

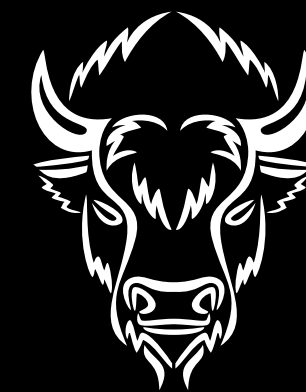
An aerial photograph showing a white Goldhofer Bison pushback tractor with a blue tow bar connected to the nose of a white commercial airplane on an asphalt tarmac. The tractor is positioned behind the aircraft, and the tow bar is attached to the nose gear. The tarmac has yellow and red painted markings, including numbers like 16, 20, and 24. The Goldhofer logo is visible in the top right corner.

Goldhofer

»BISON« FAMILY THE FUTURE PROOF PUSHBACK



CONVENTIONAL TRACTORS



»BISON« FAMILY

FUTURE-PROOF AIRCRAFT TRACTORS

The »BISON« family consists of a comprehensive range of aircraft tow tractors capable of handling passenger and cargo aircraft of 50 t to 600 t MTOW.

Because the product family is modular, customers can choose between diesel and electric power trains. In addition, a wide range of options allows for customization for your operating conditions.

With minimal maintenance and a wide range of components that are identical across the entire product family, you benefit from low inventory requirements and low TCO.



ALWAYS AHEAD.

Goldhofer has established itself as a leading provider of sustainable and highly efficient aircraft and cargo towing solutions, aligning with global "Green Initiatives" and "Blue Sky Policies" adopted by airports worldwide.

However nowadays, aircraft belong to the most secure means of travel due to extremely high safety standards, extensive staff training, advanced engineering and strict maintenance procedures. To ensure that these high standards are met, as part of the "airport machinery" vehicles and employees on the apron must also contribute to making air travel and cargo movements safe and sustainable. This is where Goldhofer is always one step ahead and synonymous with »SAFETY« on the apron. With a history of building aircraft tractors dating back to the 1960s and electric vehicles in the 1980s, Goldhofer has established itself as one of

the pioneers within the industry. During this time, Goldhofer has amassed extensive expertise and unrivaled experience.

Today, among others, this is reflected in an extremely high ratio of employees in R&D. This continuous competence build-up has led to numerous ground-breaking products, such as the »PHOENIX« series or the »IonMaster« high-voltage technology for E-vehicles. For Goldhofer, »SAFETY« is not just a theoretical concept but a culture that is deeply rooted in the company.

EXCEPTIONAL SERVICE

- » Goldhofer provides maintenance plans, general overhauls and modifications
- » Spare parts: 15-year supply at least or provisioning of alternatives (equivalent parts, overhaul, etc.)
- » High-quality components from long-term partnerships with suppliers
- » Remote error detection enables fast, time- and resource-saving help for minimum TCO

EXTRAORDINARY EXPERIENCE

- » Highest experience for both, towbarless and conventional tractors in the market
- » One of the pioneers in E-vehicles starting 1986 with the Schopf F356
- » Pioneer in high voltage technology with the »IonMaster« Technology
- » Long standing employees with outstanding advisory competence

GOLDHOFER SAFETY



EXPERIENCE,
COMPETENCE,
CONTINUITY.

GOLDHOFER »LINK«

- » The tool for digitization on the apron
- » Enables continuous monitoring and condition-based maintenance
- » With »LINK«, long-term investments are more likely to pay off: Higher efficiency due to reduced downtime.
- » Tracking and evaluation of operating and usage data enables optimal consulting and optimization of the fleet

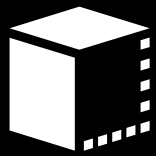


»BISON« SERIES: THE SAFEST CONVENTIONAL TOW TRACTOR IN THE MARKET.

»SAFETY« AT IT'S BEST

- » ERGONOMICS AND OPERATOR SAFETY
- » UNBEATABLE RELIABILITY
- » SOPHISTICATED TECHNOLOGY

With thousands of conventional aircraft tow tractors, millions of aircraft have been moved safely and reliably all over the globe. Well thought-out technology helps preventing damage on both humans and machines. Constant optimization, innovation, research and development improve Goldhofer tractors in an ongoing process to make them the most reliable tugs. The human interface provides relevant information for the respective operation and an extremely good 360° visibility makes the »BISON« a safe and ergonomic working place while the uniform operating concept makes it easy to operate any type of the series once trained.



MODULAR PLATFORM OVERVIEW

Adapt your vehicles to your individual needs!

Different sizes, power trains, performance classes, and cabin variants make the »BISON« family a sophisticated overall package that promises maximum safety and operating comfort.

- » Uniform operating system with high operating comfort
- » Find the perfect size and performance for your applications
- » The flexible ballasting enables custom configuration



CABINS



CABLESS



OPEN CAB



CLOSED CAB



»BISON« D 370

✈ ≤ 150t 105 kN | 75 kW



»BISON« E 370

75 kW | 105 kN ≤ 150t ✈



»BISON« D 620

✈ ≤ 250t 205 kN | 115 kW



»BISON« D 1000

✈ ≤ 400t 305 kN | 200 kW



»BISON« D 1500

✈ ≤ 600t 460 kN | 298 kW



INDIVIDUAL VALUE



»BISON« E



**MODULAR
EXPANDABLE
BATTERY SYSTEM**



**CABIN OPTIONS
FOR FLEXIBLE
CONFIGURATION**



**GOLDHOFER
»IONMASTER«
TECHNOLOGY**



»BISON« E 370

75 kW | 105 kN | MTOW ≤ 125 t
80 kWh | 120 kWh | 160 kWh



»IONMASTER« TECHNOLOGY

- » Active thermal management for cabins and all high-voltage components: Heating and cooling for optimal temperature conditions, even during charging, for long battery life
- » Modularly expandable battery system, configurable for individual deployment requirements
- » Commercial vehicle industry tried-and-tested lithiumion batteries for certified, maximum safety, ultimate performance, and service life
- » Electric power train, electric engine, battery, inverter and thermo module are maintenance-free
- » Second-life applications for battery systems possible, e.g. as stationary storage systems

VEHICLE-SPECIFIC ADVANTAGES

- » Three cabin designs: Cabless, open cab, closed cab
- » Can be used in all climate conditions in temperatures ranging between -30 °C and +52 °C ^[1]
- » 360° view for the driver
- » High-voltage components cooled by environmentally sustainable water glycol mixture: Consistent performance, even under extreme environmental conditions

CHARGING AND INFRASTRUCTURE

- » All standard charging plugs available: CCS Typ 1, CCS Typ 2 and GB/T
- » Infrastructure consulting on charging points
- » Intermediate charging enables multi-shift operation
- » Rapid DC charging and intermediate charging at up to 70 kW
- » Optional AC charging at up to 22 kW

^[1] Standard version from -20°C to +42°C, other temperature range with Arctic- and Tropical-Kit



INDIVIDUAL VALUE



»BISON« D



VARIETY OF DIESEL ENGINES



CABIN OPTIONS FOR FLEXIBLE CONFIGURATION



CARRY-OVER PART STRATEGY



»BISON« D 370

75 kW | 105 kN | MTOW ≤ 125t
EU Stage IIIA | EU Stage IV | EU Stage V



»BISON« D 620

115 kW | 205 kN | MTOW ≤ 250t
EU Stage IIIA | EU Stage IV | EU Stage V



»BISON« D 1000

200 kW | 305 kN | MTOW ≤ 400t
EU Stage IIIA | EU Stage IV | EU Stage V



»BISON« D 1500

298 kW | 460 kN^[2] | MTOW ≤ 600t
EU Stage V



CONCEPT FOR SUCCESS

- » In use on every continent and in all environmental conditions, from -30 °C to +52 °C^[1]
- » Three cabin variants:
Cabless, open cab, closed cab
- » Uniform operation through a consistent vehicle concept with carry-over parts strategy
- » Environmentally friendly and cost-effective

VEHICLE-SPECIFIC ADVANTAGES

- » Various engine power classes
- » Suspension concept specially optimized for the »BISON«
- » 360° view from the hoist cabin
- » No lubrication necessary

DIAGNOSTICS AND MAINTENANCE

- » Information and error messages as plain text in the multifunction display
- » Sophisticated maintenance access
- » Time-saving operations and 1,000 h maintenance intervals
- » Optimized hydraulic system with reliable gear pumps for long-term use
- » Lubrication-free drive shaft
- » Minimal-effort fluid change
- » Separate hydraulic oil tanks for steering and brakes

^[1] Standard version from -20°C to +42°C, other temperature range with Arctic- and Tropical-Kit

^[2] Depending on tire variation





»BISON« FAMILY GET IN TOUCH WITH US!

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