



SEM

A Caterpillar Brand

EMPOWER YOUR SUCCESS





TIMELINE: A HISTORY OF GROWTH

1958

SEM founded in Qingzhou

1985-1990

SEM assembly, machining and parts painting facilities established

2008

SEM fully acquired by Caterpillar

1976

First countershaft wheel loader in China, JZ425, launched

2003

Caterpillar / SEM Joint Venture established

2009

First Global SEM Dealer Conference held in Beijing, with participation from dealers representing 14 countries

EMPOWER YOUR SUCCESS

As part of our commitment to our growing customer base worldwide, Caterpillar is proud to serve utility customers through our SEM brand. Formerly Shandong SEM Machinery Co., Ltd, Caterpillar (Qingzhou) Ltd. (CQL) offers both SEM and Cat branded products.

We're committed to continually expanding our offerings and improving the quality of our products. We focus on research and development and follow the Caterpillar Production System and advanced management philosophies to safely, efficiently and profitably manufacture products. We have recently acquired additional property to expand capacity of our CQL lines as well as other key components.

SEM equipment is targeted at utility customers for Chinese domestic and select growth markets around the world. SEM products meet or exceed

regional industry requirements for quality and reliability and target customers who emphasize initial acquisition cost over long-term total cost of ownership.

In markets outside of China, the products are sold through Caterpillar dealerships with dedicated SEM channels, covering more than 100 countries. Key export markets for SEM machines include Asia Pacific, Latin America, Eurasia, and Africa and Middle East.

2010

First SEM Soil Compactor launched

2013

Shandong SEM Machinery, Ltd. becomes Caterpillar (Qingzhou) Ltd.

2018

Caterpillar (Qingzhou) Co., Ltd 60th Anniversary

2020

Won Caterpillar Operations Excellence Award

2011

First SEM Motor Grader and Landfill Compactor launched; more than 1,500 machines exported for first time

2016

SEM brand becomes a Caterpillar brand

2019

Caterpillar Qingzhou paving ground officially opened

2021

Caterpillar global work tool manufacture facility

OUR SUCCESS LEADS TO OUR CUSTOMERS' SUCCESS

Our business development relies on customer satisfaction. This is our operating principle and a commitment to our customers. We know that when they succeed, we succeed. We are committed to developing products with an open mind and creating markets with innovative concepts.

This philosophy has allowed SEM to become a leader in the industry, with our products highly regarded by our customers and by Caterpillar.

In addition to product leadership, CQL is committed to being a leader in our communities and our country. We take responsibility for promoting

progress in our society, protecting the environment, helping vulnerable groups and participating in community development. From building roads and digging wells, to donating education funds, to responding to natural disasters, CQL is committed to being a good corporate citizen.



AWARD-WINNING PRODUCTS AND FACILITIES

2022

- China TOP10 Dozer Customer Focused Brands
- China TOP10 Loader Customer Focused Brands
- China Construction Machinery Products TOP50
 - SEM918 Upgraded Motor Grader
- The 13th CMII2022 Brand Event China Construction Machinery Star Product - New Energy Equipment
 - SEM658F Electric Wheel Loader
- The 13th CMII2022 Brand Event China Construction Machinery Star Product - User Reputation
 - SEM822D Dozer

2021

- China TOP10 Dozer Customer Focused Brands
- China TOP10 Loader Customer Focused Brands
- China Construction Machinery Products TOP50
 - SEM676D Wheel Loader
 - SEM526 Soil Compactor
- The 12th CMII2021 Brand Event China Construction Machinery Star Product - User Reputation TOP10
 - SEM676D Wheel Loader
- The 12th CMII2021 Brand Event China Construction Machinery Star Product - National Advanced Equipment TOP10
 - SEM526 Soil Compactor



2020

- China TOP10 Dozer Customer Focused Brands
- China TOP10 Loader Customer Focused Brands
- CMIIC2020 China Construction Machinery Industry Internet Conference and Brand Event Star Product
 - SEM656D Wheel Loader
- CMIIC2020 China Construction Machinery Industry Internet Conference and Brand Event Star Product
 - SEM818D LGP Dozer

2019

- China TOP10 Dozer Customer Focused Brands
- China Construction Machinery Products TOP50
 - SEM816D Dozer
- CMIIC2019 China Construction Machinery Industry Internet Conference and Brand Event Star Product
 - SEM660D Wheel Loader
 - SEM919 Motor Grader

2018

- China Construction Industry Customer Satisfied Product
 - SEM655D Wheel Loader
- China TOP10 Dozer Customer Focused Brands
- China TOP10 Loader Customer Focused Brands

2016

- Top 50 Products of China Construction
 - SEM656D Wheel Loader

2014

- Top 50 Products of China Construction
 - SEM816 LGP Dozer
- Caterpillar Chairman's Quality Award
 - SEM 650B Wheel Loader

2013

- Top 50 Products of China Construction Machinery
 - SEM658C Wheel Loader
- National Machinery Industry Outstanding Workshop Award
 - SEM Axle/Transmission Value Stream facility
- Top 10 Scraper Machinery
 - SEM658C Wheel Loader

WHEEL LOADERS

A MODEL FOR EVERY APPLICATION

SEM wheel loader starts from 1970s'. We offer compact, small and middle size loaders to meet the needs of various application. Our SEM 66X Series Wheel Loaders are designed for heavy working conditions and higher load capacities. SEM 65X Series Wheel Loaders feature low-speed engines for increased efficiency and a number of productivity enhancing features. The SEM 63X Series Wheel Loaders are the ideal choice for light working conditions, with an performance series bucket which offers 10% extra productivity, and improved dump height. SEM 61X Series Wheel Loaders features 10% higher dump clearance than others and provides various work tools through quick coupler.

MODEL	BUCKET CAPACITY (m ³)	RATED POWER (kW)
SEM618D	0.9-1.0	60
SEM636D	1.4-2.5	92
SEM653D	2.7-4.5	162
SEM655D	2.6-4.5	162
SEM656D	2.6-4.5	162
SEM658D	2.6-4.5	162
SEM660D	3.3-5.5	178
SEM668D	2.9-5.5	178
SEM676D	4.2-7.0	199



DOZERS

HIGH EFFICIENCY AND RELIABILITY

As a product brand of Caterpillar, SEM is able to leverage over 100 years of Caterpillar technology and design experience to provide a series of dozers that meet the needs of a variety of applications. The hydrostatic system on all models delivers higher efficiency and maximum output traction force. The world-class undercarriage ensures high reliability and resistance to wear, and the planetary final drive design delivers increased torque ratio for higher transmission efficiency and lower maintenance costs. Joystick controls provide comfortable, precise blade operation. Advanced structure welding techniques and stress analysis ensure durability and long life.

MODEL	OPERATION WEIGHT (kg)	RATED POWER (kW)
SEM816D	16,900	131
SEM816D LGP	19,490	131
SEM816D DS	19,760	131
SEM816D CH	17,160	131
SEM816D FR	18,580	131
SEM822D	24,000	175/235
SEM822D LGP	27,880	175/235
SEM822D WHA	28,560	175/235
SEM822D CH	24,760	175/235
SEM822D DS	27,140	175/235
SEM822D FR	25,760	175/235



MOTOR GRADERS

EXCEPTIONAL COMFORT AND PRODUCTIVITY

SEM Motor Graders feature a large cab mounted on the front frame for an exceptional view to the blade and front axle even during articulation. With a height of 1.9 meters, the cab is about 30 percent larger than competitive models, for exceptional operator comfort and productivity. A 7-position link bar with electric over hydraulic controls allows ease of operation from within the cab, and optimum blade reach capability improves productivity. A standard blade float function allows the blade to lower without hydraulic pressure for increased versatility. Maximum strength and durability are delivered by the A-frame tubular design drawbar, a flanged box section that removes welds from high-stress areas, and continuous top and bottom plate construction.

MODEL	OPERATION WEIGHT (kg)	RATED POWER (kW)
SEM915	12,200	110
SEM917	13,500	125
SEM919	15,070	140
SEM921	15,930	162
SEM922 AWD	16,560	162



SOIL COMPACTORS

HIGH PERFORMANCE AND VERSATILITY

SEM Soil Compactors are essential tools in a variety of applications, including road, railway, airfield and industry yard compaction. The 50-mm drum delivers compaction performance up to 15 percent greater than competitive models. The eccentric vibe pod design extends system life by up to 50 percent, with a sealed gear that eliminates contamination and prolongs bearing life. The electronically controlled transmission is easier to shift, reducing operating fatigue, improving efficiency and delivering high reliability. Reliability is further enhanced by a three-level alarm system that diagnoses issues and notifies the operator with indicator lights and audio alarms.

MODEL	OPERATION WEIGHT (kg)	RATED POWER (kW)
SEM510	10,000	97.5
SEM512	12,000	97.5
SEM518	18,000	129
SEM520	20,000	129
SEM522	22,000	140



CAT® PRODUCT LINK™

MACHINE MONITORING AND MANAGEMENT TOOL

Cat® Product Link™ wirelessly connects you to your equipment giving you valuable insight into how your machine or fleet is performing. Information such as location, hours, engine start / stop are made available through online web applications so that you can make timely, fact-based decisions to maximize efficiency, improve productivity, and lower the cost of owning and operating your fleet. Available with 4G/3G/2G cellular connectivity.



FIRST-CLASS SPEED, SERVICE AND SUPPORT

SEM is committed to providing the support customers need before, during and after their equipment goes to work on the job site. We promise first-class response speed, service skills and parts support. In addition, our after-market consulting services help sites address overall challenges beyond equipment management.

All SEM repair technicians must take required training, pass a strict evaluation and gain technical authentication on related products. We provide hands-on repair training for technicians at the well-equipped Training Center of Caterpillar, as well as product training for key customers and students at Weifang Engineering Vocational College, which is jointly operated by CQL.

CQL provides a one-year quality assurance and warranty period and guarantees equipment service at customer sites throughout China within 24 hours.

The CQL parts center is located at the northeast of our headquarters location, covering 7,020 square meters and manned by more than 60 employees. Its second phase construction layout is about 5,000 square meters. Currently, CQL parts center has about 15,000 categories of parts for SEM products. The parts center not only supplies parts to China domestic dealers, but also to overseas dealers, and it is the storage and logistic center for SEM brand parts.

SEMPARTS

Matched to your needs

- Provide consistent technical support to dealers for putting customer machine back to work quickly
- Give access to customers on all needed technical & parts info. via digital platform to run their machine efficiently
- Integrated SEM parts into the Caterpillar distribution centers, which will lead to shortened lead time and better parts availability for customers
- Offer various and affordable aftermarket solutions through SEM OE (Original Equipment) parts, SEM SELECT parts and Repair options
- SEM Customer Support Agreement (CSA) help customers free from complicated equipment management to focus on own core business and achieve great success





OUR VALUES IN ACTION

CQL is proud to be an integral part of Caterpillar's commitment to China. We consider our reputation as one of our greatest assets and share the responsibility to protect it. Our values define what we stand for and believe in, and we are committed to putting these values into action every day.

INTEGRITY

THE POWER OF HONESTY

EXCELLENCE

THE POWER OF QUALITY

TEAMWORK

THE POWER OF WORKING TOGETHER

COMMITMENT

THE POWER OF RESPONSIBILITY

SUSTAINABILITY

THE POWER OF ENDURANCE



SEMMACHINERY.COM

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Version: February 2023