



# 1400 Series

1430 HST

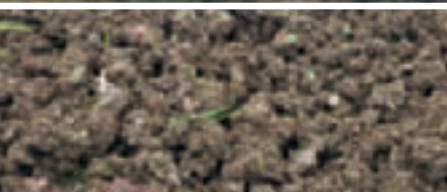
HYDROSTATIC ONE-WAY

1430 HST - REV

HYDROSTATIC REVERSIBLE



**VALPADANA**  
think compact



## 1430 HST... makes the range on its own

The slogan leaves no doubts, the 1430 model is the epitome of the natural evolution of the 1200 and 1330 series because it comprises all the peculiarities of its fortunate predecessors.

It's the **smallest "tool-carrier"** tractor available on the market, but with the widest choice of set-ups. It can be fitted with **front, rear and reverse-operating implements** that can also be used in simultaneous combination with the front power lift and PTO.

The guide-lines of the project were to obtain a tractor that was as **versatile as possible to use, able to provide the utmost in productivity while being truly comfortable to drive**, i.e. a machine capable of maintaining the intrinsic value of the initial investment at a high level.

The result of all this effort was a specialistic product dedicated to the true professionals of the **ground care sector in general, a tractor fit for use all year round in both the public and private spheres.**

On the other hand, thanks to its compact dimensions, this machine is also an essential aid for intensive crop-growing in greenhouses where **fruit, vegetables or flowers** are cultivated, without forgetting jobs like **light haymaking in mountain areas**. Besides all the features described below, the major assets of these tractors and the characteristics that make them stand out from the machines offered by the competitors are: the fluid-cooled Perkins engines, the optional reversible cockpit, also available with the cab version, the hydrostatic transmission with speed control, the electrohydraulically engaged independent rear PTO, the new front axle with integrated steering cylinder and the axle shafts featuring universal couplings with double cross-journals.



## HST: Hydrostatic One-way version

The one-way version has been dedicated to all those who use the tractor for normal farm or ground care jobs and who therefore do not require the "extra" feature, i.e. the reversible cockpit. All the other optionals of the version with the reversible cockpit are still available for the one-way version, including: the front power lift, **the front PTO, the auxiliary hydraulic circuit, etc, etc.**



## HST-REV: Hydrostatic Reversible version

The **reversible cockpit** on a revolving turret allows the operator to switch his position around in just a few seconds without detaching any of the connections. This means that the machine can have both a **front and rear power lift and PTO**, making the 1430 tractor a true **multi-function "tool-carrier"** that adapts to the modern operator's every requirement and is ideal for all uses, be they purely professional or D.I.Y. jobs.



**The smallest Hydrostatic and Reversible tractor**

# Engines:

## Perkins 403C-11 with 3 cylinders

First and foremost, the choice of this particular three-cylinder engine of English make was dictated by its generally very compact dimensions, allowing wide steering angles even with the narrowest track widths. Despite the small size and **1131 cm<sup>3</sup> swept volume**, the little Perkins engine provides as much as **26 HP at 3000 RPM** and **64 Nm torque at 2100 RPM** while complying with Euro 2 / TIER 2 standards.

Indirect injection reduces the noise level and vibrations, making the sound produced by the engine pleasant even at high rates. The fluid-cooling system allows the engine to function **safely in ambient temperatures of up to 45°C**, operating conditions that are normal in summer in greenhouses. The generously sized fuel tank along with the low hourly fuel consumption ensure lots of hours of autonomy even with the maximum power absorption.

Another reason that encouraged Valpadana to choose this engine was that, unlike other "small" engines that drive hydraulic pumps for facilities by means of the timing belt, the **Perkins 403C-11 engine has been pre-engineered for hydraulic pumps driven by dedicated gears**.



### ADVANTAGE

- Powerful, with a high torque
- Silent
- Low fuel consumptions
- Optimum cooling
- Reliable
- Little routine maintenance required



# Swinging chassis: the utmost lugging power and stability

The characteristic chassis with overhanging engine normally discharges 60% of the vehicle's weight on to the front axle while if an implement is hitched, about 50% of the total weight is distributed more or less equally between both axles.

The swinging effect between the axles occurs towards the middle of the chassis and with +/- **9 degrees of swing**, always ensures that the wheels touch the ground in order to reach superior levels of draft. With its particular shape, the chassis has a **very low center of gravity** and can therefore work on extremely **steep side slopes in full safety** since the lateral tipping limit is far superior to the side grip of the tyres.



## ADVANTAGE

- The utmost safety on slopes
- Work can continue in any condition
- Perfect weight distribution
- Minimum impact on the environment



# Hydrostatic transmission: the right speed for every use

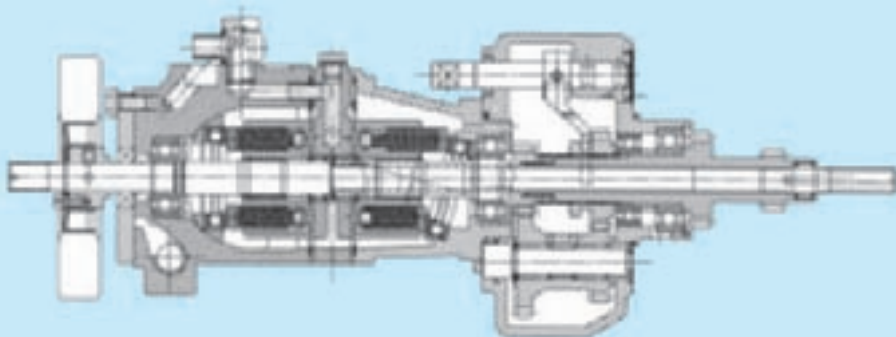
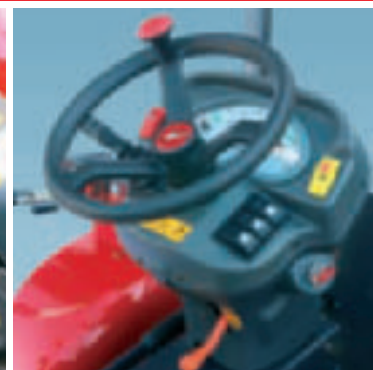
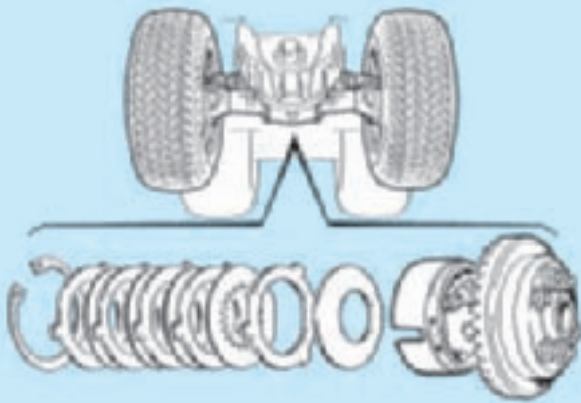
The compact all-in-one pump/engine assembly with its **40 liters** per minute flow rate is completely manufactured in the Valpadana factory to the company's own design, since it is dedicated to the 1430 tractor. This component assures **optimum hydraulic efficiency** that's maintained over time also thanks to the powerful **oil cooling system** that assures fade-free operation in every climatic condition. The all-in-one hydrostatic assembly drives the mechanical transmission of tough agricultural origin with **four speed ranges** that can be easily selected to suit the type of use. Moreover, the selected speed can also be locked. The **four-wheel drive** is mechanically engaged. The **rear differential lock is electrohydraulically operated while the front lock is the limited slip type**.

The **independent rear PTO with 540/1000 RPM speed rate** and oil-cooled multiple-plate clutch is electrohydraulically engaged, **while the 1000 RPM front PTO is also independent** but with a mechanically engaged oil-cooled multiple-plate clutch.



## ADVANTAGES

- Infinite speeds available while maintaining a constant PTO speed
- The ground speed can be changed without using the clutch
- Direction reversal without use of the clutch
- Front and rear PTO engaged and disengaged while the tractor is on the move, without stopping the wheels
- Less stress for the operator even after he has been using the vehicle for a long period of time



# Steering system: perfect in every situation

Thanks to the new **axle shafts featuring a coupling with double cross-journal**, the new steering system with the **ram built into the front axle** ensures precise steering in all conditions without damaging the ground. This innovative solution makes the whole assembly **long-lasting and reliable**, meaning that work can carry on uninterruptedly regardless of the loads the axle must bear.

The general concept of the steering system and front axle allows the operator to make perfect manoeuvres even in reverse while keeping the tractor-implement aligned at all times and getting the very most out of the performance of the machine.



## ADVANTAGES

- Extremely precise manoeuvres
- Very easy manoeuvring when space is at a premium
- Highly reliable couplings
- Simple construction with very little maintenance required



# Hydraulic circuit and power lift: the utmost in versatility

The rear power lift with two rams and up/down/floating modes has **600 kg maximum lifting capacity at the ball ends**. The optional front lift with "A" shaped coupling and two rams has been designed with a special independent bearing structure that does not couple to the engine but creates a single assembly with the axle and features **300 kg maximum lifting capacity at the ball ends**.

The standard auxiliary hydraulic circuit has a single pump with **20 liters/min maximum flow rate at 140 bar** and two rear double-acting spool valves. As an optional, two front double-acting spool valves can be installed besides the power lift's up/down/floating command. Since it is so simple as to construction, the auxiliary hydraulic circuit of the 1430 tractor is extremely reliable over time and provides efficient service since **the hydraulic oil is continually cooled by a special heat exchanger** and is kept clean by the dedicated filter.



## ADVANTAGES

- Good front and rear lifting capacity.
- The oil is unable to overheat
- Oil kept clean
- Fade-free service in every situation



# Cockpit: MONO or REV

The **utmost attention** has been paid to the **general ergonomics** of both configurations, i.e. with one-way or reversible steering. **Particular care has been paid to the cockpit**, which is extremely well balanced even for taller-than-average operators. Considering that the typical user of the 1430 tractor is the professional operator who works for long stretches at a time, the cockpit has also been provided with a mechanism **for regulating the degree at which the turret slants**, while the **footboards have also been sized more generously. There's a double footboard for the driving controls.**

The pedals are sprung and the actual footboards hermetically closed to safeguard them from dust.

Besides all this, a lot of care has been taken to lower the noise perceived by the operator and to reduce the vibrations.



## ADVANTAGES

- Optimum general ergonomics
- Low level of noise perceived by the operator
- Very low vibration level
- Less stressing for the operator even after long hours on the job



# Cab: tip-top comfort during winter

The **original Valpadana cab** is a fully **type-approved bearing structure with four pillars** and generously sized windows that provide **all-round visibility**. Here again, lots of attention has been paid to the cab interior, the aim being to create a **perfect forced heating and ventilating system** able to achieve pleasant conditions in even the coldest weather.

**The general ergonomics of the cockpit remain unchanged in both driving directions** and despite the very low height, the specially shaped under-roof provides sufficient space for the operator, who'll find that all the controls are within easy reach.

**The windows can all be opened** to allow the air to naturally circulate around the cab interior in warmer weather. Moreover, **two additional windows give a clear view of the front wheels**.

The plain lines of the cab roof are a perfect setting for the **four field lights** and blinker, with folding quick coupling. To guarantee that the whole assembly lasts as long as possible, **all the metal parts of the cab are first treated by the cataphoresis process** and are then powder painted.



## ADVANTAGES

- Optimum general ergonomics
- All-round visibility
- Low level of noise perceived by the operator
- The utmost active safety



# Lots of implements: front, rear and reverse-operating

Since the 1430 tractor can be fitted with both a **front and rear power lift and PTO**, it can be equipped with the majority of the implements available on the market, thus becoming a true **"self-propelled work machine"** able to switch and change about to suit the operator's requirements. Here are just a few of the many implements that can be hitched.

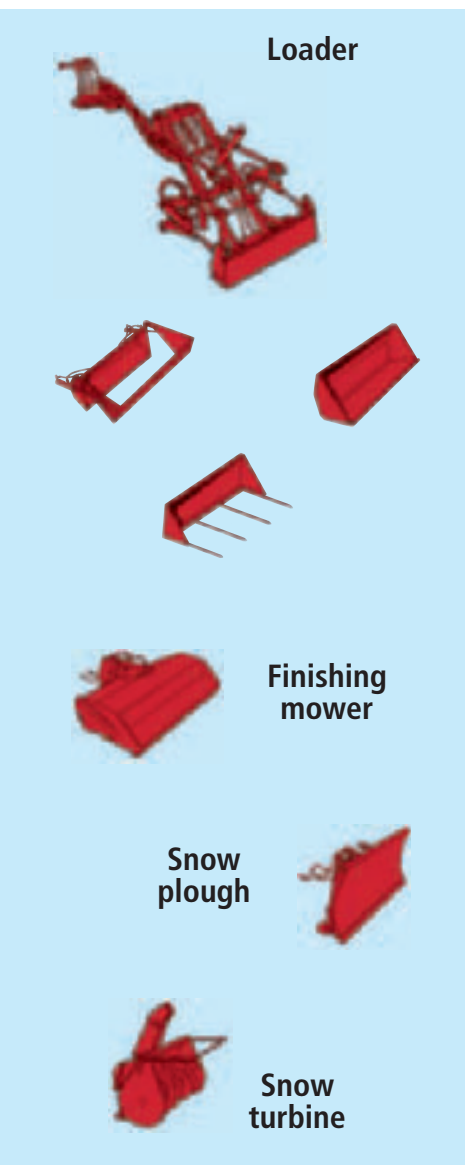


Lawn mower

Finishing mower

Snow plough

Hydraulic shredder



Loader

Finishing mower

Snow plough

Snow turbine



Rotary cultivator

Salt-spreader  
Fertilizer-spreader

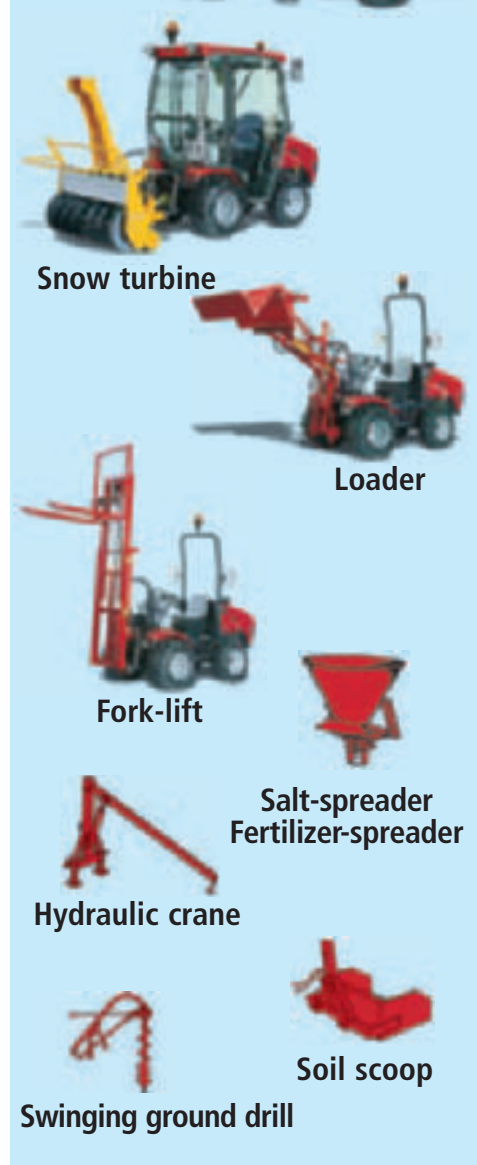
Soil drainage

Mounted mist blower

Stone-burying cultivator

Soil scoop

Swinging ground drill



Snow turbine

Loader

Fork-lift

Salt-spreader  
Fertilizer-spreader

Hydraulic crane

Soil scoop

Swinging ground drill

	1430 HST	1430 HST - REV
<b>Engine</b>		
indirect-injection diesel engine model	PERKINS 403C-11	
max. power ISO	26,4 HP (19,4 KW)	
rated speed	3000 rpm	
max. torque	64 Nm	
max. torque speed	2100 rpm	
displacement/cylinders	1131 cm <sup>3</sup> / 3	
bore/stroke	77x81 mm	
compression ratio	23:1	
cooling	water	
air filter	dry	
standard fuel tank	23 litres	
<b>Transmission</b>		
type	hydrostatic	
transmission with 2 speed ranges+creeper	STD	
speed with creeper:		
in 1 <sup>st</sup> range	0 to 3,9 km/h	
in 2 <sup>nd</sup> range	0 to 8,1 km/h	
speed without creeper:		
in 1 <sup>st</sup> range	0 to 8,4 km/h	
in 2 <sup>nd</sup> range	0 to 17,6 km/h	
hydrostatic forward transmission	2 pedal control REV/FWD	
diff-lock on rear axle	electrohydraulic	
<b>Rear Power Take-off</b>		
multi-disk oil bath clutch	STD	
electrohydraulic control	STD	
2 speeds 540/1000 rpm (clockwise)	STD	
1 <sup>3/8"</sup> PTO shaft with 6 splines	STD	
<b>Front Power Take-off</b>		
mechanical engagement	OPT	
1 speed 1000 rpm (anti-clockwise)	OPT	
PTO shaft Ø 25 - 6 splines	OPT	
<b>4WD front axle</b>		
4WD engagement - disengagement	STD	
max. tilting angle	+ 9° -9°	
<b>Steering</b>		
hydraulic	STD	
min. turning radius	int. 1,40 m	
(Garden profile tyres)	ext. 2,60 m	
<b>Brakes</b>		
mechanical engagement	STD	
rear drum brakes	STD	
<b>Rear hydraulic power lift</b>		
raising/lowering control (floating)	STD	
3-point linkage	Cat. 1 <sup>a</sup>	
lifting power	600 kg.	
hydraulic pump delivery	20 l/min	
max. operating pressure	120 bar	
2 pairs of hydraulic couplers (double-acting 1/4")	STD	
<b>Front power lift</b>		
lift raising/lowering control (floating)	OPT	
lifting power	OPT (300 Kg.)	
triangle lift	OPT	
2 pairs of hydraulic couplers (double-acting 1/4")	OPT	
<b>Driver seat</b>		
one-way	STD	-
reversible with rotating platform	-	STD
sprung seat	STD	STD
analog instruments	STD	STD
adjustable steering wheel	-	STD
foldable front ROPS	STD	STD
<b>EC rear swinging draw-bar</b>		
EC trailer hook	STD	
	OPT	

Key: STD = standard; OPT = optional; - = not available



## Weights and dimensions

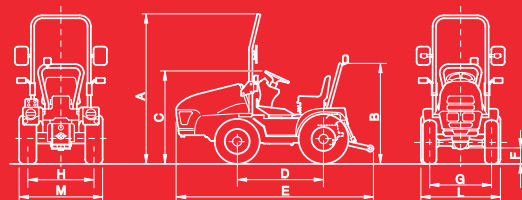
in running order without operator:  
with wheels Tractor type  
23x8.50-12 front and 26x12.00-12 rear tyres

- **WEIGHTS**

without P.T.O. and front power lift	Kg.	930
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- **DIMENSIONS**

A. Height to ROPS	mm	2010
- Height to cab	mm	1937
B. Height to rear ROPS	mm	1400
C. Height to steering wheel	mm	1180
D. Wheelbase	mm	1142
E. Max. length	mm	2637
F. Ground clearance	mm	190
G. Front tracks:		
Min.	mm	794
H. Rear tracks:		
Min.	mm	773
Max.	mm	893
L. Front width:		
Min.	mm	959
Max.	mm	1076
M. Rear width:		
Min.	mm	965
Max.	mm	1219



## Wheels and tyres on request

FRONT 6.5/80-12	FRONT 23x8.50-12	FRONT 220/60-12
REAR 7.00-12	REAR 26x12.00-12	REAR 26x12.00-12