

Economical Front Loader for a Wide Range of Milling Operations

COLD MILLING MACHINE

W 120 FTi



US RELEASE

ECONOMICAL FRONT LOADER FOR A WIDE RANGE OF MILLING OPERATIONS



The front loader in the one-meter class is characterized by its outstanding performance and flexibility at working widths of 3 ft 11 in (1.2 m).

The innovative **MILL ASSIST** machine control system ideally combines sustainable and efficient machine operation with high productivity.

The cutting-edge **LEVEL PRO ACTIVE** leveling system, the intuitive operating concept, and additional digital assistance systems enable efficient handling and precise milling results with only one operator.

Compact dimensions and optimized machine weight make it ideal for a wide range of applications - including on job sites with limited space, such as in urban areas.

Wide conveyor slewing angles of 65° to both sides enable material loading even in difficult site situations such as traffic circles or intersections.



WIRTGEN COLD MILLING MACHINES



SMALL MILLING MACHINES

- > Milling width up to 4 ft 3 in (1,300 mm)
- > Milling depth to 12 in (300 mm)



COMPACT MILLING MACHINES

- > Milling width up to 6 ft 3 in (1,900 mm)
- > Milling depth to 13 in (330 mm)



LARGE MILLING MACHINES

- > Milling width up to 14 ft 4 in (4,400 mm)
- > Milling depth to 14 in (350 mm)

OVERVIEW OF HIGHLIGHTS

Perfectly Equipped

OPERATION

01 Perfect Comfort and Ergonomics

- > Operator's platform with lateral shift function for optimal vision along the zero side
- > Platform design with perfect ergonomics for a high level of operator comfort and well-being
- > The large 5-inch control screen in the multifunctional armrest displays essential information
- > Smart vandalism protection concept for control units

02 Precise Leveling with LEVEL PRO ACTIVE

- > Innovative **LEVEL PRO ACTIVE** leveling system
- > Fully integrated into the machine control system
- > Milling depth measurement via displacement sensors installed in the hydraulic side plate cylinders

DRIVING AND STEERING

03 Fast and Dynamic Maneuvering

- > ISC - intelligent speed control for minimal track slip
- > Fast machine height adjustment
- > Dynamic maneuvering at travel speeds of up to 4.7 mph (7.5 km/h)

04 Quick-Pivoting, Right-Hand Rear Track Unit

- > Rapid, automatic pivoting of the right-hand rear track unit
- > Extremely robust sliding bearing
- > Heavy-duty crawler track design



MILLING AND LOADING

05 Superior Cutting Technology Boosts Performance

- > Extremely hard-wearing **HT22** quick-change toolholder system with field-proven **HT22 PLUS** upper part
- > Program for protection of edge rings when milling in bends
- > Quick pick changing

06 Maximum Loading Capacity

- > Extremely large conveyor slewing angle of 65° to the left and right
- > Hydraulic folding conveyor for quick folding during operation on site
- > Higher belt cleat profile for increased conveyor capacity
- > "Booster" function for temporarily increased discharge trajectory



PERFORMANCE AND PRODUCTIVITY

07 Performance Meets Efficiency

- > State-of-the-art John Deere engine with specially optimized torque curve for cold milling
- > Extended milling drum rotation speed range for a wide range of cost-efficient milling applications
- > **MILL ASSIST** automatic mode with additional pre-selection of operating strategy
- > Optional **WPT - WIRTGEN PERFORMANCE TRACKER**

08 Minimal Environmental Impact for the Future

- > Dynamic engine control assistant for low CO₂ emissions
- > Fuel-saving, low-noise dual fan concept
- > Optimized, effective VCS extraction system

OPERATING HIGHLIGHTS

Relaxed Work

Perfectly designed operator's platform

Always Makes the Grade

LEVEL PRO ACTIVE



Operator's Platform with Lateral Shift Function for Optimal Vision Along the Zero Side

The operator's platform can be hydraulically moved outwards by nearly 8 in (200 mm) to provide an optimal view of the milling drum unit and the front right-hand crawler unit.

Platform Design with Perfect Ergonomics for a High Level of Operator Comfort and Well-Being

The operator's platform has been completely redesigned and stands out for its comfort, ergonomically designed controls, high-quality feel, and modern design. All in all, this significantly increases the operator's sense of well-being and thus their performance.

The Large 5-Inch Control Screen in the Multifunctional Armrest Displays Essential Information

In addition to the milling depth on the right and left, a wealth of important information such as machine load conditions, temperatures, hydraulic pressures, diesel and water fill levels, and status and diagnostic messages are clearly displayed in color on the 5" control screen in the armrest.

Smart Vandalism Protection Concept for Control Units

The innovative vandalism protection system allows the linear 5" leveling display to be moved vertically and thus reliably secured against theft and destruction. The main control panel can be easily folded in and locked.

Innovative LEVEL PRO ACTIVE Leveling System

The high-precision **LEVEL PRO ACTIVE** leveling system specially developed for cold milling machines features an informative 5" control panel that is not only intuitive and easy to operate, but also offers many automatic and additional functions to make the operator's job easier. For example, the entire machine can be raised automatically to drive over a manhole cover and then lowered back to the starting position.

Fully Integrated into the Machine Control System

The **LEVEL PRO ACTIVE** leveling system is fully integrated into the machine control system, enabling a high degree of automation.

Milling Depth Measurement via Displacement Sensors Installed in the Hydraulic Side Plate Cylinders

The reference line is scanned via heavy-duty displacement sensors built into the hydraulic side plate cylinders and displayed directly on the high-resolution **LEVEL PRO ACTIVE** control panel.

- 01 Ergonomics and comfort increase operator well-being and performance.
- 02 5" control screen with clearly arranged, informative displays
- 03 Intuitive 5" **LEVEL PRO ACTIVE** control screen



DRIVING AND STEERING HIGHLIGHTS

ISC - Intelligent Speed Control for Minimal Track Slip

The intelligent ISC (Intelligent Speed Control) system delivers optimum, even traction – electronic traction control prevents individual crawler units from slipping as far as possible, even under difficult conditions. In addition, ISC keeps the machine's advance rate in the ideal engine utilization range and electronically matches the curve speed of the inner and outer crawler units to each other. This minimizes track pad wear.

Fast Machine Height Adjustment

The new machine height adjustment system not only functions with extreme precision for high-quality milling results, but also enables fast stroke movements for rapid positioning and lifting.

Dynamic Maneuvering at Travel Speeds of up to 4.7 mph (7.5 km/h)

The machine's maximum speed of 4.7 mph (7.5 km/h) ensures that jobs are completed particularly quickly.

Rapid, Automatic Pivoting of the Right-Hand Rear Track Unit

The right-hand rear track unit can be pivoted in front of the milling drum hydraulically from the operator's platform to allow milling along curbs or other obstacles – without having to lower the milling drum to the ground. This process can be completed extremely quickly in thirty seconds or less. And since the milling drum is not in contact with the ground during the pivoting process, there is no risk of damage to the picks or the milled surface.



Always Powerful

Intelligent travel drive

High Travel Speed

On to the next job quickly

- 01 The compact milling machine stands out due to its minimal milling radii.
- 02 The rear crawler unit on the right side has three fixed positions. In the "extended" position, the entire rear right-hand crawler unit is positioned within the cutting circle of the previous working pass. This makes it easy to begin milling the next working pass with zero offset.

Extremely Robust Sliding Bearing

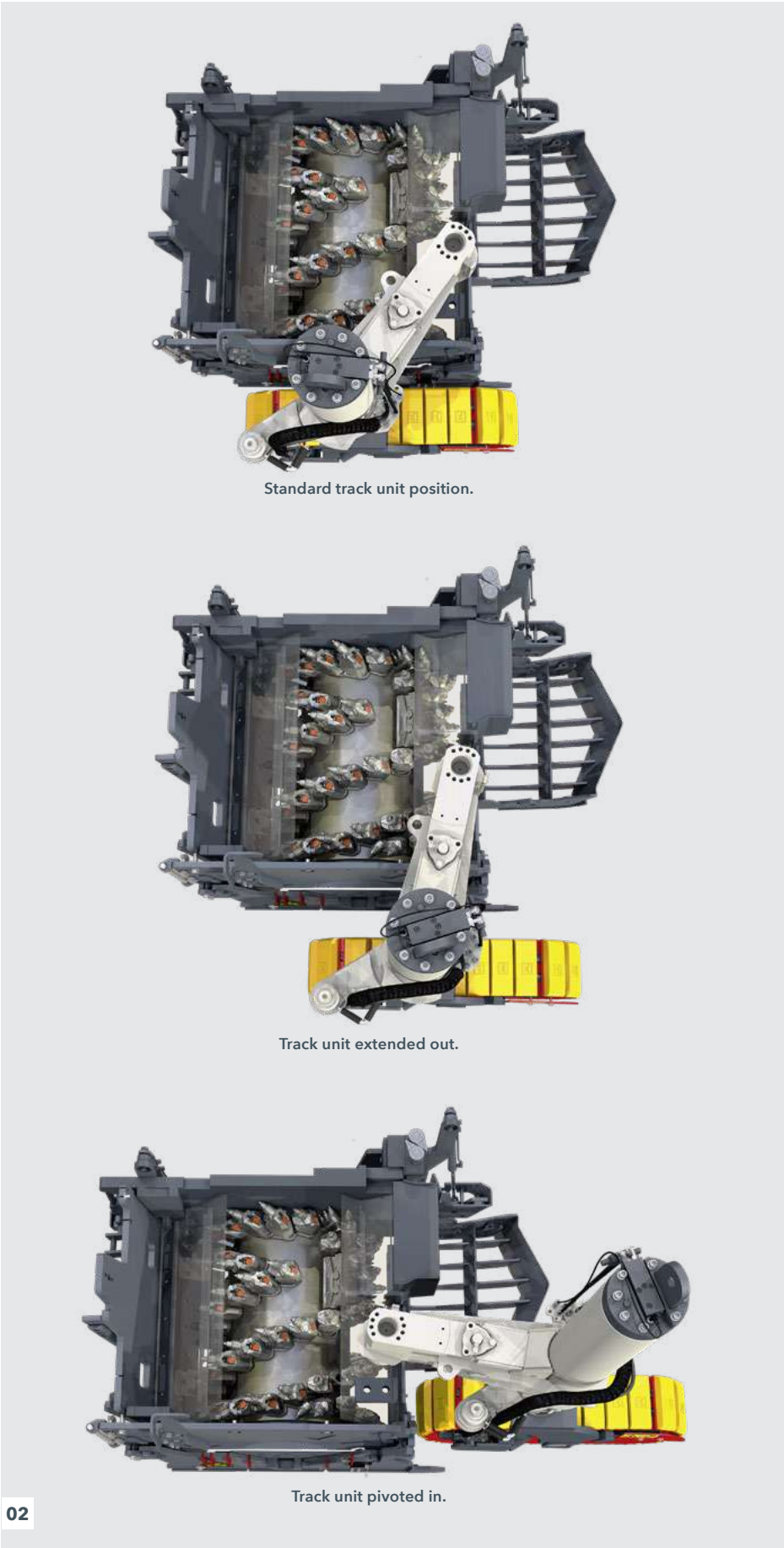
The rugged, wear-resistant sliding bearing minimizes play in the kinematics, guaranteeing consistent, high-precision milling results.

Heavy-Duty Crawler Track Design

The pivot arm's rugged design with only two pivot points makes tough milling operations and precise pivoting of the right-hand rear crawler track into and out of the machine possible.



01



Standard track unit position.

Track unit extended out.

Track unit pivoted in.

02

MILLING AND LOADING HIGHLIGHTS

Extremely Hard-Wearing HT22 Quick-Change Toolholder System with Field-Proven HT22 PLUS Upper Part

The milling drums of the compact milling machine are equipped with the **HT22** quick-change toolholder system, making them perfect for highly demanding milling tasks. In addition, the heavy-duty milling drum design enables the upper parts of the quick-change toolholders to be changed quickly on site, if required.

The new **HT22 PLUS** quick-change toolholder upper part features innovative centering marks on the tool contact surface. In combination with the new X² generation of round-shank picks, this reduces toolholder wear by up to 25%. In addition, the rotation behavior of the round shaft pick has been optimized. The new upper part offers considerable benefits such as higher milled surface quality and longer intervals between changes.



Program for Protection of Edge Rings when Milling in Bends

The automatic function increases the milling drum speed when milling in bends, thus reducing material wear on the edge ring segments that are subjected to higher stress in curves.

Quick Pick Changing

The hydraulically operated milling drum rotation device and pick ejector make it easier to change picks - even when the engine is switched off.



Extremely Large Conveyor Swing Angle of 65° to the Right and Left

Wide conveyor swing angles of 65° to both sides make it possible to load material even in difficult situations, e.g., in intersections or turning areas.

Hydraulic Folding Conveyor for Quick Folding during Operation on Site

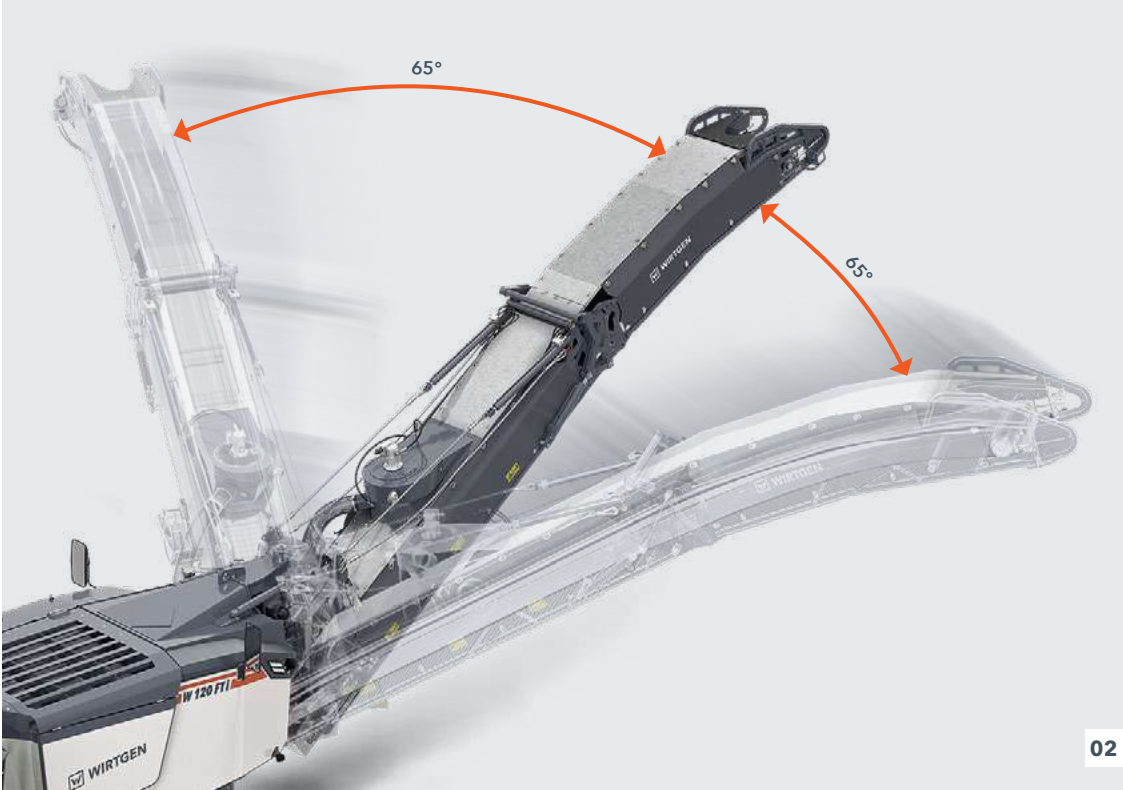
The hydraulic folding conveyor can be folded away quickly for easy transport and to adapt to site conditions.

Higher Belt Cleat Profile for Increased Conveyor Capacity

The large belt width and the belt cleat profile increased by 100% increase the loading capacity and thus the efficiency of the entire milling process.

"Booster" Function for Temporarily Increased Discharge Trajectory

Pressing the "Booster" button on the main control panel briefly increases the belt speed and conveying capacity of the discharge conveyor by 20% in order to temporarily transport the milled material particularly high or far onto a truck bed.

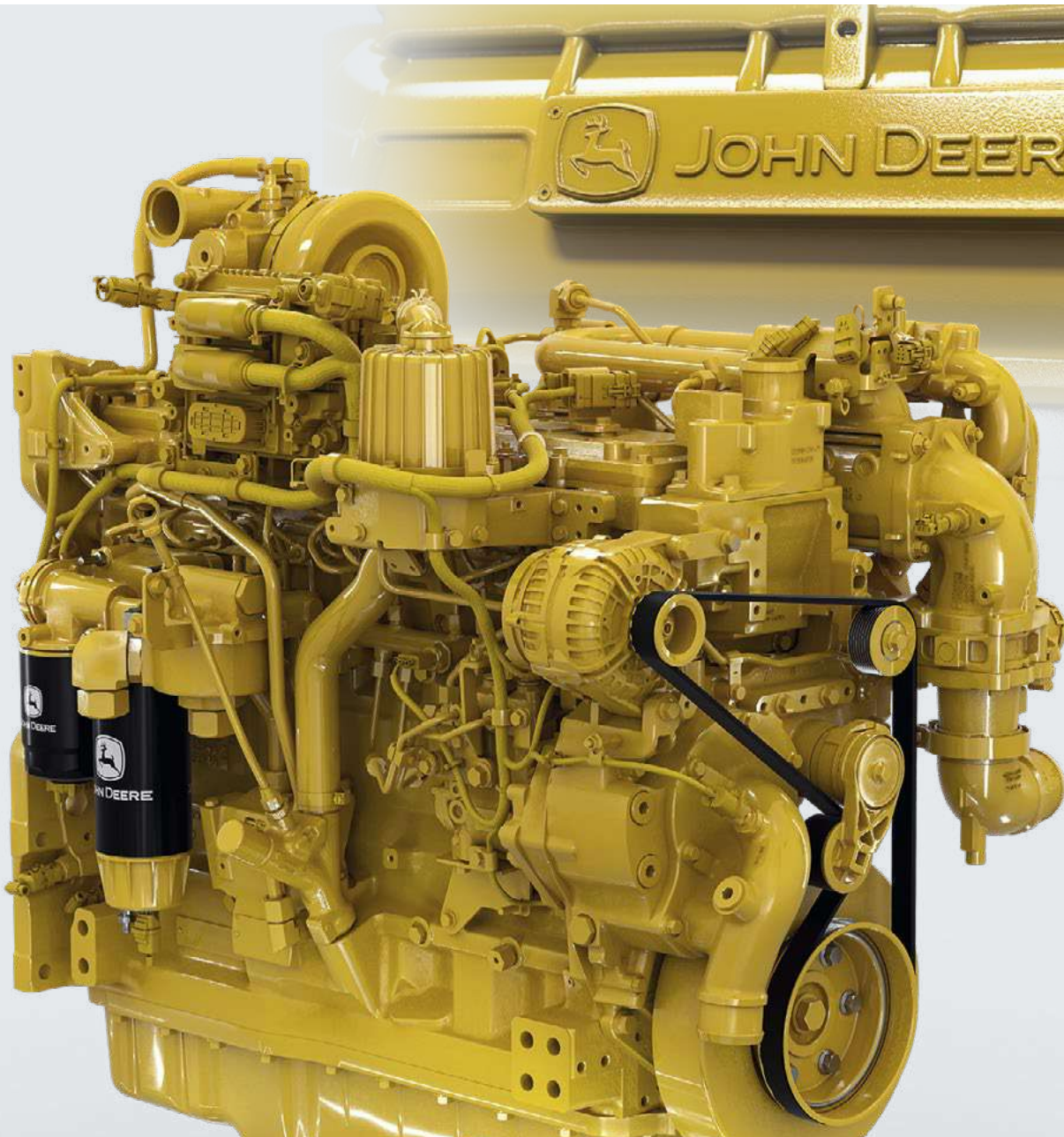


- 01 Extremely wear-resistant HT22 quick-change toolholder system.
- 02 Discharge conveyor with extremely large slewing range.

Made-to-Measure Machine Transportation
Hydraulic Folding Conveyor

Quickly Clear Away the Milled Material
New "booster" function

PERFORMANCE AND PRODUCTIVITY HIGHLIGHTS



From a Single Source

John Deere brand engine technology

Perfect for Cold Milling Machines

Engine characteristics tailored to the application

State-Of-The-Art John Deere Engine with Specially Optimized Torque Curve for Cold Milling

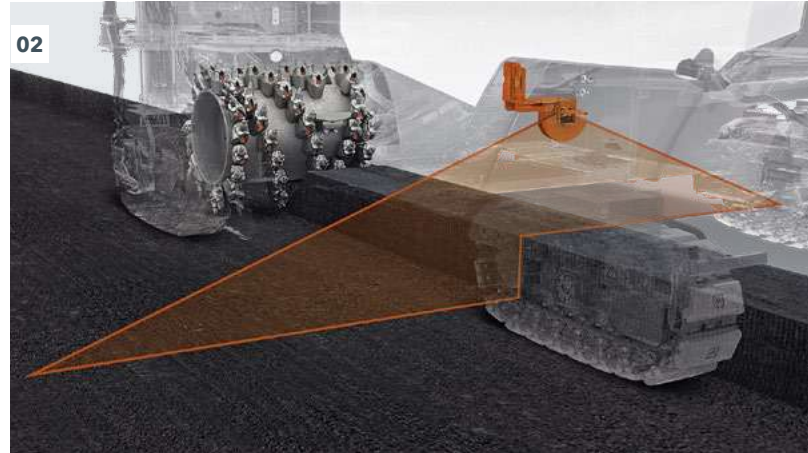
The economical John Deere diesel engine meets the strict requirements of US EPA Tier 4f emissions standards and offers an impressive engine output of 265 kW with high maximum torque. It is worth noting that WIRTGEN and John Deere worked closely together to adapt the torque characteristics of the engine to make it ideal for cold milling machines. All in all, this translates into reduced fuel consumption and fast, productive operations, even at maximum milling depth.

Extended Milling Drum Speed Range for a Wide Range of Cost-Efficient Milling Applications

Thanks to the intelligent engine control unit in conjunction with **MILL ASSIST**, the compact milling machine offers an extremely wide usable milling drum speed range. The new lower engine speed range is particularly effective in achieving significant diesel savings and tremendous milling performance in numerous applications.

MILL ASSIST Automatic Mode with Additional Pre-Selection of Operating Strategy

In automatic mode, the innovative **MILL ASSIST** machine control system always selects the operating strategy with the best balance between performance and costs. In doing so, the process optimization automatically adjusts the speed of the diesel engine and milling drum, the travel drive, the water system, and the machine's advance speed. This significantly reduces the operator's workload while improving machine performance and considerably reducing diesel consumption, CO₂ emissions, and noise.



The operator can also pre-select one of three working strategies: "ECO," "performance-optimized," or "milling pattern quality." The machine then automatically adjusts the main parameters based on the selected operating strategy and displays suggested optimizations, if necessary.

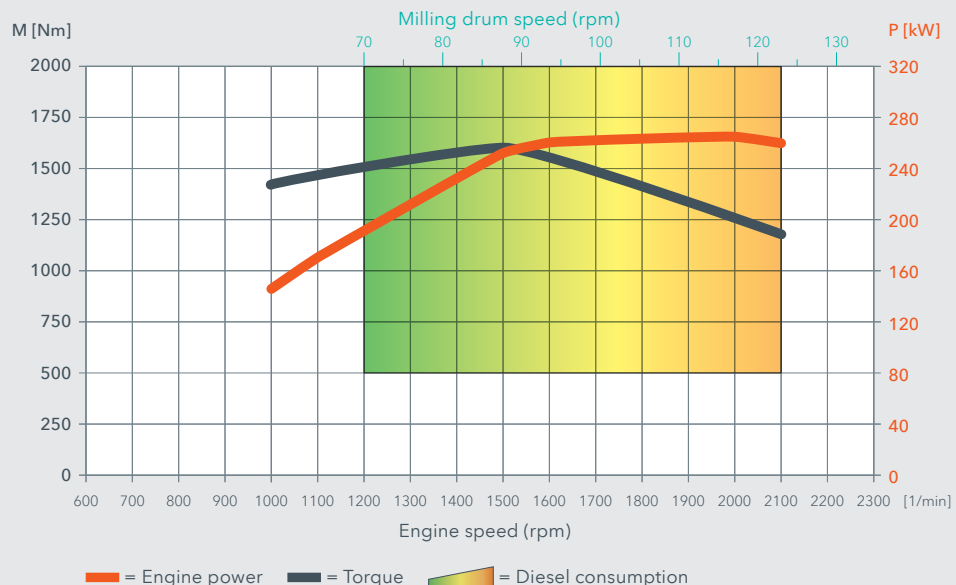
Optional WPT - WIRTGEN PERFORMANCE TRACKER

WPT - WIRTGEN PERFORMANCE TRACKER uses laser scanning to determine the cross-sectional profile to be milled. Surface milling performance and milling volume are then precisely measured using GNSS positioning and other sensors. The machine operator can permanently view the milling data determined on the control panel on the operator's platform. After project completion, an automatically generated report containing all relevant performance and consumption data is forwarded to the machine owner.

01 When equipped with the **MILL ASSIST** milling application control system, the compact milling machine offers an extremely wide milling drum speed range to dramatically reduce diesel consumption, carbon emissions, and pick wear.

02 The actual, currently active milling width is scanned by a laser scanner and clearly displayed on the control panel.

W 120 FTi Cold Milling Machine Engine Characteristics



01

PERFORMANCE AND PRODUCTIVITY HIGHLIGHTS

Dynamic Engine Control Assistant for Low CO₂ Emissions

In combination with **MILL ASSIST**, the efficient John Deere engine, and the wide milling drum speed range, the intelligent engine control system minimizes CO₂ emissions.

Fuel-Saving, Low-Noise Dual Fan Concept

Two speed-controlled and intelligently positioned fans cool the diesel engine and hydraulic system as required. As a result, the cooling system also helps efficiently reduce diesel consumption and noise.

Efficiency-Optimized VCS Extraction System

The well-sealed VCS exhaust system improves air quality and visibility in the machine operator's and ground crew's working area. In addition, the easily accessible VCS suction channel makes cleaning the system easier.

Focus on the Environment

Lower CO₂ emissions

Fuel Saver

Intelligently controlled



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TECHNICAL SPECIFICATIONS W 120 FTi

Milling Drum

Milling width	3 ft 11 in (1,200 mm)
Milling depth ¹⁾	13 in (0 to 330 mm)
Cutting diameter	3 ft 3 in (980 mm)

Engine

Manufacturer	John Deere
Type	6090HD-S5-PVR
Cooling	Water
Number of cylinders	6
Rated power at 2,100 rpm	260 kW / 349 hp / 354 PS
Maximum power at 1,900 to 2,000 rpm	265 kW / 355 hp / 360 PS
Displacement	549 in ³ (9.0 l)
Fuel consumption at rated power during a mixture of job site operations	16.6 gph (62.7 l/h) 6.6 gph (25.1 l/h)
Sound power level in accordance with DIN EN 500-2 engine operator's platform	≤ 107 dB(A) ≥ 90 dB(A)
Emissions standard	EU Stage 5 / US EPA Tier 4f

Electrical System

Power supply	24 V
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Tank Capacities

Fuel	161.1 gal (610 l)
AdBlue® / DEF ²⁾	11.6 gal (44 l)
Hydraulic oil	30.4 gal (115 l)
Water	422.7 gal (1,600 l)

Driving Performance

Max. milling speed	0 to 197 ft/min (0 to 2.2 mph) (0 to 60 m/min (0 to 3.6 km/h))
Max. speed on wheels	0 to 410 ft/min (0 to 4.7 mph) (0 to 125 m/min (0 to 7.5 km/h))
Max. speed on tracks	0 to 410 ft/min (0 to 4.7 mph) (0 to 125 m/min (0 to 7.5 km/h))

Track Units

Tire size, front / rear (D x W)	2 ft 2 in x 11 in (660 x 280 mm)
Track chains front / back (L x W x H)	4 ft 6 in x 10 in x 23 in (1,360 x 260 x 584 mm)

Loading of Milled Material

Belt width of primary conveyor	2 ft 2 in (650 mm)
Belt width of discharge conveyor	2 ft (600 mm)
Theoretical capacity of discharge conveyor	230 yd ³ /h (176 m ³ /h)

TECHNICAL SPECIFICATIONS W 120 FTi

Weight of Basic Machine

Empty weight of machine without fluids	43,652 lbs (19,800 kg)
Operating weight, CE ³⁾	46,297 lbs (21,000 kg)
Maximum operating weight (full tanks, full range of equipment)	49,825 lbs (22,600 kg)

Weight of Tank Contents

Water	3,527 lbs (1,600 kg)
Fuel (6.9 lbs/gal (0.83 kg/l))	1,116 lbs (506 kg)
AdBlue® / DEF ²⁾ (9.2 lbs/gal (1.1 kg/l))	106 lbs (48 kg)

Additional Weight

Operator and Tools

> Machine operator	165 lbs (75 kg)
> 5 pick containers	276 lbs (125 kg)
> Tools	66 lbs (30 kg)

Optional Additional Equipment

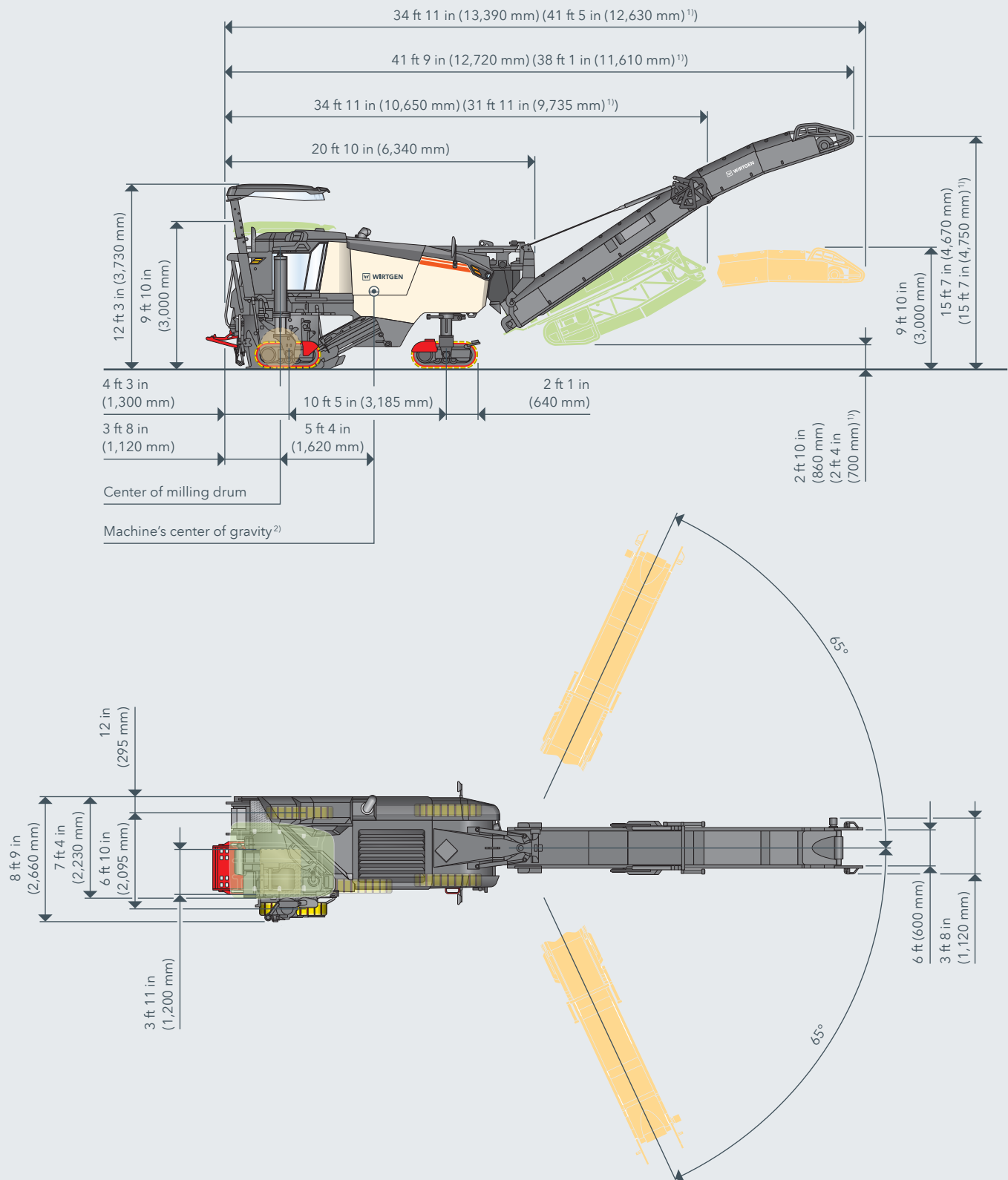
> VCS extraction system	165 lbs (75 kg)
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¹⁾ The maximum milling depth may deviate from the value indicated due to tolerances and wear.

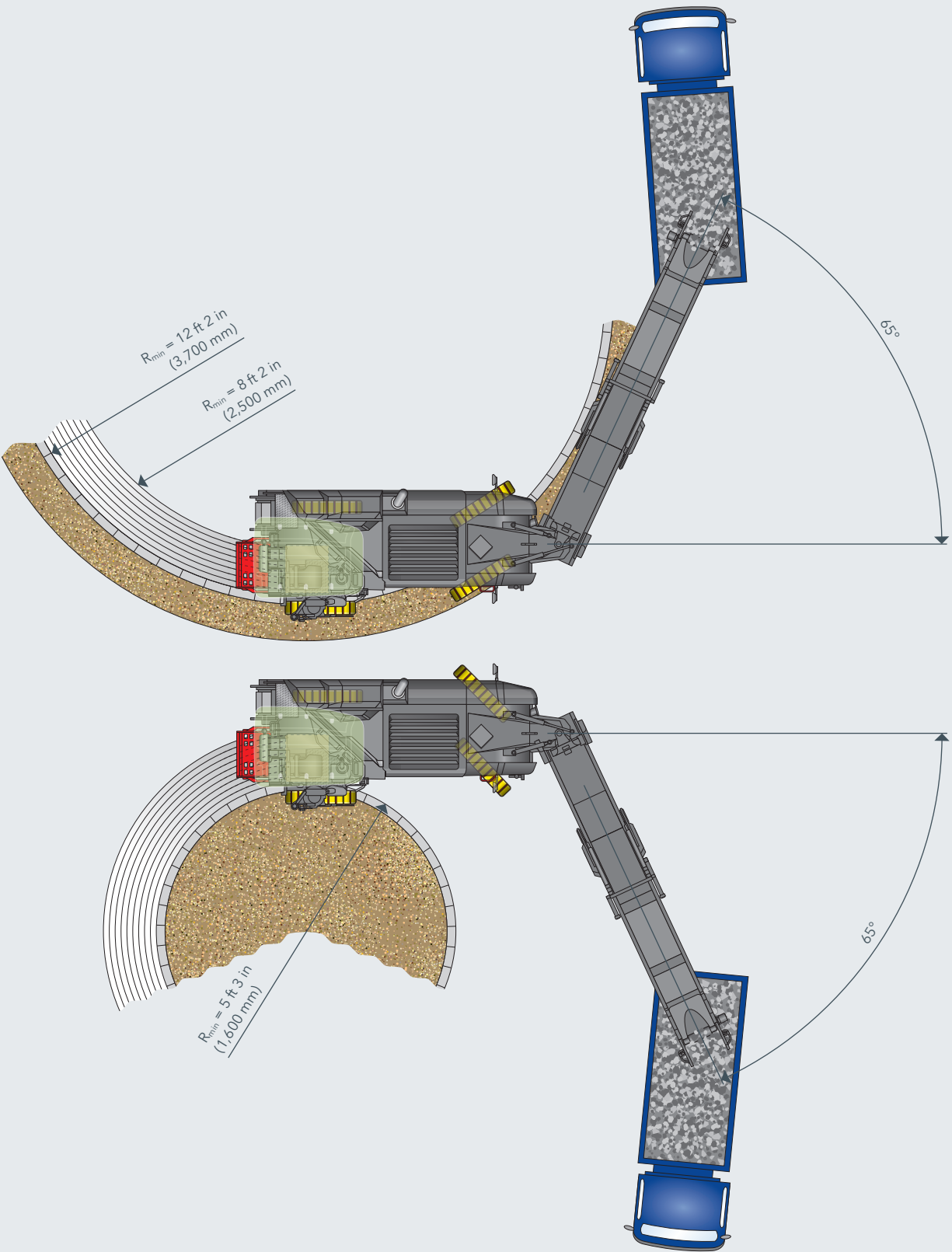
²⁾ AdBlue® is a registered trademark of the German Association of the Automotive Industry (VDA)

³⁾ Machine weight, half-full tanks, vehicle tool kits, machine operator, excluding optional equipment

SIDE VIEW / TOP VIEW W 120 FTi WITH CRAWLER UNITS

¹⁾ Folding discharge conveyor, short²⁾ Based on operating weight, CE with conveyor folded out

MILLING RADIUS W 120 FTi AT MILLING DEPTH OF 6 IN (150 MM)



STANDARD EQUIPMENT W 120 FTi

Basic Machine

> Base machine with engine	■
> Electrohydraulically opening engine cowling	■
> Radiator with temperature-dependent fan speed	■
> Highly effective noise insulation throughout the engine compartment	■
> Automatic engine speed adjustment depending on machine load	■
> Elastically mounted engine station with low vibration and low noise	■

Milling Drum Unit

> The right-hand side of the milling drum housing can be easily opened for maintenance or drum change	■
> Hydraulically operated rear scraper with mechanical locking	■
> Milling drum housing FB1200 (3 ft 11 in)	■
> Version with a one-piece water spray bar for the FB1200 (3 ft 11 in)	■

Milling Drums

> Milling drum FB1200 (3 ft 11 in) HT22 PLUS LA15 with 109 picks	■
> Milling drum rotation device	■

Loading of the Milled Material

> Discharge conveyor slewing angle left 65 degrees - right 65 degrees	■
> Hydraulically foldable discharge conveyor with two swing speeds, including adjustable conveyor speed for precise loading	■
> Machine with hydraulic pre-fitting for a discharge conveyor - screw coupling	■
> Discharge conveyor, 26 ft 9 in (8,150 mm) long, 2 ft (600 mm) wide, with hydraulic folding device	■
> Version without VCS extraction system	□

Machine Control and Leveling System

> Digital milling depth indicator on machine control panel	■
> LEVEL PRO ACTIVE leveling system right and left	■
> RAPID SLOPE cross-slope sensor for LEVEL PRO ACTIVE leveling system	■
> Precise machine height adjustment in increments of 1 or 5 mm via the machine's main control panel	■
> Advance drive with electronic traction control system	■
> Automatic water management	■
> Active floating position for the side plates, left and right	■

Operator's Platform

> Hydraulically extendable operator's platform for optimum view of the working area	■
> Steering console adjustable in inclination which enables the operator's platform to be ideally adjusted to suit the operator	■
> Slender machine design permits unobstructed view of the milled edge as well as the working area in front of the milling drum on the right	■
> Conveniently accessible ladder / footstep to the operator's platform with night-time lighting and especially low bottom edge of the latter / footstep	■
> Robust anti-vandalism protection for the controls	■
> Mirror package including front left and right rear-view mirrors, a forward-facing mirror to the left of the operator's platform, and a mirror for the area in front of the left front crawler unit	■
> Reversing horn with clearly audible signal	■
> Illuminated control panel / nighttime design	■
> Scraper height indicator on control panel	■
> Standard operator's platform, not hydraulically moveable	■
> Version without weather canopy and without lateral weather protection elements	□

STANDARD EQUIPMENT W 120 FTi

Track Unit and Height Adjustment

> Dual-speed hydraulic height adjustment of front and rear track units	■
> ISC - intelligent track speed control including hydraulic four-track drive	■
> Reversing with the milling drum rotating; simple and fast maneuvering	■
> Equipped with extremely wear-resistant 2-piece polyurethane track pads	■
> 4 driven track units	■

Miscellaneous

> Large tool package	■
> Towing device	■
> Generously sized water and diesel tanks	■
> Comprehensive safety package with several EMERGENCY STOP switches	■
> "Welcome-and-Go-Home-Light" feature including LED lighting in the area of the operator's platform and access	■
> Hydraulically driven water filler pump used to fill the water tank with a suction hose, maximum flow-through quantity of 55.5 gal/min (210 l/min)	■
> European type certification, EuroTest mark and CE conformity	■
> WITOS - professional telematics solution for machine operation and service optimization	■
> Standard film coating in RAL 9001 (cream)	■
> WITOS - professional telematics solution for machine operation and service optimization	■
> Standard LED lighting package with 14,050 lumen	■
> Standard electro-hydraulic unit	■
> MILL ASSIST assistance system	■

OPTIONAL EQUIPMENT W 120 FTi

Loading Of The Milled Material

> Signal lights for visual "stop" and "go" instructions for the truck driver	□
> VCS extraction system	□

Operator's Platform

> Operator's platform with weather canopy and lateral weather protection elements	□
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Miscellaneous

> Film coating according to the customer's wishes	□
> Premium electro-hydraulic unit	□
> Powerful high-pressure water cleaner, 150 bar (2175 psi), 15 l/min (4 gpm)	□
> Pneumatic hammer with pick extractor/insertor	□

- = Standard equipment
 ■ = Standard equipment, can be replaced with optional equipment if desired
 □ = Optional equipment

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For further information, please scan the code.