SAME DEUTZ-FAHR

Dorado^3

60 | 80 | 90 | 100

www.same-tractors.com

SAME

Rely on us.

Versatility and manoeuvrability in every situation

This is a range of versatile and compact tractors, designed to meet the demands of tillage and general yard duties with equal efficiency. The Dorado^3 range from SAME offers a notable variety of equipment packages, superior comfort, and hi-tech solutions for tackling every kind of task: on the one hand the nimble Dorado^3 60, ideal for fetching and carrying - even in the tightest of spaces - and on the other the muscular Dorado^3 100, intended for heavier duties where power and efficiency at the P.T.O. are all-important. Available in 2 and 4 wheel drive versions, with platform or cab, Dorado^3 models are ideal for small and medium sized farming enterprises, even in hillside and mountain locations where they are capable of taking on any kind of work in complete safety, thanks to a low centre of gravity and a braking system that operates on all four wheels.

New 1000 Series 3 - and 4 - cylinder engines

The heartbeat of the Dorado[3] range is provided by SAME DEUTZ-FAHR engines of the latest generation (Tier 3), manufactured in 3 and 4 cylinder versions, turbo and turbo/intercooled, and designed to deliver consistently high levels of efficiency in combination with low specific fuel consumption.
These are features originating from innovative technological solutions adopted in design.
The fuel injection system is unique in its sphere: SDF engines are equipped with individual injection pumps, one to each cylinder. This guarantees instant injection and a notably high operating pressure (1400 bar), resulting in optimized performance and fuel economy.

All the new engines are equipped with hydraulic tappets for precision control of the injection timing advance.

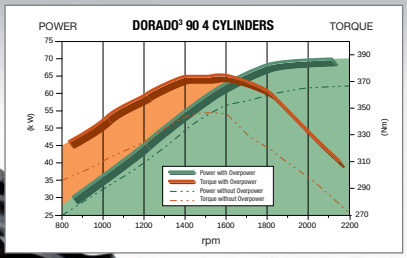
When the oil is cold, the plunger is lifted marginally so that the injection can be suitably advanced: besides optimizing combustion efficiency, this also eliminates the annoyance of white smoke, emitted typically by engines when starting up in particularly cold climates.

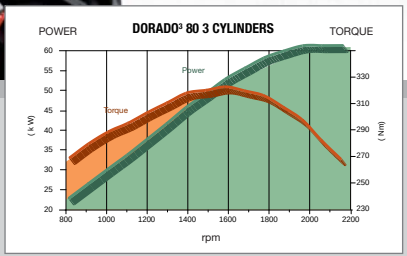
The intercooler cools the charge air delivered by the turbo. With increased air inlet flow, combustion is improved and made more efficient, bringing several advantages: more power, reduced emissions, and a lower running temperature of the engine.

The low speed setting of the crankshaft ensures less stress and wear on moving parts while at the same time keeping noise levels low, and consequently helping in general to maximize operator comfort.

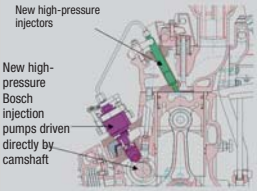
Wiring harnesses and all other parts under the hood are organized and rationalized in such a way that components will be better protected and last longer, and servicing points can be accessed more easily. And these practical advantages are enhanced by the design of the new one-piece hood, which reflects the family-feeling of the SAME marque.

In addition, fluid-dynamic swirl design is OPTIMISED by the new geometry of the cylinder heads and combustion chambers and helps in turn to optimise fuel burn, allowing you to exploit the full potential of the Dorado[3] engine and benefit from significant fuel economies.





Electronic regulator: total control



All models can be equipped with electronic engine management: an evolved device that optimises fuel consumption by ensuring exactly the right amount of fuel is always fed to the injectors, in response to varying load conditions and their impact on the engine.

The key operating parameters of the engine are monitored by sensors and relayed to an electronic control unit (ECU), which then maintains each parameter at its optimum value by piloting the injection system accordingly. Diesel fuel is metered so that the optimum amount will be supplied at any given moment, helping to maximize performance.
Thanks to the electronic regulator, a nominal engine speed of 2200 rpm can be specified, with power remaining constant down to 2000 rpm. This means, once again, optimum exploitation of available power and notably low fuel consumption.

The ECU also allows the operator to set, save and recall a minimum and maximum speed combination that will simplify the task of negotiating headland turns.
Another function of the electronic regulator is that it can pilot an "isochronous" mode of operation whereby the engine speed is maintained constant even under varying load conditions - ideal for applications requiring uniform P.T.O. and ground speeds. The result: optimum efficiency every time, with additional power saving and much lower fuel consumption.

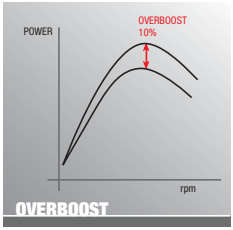
Dorado³. A great little tractor

The Dorado³ can slip easily in and out of feeding passages and other farm buildings. Similarly, a short wheelbase and an optimum steering angle of 55° with 4-wheel drive (70° for 2WD machines) guarantee manoeuvrability second to none, both in tight corners around the yard and on the smallest of headlands out in the field. Excellent comfort levels, a generous variety of equipment packages, including the new cab with 4 slimline uprights and high visibility roof, and state-of-the-art electronics to ensure that top performance is obtainable with absolute ease.

OVERBOOST: more power, when it's needed

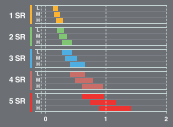
Supplementing the electronic regulator, the Dorado^3 90 also has OVERBOOST, an innovative electronic control system that cuts in on demand, allowing the engine to raise its level of performance temporarily when additional power and torque are needed to overcome particular operating conditions.
OVERBOOST is useful, for example, when accelerating above 20 km/h during transport duties, overtaking in town, negotiating hill roads with steep gradients, pulling away from traffic lights, and when towing heavy trailers on unstable soils.

In these situations, when draft forces increase, there will inevitably be a drop in engine speed.
When a certain limit is reached, the control unit acts on the injection system to increase the engine revolutions, generating approximately 10% more power and additional torque for an interval of around 30 seconds.
If this is not long enough to overcome the difficulty, OVERBOOST will cut in again automatically for a further 30 seconds.
This is a feature that brings significant benefits for the user - especially in terms of operating safety - as it guarantees a faster and more effective response from the engine in tricky situations.
Other advantages of OVERBOOST are reflected in higher work rates and increased comfort, with fewer gearshifts needed and less to worry about when driving the tractor.

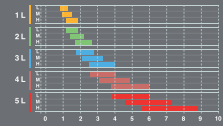


Speed in km/h

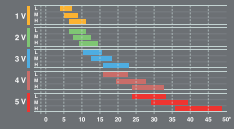
Creeper range



Low range



High range



* Maximum effective speed 40 km/h

Selecting 5th gear OVERSPEED in combination with HIGH range, the crankshaft speed at 40 Km/h will be 400 rpm less, on average, than the speed at which maximum power is delivered: translated into fuel consumption, a saving of 11-12%.

Maximum effectiveness with POWERSHIFT and OVERSPEED

POWERSHIFT

Versatility and effectiveness are the two main features of the SAME Dorado[3], which have a transmission providing up to 3 ranges (with creeper) and 5 synchronised speeds with "Powershift", giving three shift-on-the-go ratios, compounding to give a total of no less than 45 forward and 45 reverse speeds.

On models with Powershift, the operator can select a marginally higher or lower gear almost instantaneously, without using the clutch pedal, adjusting the ground speed to suit the prevailing conditions: this has the effect of absorbing variations in load while maintaining an optimum engine speed throughout. In addition, for ultimate comfort, the gears can be shifted smoothly and effortlessly by pushing an "electronic clutch" button on the knob of the shift lever, instead of having to depress the clutch pedal.

OVERSPEED

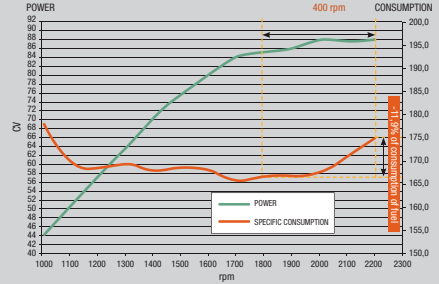
And there's more. For maximum efficiency, Dorado[3] machines can be equipped with OVERSPEED, a gearbox in which the ratios are spread to give a potential top speed of 50 km/h, limited electronically to 40 km/h.

With OVERSPEED, the tractor can be driven on the road at 40 km/h either in economy mode (staying in top gear), or exploiting the full performance capabilites of the engine, using lower ratios.

With low crankshaft speed, fuel consumption can be reduced significantly, whilst the power of the engine can be exploited at a speed near to that of the maximum rated torque. All these factors combine to produce an optimum power curve, better fuel economy and superior driver comfort, thanks to lower levels of noise and vibration.

Finally, a machine with OVERSPEED will be able to reach 40 km/h top speed whatever the size of tyres fitted - a feature that greatly enhances both its effectiveness on transport duties, and the comfort experienced when driving on the road.

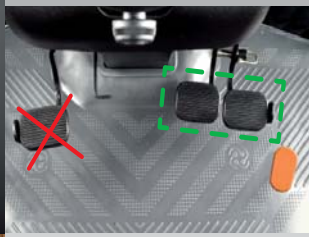
OVERSPEED



Hydraulic power shuttle with STOP&GO system: forget the clutch!

Along with the hydraulic shuttle, SAME offers an important technological innovation: The Stop&Go system.
This is a device that extends the features and potential of the shuttle, providing the operator with a higher level of manoeuvrability, especially when the tractor driveline has to be disengaged for intervals of varying duration, such as when operating with a front loader, or when hitching implements, or moving off on gradients.
With the Stop&Go feature installed, the movement of the tractor can be controlled utilizing only the brake pedals, with no need to operate the clutch pedal.
The system is managed by an electronic control unit that processes the data received from the shuttle lever beneath the steering wheel, from the braking system, and from a sensor located at the back of the gearbox, which monitors the ground speed of the tractor. Piloting the operation of solenoid valves on the basis of the signals received, the control unit will cause the machine to move off, or suspend the shuttle manoeuvre temporarily, without any need for the clutch pedal to be used.

Section through hydraulic shuttle with STOP&GO system



In practice, when the brake pedals are depressed, the tractor stops and the system will simultaneously put the operation of the shuttle "on hold":
Releasing the brake pedals subsequently, the shuttle is re-enabled by the Stop&Go control unit, which guarantees a gradual and balanced engagement of the relative hydraulic clutch (forward clutch or reverse clutch), and the machine will move off again positively, but without jerking. The benefits of the system when manoeuvring are self-evident: highly practical to use, as well as being safe, reliable and effortless to operate.

Hydraulic shuttle

Also available on the more evolved versions of the Dorado[3] is a shift-on-the-go hydraulic shuttle, equipped with 2 multidisc clutches immersed in oil (for longer life and reliability); the system incorporates an electronic control unit allowing inversion to take place under load as soon as the speed drops to 10 km/h, safeguarding the integrity of the mechanical components involved. The shuttle can be used to change the drive direction on all gear ratios, saving a considerable amount of time when manoeuvring and making return passes. The shuttle lever is located on the left beneath the steering wheel. Ergonomically designed and easy to use. it has a "neutral" position and will function only when enabled, to ensure total safety in operation.

Power take-off: great versatility

The Dorado[3] range also boasts an extremely versatile P.t.o. offering: oil-immersed multidisc P.t.o. clutch, 540/540 economy/1000 rpm speeds, and synchronised P.t.o.
With this type of package, any implement whatever can be coupled to the tractor with maximum economy of use and maximum efficiency - features that render the Dorado[3] range ideal for applications requiring a power take-off, not least by virtue of their optimum power-to-weight ratio.
And the P.T.O. is extremely easy to manage too: the controls are electro-hydraulic, and the selected speed is indicated on the instrument panel by dedicated LCD displays.

Rational and efficient management of all implements

Dorado[3] models offer a comprehensive equipment package, ensuring they can take on any type of task, any time. Which means also that the hydraulic system has been designed to provide fluid power for an infinite variety of implements, with rational and efficient management assured. The hydraulic system is equipped with a dedicated pump rated @ 54 l/min for the powerful rear lift and three double-acting (6-way) auxiliary spool valves, so that the potential of any hydraulically operated and controlled implement can be exploited to the full. The auxiliary spool valves are equipped with a flow regulator, affording further opportunities for use, and unfailingly dependable oil flow management. The power steering, on the other hand, has its own dedicated pump that guarantees optimum handling even with the engine operating at low crankshaft speeds - often the case with agricultural applications.

Electronic lift: power and precision

With unerring quality of work a key requirement, the electronic rear lift ensures that a hitched implement can be controlled with absolute precision.

Also available with the electronic rear lift is an automatic P.T.O. option, which engages and disengages unassisted when the implement is raised or lowered.

Designed with strength particularly in view, the rear lift of Dorado^3 machines has a rated capacity of 3000 kg, which can be increased to 3600 kg by fitting assistor rams. Implements are hitched to the lift links with unprecedented ease, using a pushbutton-operated, proportional up/down control.

For users needing to operate front-mounted implements, Dorado^3 models can be provided with a front lift (rated capacity 1750 kg) and front P.t.o. operating at 1000 rpm: a solution that adds further value to the versatility of the Dorado^3, not least by providing a quick-hitch hanger for the front ballast weight.

Driving position made to measure

Dorado^3 machines offer a driving position completely adaptable to suit the build and stature of the occupant, guaranteeing the same comfort levels as a car.
The upholstered seat with air suspension and safety belt adapts perfectly to the weight and height of the driver,

A superior class of comfort

Whatever the rated horsepower of a machine, the concept of comfort is always a priority for SAME.
Accordingly, both platform and cab versions of models have been designed to ensure that work will be a comfortable and pleasant experience for the operator, who remains free to exploit the potential of the tractor to maximum advantage. The cab, with 4 pillars, is a prominent feature of Dorado^3 machines: plenty of room inside, and optimum visibility in all directions. Less stress, aiding precise and safe control over the work in hand. Getting familiar with a Dorado^3 is so simple. The layout of the controls is logical and rational - all grouped together on the right of the driving seat, handily located and within arm's reach.
The P.t.o., four wheel drive and differential lock clutches are all electro-hydraulic in operation, actuated by a fingertip touch of the relative console switch. The Powershift transmission and clutch are operated by pushbuttons mounted to the knob of the shift lever. The instrument panel has an array of indicators and warning lights giving the driver total visual control over the operation of the tractor, with illuminated displays that remain clearly visible in any ambient light.
Values indicating ground speed, P.t.o. revolutions, lapsed time and distance covered are displayed in real time, providing the operator with an immediate picture of work rate and progress.

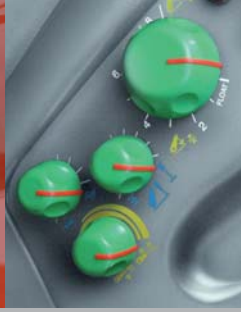
who has plenty of space allowing totally unrestricted movement.
Other fatigue-reducing features include the flat platform mounted on silent-blocks, hydrostatic brake and clutch circuits with pendant style pedals, side-mounted shift levers, and controls all laid out on a single console placed conveniently to the right of the driving seat.
In the case of cab versions, the special convexly profiled windows and the neat, tapering line of the hood combine to enhance the sensation of roominess and maximize all-round visibility.

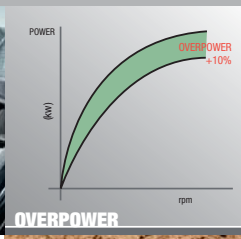
The right atmosphere for a good day's work

The cab offers an extra level of comfort, thanks to the original design of the sound-insulated and pressurized Same Dorado[3] cab, which is also air-conditioned.
The air-conditioning unit is housed in the rear part of the roof space, with four air outlets in the roof itself, and ducts extending down to four further outlets with adjustable louvres, delivering air at floor level.
The entire expanse of window glass is kept clear in cold weather by particularly effective demist and defrost vents.
Machines set up to operate with front loader type implements can also be fitted with a "high visibility" roof, which gives a completely clear view of the bucket as well as improving the circulation of air inside the cab.

Absolute safety

On a Dorado^3, top comfort also means total safety.
The Dorado^3 specification includes a hydrostatic braking system operating on all four wheels, which are equipped with oil-immersed disc brakes on both 4WD and 2WD models.
Even when travelling at high speed and with heavy loads, the tractor will always be brought to a halt safely and efficiently.
The hydrostatic action is soft and light, requiring only minimal pressure on the pedal.
Finally, to ensure total safety even when at standstill on sloping ground, Dorado^3 machines are equipped with a completely independent oil-immersed disc parking brake operating on the transmission.
The SAME Dorado^3 offers a revolutionary Tractor concept, versatile and totally adaptable to the needs of the user.
The ideal solution for anyone seeking a dependable and multi-capable workmate.





Dorado³ “Hi-Line”. Why not have it all?

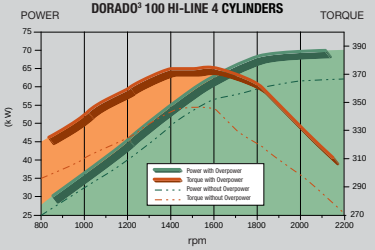
Dorado³ 100 “Hi-Line”, the version offering the highest equipment level of the Dorado³ range as standard.
The main feature of this model is that it comes with the new SDF 4-cylinder turbo/intercooled Tier 3 engine, which provides an electronically controlled power rise on demand - OVERPOWER - for all P.t.o. applications and transport duties. With OVERPOWER, the tractor is able to generate up to 95 HP when operating in these situations.

Other standardized features:
- SENSE CLUTCH oil-immersed multi-disc clutch and STOP&GO system, guaranteeing smooth shuttle between forward and reverse, and safe parking, all with maximum operator comfort.
- OVERSPEED transmission, allowing the machine to reach top speed at low engine revolutions, for optimized performance and fuel economy.
- High visibility roof and air suspension seat, affording the operator a clear view and unparalleled comfort.

Stop & Go

Sense Clutch

Over Speed



TECHNICAL DATA

	Version	DORADO³ 60	DORADO³ 80	DORADO³ 90		DORADO³ 100
		4WD	4WD	2WD	4WD	4WD
ENGINE		1000.3 WT TIER II	1000.3 WT TIER II	1000.4 WT TIER II		1000.4 WT TIER II
Cylinders/Displacement	no./cm³	3/3000	3/3000	4/4000		4/4000
Aspiration		Turbo	Turbo Intercooler	Turbo Intercooler		Turbo Intercooler
Max. homologated power (2000/25/CE)	HP/kW	62/46	82/60	85/63**		95/70
Nominal engine speed	rpm	2200	2200	2200		2200
Max. torque	Nm	240	310	345		345
Max. torque engine speed	rpm	1600	1600	1600		1600
Torque backup	%	22	15	31		31
Cooling		liquid-oil				
Engine control		electronic				
Air cleaner		dry with safety cartridge				
Silencer underhood		with lateral exhaust				
		with vertical exhaust				
		with exhaust on cab upright				
Fuel tank capacity	litres	90				
DIMENSIONS AND WEIGHTS (with rear tyres)		420/70 R 30	420/70 R 30	480/70 R 30		480/70 R 30
Max. length without link arms	mm	3430	3560	3560		3560
Width min.- max.	mm	1920-2320	1920-2320	2070-2330		2070-2330
Max. height at safety frame	mm	2400	2400	2440		2440
Max height at cab	mm	2430*	2430*	2470*		2470*
Ground clearance	mm	360	360	390		390
Wheelbase	mm	2055	2185	2185		2185
Front track min.- max.	mm	1440-1740	1440-1740	1440-1740		1440-1740
Rear track min.- max.	mm	1500-1900	1500-1900	1500-1900		1500-1900
Minimum steering radius without braking	mm	3650	3800	3800		3800
Weight with safety frame	kg	2600	2700	2750		2750
Weight with cab	kg	2800	2900	2950		2950

TRANSMISSION		
Gearbox clutch		hydrostatically operated
Mechanical gearbox, 5 synchronised gears, 3 gear ranges with creeper + underdrive (min. speed: 0,24 km/h)		30 FWD + 15 REV with OVERSPEED
POWERSHIFT gearbox (3 power gears) 5 synchronised gears, 3 gear ranges with creeper (min. speed: 0,20 km/h)		45 FWD + 45 REV with OVERSPEED
Max. speed		OVERSPEED gearbox 50 km/h (speed limited to 40 km/h for legal purposes, even at economy engine speed)
Shuttle		mechanical, synchronised
		hydraulic under load with Stop&Go function
Rear differential lock		electro-hydraulically operated
Lubrication		forced with transmission oil cooler
REAR P.T.O.		
Clutch		multiple, oil-immersed discs, electro-hydraulically operated
Speed	rpm	540-540 ECON
	rpm	540-540 ECON-1000
		synchronised P.T.O.
Operation		electro-hydraulically operated, push-button control
FRONT P.T.O.		
Clutch		multiple, oil-immersed discs, electro-hydraulically operated
Speed	rpm	1000
Operation		electro-hydraulically operated, push-button control
BRAKES AND STEERING		
Braking system		all wheel braking, oil-immersed discs on all 4 wheels, hydrostatically operated
Parking brake		independent
Trailer braking		hydraulic braking valve
Hydrostatic steering		independent pump, adjustable steering wheel
Steering angle	4WD	55°

FRONT AXLE		
Drive engagement		electro-hydraulically operated
Front differential lock		electro-hydraulically operated
Front ballast		eight 40 kg case type weights
Front mudguards		swivelling
HYDRAULIC LIFT		
Rear power lift		mechanical
		electronic
Maximum lifting capacity	kg	3000
		3600 with supplementary jacks
Pump delivery	l/min.	54
Auxiliary hydraulic control valves	no. ways	4/6 with flow regulator
3 point linkage		fixed hitching balls
(link arms and top link)		automatic hitching
Front lift		original built in
		maximum lifting capacity 1750 kg
		quick fit ballast, 250 kg
DRIVING POSITION		
Platform		suspended on silent-block
Safety frame		two rear uprights
Cab		four uprights, original sound-proofed and pressurised, opening windscreen, rear windscreen wiper, 4 work lights, active carbon air filter, telescopic rear-view mirrors
		as above with "high visibility" roof
Cab conditioning		air conditioning, ventilation, heating, forced recirculation
Instruments		digital display
Driver's seat		mechanical adjustment, safety belt
		pneumatic suspension, safety belt

POWERSHIFT WITH OVERSPEED GEARBOX 45 FWD + 45 REV – SPEEDS IN KM/H AT AN ENGINE SPEED OF 2200 RPM WITH 480/70 R 30 REAR TYRES

	1 SR	2 SR	3 SR	4 SR	5 SR	1 L	2 L	3 L	4 L	5 L	1 V	2 V	3 V	4 V	5 V
LOW	0,20	0,30	0,44	0,65	0,95	1,28	1,87	2,78	4,09	6,05	7,06	10,30	15,31	22,55	33,29
MEDIUM	0,24	0,35	0,52	0,77	1,15	1,54	2,24	3,33	4,91	7,26	8,48	12,36	18,37	27,06	39,95
HIGH	0,29	0,43	0,64	0,94	1,39	1,86	2,72	4,04	5,96	8,80	10,27	14,98	22,26	32,80	48,42**

The above specifications refer to tractors with all available equipment. For standard equipment and options, refer to the current price list and ask your local dealer for details.

*=WITH STANDARD ROOF
**=FOR SOME COUNTRIES SPEED LIMITED TO 40 KM/H ALSO AT ECONOMY ENGINE SPEED FOR LEGAL PURPOSES
***=OVERBOOST A 60HP
PLEASE NOTE: REVERSE SPEEDS ARE SLIGHTLY LOWER THAN THE CORRESPONDING FORWARD SPEEDS.

DEALER CONTACT

SAME
Rely on us.

We recommend the use of SDF Lubricants and Coolant

Company with Quality System Certified in compliance with ISO 9001:2000

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