FOTON

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FOTON MOTOR GROUP
Beijing, 102206, China

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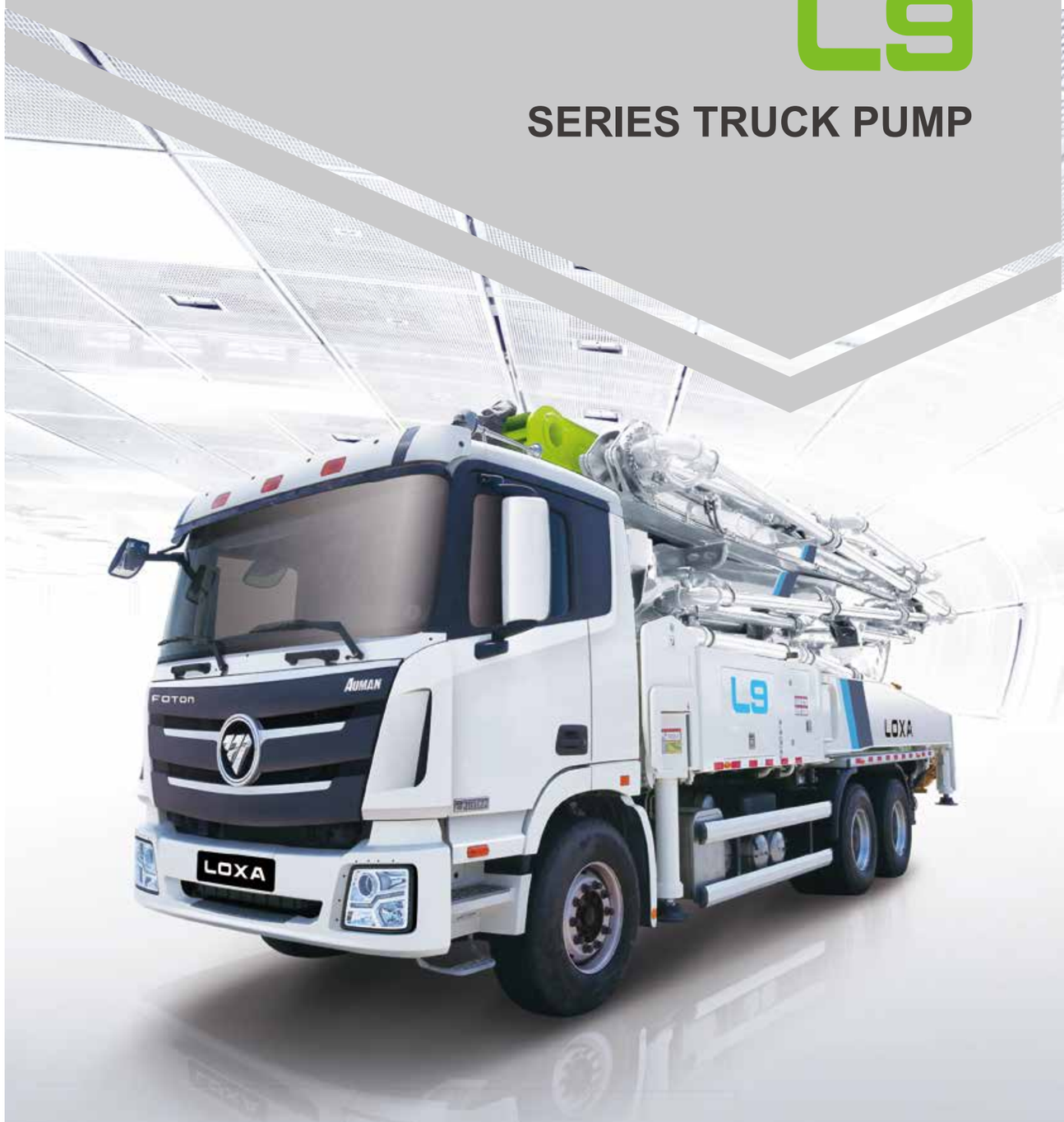
LOXA

L9

SERIES TRUCK PUMP




SUPER RELIABLE
SUPER EFFICIENT
SUPER ENERGY-SAVING
SUPER SAFE
SUPER PERFORMANCE
LOXA
FOTON
AUMAN
LOXA
LOXA
LOXA

SUPER RELIABLE

Integrated Quality from China, US, and Germany

Integrated development, design, and manufacture ensure reliable vehicle quality, high attendance rate, and effective operation cost reduction.

Integrated Development of EU and US Technologies

- LOXA integrated global R&D teams (China, US, and Germany) for the development of the product. Its power technology came from Cummins's 5th-generation ISG engine, its chassis technology came from Daimler, and its concrete mixer technology came from LOXA Research Institute in Germany. The vehicle is based on an integrated design and has reliable quality.

Integrated Manufacture Based on EU and US Technologies

- This is the only digital factory manufacturing engine, chassis, and concrete mixer products in China. The high-quality products came from advanced technologies of China, US, and Germany. The integrated quality ensures reliable manufacture.
- Daimler's manufacture management system is adopted. On site there are German experts providing guidance. Numerical control machine tools, Kuku rotary table welding systems, 3D locators, and full-auto painting process, and slab-type conveyer allow for high-precision product assembly and reliable product manufacture.
- Various imported manufacturing equipment including Japan KOIKE LS-5040Z laser cutting machine, Sweden Ursviken Qptia 2000M-4986 bending machine, intelligent correction machine of lifting arm and drum, Italian three-dimensional scribing instrument, auto coating plate conveyor line, which ensure high precision manufacturing, reliable quality, forming an intelligent heavy machinery manufacturing base of German engineering.

Cummins Research Institute of Technologies

Daimler Chassis Technology Center

LOXA Research Institute of Germany

Exemplary Global Digital Factory

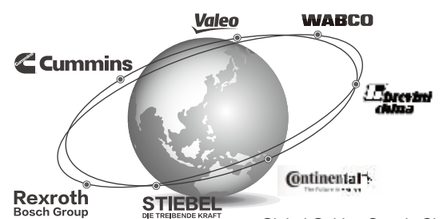
Pump Truck Boom Fatigue Test

Global Golden Supply Chain

- 70% of the key assemblies and parts of the onboard pumping system are international-brand, such as the Stiebel transfer case, Rexroth hydraulic pump and valves, IFM controllers and displays, and HBC remote control.

Improving Technologies

- **New-generation material placing rods:** the L9's boom head and top slab are based on an integrated design to dramatically reduce the number of weld joints; the pins are of the integral through-shaft type; the connecting rods are external Stephenson rods; the material placing rods have higher bearing performance, longer service life, and higher reliability.
- **High-strength steel:** the booms, legs, and support platform are made of SSAB Weldox high-strength steel, and therefore their impact resistance, strength, and welding performance are way higher than the average level of the industry.
- **Emergency pumping mode:** the emergency mode is switched to in case a direction change occurs or the speed sensor is faulty, so as to ensure low-speed pumping without any stop.



Global Golden Supply Chain

Improving Technologies

- **Long-life conveyance piping:** the flanges and internal thicknesses of the bends and reducer pipes are reinforced or increased to different degrees so as to prevent early wear; the conveyance piping is based on the double-layer wear-resistance pipe technology to make its internal pipe hardness 67HRC or above, i.e. make its wear resistance higher.
- **Reinforced conveyance cylinder:** the chromium plating process is improved to allow the thickness of the plating to be 0.3mm or above, the internal layer hardness to be HV900 or above, and the service life to be up to 80,000 to 100,000 cubic meters of conveyed concrete, which is 20% higher than the average level of the industry.

SUPER EFFICIENT

100 More Pumping Hours Per Year

High pumping rate and super long maintenance intervals allow for 7000 more cubic meters of concrete pumped per year, avoidance of three maintenances per year, and 10% increase in concrete conveyance efficiency.

Rapid Swing Cylinder Direction Change Technology

- The swing cylinder direction change technology based on constant-pressure pump and large-drift slide valve is adopted. The slide valve drift cylinder is up to 33m, 15%% higher than the industry average of 28mm. The duration of one single direction change is increased to 0.6s, thus improving the performance by 25% than the industry average.

High-efficiency Maintenance

- The brand-new ISG engine is based on the dry/wet sleeve design to reduce oil oxidization and escape, which together with the patented NanoNet™ technology allows the fuel filter and oil filter to have the filtering efficiency up to 98.7% and the water separation efficiency being up to 99%.
- The patented oil slow release agent can delay oil acidization and oxidization.
- The engine maintenance interval is dramatically prolonged to 1000h or one year, which is three times the industry average of 250h. This means that $1526 can be annually saved in maintenance.

SUPER ENERGY-SAVING

$50,000/a Saving in Fuel Consumption

Energy-saving Technology of Engine Adaptation to Pumping Load
Idle-speed Vehicle Washing Energy-saving Technology
Fuel Saving of Power System

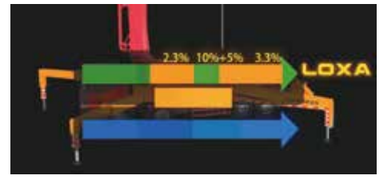
Power System Fuel-saving Technology

- Cummins's new-generation ISG engine is adopted. Its XPI fuel supply system with the injection pressure up to 2000bar can implement precise control in injection pressure and amount and have the multi-stage injection capability and the most excellent injection performance.
- The ISG engine's minimum steady-state fuel consumption is 184g/kwh. Its economic fuel consumption range is very wide, and the economic fuel consumption ratio is up to 70%.
- Cummins is the world's only manufacturer that optimizes the engine universal characteristics according to the pumping condition to allow for 100% match between the economic fuel consumption range and the pumping speed.

Cummins Engine

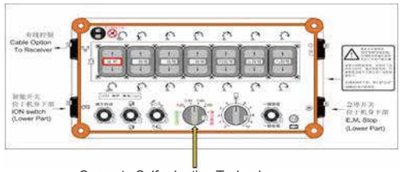
Energy-saving Technology of Engine Adaptation to Pumping Load

- The perfect match between Germany's cutting-edge energy saving technologies and Foton Daimler's chassis CAN bus ensures that the engine works in the optimal economic fuel consumption range in any pumping condition. Thus, 20% energy saving can be achieved



Concrete Self-adaption Technology

- An appropriate position is selected according to the grade of the actually pumped concrete, and thus the vehicle allots an engine load rate to the concrete resistance. This solves the industry's problems including insufficient engine power, engine speed reduction, and engine stall, which are encountered as the pumping system pumps high-grade concrete. As a result, economic, smooth, and high-efficiency concrete pumping can be achieved.



Concrete Self-adaption Technology

SUPER SAFE

Ensure Personal Safety and Reduce Accidents

The vehicle body complies with the strictest EU EEC regulations;
The vehicle has safety technologies such as boom anti-interference, anti-overturn, and swing cylinder self-adaptation.

Travel Safety

Active Safety

- **Reasonable Wheelbase Distribution:**

  The advanced integration design philosophy ensures that the center of gravity of the vehicle is rationalized to increase the vehicle's travel stability through reasonable wheelbase distribution according to the pumped volume of concrete.

- **Braking Safety:**

  The industry-leading iBrake engine brake system that adopts the exhaust rocker arm and compression braking integration technologies, allows the maximum braking force to be up to 370hp and effectively reduces the brake pad and tire wear. Its efficiency is 50% higher than the exhaust-type braking efficiency and its performance is 100% higher than the performance of the exhaust brake.

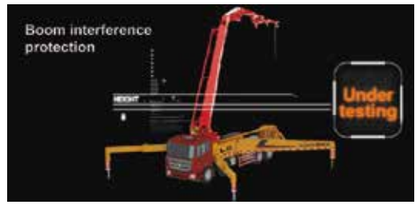
Passive safety

- The vehicle complies with the strictest EU EEC regulations. Its cab can withstand any head-on or lateral collision, overhead compression, and front drilling.
- The cab is made of 1mm body steel plates to ensure the personal life of the driver.

Operation Safety

Boom Protection Technologies:

- As the brain, the main controller does real-time boom posture calculations to prevent the boom from being hit. When the booms are lifted, the No.2 boom oil cylinder is automatically supplied with oil to prevent them from falling.



SUPER PERFORMANCE

Smart test improves maintenance efficiency by 70% and saves 48 hours annually.

CAN Bus Technology
Fault Self-diagnosis Technology
Smart Fuel Consumption Management System

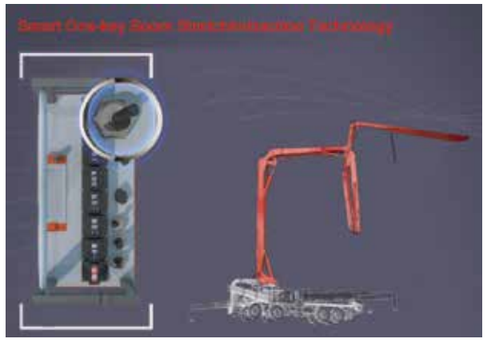
Fault Self-diagnosis Technology for Quick Troubleshooting

▶ **Intelligent Fault Diagnosis**

375 faults can be precisely identified. The short-circuiting, broken circuit, and component faults are intelligently identified. The troubleshooting time can be saved by about 70%.

Smart Fuel Consumption Management System

▶ It can collect various fuel consumption data, as fuel consumptions for travel, pumping, boom movement, leg supporting, water pump, idle-speed running etc., can calculate the weekly fuel consumption average, and assist the customer with reasonable device management.



LOXA L9 Series List of Concrete Pump Truck Models

Three-axle

38m

Max. material placing height	38
Max. material placing radius	33.5
No. of booms and collapse type	4Z
Max. theoretical output	145

40m

Max. material placing height	40
Max. material placing radius	35.6
No. of booms and collapse type	5RZ
Max. theoretical output	145

47m

Max. material placing height	47
Max. material placing radius	42.7
No. of booms and collapse type	5RZ
Max. theoretical output	200

50m

Max. material placing height	50
Max. material placing radius	44.3
No. of booms and collapse type	5RZ
Max. theoretical output	200

Four-axle

56m

Max. material placing height	56
Max. material placing radius	50.9
No. of booms and collapse type	6RZ
Max. theoretical output	200

Parameters

Category				38m	40m	47m	50m	56m
Vehicle parameters	Overall length (mm)			12500	11550	1200	12000	14000
	Overall width (mm)			2500	2500	2500	2500	2500
	Wheelbase (mm)			4600+1350	4600+1350	4600+1350	4600+1350	2100+4300+1350
	Total weight (Kg)			28500	29500	33000	33000	43000
	Min. ground clearance (mm)			283	283	283	283	285
Boom and leg parameters	Number of material placing rods			4	5	5	6	6
	Boom vertical height (m)			38	40	47	50	56
	Boom horizontal length (m)			33.5	35.6	42.7	44.3	50.9
	Boom vertical depth (m)			23.7	26.2	33.4	35	40
	Rotary table angle (°)			±360	±360	±360	±360	±360
	Front leg span (mm)			6200	6200	9660	9660	9725
	Longitudinal leg span (mm)			7300	7300	9720	9720	10810
	Rear leg extension width (mm)			8900	8900	10180	10180	12290
Pumping system	Theoretical concrete displacement (m^3/h)			145	145	200	200	200
	Max. concrete conveyance pressure (MPa)			7.5	7.5	8.8	8.8	8.8
	Conveyance cylinder diameter (mm)			φ260	φ260	φ260	φ260	φ260
	Conveyance cylinder travel (mm)			1900	1900	1900	1900	2100
	Hydraulic system			Closed type	Closed type	Closed type	Closed type	Closed type
	System's oil pressure (MPa)			35	35	35	35	35
	Conveyance pipe diameter (mm)			125	125	125	125	125
	Length of end hose (m)			3	3	3	3	3
	Diameter of end hose (mm)			125	125	125	125	125
Pumping system configuration	Oil pump	Manufacturer		Rexroth	Rexroth	Rexroth	Rexroth	Rexroth
	Electronic system	Control mode/control module		Bus/IFM	Bus/IFM	Bus/IFM	Bus/IFM	Bus/IFM
		Display	Manufacturer	Kangxu	IFM	Kangxu	Kangxu	Kangxu
	Transfer box	Manufacturer		First-class international brand (Stiebel)	First-class international brand (Stiebel)	First-class international brand (Stiebel)	First-class international brand (Stiebel)	First-class international brand (Stiebel)
	Reducer	Type		Single-reducer	Single-reducer	Single-reducer	Single-reducer	Double-reducer
		Manufacturer		First-class international brand(Comer)	First-class international brand(Comer)	First-class international brand(Brevinl)	First-class international brand(Brevinl)	First-class international brand(Comer)
Chassis configuration	Engine	Model		ISME385 30/ISGe4-380	ISME385/ISGe4-380	ISME385 30/ISGe4-380	ISME385 30/ISGe4-380	ISM11E420
		Type		In-line water-cooled six-cylinder diesel engine	In-line water-cooled six-cylinder diesel engine	In-line water-cooled six-cylinder diesel engine	In-line water-cooled six-cylinder diesel engine	In-line water-cooled six-cylinder diesel engine
		Emission standard		Euro III/Euro IV	Euro III/Euro IV	Euro III/Euro IV	Euro III/Euro IV	Euro III
		Manufacturer		Cummins	Cummins	Cummins	Cummins	Cummins

LOXA L9