

VP 4600

EQUAL-WHEELED TRACTORS
ISM - VRM - ARM



ENGLISH



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VALPADANA

NEW 4600 SERIES



The 4600 Series is a range of low-power equal-wheeled tractors designed to offer unique features and superior performance in an ultra-compact package.

Supplied in a variety of configurations – ISM and ARM with equal-size wheels, VRM with oversized rear wheels, ISM and VRM with front wheel steering or ARM with articulated steering – the 4600 Series tractors are specially designed for intensive crops such as orchards and vineyards, for greenhouses and nurseries, as well as for the maintenance of green areas.

These super compact tractors cover a power range from 22.7 to 47.3 hp. They feature quiet, environmentally friendly engines, a powerful wet multi-disc braking system, a synchromesh transmission with 8 forward and 4 reverse speeds and a fully independent PTO with wet multi-disc clutch.

ISM: One-way, Equal-wheel

The equal-wheel version allows both the front and rear fenders to be mounted in low position, making this tractor ideal for use in greenhouses, large-canopy orchards and Y-trellis systems. The tractor design provides a clear unobstructed view of rear implements, allowing the operator to safely manoeuvre in confined spaces.

VRM: One-way, Variant

Equipped with oversized rear wheels, the VRM model offers greater traction capability for maximum productivity in any situation. Featuring upward turned-final drives on the rear axle, the VRM version maintains a low centre of gravity and offers a super tight turning radius. Specially designed for medium-scale orchards and vineyards, this tractor model can be equipped with implement draft and position control, making it ideal to operate ploughs, spring cultivators and grubbers.

ARM: One-way, Articulated

Featuring an articulated steering system and equal-sized tyres, this version is ideally suited for use in intensive crops, such as orchards and vineyards, in greenhouses and nurseries, as well as for the maintenance of green areas.



UNMATCHED VERSATILITY



ENGINE

The 4600 series offers three Yanmar liquid-cooled, 3- and 4- cylinder engine options, one with indirect injection delivering 27 hp and the other two with direct injection and power outputs of 35.5 and 47.5 hp, respectively.

★ *All engines meet the Tier 3 emission standards and are equipped with a 35-liter fuel tank ensuring over eight hours of operation without refuelling.*



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Safety and comfort

Combining a sturdy chassis with a high lift capacity, the 4600 tractors can handle large implements with ease. On the ISM and VRM versions, the steering system features a steering cylinder integrated into the housing, which dispenses with the conventional front wheel tie rod, while providing impressive steering angles.

The driving position is mounted on a semi-platform and features a tilting steering wheel and side gear levers for maximum riding comfort. The instrument panel with ergonomically-arranged controls ensures safe and simple tractor operation.

TRANSMISSION

The 4600 is the only low-power equal-wheel tractor featuring a synchronized gearbox with 8FWD+4REV and a maximum speed of 30 km/h. The transmission control levers are fitted to the steering column for ease of operation.

★ *Specially-designed synchronizers allow for smooth and fast gear changes, even while in motion, without damage to the transmission. This makes the tractor very easy to use while delivering high performance during transport operations and combined road and field haulage.*



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DRIVE AND BRAKES

When maximum traction is not required, the four-wheel drive can be disengaged to minimize soil damage.

★ *The 4600 is the only low-power equal-wheel tractor featuring internal wet multi-disc brakes for reliable braking performance in any conditions. This braking system, which is virtually maintenance and adjustment free, greatly enhances the active safety of the vehicle, making it ideal for sloping grounds and transport operations, as well as for circumstances where sharp braking is required to assist steering manoeuvres.*



Steering system

The exclusive Central Drive steering system with cylinder integrated into the front axle dispenses with the conventional front wheel tie rod. This innovative solution makes the steering

system simpler in design and more efficient and allows for different steering angles on each wheel, which enables the ISM and VRM models to make super tight turns.

The ARM version features an articulated steering system allowing a steering angle of up to 40°.



REAR HITCH AND PTO

The rear hitch comes standard with raise/lower and float control functions. A lowering speed control and a draft control are available as options. The three-point hitch is Category 1 and provides a maximum lift capacity of 1500 kg.

★ *The 4600 is the only low-power equal-wheel tractor that features a fully independent power take-off. The PTO is engaged by a mechanically-operated wet multi-disc clutch that causes the PTO shaft to rotate independently of the tractor motion.*

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Driving position

The 4600 Series offers a clean, uncluttered driving position which provides plenty of room and allows easy access for the driver. The driving position features a sprung seat and a tilt-adjustable steering wheel that allow any driver to find the most comfortable position. The transmission control levers are fitted to the steering column and all controls are ergonomically arranged allowing for intuitive control and simple operation. Functional and easy to read, the instrument panel keeps the operator constantly informed on the tractor's performance. The instrument panel is designed to tilt with the steering wheel so it is always clearly visible.



KEY FEATURES AND BENEFITS

- ★ *Safe and comfortable driving position*
- ★ *Maximum speed of 30 km/h*
- ★ *Independent PTO for precise implement control*
- ★ *Maximum productivity*
- ★ *Quick manoeuvring in tight spaces with the Central Drive steering system*
- ★ *Articulated steering on the ARM version for super tight turns*
- ★ *Less stress for the operator*

CHASSIS

With an oscillation angle of $\pm 15^\circ$ between front and rear axle, the chassis of the 4600 Series provides maximum traction on all terrains, while keeping a low centre of gravity.

- ★ *This design enhances the stability of the tractor/implement system and increases safety on slopes.*



REMOTE HYDRAULIC VALVES

The 4600 tractor can be fitted with up to two rear double-acting remote valves (1 standard and 1 optional) with ergonomically-positioned control levers. The quick-release couplings, mounted on the rear of tractor, are easily accessible for convenient and fast operation.

- ★ *The hydraulic system is equipped with a pump that provides a flow rate of 34.6 l/min to operate both remote valves, as well as the rear hitch and steering system.*

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		4630 ISM - ARM	4645 ISM - ARM	4655 ISM - ARM	4645 VRM	4655 VRM
ENGINE		[TIER 3]	[TIER 3]	[TIER 3]	[TIER 3]	[TIER 3]
MAKE		YANMAR	YANMAR	YANMAR	YANMAR	YANMAR
INJECTION		INDIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MODEL		3TNV76-XVA	3TNV88-BKVA	4TNV88-BKVA	3TNV88-BKVA	4TNV88-BKVA
MAX. POWER ISO	HP/KW	22.7 / 16.7	35.4 / 26	47.3 / 34.8	35.4 / 26	47.3 / 34.8
ENGINE SPEED	RPM	2800	2800	2800	2800	2800
MAXIMUM TORQUE	NM	66	105.4	142.7	105.4	142.7
MAX. TORQUE SPEED	RPM	1800	1200	1100	1200	1100
DISPLACEMENT	CM ³	1115	1642	2189	1642	2189
CYLINDERS / VALVES		3 / 6	3 / 6	4 / 8	3 / 6	4 / 8
WATER COOLING		●	●	●	●	●
FUEL TANK CAPACITY	L	35	35	35	35	35
TRANSMISSION						
MECHANICAL GEARBOX WITH 8FWD+4REV SPEEDS		SYNCHRONIZED	SYNCHRONIZED	SYNCHRONIZED	SYNCHRONIZED	SYNCHRONIZED
MAX. SPEED		30 KM/H	30 KM/H	30 KM/H	30 KM/H	30 KM/H
POWER TAKE-OFF						
FULLY INDEPENDENT PTO WITH DEDICATED CLUTCH		○	○	○	○	○
ENGAGEMENT		MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL
1 SPEED 540 RPM		●	●	●	●	●
1" 3/8 [34.9 MM] PTO SHAFT WITH 6 SPLINES		●	●	●	●	●
GROUND SPEED PTO		●	●	●	●	●
FRONT AXLE						
FOUR-WHEEL DRIVE		DISENGAGEABLE	DISENGAGEABLE	PERMANENT	DISENGAGEABLE	PERMANENT
MAX. OSCILLATION ANGLE		± 15°	± 15°	± 15°	± 15°	± 15°
DIFFERENTIAL LOCK		MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL
STEERING						
HYDRAULIC		●	●	●	●	●
MAX. STEERING ANGLE		42° - 40° [ARM]	42° - 40° [ARM]	42° - 40° [ARM]	42°	42°
BRAKES						
CONTROL		MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL
REAR WITH WET DISCS		●	●	●	●	●
HYDRAULIC POWER LIFT						
RAISE / LOWER / FLOAT CONTROL		●	●	●	●	●
DRAFT CONTROL		—	○	○	○	○
LIFT CAPACITY		KG 1000	KG 1000	KG 1500	KG 1000	KG 1500
PUMP FLOW RATE [HITCH + STEERING]		L/MIN 19	L/MIN 29.3	L/MIN 45.5	L/MIN 29.3	L/MIN 45.5
STANDARD THREE-POINT HITCH		CAT. I	CAT. I	CAT. I	CAT. I	CAT. I
REAR REMOTE VALVES STD + OPT		1 + 1	1 + 1	1 + 1	1 + 1	1 + 1
DRIVING POSITION						
SEMI-PLATFORM		●	●	●	●	●
SPRUNG SEAT		●	●	●	●	●
STEERING WHEEL		ADJUSTABLE	ADJUSTABLE	ADJUSTABLE	ADJUSTABLE	ADJUSTABLE
FOLDING ROPS		●	●	●	●	●
TOW HOOK						
CUNA		CATEGORY B, HEIGHT ADJUSTABLE				

Key: ● = standard; ○ = option; — = not available

		4630 ISM - ARM		4645 ISM - ARM		4655 ISM - ARM		4645 VRM		4655 VRM	
ADDITIONAL EQUIPMENT											
WHEEL BALLASTS 2X33 KG		○ (FRONT/REAR)						○ (FRONT)			
WHEEL BALLASTS 2X55KG		-						○ (REAR)			
WEIGHTS (IN RUNNING ORDER WITH DRIVER)											
WITH FRONT WHEELS		7.50 R16		7.50 R16		7.50 R16		7.50 R16		7.50 R16	
WITH REAR WHEELS		7.50 R16		7.50 R16		7.50 R16		300/70 R20		300/70 R20	
TOTAL	KG	1230	1190	1280	1240	1330	1290	1320		1370	
FRONT AXLE	KG	735	715	775	755	825	805	790		840	
REAR AXLE	KG	495	475	505	485	505	485	530		530	
DIMENSIONS											
A - OVERHANG	MM	920	828	920	828	1012	928	920		1012	
B - WHEELBASE	MM	1280	1362	1280	1362	1280	1362	1240		1240	
C - TOTAL LENGTH	MM	2922		2922		3014		2922		3014	
D - GROUND CLEARANCE	MM	208		208		208		208		208	
E - HEIGHT TO STEERING WHEEL	MM	1137	1140	1137	1140	1137	1140	1137		1137	
F - HEIGHT TO ROPS	MM	1954	1960	1954	1960	1954	1960	1954		1954	
G - HEIGHT TO REAR ROPS	MM	1250	1256	1250	1256	1250	1256	1250		1250	
DIMENSIONS WITH VARIOUS TYRES COMBINATIONS											
H - FRONT TRACK WIDTH	MIN./MAX. MM	970/1286		970/1286		970/1286		970/1286		970/1286	
I - FRONT WIDTH	MIN./MAX. MM	1178/1494		1178/1494		1178/1494		1178/1494		1178/1494	
L - REAR TRACK WIDTH	MIN./MAX. MM	970/1286		970/1286		970/1286		936/1250		936/1250	
M - REAR WIDTH	MIN./MAX. MM	1178/1494		1178/1494		1178/1494		1290/1472		1290/1472	

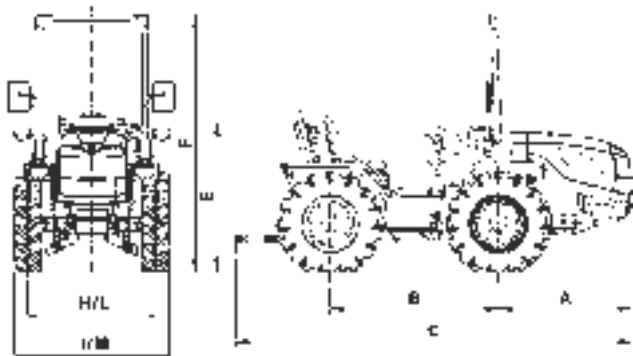
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TURNING RADIUS		VRM	ISM	ARM
WITH FRONT WHEELS		260/70R16	260/70R16	260/70R16
WITH REAR WHEELS		300/70R20	260/70R16	260/70R16
INNER RADIUS	M	1.25	1.25	1.35
OUTER RADIUS	M	3.00	2.85	2.39
TRACK WIDTH	MM	970	970	970

ISM - ARM - FRONT/REAR TYRES
7.50-16
260/70R16
29X12.50-15 GARDEN

VRM - FRONT/REAR TYRES
7.50-16 AND 9.50R20
7.50-16 AND 300/70R20
260/70-R16 AND 300/70R20

EQUAL-WHEEL



VARIANT

