



Mototok M-Series

Maximum control. Maximum safety.
Maximum efficiency.

Electric towbarless solutions for
modern ground operations.



FULLY ELECTRIC
DRIVE



REMOVEDLY
CONTROLLED



SINGLE-
OPERATOR
CONTROL





BUSINESS JETS
LIGHT AIRCRAFT



HELICOPTER



HANGAR
OPTIMIZATION



MRO / FBO



PLAY VIDEO

The **M-Series** represents Mototok's **entry-level range of fully electric towbarless aircraft tugs**. Designed with a clear focus on operational efficiency, the M-Series combines **flexibility, safety** and **cost-effectiveness** – delivering a strong return on investment in daily use.

Powered by **high-performance electric motors** and **maintenance-free batteries** with **high cycle capability**, each unit is powered by an advanced control system. The result is **powerful traction, precise control** and **smooth acceleration** – even under demanding conditions.

Nosewheel Securing System

All Mototok models **secure the nosewheel hydraulically** – **without the need for straps, belts, or any manual fastening devices**. This eliminates the need to crawl under the aircraft or bend down during operation. The entire **securing process** is **safe, fast**, and **requires minimal physical effort**, ensuring maximum operator comfort and efficiency.

The M-Series is designed to handle a **wide range of aircraft** and most **wheeled helicopters** up to **28 t (61,700 lbs, M 528)**, including **light** and **business jets** with **single** or **dual nosewheels**, as well as **turboprops** and **sport aircraft**.

It is ideally suited for **FBOs, MROs** and **business aviation operators**, as well as **private aircraft owners, corporate flight departments, aircraft management companies** and **special mission operators**.

To operate a Mototok tug, **no license is required**, and operators can be **trained in just half a day**.

Oversteering Protection (optional)

Mototok equips the M-Series with an optional system to **prevent oversteering and damage to the nose gear**. The system **interrupts torque** at predefined points using shear pins. Torque transfer to the nose gear is stopped immediately. The system then triggers an alarm and brings the unit to an automatic stop.

A unique feature in this class.

LEVEL OF AUTOMATION



28 t
61,700 lbs



FULLY AUTOMATIC
NOSE WHEEL CLAMPING
SYSTEM

Mototok M 528

Maximum performance. Minimal operator effort.
Automated performance at the top of the M-class.

The **M 528** offers maximum ease of use with its **fully automatic nose wheel clamping system**. The entire docking and securing process is completed automatically at the push of a button—fast, precise, safe, and requiring minimal operator input. Intelligent control ensures smooth operation and maximum efficiency in daily use.

Aircraft Compatibility

- Bombardier Challenger 650 / 604
- Lockheed Martin F-16
- Embraer Praetor 600 / 500
- Bombardier Challenger 3500 / 300
- Gulfstream G280
- Learjet
- Aermacchi T-346 / M-346
- Pilatus PC-24
- Embraer Phenom 300
- King Air
- Agusta / Leonardo
- Aermacchi MB-339
- Citation CJ2+ / CJ2 / CJ1
- Sikorsky
- Pilatus PC-12
- T-34
- Piper / Diamond

Technical Data M 528

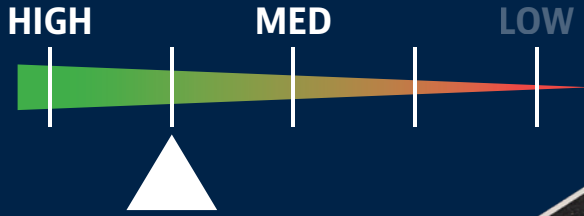
Applicable for	
Towing Capacity	28 t / 61,700 lbs
Lifting Capacity	2 t / 4,400 lbs
Operation of the hydraulic platform and the door	Fully automatic operation via Radio Remote Control
Oversteering Protection	Shear Pin, optional

Remote Control

Complete remote operation – including full control of the hydraulic platform



LEVEL OF AUTOMATION



18 t
39,700 lbs



SEMI AUTOMATIC
NOSE WHEEL CLAMPING
SYSTEM

Mototok M 518

Efficiency and control in perfect balance.

The **M 518** combines hydraulic power with a **high level of automation**. Most functions are controlled via two levers and a central pump control on the vehicle. Integrated sequence valves enable automated operation of key processes such as platform movement, carriage positioning, and door mechanism. Only the securing paddles are operated separately. A LED battery indicator provides clear information on charge level.

Aircraft Compatibility

- Bombardier Challenger 300
- Embraer Praetor 500
- Gulfstream G280
- Learjet
- Aermacchi T-346 / M-346
- Pilatus PC-24
- Embraer Phenom 300
- King Air
- Agusta / Leonardo
- Aermacchi MB-339
- Citation CJ2+ / CJ2 / CJ1
- Sikorsky
- Pilatus PC-12
- T-34
- Piper / Diamond

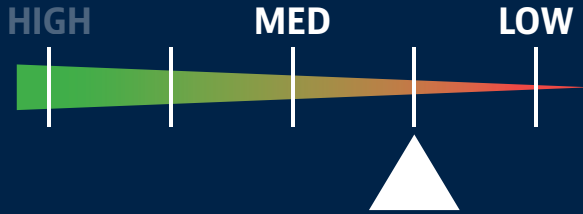
Technical Data M 518

Applicable for	
Towing Capacity	18 t / 39,700 lbs
Lifting Capacity	1.5 t / 3,300 lbs
Operation of the hydraulic platform and the door	semi-automatically with levers on the Mototok
Oversteering Protection	Shear Pin, optional

Remote Control for driving operation



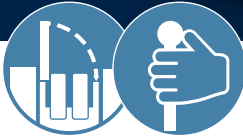
LEVEL OF AUTOMATION



PLAY VIDEO



15 t
33,000 lbs



MANUAL NOSE WHEEL
CLAMPING SYSTEM

Mototok M 515


Simple. Robust. Cost-efficient.

The **M 515** is a robust **entry-level solution with hydraulic support**. Platform, carriage, and hold-down clamps are operated manually via separate levers on the vehicle. The door mechanism is controlled mechanically via a Bowden cable and assisted by a spring opening system. The system stands out for its simplicity, reliability, and reduced complexity. A LED battery indicator provides clear status information on charge level.

Aircraft Compatibility

Learjet
Aermacchi T-346 / M-346
Pilatus PC-24
Embraer Phenom 300
King Air
Agusta / Leonardo
Aermacchi MB-339
Citation CJ2+ / CJ2 / CJ1
Sikorsky
Pilatus PC-12
T-34
Piper / Diamond

Technical Data M 515

Applicable for	
Towing Capacity	15 t / 33,000 lbs
Lifting Capacity	1.5 t / 3,300 lbs
Operation of the hydraulic platform and the door	manually with levers on the Mototok
Oversteering Protection	Shear Pin, optional

Remote Control for driving operation



Mototok was founded in Germany in 2003 by Kersten Eckert, an avid aviator and inventor of the Mototok, together with his partner Thilo Wiers-Keiser.

FUELLED BY PASSION

The development of our aircraft tugs is rooted in a deeply personal story that began with Kersten Eckert's first solo flight at the age of 18. Frustrated by inefficient ground handling processes, Eckert set out to rethink aircraft maneuvering on the ground. Traditional methods required significant time, multiple personnel, and often a pilot inside the aircraft to operate the brakes. Determined to improve efficiency, safety, and ease of use, he pursued not just a better solution — but the perfect one.

CREATING THE PERFECT PRODUCT

Mototok has established itself as a market leader in the segment of compact, towbarless, remote-controlled, battery-powered aircraft tugs — driven by outstanding quality, ease of use, and high safety standards.

Today, more than 1,500 units of all sizes are in operation worldwide. Since 2017, Mototok systems have completed over 3,000,000 pushbacks at major international airports, including Heathrow (Terminal 5A), Tokyo, Madrid, Barcelona, Kuala Lumpur, Hong Kong, the Fiji Islands, and across the United States.

With this extensive experience, an increasing number of aircraft manufacturers rely on Mototok solutions.

Advanced hydraulic control, comprehensive sensor integration, and connectivity to the Mototok Cloud — including remote maintenance capabilities — make Mototok tugs truly unique in the market.

Learn more at www.mototok.com

These aircraft manufacturers trust Mototok in their subsidiaries around the world:

AIRBUS

Hamburg / Toulouse



Merignac, France /
Little Rock, Arkansas, US

Gulfstream

at 5 sites in the US

BOMBARDIER

the evolution of mobility

Montreal, Singapore, Berlin



for F35, CH-53K, Blackhawk UH-60
and Seahawk SH-60

PILOTUS

Switzerland



Brasil

Mototok International GmbH

Hohenzollernstr. 47 · D-47799 Krefeld / Germany
Phone: +49 2151 65083 82 · Fax: +49 2151 61660 99

info@mototok.com · www.mototok.com · fb.com/MototokTugs

Mototok Corporation (United States)

271 17th Street, N.W. · Suite 1750 · Atlanta, GA 30363-6212
Phone: +1 803 949-8677