

80 hp Hedge and Grass Cutters

## PRO-LONGER GII



[www.kuhn.com](http://www.kuhn.com)



be strong, **be KUHN**







**PRO-LONGER GII**

5183 P

5683 P

5683 SP

5783 SPA

6183 SPA

5783 LPA

6183 TP

7483 TP

# ADVANCED PROFESSIONAL MACHINES



The PRO-LONGER GII hedge and grass cutter range is specially designed for all roadside service professionals: contractors, local councils, highways agencies, DIR (French interdepartmental road directorate) etc.

On the strength of its quality construction and high-performance components, the PRO-LONGER GII range offers the guarantee of an outstanding result even with an annual workload in excess of 1500 hours!

With a horizontal reach ranging from 5.10 to 7.40 m and 80 hp of useful rotor circuit power, highway maintenance professionals will find a model in the PRO-LONGER GII range that is suited to their needs.

The PRO-LONGER GII range also comes in 5 different designs to meet the drivers' expectations in terms of driving comfort:



PRO-LONGER GII Models	Horizontal reach (m)	Power (kW/Hp)	Kinematics
EP 5183 P	5.10	59/80	Straight arm
EP 5683 P	5.60	59/80	Straight arm
EP 5683 SP	5.60	59/80	OPTview semi-leading arm
EP 5783 SPA	5.70	59/80	Parallelogram-mounted OPTview semi-leading arm
EP 6183 SPA	6.10	59/80	Parallelogram-mounted OPTview semi-leading arm
EP 5783 LPA	5.70	59/80	Parallelogram-mounted OPTview leading arm
EP 6183 TP	6.10	59/80	Straight telescopic arm
EP 7483 TP	7.40	59/80	Straight telescopic arm





## EP CONTROL:

### 4 ELECTRIC PROPORTIONAL FUNCTIONS AS STANDARD!

The PRO-LONGER GII hedge and grass cutters are operated via a joystick with 4 electric proportional functions: pivot, main boom, outer boom and flail head orientation. The movement speed increases exponentially as the joystick is shifted further along one direction. The machine allows for smooth and precise operation, while providing unbeatable driving comfort.

For increased safety and improved driving comfort, the proportional effect works in both directions: up and down. Precision is guaranteed regardless of the type of job (verge, bank, ditch, hedge, etc.).

The PRO-LONGER GII models feature an end-of-travel damper on the arm and pivot for greater comfort: the jerky movements causing discomfort to the driver and for the machine structure are reduced.

For efficiency, the functions of the main boom, outer boom, flail head orientation, pivot and floating head can be activated simultaneously with the ergonomic joystick, the position of the switches and the output of the movement pump. The EP control joystick can also be adjusted to the size of your hand.

The EP control is easy to install in the cab, it is designed to be positioned in very confined spaces. A single small diameter cable links the machine to the controls.

The control console can be removed from the joystick to suit all cab layouts. It can be easily detached and positioned at eye height and/or within reach.





COUNT YOUR WORK DAY  
**IN KILOMETRES...**  
 NO MORE ACHES OR PAIN!

**KUHN**  **Electronics**  
 INNOVATIVE FARMING



### T15 CONTROL CONSOLE

The control console can be removed from the main console and comprises a whole host of functions such as:

- Display of the hourmeter and the oil temperature,
- Controls for the lift float, automatic arm break-back and rotor (grass or wood direction) with anti-reversing safety,
- Fan, float and temperature alert warning lights,
- Speed of movement can be programmed to improve accuracy when using the hedge trimmer, for example,
- Automatic arm break-back (optional).

The console also includes troubleshooting and repair modes for machine maintenance.





# "MECADRIVE" PATENTED MECHANICAL DRIVE



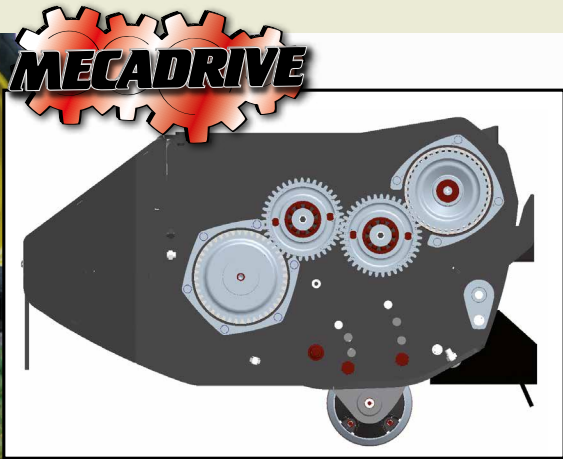
## THE EPITOME OF KUHN KNOW-HOW!

The PRO-LONGER Gll range flail head has been designed under the premise that a professional hedge and grass cutter must be synonymous with performance. The 80 hp flail head fitted as standard to all models in the PRO-LONGER Gll range is patented by Kuhn.

Transmission is provided by a train of four sprockets, lubricated in an oil bath. This exclusive MECADRIVE assembly provides numerous advantages:

- The gearbox takes up considerably less space. It is therefore easier for the operator to work in ditch bottoms while reducing the quantity of uncut grass at the end of the head to a strict minimum.
- The casing is fully watertight for the flail head to work in waterlogged or muddy ditches. Unlike the belt-drive system, the exclusive MECADRIVE assembly shall not be subject to premature wear caused by severe operating conditions.

No maintenance is required for MECADRIVE except for a simple annual oil change. When the rotor encounters a major obstacle, safety is ensured by an oil return via the valves on the circuit.







## FLAIL HEAD: EFFICIENCY IS OUR MAIN GOAL!

### SEMI-AUTOMATIC HITCH ❶

To reduce the installation time of the different flail heads (rotor, hedge trimmer, cutter bar, etc.) the PRO-LONGER GII models feature a semi-automatic tool hitching system.

The hitching frame allows for accurate positioning of the flail head on the arm.

### XTREM SENSOR ROLLER ❷

The 140 mm or optional 168 mm diameter base XTREM sensor roller is perfectly watertight in all working conditions. Both ends are equipped with double taper roller bearings. The assembly is 100% sealed:

- On the lug mounting side by labyrinth seal O-rings and face seals on a film of oil,
- Roller side by a plug.

### SHAPED FLAIL HEAD ❸

The inner geometry of the flail head was specially designed to eliminate bottlenecks: high throughput rhymes with quality shredding.

The outer part of the head features reduced dimensions to guarantee uninterrupted operation in all situations.

Hardened steel friction pads prevent wear and ensure a long service life. Their rounded shape allows for smooth mowing runs.

The rotor half-bearing is fully protected and built in to the casing. Wire protection baffles are provided as standard to protect the rotor bearings.

A replaceable wearing plate makes maintenance easier. The rotors of the KUHN hedge and grass cutter head assemblies have the advantage of being reversible: wear on flails and lugs is therefore optimised quite effortlessly.

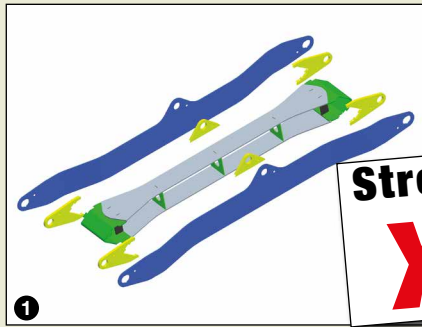




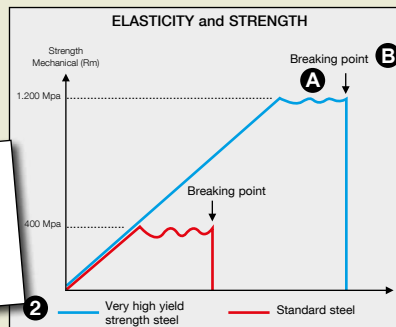
# RELIABILITY INCLUDED!

The hedge and grass cutters feature high-quality design and integrated equipment and are built to last. The PRO-LONGER GII models feature the largest number of standard equipment components on the market.

The PRO-LONGER GII model design was rewarded by the highly prestigious SWEDISH STEEL PRIZE. This international prize is awarded by SSAB and is open to all machine manufacturing companies (farm machinery, public works and industrial machines) using high strength steels in their products.



\* Strength with respect to a tubular structure made of standard steel.



The arm has a reconstituted structure. This construction provides numerous advantages, adjustment of the steel thicknesses and addition of internal stiffeners on the different points of the arm subject to high levels of stress ❶.

Very high yield strength high-grade steels provide the PRO-LONGER GII arms with twice as much strength ❷ and flexibility than a standard tubular structure.

Very high yield strength steel is a shape memory alloy. Depending on the load level, the steel returns to its original form. It is thus less subject to rupture under repeated loads A. Ageing resulting in the breaking point is delayed B.

All the machine joints are protected against wear by greased-for-life cell-type bushes. Rotational shaft movement is prevented to avoid premature wear.

## OVERSIZED RADIATOR: CONSTANT POWER

With the cooling capacity of the imposing fan on the PRO-LONGER GII models sustained work can be kept up all day long.

- Double exchanger: the first one cools the hydraulic system of the two pumps and the second one cools the motor drain,
- Equipped with a flow reversing system to remove dust from the radiator,
- 21 kW power thus 30%\* of additional exchange capacity compared to the equivalent models on the market.
- Low temperature trigger point to prevent thermal runaway of the hydraulic system.
- Position on the left side rather than on the rear. The fan intakes a lot less dust stirred up by the tractor's wheel.

Exchange capacity  
**+30%\***

\* Exchange capacity measured compared to the equivalent models available on the market.







## CAREFUL ROUTING OF HOSES AND AUTOMATIC GUIDING

The hydraulic lines use the "100% hose" solution **1**. This type of assembly is less likely to be damaged by falling plant debris than rigid piping. It also remains the cheapest most efficient solution allowing for quick maintenance and repair. The main and outer booms feature protection guards and sheathing up to the cutting tool. A turntable **2** on the pivot automatically orientates the hoses with respect to the arm movement. Friction-related machining operations are no longer required on the hoses.



## FULL PROTECTION

The PRO-LONGER GII machine is fully enclosed for aesthetic purposes as well as for full protection of all the hydraulic components.

Therefore the areas where soiling may occur are reduced to a strict minimum. The inclined surface in the lower part of the frame ensures an important clearance to work around hilly areas **3**.

The lights are built into the bumper as standard on all the models of the range.

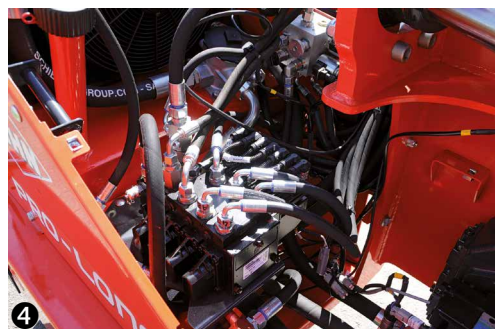
## TRANSPORT POSITION

- Automatic electric lock once the cabin unit is switched off for easier handling. The lock consists in blocking the main boom cylinder and the cutting tool cylinder using the two electro-hydraulic coils.
- Arm docked on a rubber buffer located between the 1<sup>st</sup> and 2<sup>nd</sup> arm for increased safety.



## HYDRAULIC CIRCUIT: PRECISION AND POWER

- The hydraulic closed type circuit of the rotor is composed of a pump and a piston motor with a cast iron body. The output is 80 hp.
- The open type hydraulic movement circuit is composed of a gear pump with a cast iron body providing for an extended service life.



- The hydraulic unit features balancing valves ensuring the constant height of the flail head above the hedge **4**,
- End-of-travel damper on the pivot and main boom cylinder,
- Fall prevention guards on the main boom and outer boom cylinders for increased safety in case of an incident on one of the hoses.
- Filtration on the suction and discharge of the two circuits (rotor and movement) **5**.



# PRO-LONGER GII Range

**PRO-LONGER GII**

**5183 P**

**5683 P**

## PERFORMANCE WITH TRADITIONAL KINEMATICS

The design of the PRO-LONGER GII 5183 P and 5683 P models is characterised by a straight arm with compass movement. With a 5.10 m and 5.60 m horizontal reach, these two hedge and grass cutters are perfectly adapted for farm use or to be used by road maintenance professionals in addition to a fleet of leading or telescopic arm machines. These two models feature all the advantages of the PRO-LONGER GII range: EP control (4-function proportional electrical control), the pivot with a 116° slew angle, patented four-sprocket mechanical drive flail head, etc.



**PRO-LONGER GII**

**5683 SP**

## OPTiview: "VISIBILITY" ADVANTAGES

PRO-LONGER GII 5683 SP features the same technical characteristics as the 5683 P model with the additional OPTiview semi-leading arm. The 1,058 mm outreach of the arm (distance between the rotor shaft and the hitching shaft at the tractor ball joints) provides for improved visibility and working comfort.

The outcome is more flexible manoeuvring and greater responsiveness on obstacle clearance.





**PRO-LONGER GII** 5783 SPA 6183 SPA

## DRIVE IT LIKE AN AUTOMATIC GEARBOX!

These two PRO-LONGER GII models are available with two horizontal reaches (5.70 and 6.10 m) and feature an 80 Hp rotor as for all the models of the range, they are fitted with an additional OPTIview semi-leading arm associated to the parallelogram kinematics.

For "parallelogram" kinematics the main and outer booms are joined by a link. The operator controls all the arm movements with the machine joystick. Only one function on the joystick is required to move the main boom and outer boom.

With their parallelogram the PRO-LONGER GII 5783 SPA and 6183 SPA model control system is intuitive right from the start. Drivers shall rediscover performance associated to unbeatable driving comfort.



# PARALLELOGRAM: "COMFORT" DESIGN



### PASCAL GAUTRON

"Landscape maintenance" project manager at the engineering department

In the specifications for the development of the PRO-LONGER GII models, we considered it essential to bring a real added value to the machine operator.

Which is precisely why we have developed parallelogram kinematics on certain models of the range. This system which mechanically combines the main and outer boom movements has proved to be an obvious

"product bonus" further to our internal trials.

During the prototype phases, all the operators were satisfied with the driving comfort provided by our product.

With nearly 10 years of experience, we can now clearly demonstrate the following advantages:

- More flexible manoeuvring,
- Greater responsiveness on obstacle clearance,
- The driver gets less tired,
- The absence of underarm rams provides more clearance for skirting around obstacles (road signs, safety rails, etc.),
- From an economical aspect, maintenance costs are significantly reduced. These savings are due to reduced friction (less ground pressure and shifting).







# DESIGNED TO COVER MANY KILOMETRES OF ROAD VERGE!

The PRO-LONGER GII 5783 LPA MAXview hedge and grass cutter features a leading arm (offset). The kinematics allows to work with the mowing head near the tractor door. The technical feature of this machine is the exclusive association of its MAXview leading arm with:

- The parallelogram kinematics **1**. This unique design allows the operator to perform all the arm movements with the EP control joystick.
- Double hydraulic arm safety **2**. The 1<sup>st</sup> one is located near the pivot and the 2<sup>nd</sup> one is on the outer boom. The outer boom safety takes over in case of a hard impact. The machine structure is fully protected.
- Compact transport position **3**. Transport width is less than 2.30 m. This position is locked electrically once the cab control unit is switched off. The main boom is docked on the outer boom on the rubber buffer.



**ERGONALLIANCE®**  
ERGONOMIE

## OLIVIER RAQUIN

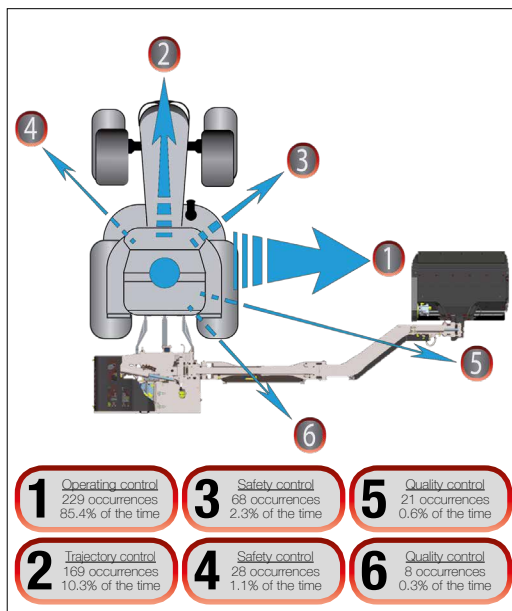
Ergonomist for the **ERGONALLIANCE - FRANCE** cabinet

Landscape maintenance and more particularly maintenance of roadside verges have greatly changed over the last number of years.

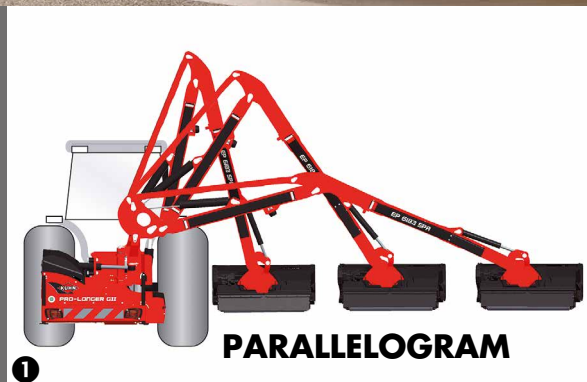
Private contractors and public organisations have become aware of the difficulties of roadside work among road users. New standards and environmental issues have led these operators to reconsider their missions.

A survey conducted recently into the behaviour of 187 roadside hedge and grass cutter operators working for a public organisation showed that 85.4% of driving time is spent looking sideways, monitoring the machine's mowing unit rather than

watching the road! These data demonstrate the need for "easy to drive" machines, featuring ergonomic controls and most of all optimum visibility of the rotor.







## MAXIview: MAXIMUM VISIBILITY

PRO-LONGER GII 5783 LPA MAXIview offers the best lateral visibility of the PRO-LONGER GII range.

The "leading" arm positions the mower unit (leading line of the cutting tool) 2,517 mm from the median plane of the main boom (standard dimensions according to NF EN 15436-1). For the driver, this puts it in the same field of vision as the front part of the tractor and, as a result, obstacles can be anticipated more easily:

- Improved driving comfort,
- Easier to avoid the obstacles: extended machine service life,
- Improved work performance and productivity,
- Greater driving comfort combined with a front-end tool, etc.

The MAXIview leading arm has a reconstituted structure. This allows to select high-grade steel grades (very high yield strength) and add internal stiffeners in the areas submitted to high stress levels. The assembly is more resistant and more flexible than a tubular structure.





**PRO-LONGER GII** 6183 TP 7483 TP

# The extra height you needed!



## TP: TELESCOPIC MACHINES

To adapt to the different types of works, certain professionals need long reaches. They shall be fully satisfied with the performance provided by the PRO-LONGER GII TP models.

Two models are available in the range according to the situations:

- **PRO-LONGER GII 6183 TP:** This machine features a 6.10 m horizontal reach and provides interesting configurations when compactness is required: case for narrow paths in the regions with thick hedges, etc. The 1.00 m telescopic arm travel allows for a 7.13 m vertical reach.
- **PRO-LONGER GII 7483 TP:** This module features a 7.40 m horizontal reach. It shall be appreciated by pruning operators using hedge trimmers. Its 1.50 m telescope provides a 8.40 m vertical reach. It shall enable to trim hedges up to 6.15 m.

As for all PRO-LONGER GII models, the 80 Hp rotor circuit shall allow to associate hedge trimmers featuring up to 5 blades or cutter bar type equipment.

The full enclosure (top / bottom) of the entire frame which was an important feature on the other models of the PRO-LONGER GII range, it now becomes mandatory on the telescopic versions. All the hydraulic and electric components of the machine are protected from falling branches for hedge trimming works.



## PROGRAMMING MOVEMENTS: IMPROVED PRECISION!

For difficult works requiring maximum precision of the PRO-LONGER GII arm (for trimming near electric lines, etc.), the T15 terminal provides the possibility to programme movement speed. This percentage of speed is set for all the cylinders combined or individually, for each cylinder.



# KUHN DESIGN, DURABILITY GUARANTEED

We know by definition that for the hedge and grass cutters with telescopic arms the arm movements are extensively used in an environment involving falling debris, therefore our attention during the design phases has particularly been drawn to the telescope design.

**Sizing of the arm ❶.** The main boom ensures long-term resistance and is composed of a 175 x 150 mm reconstituted structure. The outer boom (female part of the telescope) measures 150 x 150 mm with a 6 mm thickness. The male part of the telescope is designed with a 120 x 120 mm tubular structure also 6 mm thick.

**Telescope guiding ❷.** The 6183 TP models and the 7483 TP model respectively feature 1.00 and 1.50 m telescopes. The male tube is guided with 16 ERTALON pads positioned inside the outer boom. Eight of these pads are fixed and eight can be adjusted. Over time, it becomes easier to compensate for clearance by adjusting the position thereof. This assembly is now the most simple and durable design offering long-term reliability.

**Full protection of the arm ❸.** For easy maintenance, the telescope is driven by a cylinder positioned above the arm. It is fully enclosed in a protective casing. The hydraulic lines use the "100% hose" solution. This type of assembly is less likely to be damaged by falling plant debris than rigid piping and allows for quick servicing. Hoses are routed inside the telescopic boom. They are guided by 4 rollers to prevent friction wear.



## OPTIMISED KINEMATICS FOR INCREASED SAFETY!

To secure the works on public roads, it is important to work within the tractor's width. Ideally the main boom – outer boom joint must not extrude from the left side of the tractor. The PRO-LONGER GII TP kinematics provides this advantage as standard ❹. Once the telescope is retracted in the outer boom your PRO-LONGER GII TP becomes a compact machine.

To reach the highest branches in trimming mode, and the opposite banks in mowing mode ❺, the long arm reach guarantees safe working conditions. It is not necessary to drive closest possible to the ditches at great risk.



## COMPACT TRANSPORT POSITION

The PRO-LONGER GII TP in transport mode is less than 3.80 m high and features an overall width of less than 2.30 m: which is rather reassuring at 40 km/h!

It is automatically locked once the cab control unit is switched off. The outer boom is docked onto the frame and the outer boom and the main boom are docked using four rubber stops.



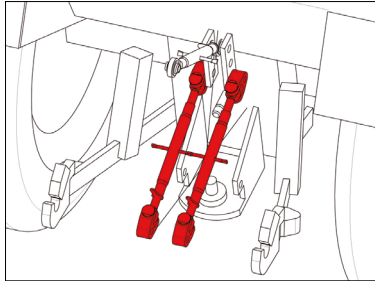
# WIDE RANGE OF COUPLING SOLUTIONS

## P AND SP MODELS:

Hitching and unhitching regularly or occasionally is often difficult and hard work. Our engineering department has designed an ergonomic and safe system to make your job easier. The PRO-LONGER GII 5183 P, 5683 P and 5683 SP OPTview models are fitted with a selection of 3 different hitching kits:

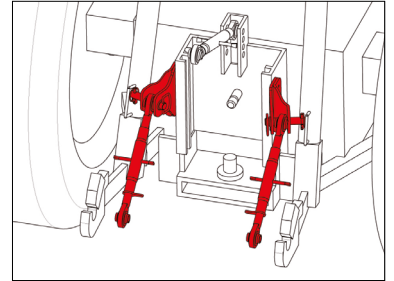
### STABILISERS KIT

The two universal joint stabilisers are proposed on the basic P and SP models. They are connected to the ladder of the 3<sup>rd</sup> tractor point, and ensure the stability of the assembly.



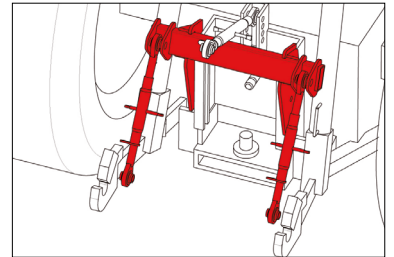
### HITCHING LUGS KIT

Composed of hitching lugs with swivel-joint stabilisers, this system is attached to the ladder hitch. By spreading the anchoring points of the two stabilisers, this solution offers good tractor/machine stability.



### COUPLING FRAME KIT

As for the "hitching lugs" kit, the frame features a "trapezoidal coupling" principle. It is composed of two swivel-joint stabilisers positioned on a horizontal section used as a stiffening bar. Increasing the space between the anchoring points of the two stabilisers on the ladder hitch of the 3<sup>rd</sup> point improves the assembly rigidity and stability.



## KUHN "+" POINTS STABI-LINK



### WITH THIS QUICK-HITCH FRAME YOUR TRACTOR IS READY IN 5 MINUTES!

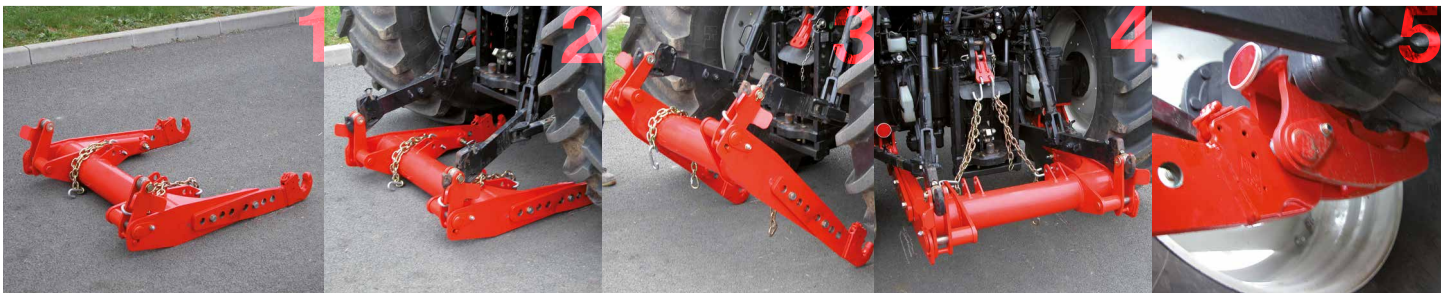
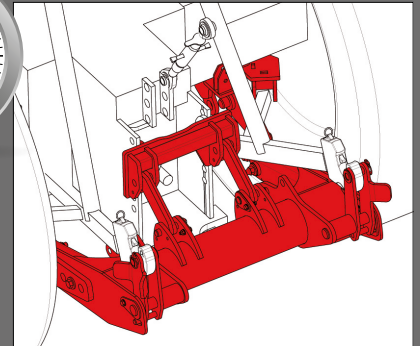
All the PRO-LONGER GII 5783 SPA, 6183 SPA, 5783 LPA, 6183 TP and 7483 TP models feature the exclusive KUHN STABI-LINK quick-hitch frame as standard!

STABI-LINK is the ideal solution for users who wish to perform their mowing and brushcutting jobs with the same tractor and rapidly make it available for other jobs.

Other frames require alterations to the tractor linkage to ensure stability; STABI-LINK can be fitted and removed quickly and effortlessly.

STABI-LINK can be installed on several tractors simply by adjusting the tractor lifting arm and automatically attaches to the tractor rear axle tubes with yokes and a simple tilting movement. Once the yokes are fitted to the tractor rear axle tubes, they remain in place when hitching other machines. The process is quick, safe and effortless!

To prevent any risks relating to specific works (maximum reaches, etc.), the PRO-LONGER GII 5783 LPA, 6183 TP and 7483 TP models also feature a ladder hitch composed of a stiffening crossbar and two stay cables.



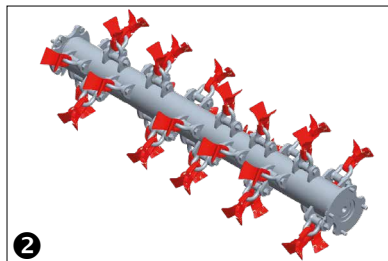
FOR FURTHER INFORMATION ON THE STABI-LINK SYSTEM,  
flash this QR Code with your smartphone or visit the [www.kuhn.com](http://www.kuhn.com)  
website in the "Range" section.



# CUTTING TOOL RANGE

## ADAPT YOUR MACHINE TO THE TYPE OF JOB

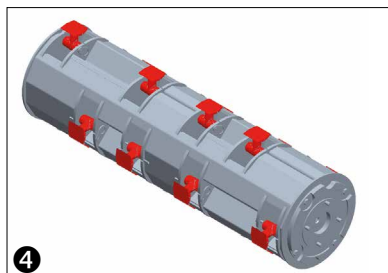
For all your different jobs, there is a KUHN cutting tool! For mowing of banks, first brushcutting runs, maintenance of hedges through to specific trimming operations, the cutting tool configurations are studied to maintain the performances of your PRO-LONGER GII machine in all situations.



### UNIVERSAL ROTOR: TWO AVAILABLE WIDTHS

To adapt to all types of jobs, the universal rotor is available in the conventional length 1.20 m **2** and also in MAXI WIDTH 1.60 m. In the first configuration, the rotor is fitted with 60 KUHN broad Y-flails assembled on a 14 mm shackle. This rotor is designed for cutting and trimming of scrub featuring a maximum diameter of 3 cm.

The MAXI WIDTH 1.60 m equipment is designed for mowing and cutting grass and features a set of 42 spoon flails on a 14 mm shackle **3**. It also becomes possible to use this head in "brushcutting" mode with the retractable front-end cover. Wide hedges can be trimmed in a single run.



### THICK WOOD ROTOR

The 16 hammers of the KUHN thick wood rotor can be retracted by 360° inside the rotor made of a reconstituted casing **4**. It can perform chopping operations on wood up to 10 cm in diameter **5**.

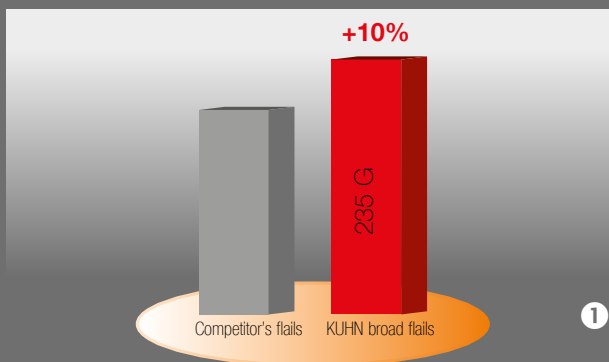


### SAW PLATFORM AND CUTTER BAR FOR TRIMMING THICK WOOD

Available with 4 or 5 blades, the saw allows to cut wood up to 18 cm in diameter **6**. This saw can also be fitted with platforms with standard or reinforced knives for maintenance works. The 29 hp saw drive is ensured with 3 Kevlar belts. The speed of rotation of the blades is 2,000 min<sup>-1</sup>. Depending on the works carried out the speed of travel may range from 4 to 5 km/h.

The cutter bar **7** is composed of a 2.20 m cutting bar for wood up to 10 cm in diameter. Slow alternating movements allow to avoid projections.

## KUHN WIDE FLAIL: ONLY USE THE ORIGINAL...



### YOU WON'T MIND THAT "EXTRA WEIGHT"!

You will be glad you chose KUHN flails! The exclusive KUHN BROAD FLAILS are 10% heavier than those present on the common wear parts market **1**.



With its hourglass shape, this extra 10% weight is mainly concentrated on the flail end:

- For greater wear allowance,
- For increased operating inertia.

The KUHN wide flail is more shock resistant. Its geometry is studied and optimised to guarantee quality performance in harsh conditions:

- The peripheral reinforcement of the shackle's eyelet (10 mm) increases the contact surface between the flail and the shackle.
- The curvature thickness (10 mm) is greater than that of the cutting portion (7 mm) to withstand collision.
- It also features 50 HRC hardness which is far superior to the other flails on the market.



# OPERATING ASSISTANCE

## LINK FLOAT: TRANSPORT ANTI-ROLL SYSTEM.

This hydraulic damper is assembled in the place of the 3rd point and associated to an accumulator (nitrogen ball) ❶. Jerky movements causing discomfort to the driver are prevented ("fishing rod" effect). Pitching is prevented: road transport speed shall be safely maintained.

LINK FLOAT also allows to adjust the machine trim using the hydraulic cylinder. It is then possible to change the angle of attack of the cutting tool to adapt to the different works in terms of volume and cutting height

## AUTOMATIC BREAK-BACK WITH BACKWARD DAMPER

The automatic break-back automatically resets the arm forward ❷. The backward damper allows to automatic reset it rearwards ❸.

The system operates with a positioning sensor fitted on the machine frame and pivot. Considering the angle, it drives the cylinder so as to reposition the arm in its initial working position. The backward damper prevents damage to the structure.

## PAUSE FUNCTION

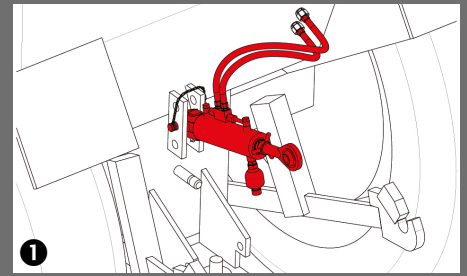
In particular situations for works at the bottom of a ditch, a single switch positioned on the joystick allows to set the nitrogen ball suspension in pause mode. You can thus immediately and more rapidly take over manually to avoid the obstacle.

## PARALLELOGRAM KINEMATICS

With the parallelogram kinematics of the SPA and LPA models the control system is intuitive for the driver right from the start. A single joystick movement translates into two simultaneous machine movements.

## PROGRAMMING MOVEMENT SPEED

The control unit is fitted as standard on all the PRO-LONGER GII hedge and grass cutter models and allows to programme the movement speed of all the cylinders. The percentage of speed is set for all the cylinders combined or individually, for each cylinder from the cab. This is an ideal function for precision works (trimming with the saw platform for example).



# WE CAN ALL BE ECO-RESPONSIBLE!

Being an eco-friendly company has always been one of our main commitments. Through our industrial choices and the technical solutions we develop, we are committed to taking concrete environment-oriented measures.

On the KUHN industrial site where all the hedge and grass trimmers are developed and manufactured, "powder paints" are used and have allowed to reduce the consumption of solvents by 2. KUHN has invested in a water treatment plant with "zero liquid discharge" system. All process waters are collected and processed in-house then re-used.

## SO CAN YOU!

Our products meet environmental protection standards from the design phase.

For example with the ECOPILOT system which allows for a 750 and 1,000 min<sup>-1</sup> power take-off: the tractor motor speed is reduced and therefore allows to cut the fuel consumption. You save and preserve the environment!

The mowing head roller sensor height adjustments are designed to comply with cutting heights recommended for "sustainable mowing".





# KUHN-LANDSCAPE PRO



## GLOBAL SOLUTIONS for road maintenance professionals

When a professional invests in new machinery, it is essential for him to be assured that he is making the right choice. To meet this expectation, KUHN has developed LANDSCAPE PRO, a wide variety of services that ensures not only your machine but also the profitability of your investment.



### KUHN i tech

KUHN i tech is the on-line technical database for KUHN machines, available at any time. This assistance provides all the tools and elements required for the KUHN approved partners for troubleshooting and repair of your machine. The technicians and storekeepers of our partner network are regularly trained in our plants to quickly and efficiently attend to your needs.



### KUHN équilibrage

To prevent downtime due to an impact and unbalance of the rotor, KUHN has developed the "KUHN rotor balancing" service. The service includes handling of the rotor on the premises, technical expertise and rebalancing at the actual operating speed of 3,000 min<sup>-1</sup>. This service is available for all the hedge and grass cutting machine rotors of any brand.



### KUHN protect +

KUHN Protect + is an extended warranty to avoid unexpected expenses. The warranty covers 24 months beyond the 12 months of the legal warranty during which you can work with total peace of mind. During this period, the same clauses as the contractual "manufacturer" warranty are applied. The KUHN Protect+ contract is signed before setting the machine to work. KUHN Protect + automatically takes effect at the end of the last year of the legal warranty with no further formalities.

## KUHN opti-conduite - Assistance and training visits

All the KUHN hedge and grass cutters are set to work upon delivery on the owner's site by an approved KUHN partner. It includes fitting the machine to the tractor, the demonstration and the explanation of the machine settings and maintenance. The OPTI-CONDUITE visit goes one step further and includes one on one operations (partner technician and manufacturer technician). This visit is conducted before the 100<sup>th</sup> operating hour of the machine, and has several objectives:

- Determine the first status report of the machine,
- Optimise the work of the machine operator(s),
- Provide the 1<sup>st</sup> level training course for the driver(s).

Structured as a true training course, OPTI-CONDUITE allows to address all the aspects of the machine operation with the drivers. The team leaders will have the assurance that their KUHN hedge and grass cutter drivers use the machines in optimum and safe conditions.



### KUHN PACKS, to deal with unexpected events!



For quality maintenance of the hydraulic components with packs composed of the required oils and filters, also including essential packs composed of a batch of parts known to be submitted to high stress levels or packs including components to make your machine as good as new, the KUHN PERFORMANCE, SERENITY and PROACTIVE PACKS have been studied to meet your expectations.



## Specifications

## PRO-LONGER GII grass and hedge cutters

### EP 5183 P EP 5683 P EP 5683 SP EP 5783 SPA

#### KINEMATICS

Horizontal reach (m) - A	5.10	5.60	5.60	5.70
Vertical reach (m) - B	6.33	6.82	6.82	6.74
Maximum hedge height (m) - C	4.59	5.03	5.03	5.21
Ditch reach at 45° (m) - D	3.04	3.45	3.45	3.53
Bank reach (m) - E	5.19	5.68	5.68	5.83
Minimum lateral reach (m) - I	1.66	1.62	1.62	1.77
Clearance under the main boom (m) - H	1.45	1.47	1.47	1.63
Slew angle (°)	116	116	116	116
Flail head rotation angle (°)	240	240	240	240
Transport height (m)	3.57	3.87	3.87	3.78
Rotor position: swivel-joint shaft/rotor shaft distance (mm) - X	458	458	1,058	1,058
Offset between the median plane of the main boom and the leading line of the cutting tool (mm) Y	910	910	1,513	1,513

#### WEIGHT / POWER / SPEED

Machine weight (Kg)	1,820	1,840	1,865	1,960
Power take-off speed (min <sup>-1</sup> )	1,000 as standard and ECOPILOT 540 min <sup>-1</sup> optional			
Mini-tractor power (Hp)	100	100	100	100
Mini-tractor weight (t)	4.5	4.5	4.5	5

#### TRANSPORT HITCHING SYSTEM

Automatic hitch bar + 2 stabilisers with universal joints	◆	◆	◆	-
Hitching lugs	◇	◇	◇	-
Coupling frame	◇	◇	◇	-
STABI-LINK quick-fit frame	◇	◇	◇	◆
STABI-LINK frame with ladder hitch	-	-	-	-

#### CONTROLS

Joystick with 4 electric proportional functions	◆	◆	◆	◆
Electrically actuated floating head	◆	◆	◆	◆
Electrically actuated oleo-pneumatic lift float	◆	◆	◆	◆
Two-directional rotation of the electrically actuated rotor	◆	◆	◆	◆
Emergency stop	◆	◆	◆	◆
Arm automatic break-back	◇	◇	◇	◇
Control armrest	◇	◇	◇	◇

#### HYDRAULICS

Air-cooled radiator	◆	◆	◆	◆
Exchange power (kW)	21	21	21	21
Oil filtration	Suction / Discharge / Pressure			
Tank capacity (l)	80	80	80	80

#### ROTOR CIRCUIT

Rotor pump type	Pump and piston engine - Cast iron body			
Flowrate / hydraulic pressure	112 litres at 345 bar			

#### MOVEMENT CIRCUIT

Movement pump type	Gear pump - Cast iron body			
Flowrate / hydraulic pressure	50 litres at 230 bar			

#### FLAIL HEAD

Rotor drive	Patented mechanical system with a train of 4 sprockets lubricated in an oil bath			
Working width (m)	1.20	1.20	1.20	1.20
Type and number of knives on standard rotor	60 KUHNS BROAD Y-flails on 14 mm shackles			
Rotor rotation speed (min <sup>-1</sup> )	2,850	2,850	2,850	2,850
XTREM sensor roller with removable ends - Diameter 140 mm	◆	◆	◆	◆
XTREM sensor roller with removable ends - Diameter 168 mm	◇	◇	◇	◇

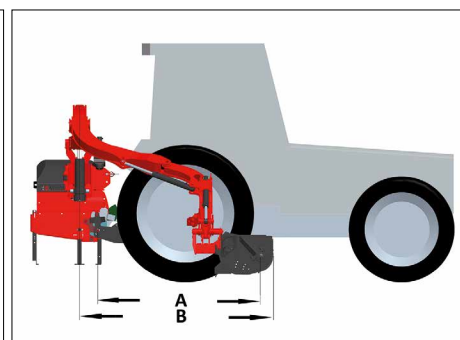
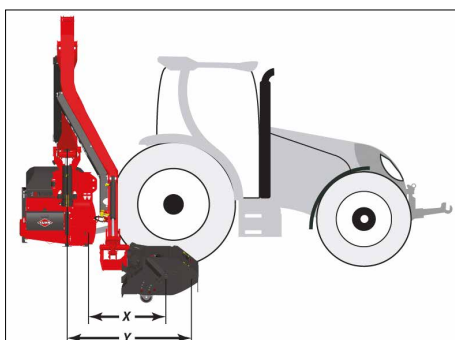
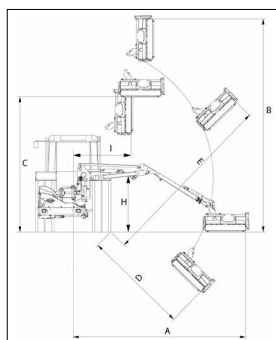
#### EQUIPMENT

Front guard for brushcutting ❶	◇	◇	◇	◇
Utility kit (tool box, box for machine documentation, handwasher, etc.) ❷	◇	◇	◇	◇
Adjustable grass shroud ❸	◇	◇	◇	◇
Wood rotor with 16 articulated hammers over 360°	◇	◇	◇	◇
Cutter bar 2.20 m ❹	◇	◇	◇	◇
Trimming saw	◇	◇	◇	◇
3 <sup>rd</sup> LINK FLOAT hydraulic point	◇	◇	◇	◇
Frame weight (weight: 234 Kg)	◇	◇	◇	◇
Support for 2 triangular panels	◇	◇	◇	◇

◆ Standard equipment

◇ Optional equipment

- Unavailable



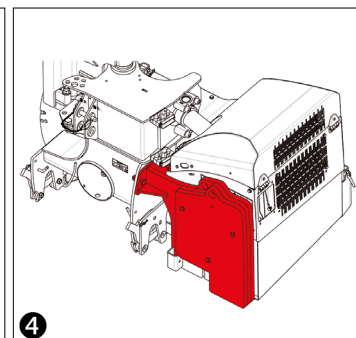
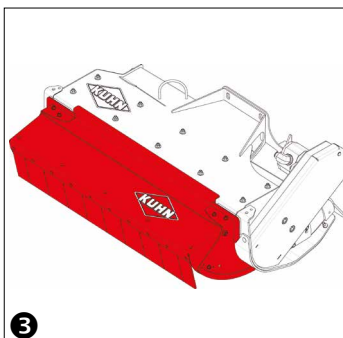
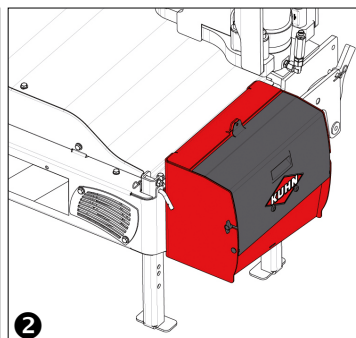
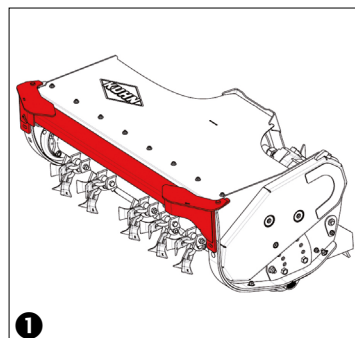


## Specifications

## PRO-LONGER GII grass and hedge cutters

	EP 6183 SPA	EP 5783 LPA	EP 6183 TP	EP 7483 TP
KINEMATICS				
Horizontal reach (m) - A	6.10	5.70	6.10	7.40
Vertical reach (m) - B	7.06	6.82	7.13	8.40
Maximum hedge height (m) - C	5.61	5.61	5.48	6.15
Ditch reach at 45° (m) – D	4.03	3.77	3.68	5.09
Bank reach (m) – E	6.29	6.02	6.12	7.40
Minimum lateral reach (m) – I	1.80	1.70	1.31	1.96
Clearance under the main boom (m) – H	1.71	1.71	1.31	1.41
Slew angle (°)	116	116	98	98
Flail head rotation angle (°)	240	240	240	240
Transport height (m)	3.95	3.94	3.78	3.78
Rotor position: swivel-joint shaft/rotor shaft distance (mm) - X	1,058	2,062	-	-
Offset between the median plane of the main boom and the leading line of the cutting tool (mm) Y	1,513	2,517	-	-
WEIGHT / POWER / SPEED				
Machine weight (Kg)	1,995	1,925	2,060	2,130
Power take-off speed (min <sup>-1</sup> )	1,000 as standard and ECOPILOT 540 min <sup>-1</sup> optional			
Mini-tractor power (Hp)	100	100	100	100
Mini-tractor weight (t)	5	5	5.5	6.5
TRANSPORT HITCHING SYSTEM				
Automatic hitch bar + 2 stabilisers with universal joints	-	-	-	-
Hitching lugs	-	-	-	-
Coupling frame	-	-	-	-
STABI-LINK quick-fit frame	◆	-	-	-
STABI-LINK frame with ladder hitch	-	◆	◆	◆
CONTROLS				
Joystick with 4 electric proportional functions	◆	◆	◆	◆
Electrically actuated floating head	◆	◆	◆	◆
Electrically actuated oleopneumatic lift float	◆	◆	◆	◆
Two-directional rotation of the electrically actuated rotor	◆	◆	◆	◆
Emergency stop	◆	◆	◆	◆
Arm automatic break-back	◇	◇	◇	◇
Control armrest	◇	◇	◇	◇
HYDRAULICS				
Air-cooled radiator	◆	◆	◆	◆
Exchange power (kW)	21	21	21	21
Oil filtration	Suction / Discharge / Pressure			
Tank capacity (l)	80	80	80	80
ROTOR CIRCUIT				
Rotor pump type	Pump and piston engine - Cast iron body			
Flowrate / hydraulic pressure	112 litres at 345 bar			
MOVEMENT CIRCUIT				
Movement pump type	Gear pump - Cast iron body			
Flowrate / hydraulic pressure	50 litres at 230 bar	30 litres at 230 bar	50 litres at 230 bar	
FLAIL HEAD				
Rotor drive	Patented mechanical system with a train of 4 sprockets lubricated in an oil bath			
Working width (m)	1.20	1.20	1.20	1.20
Type and number of knives on standard rotor	60 KUHN BROAD Y-flails on 14 mm shackles			
Rotor rotation speed (min <sup>-1</sup> )	2,850	2,850	2,850	2,850
XTREM sensor roller with removable ends - Diameter 140 mm	◆	◆	◆	◆
XTREM sensor roller with removable ends - Diameter 168 mm	◇	◇	◇	◇
EQUIPMENT				
Front guard for brushcutting ❶	◇	◇	◇	◇
Utility kit (tool box, box for machine documentation, handwasher, etc.) ❷	◇	◇	◇	◇
Adjustable grass shroud ❸	◇	◇	◇	◇
Wood rotor with 16 articulated hammers over 360°	◇	◇	◇	◇
Cutter bar 2.20 m	◇	◇	◇	◇
Trimming saw	◇	◇	◇	◇
3 <sup>rd</sup> LINK FLOAT hydraulic point	◇	◇	◇	◇
Frame weight (weight: 234 Kg) ❹	◇	◇	◇	◇
Support for 2 triangular panels	◇	◇	◇	◇

◆ Standard equipment    ◇ Optional equipment    - Unavailable





# ALL THE KUHN HEDGE AND GRASS CUTTERS!

Horizontal reach	Rotor circuit power	Recommended use	Minimum tractor weight and power	Branch cutting and shredding			Range
				Universal rotor for branches Ø < 3 cm	Mixed rotor for branches Ø < 5 cm	Wood rotor for branches Ø < 10 cm	
4.20 m	30 kW (41 hp)	Up to 100 hrs/year	3 tonnes 70 hp	✓			AGRI-LONGER GII
4.70 m							
4.70 m							
5.00 m	33 kW (45 hp)	Up to 250 hrs/year	3.5 tonnes 70 hp	✓	✓		AGRI-LONGER GII
6.00 m							
5.00 m	37 kW (51 hp)	Up to 500 hrs/year	4 to 4.5 tonnes 80 hp	✓			POLY-LONGER
5.00 m	41 kW (57 hp)	Up to 800 hrs/year	4 to 5 tonnes 80 to 90 hp	✓		✓	MULTI-LONGER GII
5.50 m							
5.70 m							
5.10 m	59 kW (80 hp)	Up to 1500 hrs/year	4.5 to 6.5 tonnes 100 to 120 hp	✓		✓	PRO-LONGER GII
5.60 m							
5.70 m							
6.10 m							
7.40 m							





Control type	Arm on pivot	Models					
		Compass kinematics			Parallelogram kinematics		
		Straight arm	Semi-leading arm OPTview	Telescopic arm	Straight arm	Semi-leading arm OPTview	Leading arm
Cable control (T)		T 4245 M					
Cable control (T)		T 4745 M					
Electric joystick (E)		E 4745 M					
Cable control (T)	✓	T 5045 P					
Low pressure joystick (HE)		HE 5045 P					
Cable control (T)		T 6045 P					
Low pressure joystick (HE)		HE 6045 P					
4-function electric proportional joystick (EP)	✓	EP 5050 P	EP 5050 SP		EP 5050 PA	EP 5050 SPA	
4-function electric proportional joystick (EP)	✓	EP 5057 P					
		EP 5557 P	EP 5557 SP				
						EP 5757 SPA	
4-function electric proportional joystick (EP)	✓	EP 5183 P					
		EP 5683 P	EP 5683 SP				
						EP 5783 SPA	EP 5783 LPA
				EP 6183 TP		EP 6183 SPA	
				EP 7483 TP			

**TO FIND OUT MORE:**



**Website**  
**www.kuhn.com**



# TO COMPLEMENT THE WORK OF YOUR HEDGE AND GRASS CUTTER:



1. Verge shredders from 1.61 to 2.49 m - 2. Verge mowers from 1.60 to 2.30 m in rear or front-end version -  
3. Shredders specially designed for mini-tractors and vertical axis shredders - 4. Shredders for slope tractors from 1.75 to 2.10 m -  
5. Salt/sand spreaders - 6. Range of sprayers for green spaces.



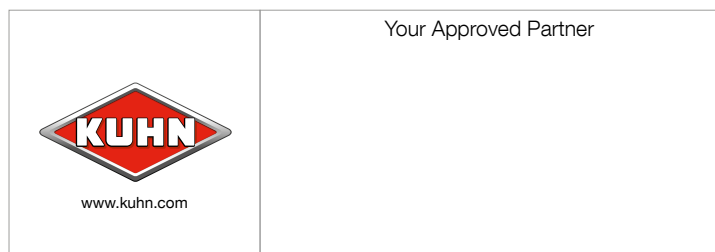
## KUHN PARTS

### LONG LASTING PARTS

Long lasting spare parts are produced at the KUHN foundries and forging plant, with a state-of-the-art production tool. You can count on our know-how to produce original parts. With our KUHN PARTS warehouses, farmers can benefit from our customer assistance and logistic services. Quick and reliable repair solutions are guaranteed in collaboration with your nearest KUHN certified Partner.



For more information about your nearest  
KUHN dealer, visit our website  
**www.kuhn.com**



**KUHN FARM MACHINERY (U.K.) LTD**  
Stafford Park 7 - GB TELFORD/ SHROPS TF3 3BQ

**KUHN FARM MACHINERY PTY. LTD**  
313-325 Foleys Road - Deer Park, VIC, 3023 - AUSTRALIA

**KUHN NORTH AMERICA, INC.**  
1501 West Seventh Avenue - P.O BOX 0167 - Brodhead, WI 53520 - USA

The information transmitted in this document is not contractual, it is provided as a general indication. Our machines are in compliance with the regulations in force in the country of delivery. In our literature, and for improved illustration of certain details, some safety devices may not be in operating position. These safety devices must be in position when operating the machines in accordance with the requirements in the user and assembly manuals. Do not exceed the tractor's gross vehicle weight rating, its lifting capacity or the maximum axle and tyre load. The tractor's front axle load must always be in accordance with the requirements of the country of delivery (in Europe at least 20% of the unladen weight of the tractor). We reserve the right to change our machines, the equipment and fittings thereof without further notice. Machines, equipment and fittings in this document can be covered by at least one patent and/or registered model(s). Trademarks cited in this document may be registered in one or more countries.

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