications. Performance extends equally from front to rear with proven Caterpillar engines, comfortable cabs and a sturdy, reliable boom that produces the industry's highest lift capacity throughout full reach.



Powertrain

The Cat® C9 ACERT™ Tier II high torque engine provides excellent power, fuel economy, serviceability and durability. With 5% greater fuel efficiency than its predecessor, and meeting the Tier II emission standards, the Cat C9 ACERT is a dependable performer.

Operator Comfort

The Prentice ZTS Series has a purpose built forestry cab with heavy-duty guarding, meeting FOPS/ROPS/OPS requirements. Designed for comfortable operation, the cab gives excellent front, side and rear visibility. Isolation mounted cab and engine reduces sound levels and vibration for quiet and comfortable operation.



Prentice ZTS Track Feller Bunchers

Leveling System

The most robust, durable tilt mechanism in the industry provides stability and productivity even in the steepest applications for the 2391 and 2491 models.

Undercarriage

Prentice track machines feature a rugged undercarriage custom designed for reliable operation in tough harvesting conditions, from wet bottomlands to steep rocky slopes.

Hydraulics

A closed center hydraulic system with electronic programmable controls that produces excellent multi-function capability coupled with a dedicated saw pump.

Boom and Stick

Harvester and feller buncher linkage arrangements are available for all models. All boom and stick structures are stress relieved for extended service life.

Versatility

Prentice track machines are available with factory-installed felling heads to meet your application needs. Prentice ZTS Series machines utilize high pressure hydraulics and proven components. All models are available with felling, intermittent or harvesting linkage fronts.

Serviceability

The hydraulically actuated clam-shell service door provides full service access to daily service points simplifying maintenance. Regularly scheduled maintenance extends machine service life and lowers overall operating costs.

Owning and Operating Costs

Proven fuel efficiency combined with easier access and extended service intervals maximize uptime, reduce operating costs and maximize productivity.

Attachments

A full line of Prentice processor/harvester heads is available. Consult a Prentice Processing Head spec sheet for specific models and carrier application guide.



Undercarriage

High quality custom engineered, heavy duty forestry undercarriage.



Firm Footing

Productivity on Prentice Feller Buncher/ Harvester machines is based on a solid foundation, supplied by a fully welded, heavy-duty undercarriage custom engineered for the job. The high-wide carbody is built with rugged, precision-welded frames to reduce flexing and increase service life for rollers and track links. The result is greater reliability and improved performance, and increased productivity on steep slope applications.

Excellent Ground Clearance

Thanks to its wide stance and open carbody design, Prentice ZTS Series features up to 889 mm (35 inches) of ground clearance, which helps increase mobility in rugged conditions. Track gauge can be adjusted from 2591–2870 mm (102 to 113 inches) on the Model 2391 and Model 2491 to match the application. The Model 2290 and Model 2390 have a standard track gauge of 2591 mm (102 inches).

Performance Is On The Level

With its ability to simultaneously tilt 20 degrees forward and 11 degrees side-to-side, the patented 3-cylinder tilt mechanism on Prentice 2391 and 2491 ZTS tilting models is not only one of the most versatile in the industry, but the most rugged. Three trunion cylinders, mounted on 51 mm (2") steel plates, transfer vertical loads directly to the carbody and track frames. Swing loads are transferred into a center post pivot and spherical bearing to take impact away from the pins.

Power To Pull You Through

Backed by a powerful travel motor and nine bottom rollers per side, the rugged final drives provide up to 38555 kg (85,000 lbs.) of tractive effort to pull through wet bottoms or up steep slopes with equal ease. Track guards are also standard for added protection in rough terrain.

The 2290 and 2390 feature integrated welded track guards while the 2391 and 2491 leveling models utilize bolt-on track guards.



Prentice ZTS Track Feller Bunchers

Boom and Stick

Designed for maximum reach and lift capacity.



Lifting The Standards

With their industry-leading lift capacities, exceptional reach and tight stick tuck-in capability, Prentice ZTS models deliver maximum productivity in a wide variety of felling applications. Equipped with the disc saw felling linkage, the model 2491 delivers up to 7100 kg (15,600 lbs.) of bare pin lift capacity at 6.1 m (20 feet). With the harvester configuration boom, the 2491 provides an equally impressive 4100 kg (9,100 lbs.) of bare pin lift capacity at 9 m (29' 6").



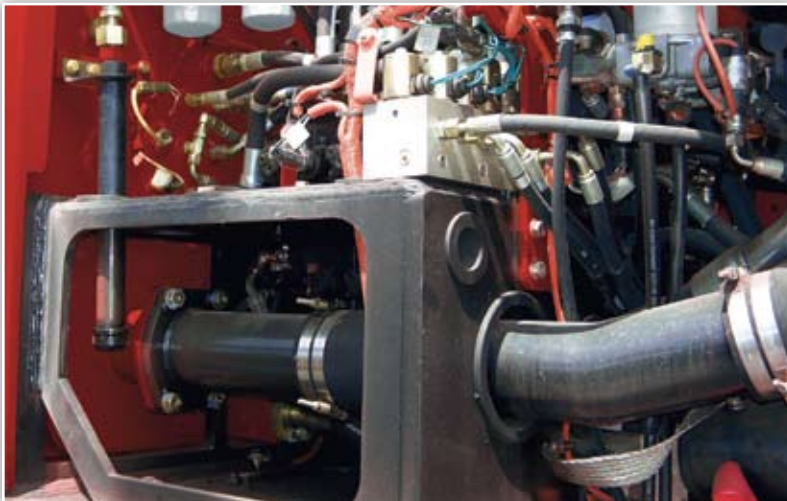
Hydraulics

Powerful hydraulic system combined with a powerful boom and stick maximize productivity in any felling or harvesting job.



Hydraulic Muscle

Despite the strength and durability of the boom and stick, productivity is only as good as the hydraulic system that backs them up. That's why the Prentice ZTS Series is equipped with a dedicated closed-circuit 200cc variable-displacement hydraulic pump for the travel circuit; a 190cc variable displacement pump for the boom and implement functions, and a third, dedicated 55cc variable displacement pump for the felling attachments. Optional hydraulics for dangle harvesting heads and intermittent saw heads are available.



Clean Oil Insurance

Reduced downtime and oil cleanliness were top-of-mind in the design of the hydraulic system, as evidenced by a hydraulic oil sight gauge that ensures proper oil level with a quick glance. An easily accessible service wand also allows hydraulic oil to be pumped through the hydraulic filtering system and into the tank, reducing the risk of contaminants.



Tough Hydraulic Hoses

All hydraulic hoses for the stick and boom utilize a thin layer of UHMW polyethylene bonded to the rubber cover for exceptional abrasion resistance and maximum strength and flexibility, increasing hydraulic hose service life. In many cases, the need for external shields, which adds cost and restricts boom movement, is eliminated.

Prentice ZTS Track Feller Bunchers

Operator Comfort

The interior layout maximizes operator space, provides exceptional comfort and reduces operator fatigue.



Field Office Comfort

With its exceptional comfort, roomy interior and high-tech monitoring/control system, the operator's station on all Prentice ZTS units is more like an office than a cab. Operator comfort starts with isolation mounting on both the cab and the engine to reduce vibration and sound levels. An air-ride, ergonomically designed seat and standard climate control system go even further to reduce operator fatigue and improve productivity.

In-Cab Power Sources

All Prentice ZTS Series utilize a 24-volt electrical system powered by dual 12-volt maintenance-free batteries and a 95-amp alternator. However, the system also includes a 24-12 converter, which allows the use of two in-cab 12-volt power outlets and a single 24-volt power outlet in the cab. An optional cold weather starting attachment may be selected to provide two additional batteries, a HD starter, and HD cables.

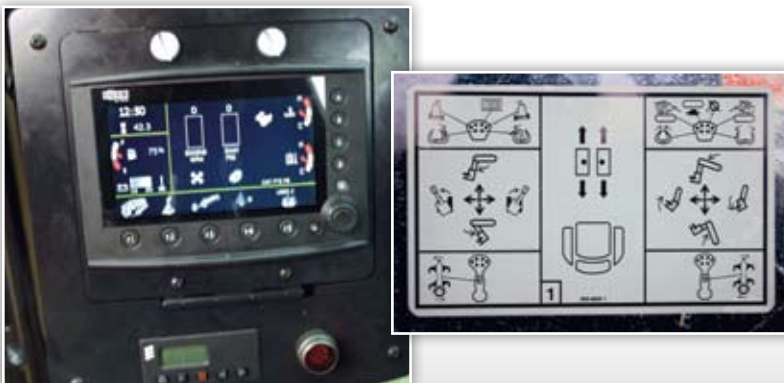


Exceptional Visibility

Standard 1.25" thick "Margard" front window maximizes operator protection. All purpose built forestry cabs used on the Prentice ZTS Series are not only designed with heavy-duty guarding, to meet FOPS/ROPS/OPS requirements, but for exceptional visibility, as well. Post structures and window placement optimize visibility to the front, rear and sides for improved operator efficiency. An extra-large polycarbonate skylight provides excellent upward and overhead visibility and acts as an alternate escape hatch.

Extra Storage

Forget about cab clutter that can interfere with control operation. A large storage compartment, located behind the seat, is big enough to accommodate everything from a lunch box and hard hat to extra work tools.



IQAN Display

An easy-to-read IQAN display allows the operator to continually monitor every operating system on the machine, for maximum performance and productivity. The system also provides early warning of any potential problems.

Convenient Controls

Conveniently placed controls and joysticks that operate all major implement functions provide easy operation, which makes long days seem much shorter.



Powertrain

Built for power, reliability, low maintenance, excellent fuel economy and low emissions.

Powerful Performance

The Cat® C9 electronically controlled ACERT delivers power while meeting all current Tier II emission standards. All models contain a fuel/water separator, engine air intake heater and a dual-stage combination air cleaner with pre-cleaner.

Engine Oil

Caterpillar® engine oil is formulated to optimize engine life and performance and is recommended for use in Cat diesel engines. The engine oil change interval has been increased to 500 hours.

Service

The clamshell engine compartment provides easy access to oil filters, oil dipstick, hydraulic fill pump and hoses reducing maintenance time.

Low Exhaust Emissions

The Cat C9 ACERT engine is a low emission engine designed to meet US EPA off-road Tier II emission regulations.

Pony Tank

An optional add on fuel tank is available for all 500 ZTS track feller buncher and track harvester models. The additional 90 gallon fuel capacity allows for increased work hours and productivity by reducing work stoppages needed for refueling machines.

Batteries

An optional starting aid for colder climates is available for all 500 ZTS track feller buncher and harvester models. This option provides two (2) additional batteries, a HD starter, and HD battery cables.

Maximum Cooling

Efficient cooling translates into higher production during bunching and harvesting. That's why Prentice ZTS models are equipped with a side-by-side radiator/oil cooler package. An optional on-demand radiator fan can also be added for use in dirty, dusty conditions. The fan blades reverse their angles to purge debris from the radiator area for improved air circulation. In addition, the IQAN control system in the cab monitors cooling requirements to infinitely control blade pitch angle to minimize horsepower requirements, and lower operating costs, and fuel consumption.

Serviceability

Extended Service intervals and easy access reduce operating costs.



Quick, Easy Service Access

Serviceability is important with any machine. But it's particularly important when other jobs and functions are waiting on the feller buncher harvester to get back on the job. That's why Prentice models are equipped with hydraulically actuated, clam-shell service doors. The quick, easy access to daily and periodic service and maintenance points means less downtime, more work time and greater productivity.

Extended Service Intervals

Caterpillar engines and components are known for their reliability. Thanks to new technology, they're also renowned for their extended service intervals and low machine service time, which help reduce overall operating and maintenance costs.

Hydraulic oil change intervals can be extended from 2,000 to 4,000 hours and engine oil change intervals occur every 500 hours on the Cat C9 engine used in the ZTS machines. Thanks to the use of Extended Life Coolant/Antifreeze in the system, engine coolant intervals have been extended to 12,000 hours.

2290/2390/2391/2491 SPECIFICATIONS

Prentice 2290/2390/2391/2491 ZTS Track Harvesters Shipping Dimensions

MODEL	Length 1	Length 2	Height*	Width 1+	Width 2++	Weight
2290	11328 mm (446 in)	X	3378 mm (133 in)	3200 mm (126 in)	X	23950 kg (52,800 lb)
2390	11506 mm (453 in)	X	3556 mm (140 in)	3200 mm (126 in)	X	26217 kg (57,800 lb)
2391 (boom tucked)	X	8077 mm (318 in)	3861 mm (152 in)	3200 mm (126 in)	3480 mm (137 in)	30917 kg (68,160 lb)
2491 (boom tucked)	X	8077 mm (318 in)	3962 mm (156 in)	3200 mm (126 in)	3480 mm (137 in)	31933 kg (70,400 lb)

Length, Height and Width 1 assume 610 mm (24 in) SG shoes

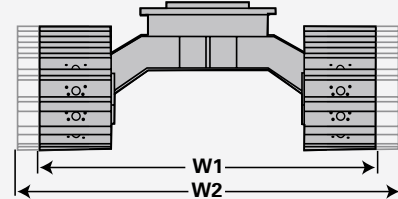
* Height to top of cab w/ standard skylight

+ Width 1 is minimum width w/ 610 mm (24") SG shoes

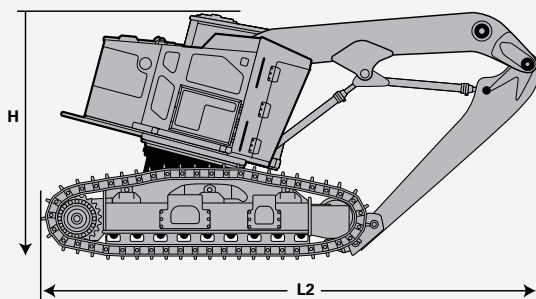
++ Width 2 is maximum width when undercarriage is set wide

These illustrations and values are ESTIMATED for TRUCK SHIPMENT ONLY FROM THE FACTORY.

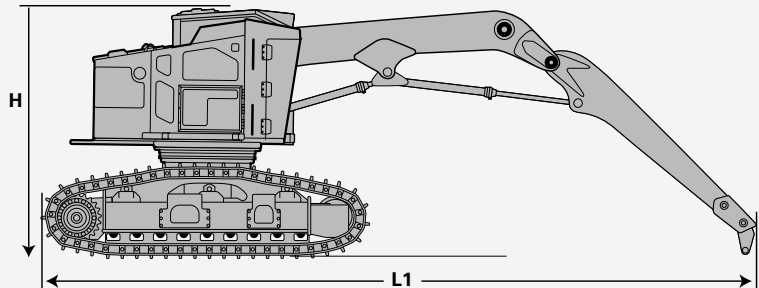
These are subject to change based on attachments, configurations, add-ons, etc.



PRENTICE 2391/2491 (Tilter) Track Harvesters



PRENTICE 2290/2390 (Non-Tilter) Track Harvesters



Prentice 2290/2390/2391/2491 ZTS Track Feller Bunchers Shipping Dimensions

MODEL	Length	Height **	Width 1+	Width 2++	Weight
2290	8458 mm (333 in)	3378 mm (133 in)	3200 mm (126 in)	X	24204 kg (53,360 lb)
2290*	10744 mm (423 in)	3378 mm (133 in)	3200 mm (126 in)	X	27288 kg (60,160 lb)
2390	8636 mm (340 in)	3556 mm (140 in)	3200 mm (126 in)	X	26154 kg (57,660 lb)
2390*	10947 mm (431 in)	3556 mm (140 in)	3200 mm (126 in)	X	29239 kg (64,460 lb)
2391	8636 mm (340 in)	3861 mm (152 in)	3200 mm (126 in)	3480 mm (137 in)	30182 kg (66,540 lb)
2391*	10947 mm (431 in)	3861 mm (152 in)	3200 mm (126 in)	3480 mm (137 in)	33266 kg (73,340 lb)
2491	8611 mm (339 in)	3962 mm (156 in)	3200 mm (126 in)	3480 mm (137 in)	32078 kg (70,720 lb)
2491*	10922 mm (430 in)	3962 mm (156 in)	3200 mm (126 in)	3480 mm (137 in)	35162 kg (77,520 lb)

Length, Height and Width assume 24 in (mm) SG shoes

* w/ HF 201 Partial Tilt Felling Head, tilted back and lifted (assumes an estimated additional head weight of 3213 kg (7,069 lb))

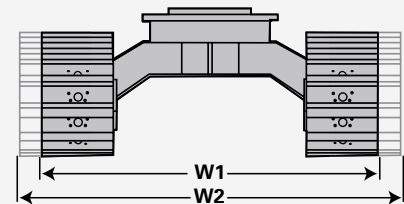
** Height is to top of cab w/ standard skylight

+ Width 1 is minimum width

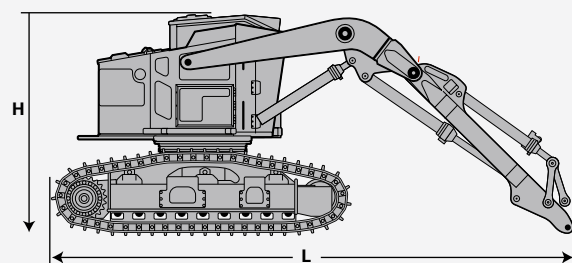
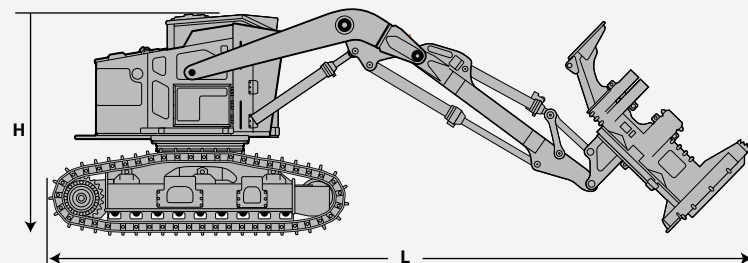
++ Width 2 is maximum width when undercarriage is set wide

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These are subject to change based on attachments, configurations, add-ons, etc.

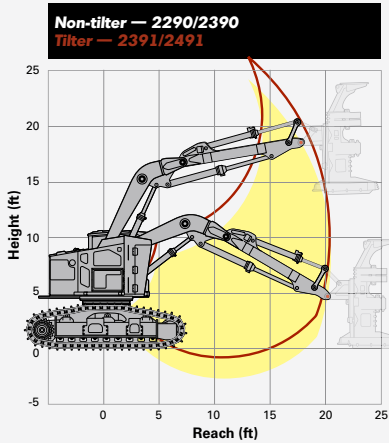


PRENTICE CAT 2290/2390/2391/2491 Track Feller Bunchers



FELLING LINKAGE

Lift Range Information



Lift Over Front of Tracks

MODEL	2290	2390	2391	2491
Reach	Lift Capacity	Lift Capacity	Lift Capacity	Lift Capacity
4 m (8 ft)	16900 kg (37200 lb)	17300 kg (38200 lb)	17800 kg (39300 lb)	17900 kg (39400 lb)
4.5 m (15 ft)	9500 kg (21000 lb)	9600 kg (21200 lb)	9700 kg (21500 lb)	9800 kg (21500 lb)
6.1 m (20 ft)	7100 kg (15600 lb)	7100 kg (15600 lb)	7100 kg (15600 lb)	7100 kg (15600 lb)

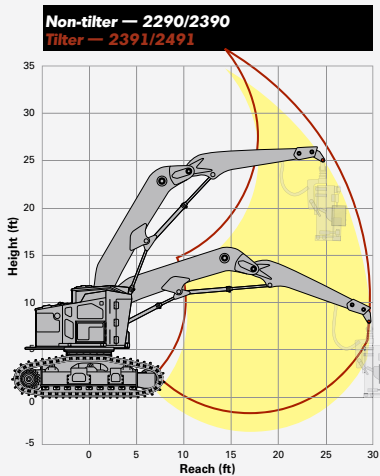
Lift Over Side of Tracks

MODEL	2290	2390	2391	2491
Reach	Lift Capacity	Lift Capacity	Lift Capacity	Lift Capacity
2.4 m (8 ft)	16900 kg (37200 lb)	17300 kg (38200 lb)	17800 kg (39300 lb)	17900 kg (39400 lb)
4.5 m (15 ft)	8600 kg (18900 lb)	9500 kg (21000 lb)	9700 kg (21500 lb)	9800 kg (21500 lb)
6.1 m (20 ft)	5400 kg (11900 lb)	6100 kg (13300 lb)	7100 kg (15600 lb)	7100 kg (15600 lb)

Note: Lift Capacity shown without attachment.
Additional reach and attachment weight will reduce lift capacity.

HARVESTING LINKAGE

Lift Range Information



Lift Over Front of Tracks

MODEL	2290	2390	2391	2491
Reach	Lift Capacity	Lift Capacity	Lift Capacity	Lift Capacity
3 m (10 ft)	4500 kg (10000 lb)	4500 kg (10000 lb)	4500 kg (10000 lb)	4500 kg (10000 lb)
6.1 m (20 ft)	6900 kg (15200 lb)	6900 kg (15200 lb)	6900 kg (15200 lb)	6900 kg (15200 lb)
9.0 m (29.5 ft)	4100 kg (9100 lb)	4100 kg (9100 lb)	4100 kg (9100 lb)	4100 kg (9100 lb)

Lift Over Side of Tracks

MODEL	2290	2390	2391	2491
Reach	Lift Capacity	Lift Capacity	Lift Capacity	Lift Capacity
3 m (10 ft)	4500 kg (10000 lb)	4500 kg (10000 lb)	4500 kg (10000 lb)	4500 kg (10000 lb)
6.1 m (20 ft)	5300 kg (11600 lb)	5900 kg (13000 lb)	6900 kg (15200 lb)	6900 kg (15200 lb)
9 m (29.5 ft)	2900 kg (6300 lb)	3300 kg (7200 lb)	4100 kg (9100 lb)	4100 kg (9100 lb)

Note: Lift Capacity shown without attachment.
Additional reach and attachment weight will reduce lift capacity.

STANDARD & OPTIONAL EQUIPMENT

Electrical

24-volt electrical system
Two 12 volt maintenance free batteries with 950 CCA
95 Amp alternator
IQAN programmable controls
MDL large display screen

Guards

Hydraulically actuated hinged engine enclosure with warning alarm
Engine fan guard
Bottom guards
Isolation mounted cab and engine
Heavy duty radiator guard door

Operator Environment

FOPS/OPS/ROPS cab
Dual joystick control
Reverse slope windshield
Air ride seat
Skylight - alternate escape hatch
Top escape hatch
76.2 mm (3 inch) retractable seat belt
Heater/air conditioner w/climate control
DIN mount radio ready
Operator sound suppression to standards
Travel alarm
Cup holders (2)
Two 12 volt and one 24 volt power outlets
Front window, 1.25 inch Margard

Powertrain

Caterpillar C9 ACERT 8.8L engine meets Tier II emissions requirements
Infinitely variable travel speed
Under hood centrifugal precleaner and primary air filter
43C degree ambient temperature cooling package

- Aluminum core ATAAC and side-by-side radiator and oil cooler
- Removable debris screen
- Swing out A/C condenser

Electric fuel priming pump
Fuel water separator

Undercarriage

Track roller guards with access holes
Hydraulic track adjusters
Double flange track rollers (2390/2391/2491)
Double flange bottom rollers (2290)
GFT110 Lohmann final drives (2491)
GFT80 Lohmann final drives (2390/2391)
GFT60 Lohmann final drives (2290)
Caterpillar 330 undercarriage components (2491)
D6H HD grease lubricated and swaged undercarriage components (2390/2391)
Caterpillar 325 undercarriage and components (2290)
Bolted, variable gage leveling car body with 3-cylinder tilt mechanism (2391/2491)
Welded, non-leveling car body (2290/2390)

Other Standard Equipment

Vandalism protection
Spare hose storage area
Grease gun bracket and storage area
140 US gallon fuel tank

Hydraulics

Dedicated fixed displacement pilot pump
Dedicated variable displacement pumps for track and implement functions
30 gpm dedicated saw pump
Cat 325C swing drive and swing motor
Electric hydraulic oil fill pump
70 US gal hydraulic tank

Antifreeze

50% concentration extended life coolant

Optional Equipment

Track Systems

24" SG pads, clipped corners, with mud/snow reliefs
24" DG pads, clipped corners, with mud/snow reliefs (2290/2390)
28" SG pads, clipped corners, with mud/snow reliefs (2290/2390/2491)
28" DG pads, clipped corners, with mud/snow reliefs (2290/2390)
36" Tri-track, clipped corners, with mud/snow reliefs (2290/2390/2391)
Star Carrier Rollers

Other Equipment

Starting Aid, Cold Weather
Starting Aid, Arctic - Includes engine and hydraulic heaters
Pony Tank, additional 341 L (90 US gal) fuel capacity
Flexaire™ Fan

Field Installed Attachments

CD Player with AM/FM Stereo - remote capable
Skylight, peaked, removable
Loose Linkage Arrangements

Felling Attachments

A full line of Prentice processor/harvester heads is available, factory installed. Consult a Prentice Processing Head spec sheet for specific models and carrier application guide.

2290/2390/2391/2491 SPECIFICATIONS

MODEL	2290	2390	2391	2491
Powertrain				
Engine Model	Cat C9 ACERT	Cat C9 ACERT	Cat C9 ACERT	Cat C9 ACERT
Peak Power @ 1800 RPM	184.2 kW / 247 hp	211.8 kW / 284 hp	211.8 kW / 284 hp	211.8 kW / 284 hp
Rated Power @ 2100 RPM	170 kW / 228 hp	196.1 kW / 263 hp	196.1 kW / 263 hp	196.1 kW / 263 hp
Displacement	8.8L	8.8L	8.8L	8.8L
Operating Weights (w/o heads)*	24362 kg (53710 lb)	27084 kg (59710 lb)	30410 kg (67040 lb)	31620 kg (69710 lb)
Operating Weights (w/o heads)**	23790 kg (52440 lb)	26050 kg (57440 lb)	29806 kg (65710 lb)	31450 kg (69340 lb)
Boom System				
Track Feller Buncher Configuration				
- Max. Reach (w/head)	8.1 m (26 ft 6 in)	8.1 m (26 ft 6 in)	8.1 m (26 ft 6 in)	8.1 m (26 ft 6 in)
Track Harvester Configuration				
- Max. Reach (w/head)	9.8 m (32 ft)	9.8 m (32 ft)	9.8 m (32 ft)	9.8 m (32 ft)
Track Feller Buncher Configuration				
- Bare Pin Lift @ Max Reach (w/o head)	7100 kg @ 6.1 m (15,600 lb @ 20 ft)	7100 kg @ 6.1 m (15,600 lb @ 20 ft)	7100 kg @ 6.1 m (15,600 lb @ 20 ft)	7100 kg @ 6.1 m (15,600 lb @ 20 ft)
Track Harvester Configuration				
- Bare Pin Lift @ Max Reach (w/o head)	4100 kg @ 9.0 m (9,100 lb @ 29.5 ft)	4100 kg @ 9.0 m (9,100 lb @ 29.5 ft)	4100 kg @ 9.0 m (9,100 lb @ 29.5 ft)	4100 kg @ 9.0 m (9,100 lb @ 29.5 ft)
Service Refill Capacities				
Fuel Capacity	530 L (140 US gal)	530 L (140 US gal)	530 L (140 US gal)	530 L (140 US gal)
Pony Fuel Tank (optional)	341 L (90 US gal)	341 L (90 US gal)	341 L (90 US gal)	341 L (90 US gal)
Cooling System	61 L (16.1 US gal)	61 L (16.1 US gal)	61 L (16.1 US gal)	61 L (16.1 US gal)
Engine Oil Capacity	19.9 L (21 US qts)	19.9 L (21 US qts)	19.9 L (21 US qts)	19.9 L (21 US qts)
Hydraulic Tank	262 L (69.2 US gal)	262 L (69.2 US gal)	262 L (69.2 US gal)	262 L (69.2 US gal)
Hydraulic System	300 L (79.3 US gal)	300 L (79.3 US gal)	300 L (79.3 US gal)	300 L (79.3 US gal)
Swing Drive	10 L (2.6 US gal)	10 L (2.6 US gal)	10 L (2.6 US gal)	10 L (2.6 US gal)
Hydraulic System				
Electric hydraulic oil fill pump	STD	STD	STD	STD
Dedicated variable displacement pump for travel circuit	180 cc	200 cc	200 cc	200 cc
Dedicated variable displacement pump for boom and implement functions	180 cc	190 cc	190 cc	190 cc
Dedicated variable displacement pump for saw motor	55 cc	55 cc	55 cc	55 cc
Undercarriage (size/pitch)	325 HEX / 203.2 mm (8 in)	D6H HD / 203.2 mm (8 in)	D6H HD / 203.2 mm (8 in)	330 HEX / 215.9 mm (8.5 in)
Track Gauge	2591 mm (102 in)	2591mm (102 in)	2591-2870mm (102-113 in)	2591-2870mm (102-113 in)
Track Length	4572 mm (180 in)	4801 mm (189 in)	4801 mm (189 in)	4893 mm (192.6 in)
Ground Clearance	762 mm (30 in)	838 mm (33 in)	838 mm (33 in)	889 mm (35 in)
Tractive Effort	30391 kg (67,000 lb)	31978 kg (70,500 lb)	34246 kg (75,500 lb)	38555 kg (85,000 lb)
Nine bottom rollers per side	STD	STD	STD	STD
Integrated welded track guards	STD	STD		
Bolt-on track guards			STD	STD
Leveling System				
Non-leveling carbody	STD	STD		
Three-cylinder tilt mechanism w/ simultaneous 20 degree forward tilt and 11 degree side-to-side tilt			STD	STD



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We reserve the right to change specifications and to improve our products without notice or obligation.

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