



**RAPTOR SERIES**  
POWER COMBINED  
WITH EFFICIENCY





# PIONEER SINCE 1990

## LEADING IN MULCHING TECHNOLOGY

A unique history stands behind the power and efficiency of the new RAPTOR series – marked by courage and a spirit of adventure. In 1990 the Willibald brothers founded AHWI Engineering Factory GmbH. Their idea was to develop and produce machines for harvesting and re-cultivation of forest floors, and specialized machines in the areas of environmental technology and recycling of organic substances.

The brothers developed the first mulcher, which had already been assembled in 1995 with their own tracked tractor RT350 – suitable for special mulching applications. In subsequent years AHWI built many diverse products and began the development of special machines for mine clearance – the “Mine Wolf”. In 2004 production began on the RT400, one of the most frequently purchased products in the

whole range. With the construction of a new warehouse in 2008, the foundation could be laid for the most rapid supply of spare parts. Customers value this advantage up to the present day.

The next innovation followed in 2010, with a self-drive harvesting machine: the Biomass Harvester 480. The following year AHWI joined forces with the South Tyrolean producer of snow groomers PRINOTH within a strategic partnership. This was an important step on both sides, to utilize and extend synergies of tracked vehicles and forest mulching technology. Only a short time later followed the launch of

RAPTOR 800, which set new standards in matters of performance and productivity. 25 years after the foundation of AHWI Engineering GmbH, PRINOTH brought a further innovative vehicle onto the market with RAPTOR 300. With the new generation of the RAPTOR series, PRINOTH further increased their technical advantage in meeting challenging customer demands.

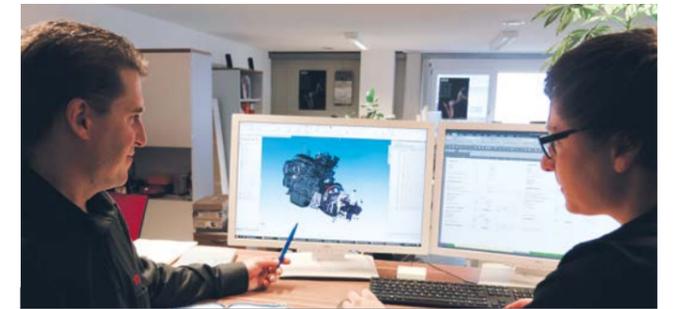


PRINOTH SUPPORTS YOU ALL THE WAY



**CONSULTATION AND DIALOGUE**

This is the basis of good partnership, so that PRINOTH solutions perfectly fulfil your requirements.



**RESEARCH AND DEVELOPMENT**

At PRINOTH we work continuously and intensively on forward-looking innovations and more efficient products.



**PRODUCTION**

The high-quality PRINOTH products "Made in Germany" are carefully processed and optimised for the toughest applications.



**QUALITY MANAGEMENT**

PRINOTH has held the DIN ISO 9001 certificate for many years and we continually improve our internal processes.



**DELIVERY**

Time is money. Therefore you can be firmly assured that PRINOTH will deliver quickly and on schedule.



**COMMISSIONING**

So that you get the best value from the start, you will be instructed by certified PRINOTH personnel.

# LEADING THE WAY

**PRINOTH: YOUR LEADING PARTNER**

Mulching, tilling, clearing. With all your work, you are preparing the ground for something new – and under the toughest conditions. Here you can rely on the technological leader in vegetation management. PRINOTH will support you with innovations and highly efficient product solutions for perfect sustainable results. You will profit from the know-how and experience of the originator of the first mulcher

with fixed tools. Building upon AHWI Engineering GmbH, PRINOTH today unites the agility and dynamics of a medium-sized business with the strength and reliability of the international PRINOTH Group.

"Made by PRINOTH" products are defined by high quality and matchless durability. The focus on mechanical drive systems guarantees

you maximum efficiency with minimum fuel consumption and optimum performance. Competent advice and worldwide service with the best supply of spare parts provide the basis for superior economic efficiency and reliability – day by day, and year by year. For PRINOTH this constitutes "for solid ground".



**OPERATION**

Wherever you work with a PRINOTH machine, you can rely on the utmost durability and efficiency.



**SERVICE**

Following purchase, the PRINOTH After-Sales Network accompanies you with tailor-made services and a reliable supply of spare parts.



# MULTIPLE TASKS

## WORLDWIDE APPLICATIONS

Takes care of forest, farming and plantation economies, and of many tasks around site clearing and maintenance. The RAPTOR SERIES vehicles are true all-rounders in every terrain even in the most adverse conditions. This is on account of their design advantages, such as their delta pendulum undercarriage, their performance and equipment. Whether it is a matter

of clearing pipelines in Alaska or maintaining electricity lines in Central Europe, vehicle drivers confirm: It is a joy to work with a RAPTOR! The delta pendulum undercarriage with its track adapts itself to the current surface and thereby maintains the ground. The rubber tracked undercarriage of the RAPTOR 300r enables traversing even tarred surfaces.

## CLEAR LINE OF FIRE FOR PROFESSIONAL HUNTERS

More power with less noise pollution: the RAPTOR 500 can be employed in normal areas of application such as land clearance, skid roads or infrastructure measures. It has a somewhat different task to tackle in the Prince of Fürstentberg's forest: Hunting and forest shooting waisles. The contractor is the appointed

professional forester Robert Schrenk. From his elevated seat he gives directions where the three shooting aisles need to run for a better hit rate. He is, above all, impressed with the low ground contact pressure of the RAPTOR 500, which leaves the forest floor as much cared for as a football pitch.



"The RAPTOR prepared the hunting aisles rapidly – and was kind to the forest floor at the same time."  
Robert Schenk,  
professional forester



“With a low ground contact pressure below 265 g/cm<sup>2</sup> (3.77 psi), these machines preserve the sensitive ground vegetation in every application.”

Hans Gering,  
engineer

## EXAMPLES OF APPLICATION



### FIREBREAKS & PREVENTION OF FIRES

Firebreaks can form a preventative restriction on the spread of fire. Fostering includes the removal of bushes and low growing trees.



### PLANTATION ECONOMY

The RAPTOR is recommended in plantations for preparation for the next generation. Harvest residues and rootstocks are mulched, and the soil improved.



### BIOMASS HARVEST

RAPTOR is the best choice as a machine for wood chip production and harvesting of secondary vegetation and young stands.



### SITE CLEARANCE

Instead of slash and burn, chainsawing or bulldozing when site clearing, mulching provides the most conserving impact on the ecosystem.



### INFRASTRUCTURE MEASURES

Where power lines are being laid or roads are to be constructed, the RAPTOR is the ideal machine for ground preparation.



### LINE MAINTENANCE

The RAPTOR is at home where clearance is required for power/overhead lines, energy routes, pipelines or railway lines situated on slopes.



### SKID TRAILS AND DEVELOPMENT

Skid trails are indispensable in modern forest management. With the RAPTOR it is child's play to open up and keep skid trails clear.



### RE-CULTIVATION

Re-cultivation means site clearance, deforestation and root stock shredding. RAPTOR comes into play in mulching and clearing.



### SPECIAL APPLICATIONS

RAPTOR is master of special applications such as seismic lines, natural regulation, landscape maintenance extending to composting of biomass.



**STEEP UPHILLS AND DOWNHILLS**

Thanks to its good centre of gravity and high-performance drive, every RAPTOR can master gradients up to 45° frontally and 30° laterally.



**SOIL PROTECTION**

Low ground contact pressure prevents sinking into soft ground. Travelling through water up to a depth of 50 cm is no problem to the RAPTOR. The RAPTOR 300r with rubber tracks can cope even up to 1.20 m.



**ROUGH TERRAIN**

Surfaces with obstacles such as tree stumps are no problem to the delta pendulum undercarriage, since it easily drives over them without striking them.



# TRACK DRIVE MECHANISM

Where conventional vehicles reach their limit, the PRINOTH RAPTOR series comes into its own. Steep inclines, soft ground, branches, rootstocks and many other obstacles present quite specific demands on a carrier vehicle. With many years' experience, PRINOTH has adapted the RAPTOR series precisely to these

demands – with powerful tracked carrier vehicles for optimal traction, highest efficiency and maximum durability. With the RAPTOR 300r you have the choice between rubber tracks for perfect operation on every soil, or steel tracks for heavy work and load capacity from 13 t. Whether in virgin forest, tundra or plan-

tations, mountains or lowland, cold or heat – you will find your way with RAPTOR models 800, 500, 300 and 300r. Productive, reliable and comfortable.



Off-road performance



Soil protection



Rough terrain

**USING THE SPECIAL CHASSIS WITH STEEL OR RUBBER:**



Ideally adapted to every terrain

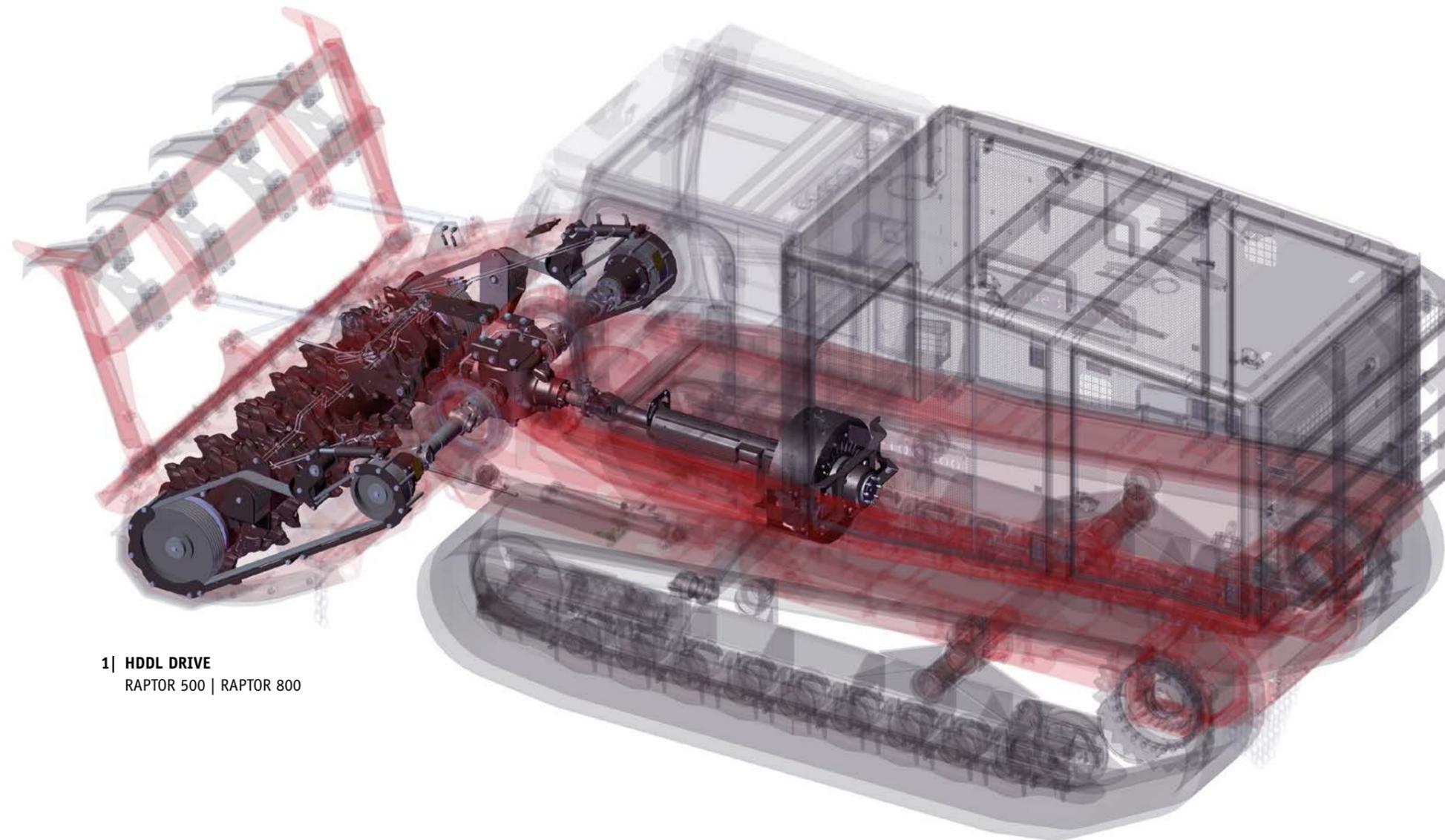


Maintains the underlying ground surface



Does not get bogged down

	RAPTOR 300	RAPTOR 300r	RT 400	RAPTOR 500	RAPTOR 800
Gradeability sideways	30°				
Gradeability frontal	45°				
<b>Ground pressure g/cm<sup>2</sup> (psi)</b>					
600 mm (23.6 in) grouser	340 / 4.84 psi	-	480 / 6.83 psi	430 / 6.12 psi	540 / 7.68 psi
700 mm (27.6 in) grouser	-	265 / 3.77 psi	-	-	470 / 6.68 psi
730 mm (28.7 in) grouser	280 / 3.98 psi	-	-	360 / 5.12 psi	-
800 mm (31.5 in) grouser	-	-	-	-	420 / 5.97 psi
<b>Weight in kg (lbs)</b>					
without Mulcher	12,400 / 27,337 lbs	12,560 / 27,690 lbs	16,000 / 35,274 lbs	14,940 / 32,937 lbs	20,750 / 45,746 lbs
with Mulcher	15,250 / 33,620 lbs	14,560 / 32,099 lbs	20,270 / 44,688 lbs	19,100 / 42,108 lbs	25,600 / 56,438 lbs



1| HDDL DRIVE  
RAPTOR 500 | RAPTOR 800

2| PB DRIVE  
RAPTOR 300

3| PTO DRIVE  
RAPTOR 300r

HDDL: Heavy Duty Drive Line  
PB: Power Belt  
PTO: Power Take-off shaft

# EFFICIENT TRANSMISSION

## ALL COMPONENTS IN PERFECT TEAMWORK

Every PRINOTH machine is developed from profound industrial knowledge, deep understanding of customer requirements and knowledge of the best technologies for forward-looking forestry machinery. The result is more constructive highlights, which not only ease the work of the machine operators, but also make the machine altogether more flexible, more economical and more environmentally friendly.

### Engine

Powerful diesel turbo engines with charge air coolers, which are electronically regulated from 275-640 HP, fulfil the applicable emission regulations. High injection pressure rapidly provides high torque, which results in greater power with lower fuel consumption.

### Mechanical mulching power

This extremely robust drive transmits the power without loss of efficiency from the carrier vehicle to the mulcher. That is to say, maximum power is available to the mulcher. Which means there is extreme fuel economy and reduction of operating costs, and therefore little hydraulic oil is needed. The centre of gravity is brought closer to the carrier. Unlike hydraulic

solutions, this maintenance-friendly system with its closed belt cover has no open drive elements. You will profit from unlimited clearance. Turbo coupling protects the drive and provides against over-heating of the machine.

### Hydrostatic drive

RAPTOR's hydrostatic drive is infinitely variable and always efficient. With a drive pump on each side, it provides optimal operating speed.

### Advantages that count

The perfect partnership of engine and drive reduces fuel consumption by up to 30% in

contrast to hydraulic systems. This protects the environment and reduces costs. At the same time, the machine is especially maintenance friendly and thereby saves time and expense.



#### INTUITIVE DISPLAY

Find rapid solutions to indicated problems. With the configurable display you have all operating parameters continuously in view.



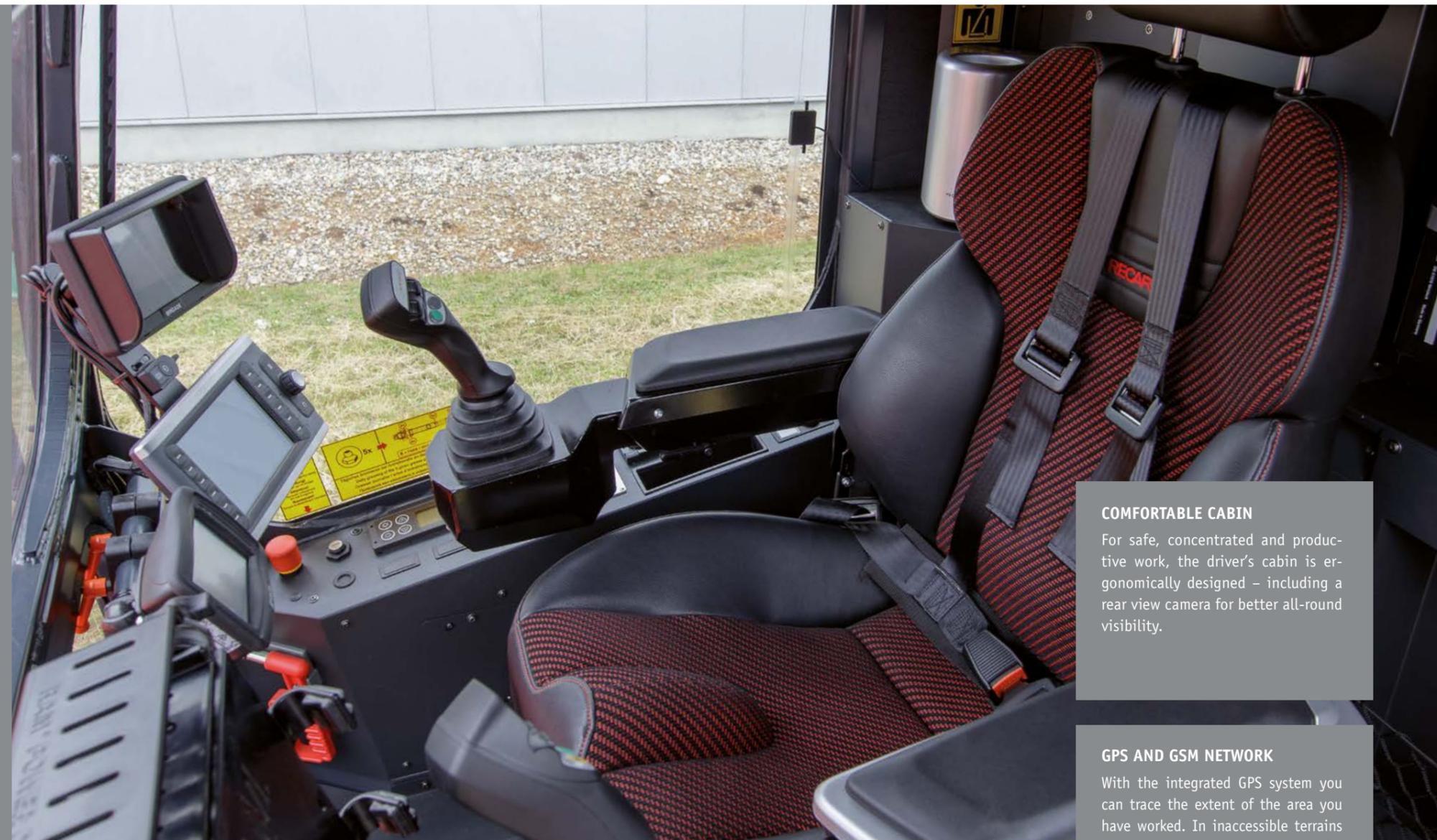
#### EASY ACCESS

With generously dimensioned maintenance flaps and the hydraulically tilting cabin, all components requiring maintenance are readily accessible.



#### AIR CONDITIONING

The excess pressure unit and air conditioning provide optimal climatic conditions.



#### COMFORTABLE CABIN

For safe, concentrated and productive work, the driver's cabin is ergonomically designed – including a rear view camera for better all-round visibility.

#### GPS AND GSM NETWORK

With the integrated GPS system you can trace the extent of the area you have worked. In inaccessible terrains this also serves as occupational safety: people will always be able to find you.

## CUSTOMIZED COMFORT

#### INDIVIDUALISED DESIGN

Great value is placed on individuality at PRINOTH. In consultation with the customer, requirements are determined and the possibilities for equipping the RAPTOR are outlined. The RAPTOR cabin already possesses an ergonomic layout of instruments and

a comfortable, suspended seat for a healthy workplace. Available optional extras such as a rear view camera, bottle cooler or USB connection to the radio can be flexibly configured.

#### VERSATILE OPTIONS

In order to meet specific customer wishes, the RAPTOR series offers many additional options, such as

- » Rope winch
- » Arctic package
- » Auxiliary heating
- » Refuelling pump
- » Float position
- » Load limit control
- » Fire extinguishing system
- » GPS
- » Forest limits
- » Compressed air system

Of course, other special requests can be fulfilled where possible.

“We focus on our partner, with whom we daily accomplish her/his requirements.”

Jürgen Plessing,  
After-Sales Manager



# STRONG TOGETHER

## YOUR PRINOTH SERVICE: COMPETENT AND QUICK

PRINOTH capitalises on customer loyalty and satisfaction. When considering the purchase of a new machine, one asks what happens to the old one? When purchasing a RAPTOR, PRINOTH offers the possibility of marketing your used machine over a wide network. Moreover, consultation does not end with your signature on your RAPTOR order. You will receive comprehensive instruction from the Service Team on-site when

installing. PRINOTH guarantees competent support and technical help in maintenance work, repairs and upgrading. With regular visits, wear and tear and maintenance requirements can be identified early and remedied. Training courses following installation are also part of the PRINOTH Service. If you wish for a regular check-up or service contract, please inquire for an individual quotation.



## INDIVIDUALISATION OF OUR PRODUCTS

Customer wishes have the highest priority with PRINOTH. Therefore RAPTOR is equipped with many varied options. The configuration of your perfect RAPTOR will be treated with the greatest care.



## COMPREHENSIVE TRAINING

Technical experts regularly run technical training on-site and in plants specially tailored to the respective vehicle types.



# PERFORMANCE

## OUTSTANDING FEATURES

Every RAPTOR model is unique in its field of activity and impresses by its Level of performance. They all combine high quality with their particular features. They are generally used wherever conventional vehicles reach

their limits. Never mind if you are dealing with steep inclines, soft ground, branches, rootstocks or other obstacles, RAPTOR Series brings efficient solutions in every area of application.



### HIGH TECH

“Made in Germany” stands for high quality and careful matching and preparation of all technical, electronic and mechanical components of the RAPTOR Series.



### DURABILITY

Generous dimensions and patented synchronous control of machine and drive shaft ensure long-lived vehicles.



### TRACTION

The optimal centre of gravity of the machines ensures a good grip and thus perfect all-terrain mobility. The ground pressure remains low thanks to the assembly of the track drive mechanism.



### EFFICIENCY

The mechanical drive transmits full power to the rotor without loss of capacity. Thus the RAPTOR Series works up to 30% more efficiently and thereby makes a clear saving on running costs.

### \*\*\*\*\* HIGH STANDARDS OF COMFORT

The RAPTOR Series provides the greatest possible comfort through low vibration transmission to the cab, good sound insulation and ergonomically formed fittings.



### RELIABILITY

Optimally coordinated mechanical components guarantee minimal wear and tear and increase durability, together with PRINOTH service offers of maintenance and care.



### SAFETY

The RAPTOR SERIES has the highest safety standards and is certificated by ROPS [Roll Over Protective Structure], FOPS [Falling Objects Protection Structure] and “Frontguard”. All safety systems are doubly secured.



### VERSATILE

Highly configurable for the most varied applications – that is the RAPTOR SERIES. Thus, for example, the RAPTOR 300r runs on rubber tracks and thereby protects the soil and roads that need to be crossed.

# OVERVIEW RAPTOR SERIES



RAPTOR 300



RAPTOR 300r



RT 400



RAPTOR 500



RAPTOR 800



BMH 480 (Biomass harvesting)

	RAPTOR 300	RAPTOR 300r	RT 400
» Engine power	205 kW / 275 HP	205 kW / 275 HP	294 kW / 400 HP
» Max. speed	7.5 km/h / 4.66 mph	10 km/h / 6.21 mph	5.5 km/h / 3.42 mph
» Torque	1,257 Nm	1,257 Nm	2,000 Nm
» Attachment options	M550m / M650m / RF800	M550m	UZM700 / RF1000 / H600

	RAPTOR 500	RAPTOR 800	BMH 480
» Engine power	321 kW / 430 HP	470 kW / 640 HP	345 kW / 469 HP
» Max. speed	8 km/h / 4.97 mph	7.5 km/h / 4.66 mph	5 km/h / 3.11 mph
» Torque	1,846 Nm	2,953 Nm	2,380 Nm
» Attachment options	M700	M900 / SB1200	H600

RAPTOR 300

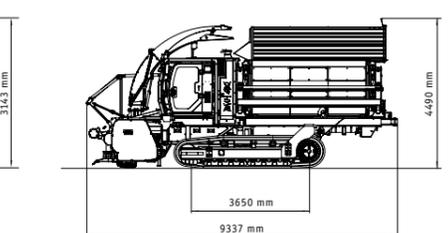
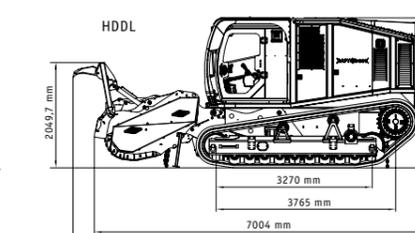
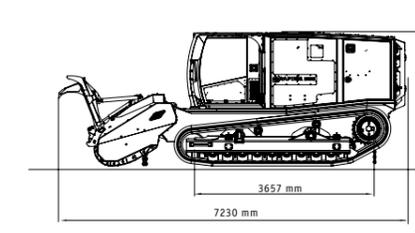
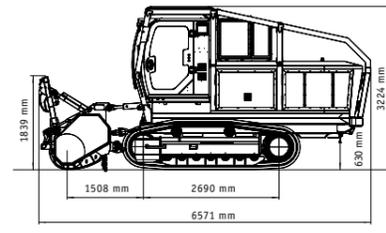
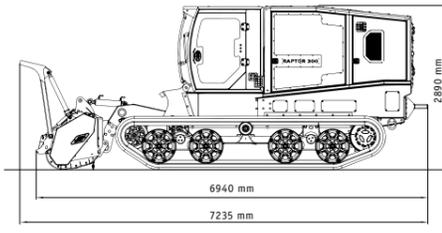
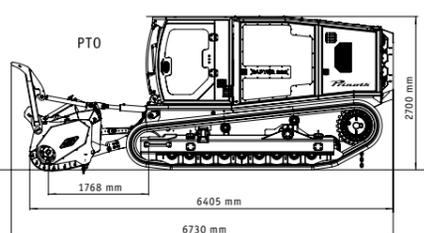
RAPTOR 300r

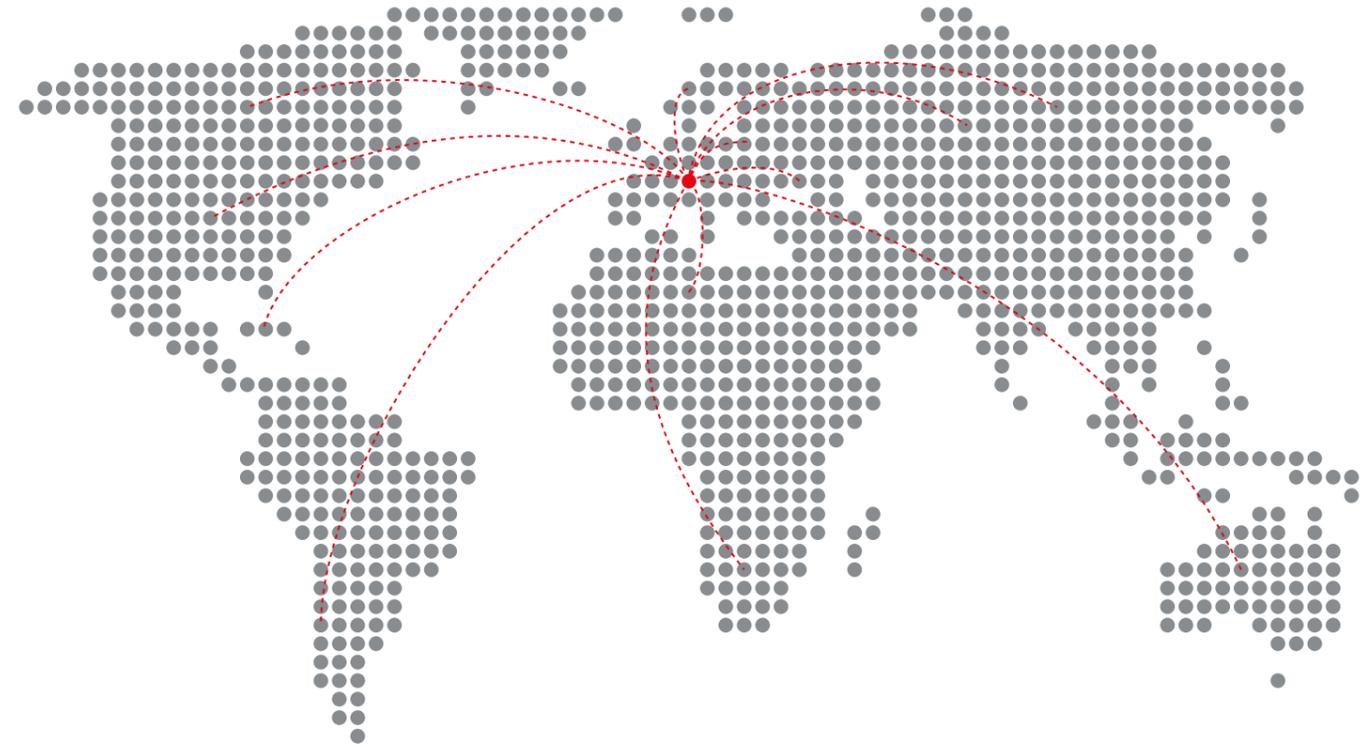
RT 400

RAPTOR 500

RAPTOR 800

BMH 480





# STRONG ON SERVICE

So that you gain the best from your RAPTOR from the very first day, PRINOTH After-Sales Network offers you a spare parts store with over 70,000 available spare parts, including service and support. You can choose the benefits that best fulfil your requirements quite freely.

» Spare parts: The comprehensive spare parts store guarantees rapid delivery of original spare parts in over 50 countries the world over.

» Rotor tools: Wear and tear resistance tools for the toughest applications in forestry. Experience of over 25 years and patented solutions provide optimum efficiency and quality.

» Service on-site: from commissioning and briefing to supervised implementation of the first customer service.

» Service agreements: PRINOTH guarantees competent support and technical help in maintenance work, Repairs and upgrading.

» Training courses: from comprehensive advice on how to operate your machine efficiently to driver training.

PRINOTH gives you the necessary certainty that your RAPTOR will once more deliver top performance in the shortest possible time.





You will find sales and service centres close to you under [www.prinoth.com](http://www.prinoth.com)

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