ABUS HB-System
Tailor-made modular crane systems

for load capacities
up to 2000 kg

The HB-System, not a near miss,...

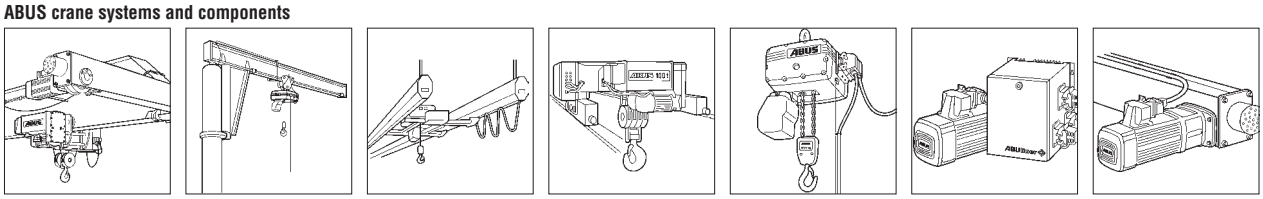
The HB-System is one of the most successful developments in lifting and material handling technology, combining the effectiveness of a stationary hoist with the mobility of a travelling crane, efficiently and cost-effectively.
ABUS have all the resources it takes to develop systems like the HB in-house: experience with hoists and travelling cranes, high-quality production facilities and, perhaps most important of all, the determination to develop more humane workplace free from unnecessary burdens. The task of ABUS was, and still is, to offer the HB-System with as many useful features as possible at as low a cost as possible.

Anyone who needs assistance with lifting and handling loads at their place of work, in depots, workshops or factories, should have an ABUS HB-System available, which means that these systems must be affordable. Today's HB-Systems feature a combination of advanced technology, economy, flexibility, quality and ergonomics which has gained full recognition in our market.
Our recipe for success is to fulfil individual requirements.

…but right on target from ABUS!

right down to the nuts and bolts

ABUS crane systems and components



Travelling Cranes | Jib Cranes | HB-System | Electric Wire Rope Hoists | Electric Chain Hoists | Electronic Control Systems | High-Performance Components

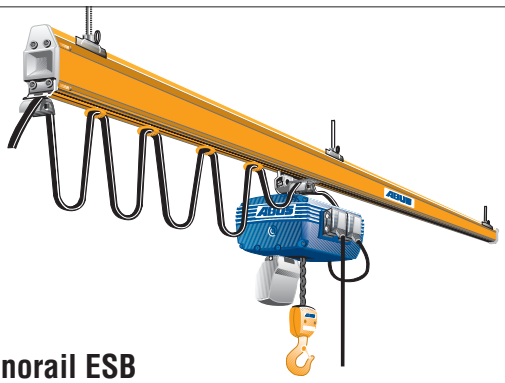
ABUS deliberately specialises in off-floor lifting and load handling systems for loads up to 80 t. Not only because this load range includes by far the majority of all materials handling applications, but also because specialisation enables us to utilise rationalisation potential most effectively. ABUS offers a comprehensive range of readily available, efficient load handling systems: jib cranes, travelling cranes, monorail trolley tracks, electric wire rope and chain hoists, a wide variety of components and, last but certainly not least, the HB-System. Our services range from the development of solutions for quite specific problems right through to implementing complete materials handling systems.

And all our services are characterised by the special ABUS attitude: we offer not only a bare product, but also practical advice and assured quality. The guarantee which we offer is still unique in our field and individual user support and an area-wide after-sales service network with rapid, effective response are all part of the ABUS service.

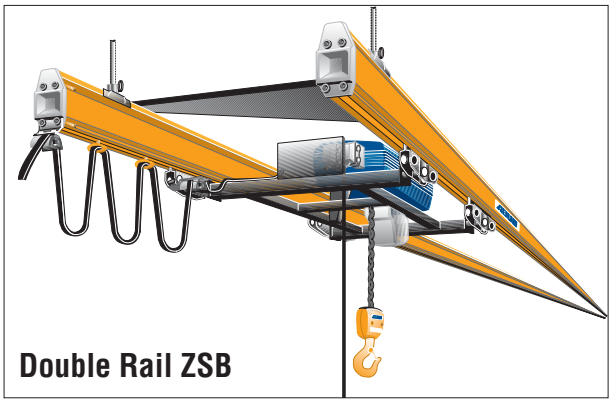
ABUS HB-System

The systematic approach to ideal solutions

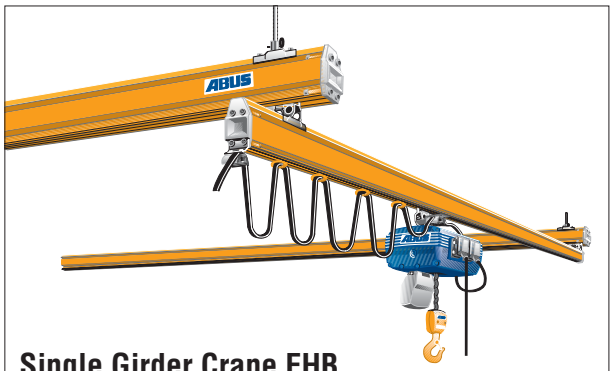
The ABUS HB-System offers tailor-made modular solutions. The elements of the system are both practical and inexpensive and can be combined to build just the system which the customer needs. All HB-Systems feature an extremely low-build design, ensuring that maximum hook height can be reached in the space which is available. Three types of profiles cover a load capacity range up to 2000 kg. All electrical connections are made using an easy plug-in connector system. And the system can be adapted and individually fitted to almost any type of room or ceiling design.



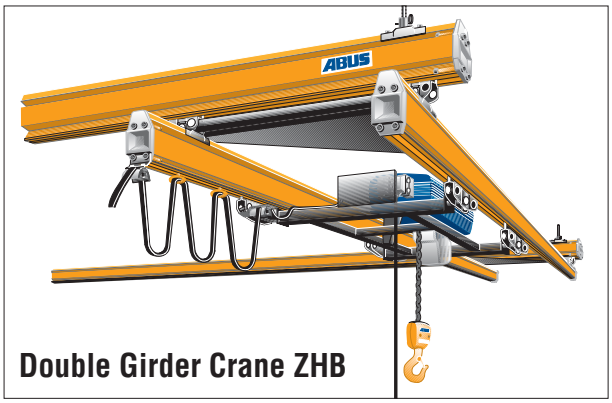
Monorail ESB



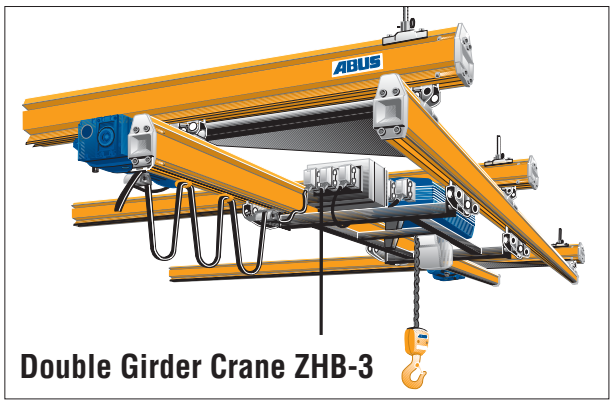
Double Rail ZSB



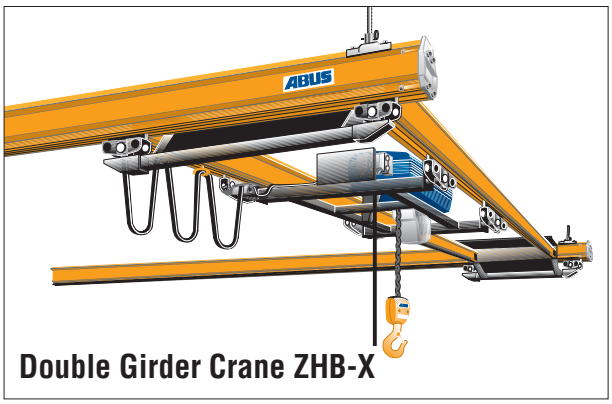
Single Girder Crane EHB



Double Girder Crane ZHB



Double Girder Crane ZHB-3



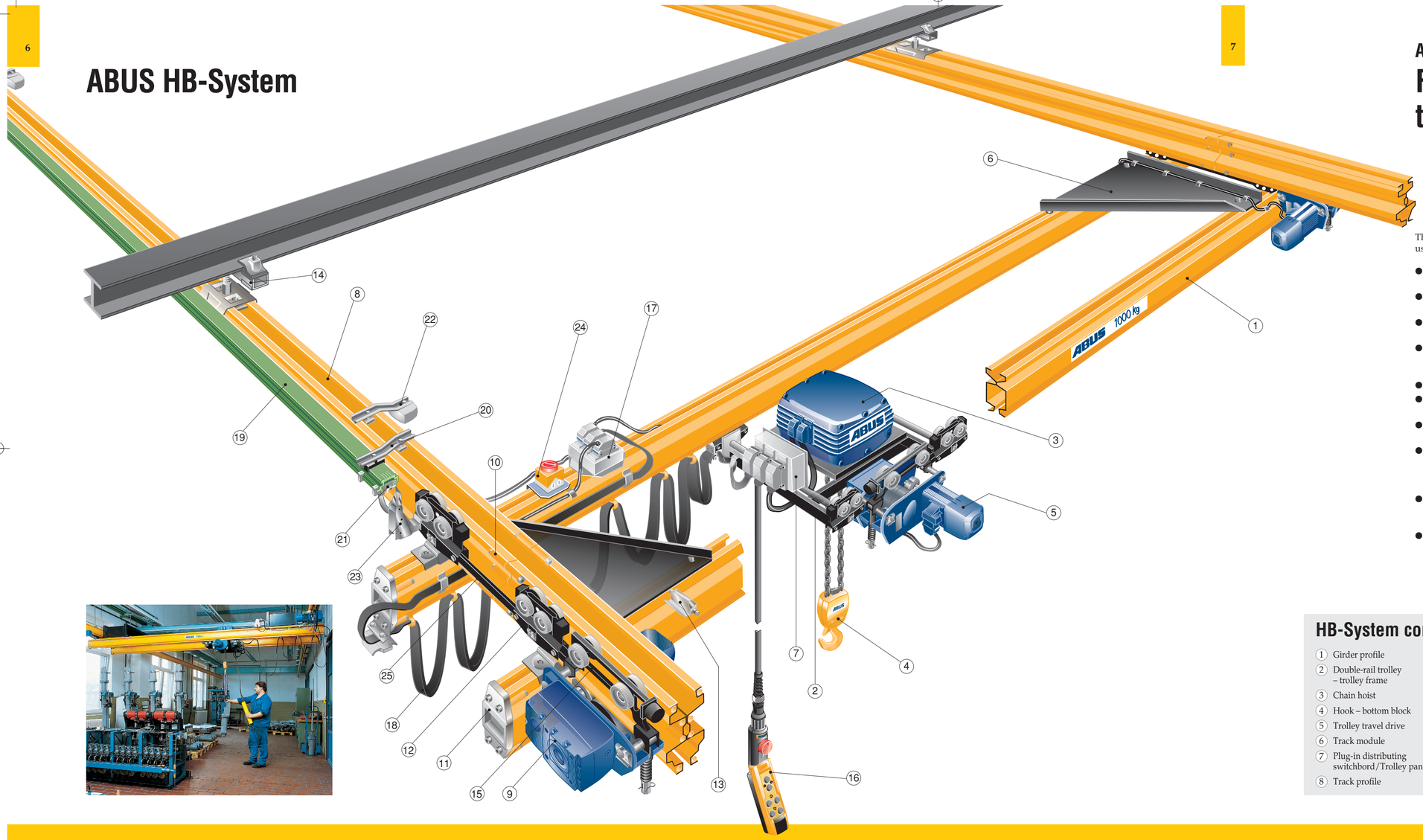
Double Girder Crane ZHB-X

ABUS HB-System

Summary of types, ratings and key dimensions

Type	Load Capacity [kg]	Maximum crane girder length [mm]	Track length [mm]	Maximum suspension distance [mm]
Monorail ESB	125	-	any	10500
	250	-		10300
	500	-		9000
	1000	-		7300
	2000	-		5100
Double Rail ZSB	125	-	any	10500
	250	-		10500
	500	-		10300
	1000	-		9000
	2000	-		7300
Single Girder Crane EHB	125	10000	any	10300
	250	10000		9500
	500	10000		8200
	1000	8000		6900
Double Girder Crane ZHB	125	12000	any	8900
	250	12000		8400
	500	12000		7300
	1 000	12000		6200
	2 000	8000		4100
Double Girder Crane ZHB-3	125	22000	any	On request
	250	22000		
	500	21000		
	1 000	15000		
Double Girder Crane ZHB-X	125	8000	any	9300
	250	8000		8800
	500	8000		7800
	1 000	8000		6700
	2 000	6000		5200

ABUS HB-System



ABUS HB-System

Features you can use to the full

The practical design features of the ABUS HB-System bring perceptible benefits for users and their applications:

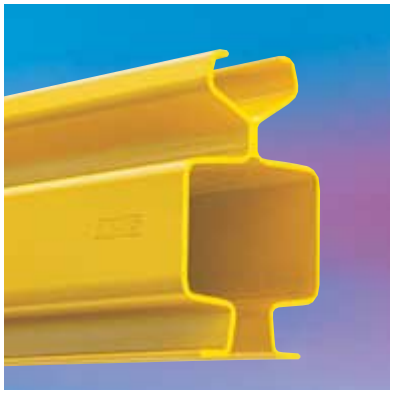
- With its modular design, the system can be easily be tailored to provide cost-effective solutions for users' applications.
- A wide variety of suspension designs are available, permitting installation in conditions which you would scarcely have thought possible.
- Load capacities can be defined in accordance with individual requirements, up to 2000 kg; later expansion is often possible.
- The number of parts is reduced to the bare minimum, simplifying erection, saving time and helping to prevent errors – just what you need if your own specialists are to erect the system.
- No special tools are required for erection.
- With the special plug-in connectors typical of ABUS systems, electrical installation is also quick and safe.
- ABUS drives and hoists provide a variety of electrical functions for more rational, safer working – with low noise, smooth starting and lifting and smooth switching.
- In addition, all components are designed for optimum interaction. For example, a low-height ABUS electric chain hoist combined with a double rail trolley on an HB-System (types ZHB and ZSB) ensures optimum space utilisation and maximum hook height.
- The fundamental advantages of the ABUS HB-System continue to bear fruit in the period following initial investment. The system can be maintained, modified, modernised and uprated efficiently and cost-effectively.
- The comprehensive standard equipment of a HB-System means that it often represents even better value than a first glance at the quotation would seem to indicate.

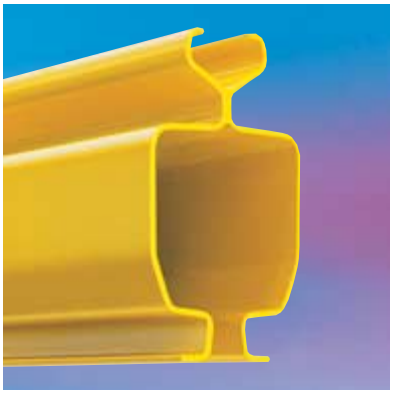
HB-System components

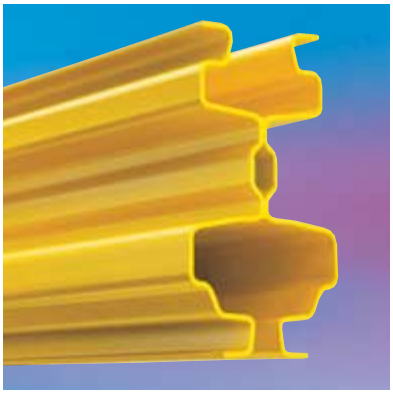
1. Girder profile
2. Double-rail trolley – trolley frame
3. Chain hoist
4. Hook – bottom block
5. Trolley travel drive
6. Track module
7. Plug-in distributing switchbord/Trolley panel
8. Track profile
9. Crane travel drive
10. Joint between track sections
11. End cap
12. Single trolley
13. Travel limiter
14. Standard suspension with ceiling connection via flange clamp for rolled steel section girder
15. Travel drive trolley
16. Pendant control
17. Plug-in distributing switchbord/Crane panel
18. Flat conductor
19. ABUS VKL safety conductor
20. Contact conductor mounting
21. Current collector
22. Counterweight mounting
23. Carrier
24. Mains switch crane
25. Spacer

ABUS HB-System

Keeping a high profile







Distinctive features: inside-track girders

Advanced CAD[1] and FEM[2] systems were used to design and optimise the profiles of the HB-System. The results are three types of profile covering the entire load capacity range of the HB-System up to 2000 kg.
All the profiles are made from cold-rolled halves welded together to form a high-grade inside-track profile. ABUS opted for inside-track profiles because they effectively protect the trolley running gear and also offer advantages in terms of maintenance.
They also have two additional major advantages. The favourable structural design of the track girder system means that wide suspension spacing is possible, even with high load capacities. And high-grade bolted joints warrant high joint factors and improved load capacity. In combination, these two features significantly reduce the work involved in installing an HB-System and enhance the productivity of the system.

[1] CAD = **C**omputer **A**ided **D**esign
[2] FEM = **F**inite **E**lement **M**ethode

Our masterpiece: the suspension

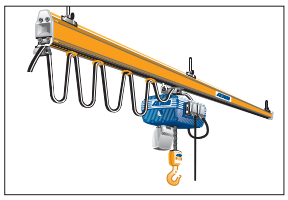
Our engineers have paid particular attention to the suspension, and for good reasons too. The quality of the suspension and connections is an essential feature in ensuring the
quality and availability of the entire HB-System.
A characteristic feature of the ABUS
HB-System is a flexible suspension using ball-and-socket joints. These low-build systems are adjustable in height and are therefore particularly versatile. The swinging motion of the suspension absorbs horizontal forces from the crane system,
reducing loads on roof structures and buildings.
ABUS has a whole range of connections for attaching HB-Systems to ceilings or other elements of
buildings. Together, the suspension and the ceiling mount ensure that

And the suspensions reduce the work load. Manual operation of cranes and trolleys is almost effortless.

ABUS HB-System

Variations on a powerful theme

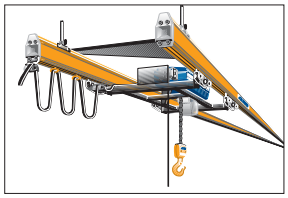
ABUS Monorail ESB (for point-to-point load handling)



The ABUS monorail ESB is a real specialist when it comes to lifting and handling loads point-to-point. As curved track sections are available, "point-to-point" is not always the same as "straight-line". This design permits the connection of individual workplace as required or adaptation to individual space configurations.

- Load capacity up to 2000 kg
- Low-build design
- Individual routing possible
- Wide suspension spacing

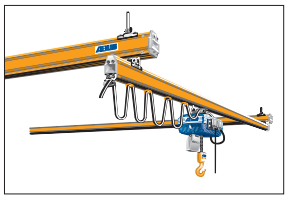
ABUS Double Rail ZSB (for point-to-point load handling)



The ABUS double rail ZSB features increased maximum suspension spacing and a special installation configuration for the electric chain hoist, providing optimised maximum hook height.

- Load capacity up to 2000 kg
- Extremely low-build design
- Very high lift

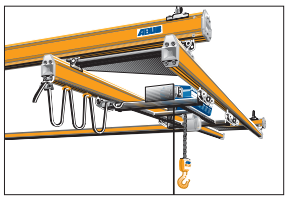
ABUS
Single Girder Crane EHB
(for area coverage)



The ABUS single girder crane EHB is the most effective solution when effective lifting power and both point-to-point and area-wide off-floor load handling are called for. As this is a very lightweight system, it can be installed in practically any conditions and is easy to operate by hand.

- Load capacity up to 1000 kg
- Low-build design
- Crane girder length up to 10 m

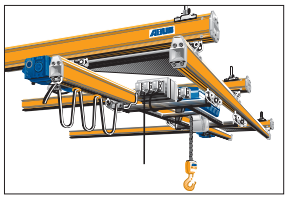
ABUS
Double Girder Crane ZHB
(for area coverage)



High load capacity and long crane girders are the characteristic features of the ABUS double girder crane ZHB.
The crane and the electric chain hoist can be moved to any point required by electric motors. And, as the electric chain hoist is mounted on a trolley frame between the two crane girders, a high effective hook height is available.

- Load capacity up to 2000 kg
- Wide suspension spacing
- Crane girder length up to 12 m
- Extremely high lift
- Especially low-build design

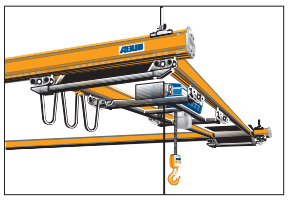
ABUS
Double Girder Crane ZHB-3
(for area coverage)



The ABUS double girder crane ZHB-3 is an example of how to cross frontiers. Crane girder lengths can be significantly increased by mounting a double girder crane under a triple girder track.

- Load capacity up to 1600 kg
- Max. crane girder length up to 22 m, depending on load capacity
- Lower than a travelling crane

ABUS
Double Girder Crane ZHB-X
(for area coverage)



The double girder crane has a jacked-up design with the crane running at the same height as the crane track.
This design ensures the maximum lift required in load handling areas where tall machines are installed.

- Load capacity up to 2000 kg
- Crane girder length up to 8 m
- Especially low-build design
- Increased maximum lift

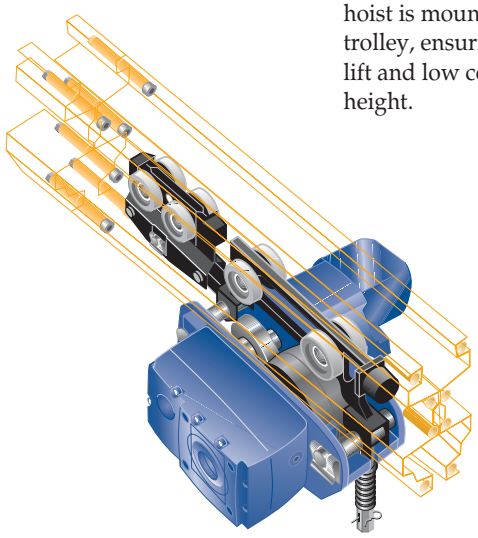
ABUS HB-System

The power house

ABUS electric chain hoists

All ABUS HB-Systems are fitted with ABUS GM New Classic chain hoists. These tried and tested components of efficient load handling systems provide reliable lifting power for loads up to 2000 kg with a low-build design for optimum utilisation of the space available and a precision lifting function for the careful lifting and lowering of sensitive goods. The chain hoists have a number of features which are particularly beneficial in terms of reduced maintenance requirements; long-life brake linings (normally, adjustment is only required after 1 million full-load braking operations); permanently lubricated precision gearbox; adjustable sliding clutch; specially hardened low-wear chain; plug-in connectors for easy installation and maintenance and many other features.
Where single girder trolleys are used, the chain hoist is simply suspended from the trolley and is ready for operation as soon as the connectors have been plugged in.

With double girder trolleys on an HB-System, the chain hoist is mounted on the trolley, ensuring maximum lift and low connection height.



ABUS travel drives

When needed, the HBF friction wheel drive provides the power for an HB-System. The drive motor has a smooth performance curve for soft starting and braking.
Where loads in excess of 500 kg are handled and the crane girder is longer than 6 m, the HBF drive is an almost indispensable component of the system. These compact units can be integrated in the trolley itself if a double girder trolley is used, saving the space otherwise required for starting.

The ABUS HB-System in practice

A versatile workhorse

ABUS