🛓 waratah

HARVESTING/PROCESSING HEADS

# **200 SERIES**





It's no coincidence that Waratah has been an industry-leader for more than 50 years. Because we've always listened to you to design durable, more productive and efficient harvesting and processing heads proven for your application.

At our facilities in Finland and New Zealand, each head is made to order, so you get exactly what you need. Our heads are built to work with advanced technology providing precise control with accurate diameter and length measuring. With on-site facility testing, each product is proven on our time to be profitable on yours.

Our commitment to your success goes beyond product quality. When you put our heads to work, our global support network goes to work for you – from helping you choose the right head, to installation and startup, to being on site when you need us.

We offer the widest range of harvester/processor heads on the market. So whether you're harvesting at the stump, processing at the landing or somewhere in between, Waratah is built to work for you all over the world.

"In our industry, Waratah is the standard. The heads have only gotten stronger, faster, with more flow and better measuring."

R

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Reid Lind Owner, Lind Logging

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Several junction box configurations available to suit many applications

**Rotator options to suit many carriers** 

Multi-tree harvesting options for some models

High tensile, steel frames engineered for maximum performance while providing excellent visibility to the tree

Stump treatment and color marking options

High performance saws with ample cutting capacity and automatic control for optimum performance in harvesting applications

Saw box designs to improve productivity and extend durability offering low stump heights

Extreme measuring accuracy with the latest sensor technology and many wheel options

Superior tree holding, log handling, and processing of straight and crooked trees

Large knife and feed roller openings for fast stem catching and productive tree harvesting

# **200 SERIES**

Proven in hardwood, softwood and debarking applications, Waratah 200 Series harvesters balance productivity with accuracy.

Advanced on-board controller and diagnostics

Highly efficient, high performance valves provide responsiveness and speed

> Optional top saw on some models increases productivity

Specialized guarding packages for snow and harsh applications

Dual-diameter sensors for accurate log volumes, assortments and optimum head performance

Fixed and floating front knife options provide optimum delimbing coverage

Delimb knives provide the best possible delimbing for large- and small-diameter wood

High-torque high-performance feed motor options, some models with optional dual-speed feeding

Feed roller options for optimum wood quality, debarking or maximum traction in crooked wood



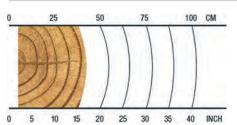
Built for performance and speed, the compact and agile H212 delivers big productivity for harvesting, processing and debarking applications. With its robust and nimble design, this all-around capable head is a little giant in the forest.

#### OVERVIEW

Harvesting in early thinnings; productive in crooked or straight wood.

#### APPLICATIONS

Hardwood harvesting Softwood harvesting Multi-tree harvesting Debarking RECOMMENDED RANGE



4-40 cm / 1.6-15.7 in.





Eucalyptus is no match for the purpose-built H225E. Specifically designed for debarking, this powerful, high-capacity next-generation harvester head productively dominates in the harsh application.

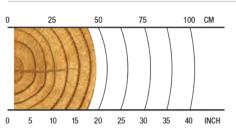
#### OVERVIEW

Eucalyptus debarking in late or final thinnings or regeneration harvesting.

APPLICATIONS

Debarking

RECOMMENDED RANGE



3-45 cm / 1.2-17.7 in.





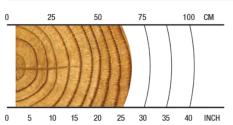
Whether you're in hardwood, softwood or debarking, the agile H216 is perfectly equipped to handle the task. Its simple design with excellent feed power, delimbing, and large cut capacity provide productive tree harvesting.

#### OVERVIEW

Harvesting and processing in late thinnings or regeneration harvesting; productive in crooked or straight wood.

#### APPLICATIONS

Softwood harvesting Hardwood harvesting Multi-tree harvesting Debarking RECOMMENDED RANGE



5-65 cm / 1.9-25.6 in.





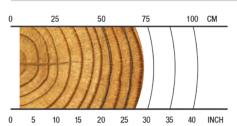
With a robust design, the H219 can handle the toughest woods. Durability is built-in with protected hoses, additional guarding and an aggressive measuring wheel. Plus, accessible servicing and a top saw option provide increased uptime and versatility.

#### OVERVIEW

Harvesting in late thinnings or regeneration harvesting; productive in crooked or straight wood.

#### APPLICATIONS

Softwood harvesting Hardwood harvesting Debarking RECOMMENDED RANGE



5-70 cm / 2-27.6 in.





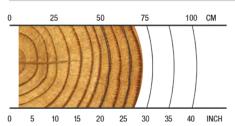
Primarily for tracked carrier applications, the H219X comes standard with a heavy-duty tilt frame for maximum productivity. With easy access to service points, laser find-end sensors and heavy-duty guarding for feed motors, this head is built for next-level performance.

#### OVERVIEW

Harvesting in late thinnings or regeneration harvesting; productive in crooked or straight wood.

#### APPLICATIONS

Softwood harvesting Hardwood harvesting Debarking RECOMMENDED RANGE



5-70 cm / 2-27.6 in.





## **MEASURING AND CONTROL SYSTEMS**

We focus on providing you with accurate diameter and length measuring systems for profitable precision. Simplify operations and boost productivity with real-time statistics and measuring information, and wireless data transfer.



### TIMBERRITE<sup>™</sup> H-16

Imagine a fast, powerful control system that manages your workload and links your office to the forest.

The productive TimberRite measuring and control system uses a powerful Windows PC, providing accurate measuring technology and responsive head control for efficient operational productivity.

It records production information, tracks productivity, and packages all files in the latest StanForD 2010 format to ensure data interchanges with virtually any professional system in the forest industry.

Additionally, this user-friendly system has email capabilities, and can utilize our WaratahMate<sup>™</sup> smartphone app for the efficient and timely transfer of production information and other important files regardless of your location. Configurable as standard with Pre-Selection priority, or optionally with Value Optimization it can manage your output to keep step with market demands. TimberRite keeps you productive and informed to manage your workload for whatever your market requires.



#### KEY FEATURES

- Onboard mapping optional) access your location and visualize your production data.
- **Pre-Selection Priority** (standard) sequential optimization by cutting list instruction, and alternate log assignments.
- Value Optimization (optional) value-based optimization, intuitive prognosis through intelligent assessment of advanced matrices.
- Touch-screen display, or wireless keyboard and touch pad mouse.
- Windows<sup>™</sup> PC-based controller integrates the harvester head measuring and control system with the high processing power of a personal computer.
- **StanForD 2010** file structure ensures data interchanges with other professional systems in the forest industry.
- Automatic file sending production reports, worksite instructions, repair follow-ups, calibration history, log tables, machine settings and harvesting instructions.
- WaratahMate<sup>™</sup> smartphone app Easily transfer data wirelessly regardless of location, or through email via phone USB.
- Work & repair statistics Monitor uptime, productivity and operating costs.
- Species specific calibration and soft-clamping settings for delimb and drive arms.
- Operator specific settings and configurable menus for quick navigation and adjustments.
- Extensive site documentation expanded site, contractor, and machine information.
- Simplified diagnostics input and output tests with built-in diagnostic troubleshooting assistance.

## **OPTIONS**

Waratah heads are configurable to your application. Consult your dealer for option availability.



#### Configurability

Waratah has a wide range of focused options for harvesting and processing applications including single- and multi-stem processing, multi-tree handling, and all models include options for softwood, crooked hardwood and debarking.



#### Main Saws, Saw Motors, Top Saws

The 200 series have high-cutting capacity main saws with saw boxes designed for quick, cross cutting. All saw units have auto tensioning 10 mm/0.404 pitch chain driven by efficient, high torque motors. Additionally, the H219 has an optional top saw for extra efficiency in crooked wood applications.



#### Color Marking

Waratah offers nozzle-applied color marking systems to simplify log identification. Three colors provide many assortment combinations, improving sorting and yard safety.



#### **Measuring Wheels**

Application-specific measuring wheels are engineered for accurate and consistent measuring in all tree species with enhancements for log quality. Selections include wide and narrow models, coarse and fine teeth options, and multi-stem, debarking configurations.



#### **Delimb Arms**

Delimb arms are engineered for fast stem catching and durability in the toughest applications. Knife profiles ensure quality delimbing throughout the recommended diameter range.



#### Feed Rollers

Different options are available for a variety of applications, offering improved traction and reducing fiber damage. Feed roller options include eucalyptus debarking, rib, v-type, MTH, Moipu, MenSe, thumbnail, aggressive and many combination styles.



#### Front Knives

Waratah offers heavy-duty floating or fixed front knife options with specialized profiles and cutting edges for superior delimbing in any application.



#### Rotators

Waratah offers high torque and productive rotator motor and hose bulkhead options on all of the 200 series models.



#### Multi-tree Harvesting

Select models have multi-tree harvesting (MTH) capabilities, providing superior accumulating and precise bundle feeding with the option. MTH ability increases productivity and can easily be installed between the rotator and hanging bracket – even on existing heads.



**Stump Treatment** Waratah has nozzle or bar-applied stump treatment kits.

Talk to your Waratah dealer about more available options.

# TECHNICAL DATA 200 SERIES

	H212	H225E	H216
DIMENSIONS	11212		11210
	1150 / 45 2	1650 / 65.0	1695 / 66.7
Width, head open [mm/in.]	1150 / 45.3		
Width, head closed	1025 / 40.4	1200 / 47.2	1335 / 52.6
Height without rotator and link	1360 / 53.5	1900 / 74.8	1845 / 72.6
WEIGHT	770 / 1000 /04-1)	1000 / 0710	1405 / 0000
Excluding rotator, link and some options [kg/lb.]	770 / 1698 (Std)	1690 / 3718	1495 / 3296
	830 / 1830 (Incl. MTH)		
DELIMBING	0 marine 0 frond	American 1 fined 2 fined debadies to de	American Africad
Delimbing knives	3 moving, 2 fixed	4 moving, 1 fixed, 2 fixed debarking tools 430 / 16.9	4 moving, 1 fixed 450 / 17.7
Delimbing diameter, tip to tip [mm/in.]	360 / 14.2 500 / 19.7	430 / 10.9 540 / 22.8	650 / 25.6
Maximum opening, upper knives [mm/in.] Maximum opening, lower knives [mm/in.]	550 / 21.7	610 / 24.0	760 / 29.9
FEEDING	550/21.7	010/24.0	760 / 29.5
Quantity of feed rollers	2	2	2
Motor cc - option 1	398-cc motors	627-cc motors	702-cc motors
Gross feed force [kN] (steel feed rollers)	20	21.2 (@ 280 bar, 260 lpm)	33.6 (@ 350 bar, 320 lpm)
	20	27 @ 350 bar	55.0 (@ 550 bai, 520 ipin)
Motor cc - option 2		702-cc motors	780-cc motors
Gross feed force [kN] (steel feed rollers)		24 (@ 280 bar, 280 lpm)	29.8 (@ 280 bar, 318 lpm)
01033100010106 [KNJ] (Steel 1660101615)		2 1 (© 200 bai, 200 ipin)	37.3 (@ 350 bar, 320 lpm)
Motor cc - option 3		780-cc motors	857-cc motors
Gross feed force [kN] (steel feed rollers)		26 (@ 280 bar, 310 lpm)	32.8 (@ 280 bar, 318 lpm)
		20 (@ 200 bai, 310 ipin)	41.0 (@ 350 bar, 320 lpm)
Motor cc - option 4			934-cc motors
Gross feed force [kN] (steel feed rollers)			35.7 (@ 280 bar, 318 lpm)
Motor cc - option 5			1043 / 624-cc motors
Gross feed force [kN] (steel feed rollers)			39.9 (@ 280 bar, 318 lpm)
Maximum feed speed [m/s]	6	5.5 / 18	4.5–5.6
Maximum roller opening [mm/in.]	440 / 17.3	550 / 21.7	700 / 27.6
Minimum diameter [mm/in.]	17.5	30 / 1.2	50 / 2.0
TOP SAW		307 1.2	307 2.0
Maximum cut diameter [mm/in.]			400 / 15.7
Length of saw bar [mm/in.]			600 / 23.6
Chain type [mm/in.]			10 / 0.404
Top saw motor displacement [cc]			14cc
BUTT / FELLING SAW			1100
Standard Saw	SuperCut 100S with auto chain tensioning	SuperCut 100S with auto chain tensioning	SuperCut 100S with auto chain tensioning
Maximum cut diameter [mm/in.]	520 / 20.5	550 / 21.7	750 / 29.5
Length of saw bar [mm/in.]	640 / 25.2	670 / 26.4	900 / 35.4
Chain type [mm/in.]	10 / 0.404	10 / 0.404	10 / 0.404
Saw motor	20cc	20cc	32cc
Chain oil tank capacity		10	131
CARRIER RANGE			
Wheeled [metric ton]	11-18	18-22	18-25
Tracked [metric ton]	8-16	20-25	16-25
HYDRAULIC SYSTEM			
Maximum operating pressure [Mpa/PSI]	28 / 4061	28 / 4061, 35 / 5076	28 / 4061, 35 / 5076
Recommended pump capacity [l/min.,gal/min.]	180 @ 150 bar / 48 @ 2176 PSI	260–340 / 70–91	260-370 / 69–100
CONTROL AND MEASURING SYSTEM	TimberRite H-16*	TimberRite H-16*	TimberRite H-16*
OPTIONAL EQUIPMENT			
Color marking	Yes	No	Yes
Stump treatment	Yes	No	Yes
Multi-tree-harvesting (MTH)	Yes	No	Yes
HD tilt frame option	Yes	No	No
Debarking feed rollers	Yes	Yes	Yes
Steel thumbnail feed rollers	Yes	No	Yes
Steel ribbed feed rollers	Yes	No	Yes
Rubber feed roller option	No	No	No
Chain and saw bar kits	Yes	Yes	Yes
Hydraulic hose kit	Yes	No	Yes
Top saw	No	No	Yes
Processing upper delimbing knives	Yes	No	Yes
Saw chain grease lubrication	Yes	No	Yes
Find end-sensor	Yes	No	Yes
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This brochure has been compiled with care for worldwide circulation. While general information, pictures and descriptions are provided, some illustrations and text may include options and accessories not available in all regions. Please contact your local dealer for details. Waratah reserves the right to change specifications and design for products described in this brochure without notice. No liability for errors and omissions.

	H219	H219X
DIMENSIONS		
Width, head open [mm/in.]	1900 / 74.8	1900 / 74.8
Width, head closed	1190 / 46.8	1190 / 46.8
Height without rotator and link	1970 / 77.6	1970 / 77.6
WEIGHT		
Excluding rotator, link and some options [kg/lb.]	1970 / 4343	2050 / 4519
DELIMBING		
Delimbing knives	4 moving, 2 fixed	4 moving, 2 fixed
Delimbing diameter, tip to tip [mm/in.]	510 / 20.1	510 / 20.1
Maximum opening, upper knives [mm/in.]	800 / 31.5	800 / 31.5
Maximum opening, lower knives [mm/in.]	870 / 34.3	870 / 34.3
FEEDING		
Quantity of feed rollers	2	2
Motor cc - option 1	1259 / 944-cc motors	1259 / 944-cc motors
Gross feed force [kN] (steel feed rollers)	37.7 / 28.1	37.7 / 28.1
Motor cc - option 2	1404 / 1050-cc motors	1404 / 1050-cc motors
Gross feed force [kN] (steel feed rollers)	41.6 / 31.2	41.6 / 31.2

Maximum feed speed [m/s]	4.5–6.0	4.5-6.0
Maximum roller opening [mm/in.]	760 / 29.9	760 / 29.9
Minimum diameter [mm/in.]	50 / 2.0	50 / 2.0
TOP SAW		
Maximum cut diameter [mm/in.]	400 / 15.7	400 / 15.7
Length of saw bar [mm/in.]	600 / 23.6	600 / 23.6
Chain type [mm/in.]	10 / 0.404	10 / 0.404
Top saw motor displacement [cc]	14cc	14cc
BUTT / FELLING SAW		
Standard Saw	SuperCut 100S with auto chain tensioning	SuperCut 100S with auto chain tensioning
Maximum cut diameter [mm/in.]	750 / 29.5	750 / 29.5
Length of saw bar [mm/in.]	900 / 35.4	900 / 35.4
Chain type [mm/in.]	10 / 0.404	10 / 0.404
Saw motor	19 or 20cc	19 or 20cc
Chain oil tank capacity	7.21	7.21
CARRIER RANGE		
Wheeled [metric ton]	20-30	20-30
Tracked [metric ton]	25-30	25-30
HYDRAULIC SYSTEM		
Maximum operating pressure [Mpa/PSI]	28 / 4061	28 / 4061
Recommended pump capacity [l/min.,gal/min.]	320–380 / 85–101	320–380 / 85–101
CONTROL AND MEASURING SYSTEM	TimberRite H-16*	TimberRite H-16*
OPTIONAL EQUIPMENT		
Color marking	Yes	Yes
Stump treatment	Yes	Yes
Multi-tree-harvesting (MTH)	No	No
HD tilt frame option	No	Yes
Debarking feed rollers	Yes	Yes
Steel thumbnail feed rollers	Yes	Yes
Steel ribbed feed rollers	Yes	Yes
Rubber feed roller option	No	No
Chain and saw bar kits	Yes	Yes
Hydraulic hose kit	Yes	Yes
Top saw	Yes	Yes
Processing upper delimbing knives	Yes	Yes
Saw chain grease lubrication	Yes	Yes
Find end-sensor	Yes	Yes



FORESTRY EQUIPMENT

For the latest model specifications and details, visit Waratah.com.



