COMBINATION VIBRATING ROLLERS

making our mark

LEBRERO

Lebrero compactors: The advantage

Research and development is constant in Lebrero's company culture. With new compaction needs in the market and Lebrero's specialization philisophy, have been the bases for the development of the rahile 418 MX and 418 GC range.

The combination vibrating roller, combines the compaction capacity in depth of impact, the densities required in average thickness layer by concordance and the surface sealing effect by compression and mixing carried out traditionally by the pneumatic tyre roller.

Both units are designed to work with bitumenous mixtures like compacted hydraulic agglomerates (stabilized soils, gravel cement, soil cement, compacted dry concrete, etc). The main difference between MX and GC is in its higher or lower specialization in the compaction of bitumenous mixtures or layers of hydraulic agglomerates. The 418 MX model is the most adequated unit when compacting bituminous mixtures, the 418 GC being the most adequate one when high performance is requested at hydraulic layers.

Another differential factor, reduction by half in transport costs and in the investment and working expenses.

The compaction technique.

The 418 MX rahile range is characterized by the maximum mass 19 950 kg depending on models, the double work possibility such as type VX3/VX0 or VX0/VX1 (SETRA-LCPC) and five compacting levels for each type, achieving a wide range of options for the operator to obtain the performance suitable for each job.

On non-bituminous surfaces and great thicknesses, ballasted machine (VX3) high eccentric moment of 1 900 or 3 000 rpm ; also, in VX0, low moment and 3 000 rpm (see compaction table).

Bituminous mixtures with big and medium difficulty and thickness, machine VX1, high eccentric moment of 1 900 rpm; also in low eccentric moment of 3 000 or 1 900 rpm.

Easy mixtures and small thickness' can be worked in VX0, low eccentric moment of 1 900 rpm. And in general, to complement the sealing action of the tyres a couple of passes can be made in concordance or even static.

Full hydraulic.

The 418 rahile range has been designed with Lebrero's full hydraulic technology which is distinguished by its splendid performance and great reliability. Without a gear box, without a differential axle and without reducers.

The hydraulic power is supplied by three independent pumps and is transmitted through three circuits: drive, vibration and steering perfectly designed for the function they have to execute. The distribution blocks of the driving and vibration system are a technological advancement developed by Lebrero and offer a command and control functionality which places the 418 rahiles, with the remaining Lebrero compactors, in the vertex of this technique.

Automatic Control.

Lebrero suggests an original solution for the control of the 418 rahile. Two electronic cards centralize the control of the machine, the operator can work in automatic mode and the system carries out the necessary functions for the programmed work, avoiding repetitive manoeuvres. It disconnects the vibration before it stops, it connects the delay vibration in the start-ups, it disconnects the vibration on activating the brake, it generates a smooth and progressive start up until the chosen speed.

Driving system.

It's driven by a hydraulic axial piston pump and a variable flow. By a Lebrero block, the flow is distributed to five slow high torque hydromotors, one for each driving wheel and drum, with integrated negative drive brake. Perfect effort distribution.

Automatic pressure system on wheels.

The 418 rahiles have an innovating pressure system as standard. An electronic control-indicator assembly unit situated on the instrument panel, constantly visualizes the pressure of the pneumatic circuit and permits the programming of between 2,5 and 8 bars of the working pressures required for the job. The pressure will automatically be kept at the programmed limit.

Four Hold-back type safety valves will keep, in the case of problems in the circuit, burst or breakage, the tyres are not affected at a pressure of 2,5 bars.

Vibration system.

It's driven by a hydraulic axial piston pump of variable flow which controls hydraulic flow by a Lebrero block and a high speed axial piston hydromotor and fixed flow for the operation of the eccentric shafts which support the eccentric masses.

Steering system.

Two different models within the same system, central oscillating articulation of frames which is typical of Lebrero, and a central frame articulation with side movement. This new configuration allows side movements of the roller with respect to the pneumatic train of a maximum of 290 mm per side. An electronic control-indicator assembly unit situated on the instrument panel controls the desired movement and informs at all times the relative position of the articulation.

The hydraulic circuit is independent and it is moved by a gearing pump with an Orbitrol type distributor.

Centralized hydraulic control

Joined to the Totally hydraulic concept, the 418 rahile range incorporates as standard, the centralized hydraulic control plates with six intakes by means of capillaries of the main operation pressures.

The comparison of the data obtained in the measurements, with the standards shown in the Operator's Manual, perfectly diagnose the state of the machine.

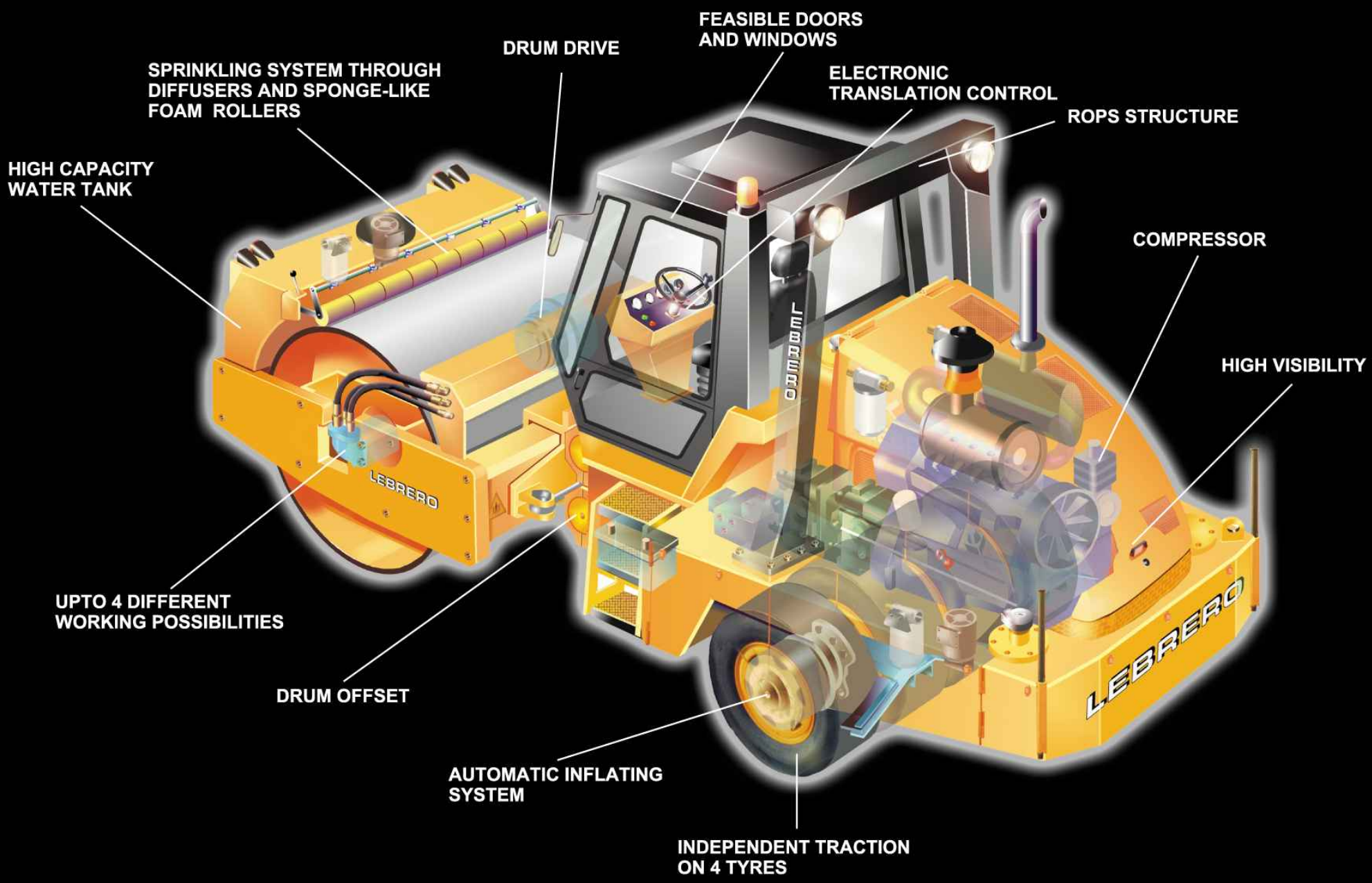
Double sprinkling circuit.

It's composed of two independent circuits, for water and anti-adherent agents. A switch located on the instrument panel adjusts the flow by timing the operation in 30 second cycles.

Triple braking system.

Hydraulic braking activated manually by the speed adjustment lever in the neutral position. Multidisc mechanical braking activated automatically when stopping the engine and manually by means of the braking switch when parking or emergency placed on the instrument panel.

Automatic emergency brake, mechanical negative operation multidisc, in case of any type of breakdown in the hydraulic translation system.


FEASIBLE DOORS
AND WINDOWS
DRUM DRIVE
SPRINKLING SYSTEM THROUGH
DIFFUSERS AND SPONGE-LIKE
FOAM ROLLERS
ELECTRONIC
TRANSLATION CONTROL
ROPS STRUCTURE
HIGH CAPACITY
WATER TANK
COMPRESSOR
HIGH VISIBILITY
UPTO 4 DIFFERENT
WORKING POSSIBILITIES
DRUM OFFSET
AUTOMATIC INFLATING
SYSTEM
INDEPENDENT TRACTION
ON 4 TYRES
LEBRERO

TECHNICAL SPECIFICATIONS

LEBRERO

			RAHILE 418			
			MX (ac/sl)	MX (ad/cl)	GC (ac/sl)	GC (ad/cl)
Mass						
Total	UNE 115-434	kg.	18 500	19 950	18 650	19 400
		lb.	40 793	43 990	41 123	42 777
On shafts	Drum	kg.	6 500	7 700	7 400	7 900
		lb.	14 333	16 979	16 317	17 420
	Wheels	kg.	12 000	12 250	11 250	11 500
		lb	26 460	27 011	24 806	25 358
Load	Static lineal	kg./cm.	30,23	35,81	34,42	36,74
		lb/in.	169,32	200,58	192,77	205,79
	Per wheel	kg.	3 000	3 063	2 813	2 875
		lb.	6 615	6 753	6 202	6 339
Dimensions						
Maximun	Lenght	mm.	6 133	6 478	6 133	6 478
		in.	241	255	241	255
	Width	mm.	2 340	2 465	2 340	2 465
		in.	92	97	92	97
	Height	mm.	3 073	3 073	3 073	3 073
		in.	121	121	121	121
Drum	Diameter	mm.	1 500	1 500	1 500	1 500
		in.	59	59	59	59
	Width	mm	2 150	2 150	2 150	2 150
		in.	85	85	85	85
	Thickness	mm	28	28	28	28
		in	1,10	1,10	1,10	1,10
Compaction High e. m						
Classification	**UNE 115-435**		**VX1.P1**	**VX1.P1**	**__**	**VX3.P1**
	Nominal amplitude	mm.	0,68	0,68	__	1,88
		in.	0,03	0,03	__	0,07
	Real. Amp. max. (2A)	mm.	1,28	1,28	__	3,14
		in.	0,05	0,05	__	0,12
Impact	Centrifugal force	daN	20 302	20 302	__	24 403
		lb	45 638	45 638	__	54 858
	Frequency	Hz.	50,00	50,00	__	28,33
		r/min.	3 000	3 000	__	1 700
	Impact	J/cm.	1,01	1,01	__	2,10
		J/in.	2,57	2,57	__	5,33
Concordance	Centrifugal force	daN	8 143	8 143	__	__
		lb	18 306	18 306	__	__
	Frequency	Hz.	31,67	31,67	__	__
		r/min.	1 900	1 900	__	__
Compaction Low e. m						
Classification	**UNE 115-435**		**VX0.P1**	**VX0.P1**	**VX0.P1**	**VX0.P1**
	Nominal amplitude	mm.	0,32	0,32	0,59	0,59
		in.	0,01	0,01	0,02	0,02
Concordance	Centrifugal force	daN	9 431	9 431	23 687	23 687
		lb	21 202	21 202	53 248	53 248
	Frequency	Hz.	50,00	50,00	50,00	50,00
		r/min.	3 000	3 000	3 000	3 000
Reduc. Conc.	Centrifugal force	daN	3 783	3 783	7 606	7 606
		lb	8 504	8 504	17 099	17 099
	Frequency	Hz.	31,67	31,67	28,33	28,33
		r/min.	1 900	1 900	1 700	1 700
Water	Total capacity	L	605	555	605	555
		US Gal.	160	147	160	147
Propulsion and steering						
Engine	Make		DEUTZ	DEUTZ	DEUTZ	DEUTZ
	Model		F6L-913	F6L-913	F6L-913	F6L-913
	Nº cylinders		6	6	6	6
	Cooling		Air	Air	Air	Air
	Power	KW	86,0	86,0	86,0	86,0
		CV	116,9	116,9	116,9	116,9
	Revolution	r/min.	2 500	2 500	2 500	2 500
Drive	Type		Hydrostatic			
	Tyres size	(x 4)	13.8 x 20 Pilote Lisse			
	Speed	km/h	2 speed (0 - 6) (0 - 12)			
Brakes	Service		Hydrostatic			
	Parking & emergency		Multidisc with negative drive			
Steering	Tourning angle	°	30	30	30	30
	Oscillating angle	°	15	12	12	12

OFFICE AND CENTRAL FACTORY
COMOPLESA - LEBRERO, S.A.
Avda. Alcalde Caballero, nº 32 • Pol. Industrial «El Pilar»
50014 Zaragoza (Spain)
E/P.O. Box 402 • Tel (+34) 976 464 300 • Fax (+34) 976 464 301
http://www.lebrero.com • E-mail: info@lebrero.com

Dealer:

02/01