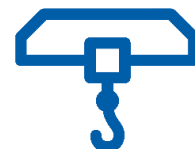


crane test book
for
ABUS double-girder overhead travelling crane ZLK

order: 18 / 640213 / 1

Table of contents of crane test book:

Crane master sheet
Certificate about initial and construction inspection
Regular inspections
Trolley:
 Master sheet
 Supplementary sheet (Load hook)
 Wire rope certificate
 Rope tests
Crane drawing

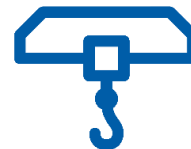


Documents forming part of crane test book:

Installation, operating and maintenance instructions for crane, A499
Installation, operating and maintenance instructions for wire rope hoist, A512
Spare parts list for wire rope hoist, E298
Operating instructions for LIS-SE, A510
Electric parts list
Wiring diagram, 500000_002, 600000_002

ABUS Kransysteme GmbH
D-51647 Gummersbach, 2026-08-11

CERTIFICATE ABOUT INITIAL AND CONSTRUCTION INSPECTION



ABUS double-girder travelling crane ZLK

Original order: 18 / 640213 / 1

Duplicate order: 36364057

Serial number: 640213-01

This is to certify that ABUS Kransysteme GmbH carried out an initial and construction inspection of the above-mentioned ABUS crane prior to delivery of the crane in accordance with the regulations of the Employer's Liability Insurance Association in force at the time of delivery. This is confirmed by this certificate.

- The original initial and construction inspection certificate signed by the expert authorised by the Employer's Liability Insurance Association was handed to the customer when the crane was accepted. ABUS Kransysteme GmbH does not have a copy of the signed document.
- This confirmation refers to the crane in its original condition on delivery and excludes any changes to the crane.

Gummersbach, 11/08/2026

Dipl. Ing. Michael Pabst

Head of Service / Technical Documentation

Expert authorised by the Employer's Liability Insurance Association (BG-Z 2289)

ABUS double-girder overhead
travelling crane ZLK
20 t x 12215 mm

Manufacturer	ABUS Kransysteme GmbH		
Year of construction	2002	crane type	ZLK
suitable for	indoor operation	Load capacity	20 t
crane rating	H2/B3	crane span	12215 mm
crane application	in accordance with FEM group	total weight (including trolley)	7120 kg
type of control	by operation via push-button pendant		
control	electrical		
operating / control voltage	3~50Hz 380V / 220 V		
Frequency	50 Hz		
crane drive			
No. of drive unit	A 48032		
number of wheels	4		
wheel diameter	400 mm		
buffer diameter	125 mm		
groove width	72 mm		
Speed	7.5 / 30 m/min		
performance	0.25 / 1.1 kW		
Duty cycle	60 %ED		
Protection class	IP 54		
brake	disc brake		
overall electrical ratings			
total power consumption	18.6 kW		
special equipment			
special remarks	The data in the test book correspond to the state of delivery of the crane in 2002.		

ABUS Kransysteme GmbH
D-51647 Gummersbach, 2026-08-11

inspected on by	comments	remaining service life of Hoist	
		in hours	calculation (see attachment)
	The regular inspection was carried out.		
	☐ No defects were found ☐ Defects were found (see attachment)		
	The regular inspection was carried out.		
	☐ No defects were found ☐ Defects were found (see attachment)		
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	☐ No defects were found ☐ Defects were found (see attachment)		

ABUS Kransysteme GmbH
D-51647 Gummersbach, 2026-08-11

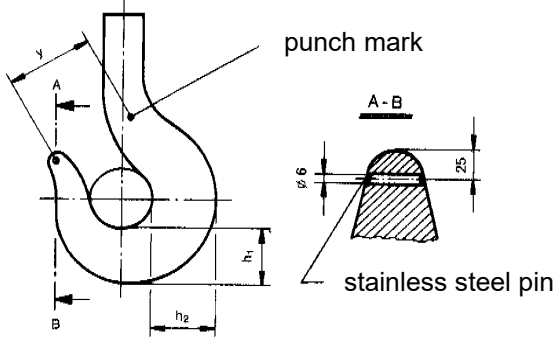
ABUS hoist + trolley GM 6200 L6 - 162.41.063.D

Manufacturer	ABUS Kransysteme GmbH		
Year of construction	2002	Load capacity	20 t
suitable for	indoor operation	hook path	6000 mm
Classification according to FEM	2m	trolley span	1600 mm
		weight of hoist + trolley	ca. 1380 kg
		number of wheels	4
		wheel diameter	200 mm
type of control	by operation via push-button pendant		
control	electrical		
operating / control voltage	3~50Hz 380V / 220 V		
	Trolley	Hoist	
Load capacity	-	16 t	
Serial number	-	90070	
No. of drive unit	GE 2066	S14128	
Speed	7,5 / 30 m/min	0,66 / 4 m/min	
performance	0,14 / 0,65 kW	2,4 / 15,1 kW	
Duty cycle	40 %	50 %	
Protection class	IP 55	IP 54	
brake	disc brake	disc brake	
load support medium	see certificate		
Load lifting attachment	see supplementary sheet for hook		
special equipment	ABUS load measuring system LIS		

comments

ABUS Kransysteme GmbH
D-51647 Gummersbach, 2026-08-11

hook identification 8 DIN 15402
Type Ramshorn hook
Load capacity 20 t
Classification according to FEM 2m
material 34 CrNiMo 6
inspection interval at least once a year



inspected on	designation	dimensio n y/y1 mm	dimensi on y2 mm	dimensi on h1 mm	dimensi on h2 mm	Load capacity kg	comments
by							

Wire rope certificate

order: 18 / 103300 / 1

Hoist serial no.: 90070

ABUS Works certificate for wire ropes

ABUS electric wire rope hoist	GM 6200 L6 - 162.41.063.D
maker's number wire rope	15823
nominal diameter of wire rope	16.2 mm
Wire length	31.70 m
construction	Spec. electr.wire rope SKZ 8-P
surface of the wires	galvanised
version	low stress
Type of lay / twist direction	Ordinary-lay / right-handed
rated strength of the individual wires	2160 N/mm ²
calculated breaking force	338.0 kN
minimum breaking force	288.0 kN
number of load-bearing wires in the outer strands	208
linear weight	1.2 kg/m

This is a computer generated message and requires no signature.

ABUS Kransysteme GmbH
D-51647 Gummersbach, 2026-08-11

use	rope group DIN 15020	Ø mm	Length m	type, winding, strength of individual wire	manufacturer or supplier	inspection interval
	2m	16.2	31.70	SKZ 8-P, 2160	ABUS	annual

[illegible]

Kommissions-Nr. : 18/640213/01/2075/11 Datum: 11.02.2002

Kunde : Marti Dytan AG
CH-6048 Horw

Hauptdaten : zum Zweitträgerlaufkran : ZLK
----- ausgelegt nach DIN 15018, eingestuft in H2/B3
Übersichtszeichnung Nr. 161608-000

Tragfähigkeit : 20000 kg Überlastsicherung : Ja
Spannweite : 12215 mm Betriebsstundenzähler : Ja
Hubwerk Fabrikat: ABUS Triebwerksgr. DIN 15020: 2M
Hubwerk Typ : GM 6200 L6-162.41.063.D Lasthaken Nr. DIN 15402: 8
Hakenweg : 6000 mm Hakenmaulöffnung (mm): 47
Hubgeschwindigkeit: 0.66/4 m/min
Katzfahren : 7.5/30 m/min
Kranfahren : 7.5/30 m/min

Steuerung : Druckknopftaster, unabhängig verfahrbar angeordnet
Betriebsspannung: 400V 50Hz Anschlußleistung (kW) : 18.6
Steuerspannung : 230 V

Lackierung Kran : 70 my RAL 1007, Farbton Gelb

Gesamtgewicht : 7120 kg Hubwerk davon : 1380 kg

Für die Wartung der Anlage ist kundenseitig eine ortsfeste oder transportable Arbeitsbühne vorzusehen (UVV, BGV D6, Paragraph 10).

Einbaumaße (mm) : * -> Bitte besonders prüfen, evtl. ändern
-> Bitte eintragen, falls vorhanden prüfen

A2 = -60	DL = 400	K2 = 1750	SP = 1600	HG = #6870
AD = 72	DP = 125	L1 = 1060	S = *12215	HL = #0
B = 160	EG = 200	L2 = 1060	SB = *60	HO = #1830
BF = 120	F2 = 850	LK1 = 1930	SH = *40	HS = #5040
C2 = -560	H = 6000	LK2 = 1830		Z = #180
DA = 428	HC = 5600	R = 2900		

Belastungsangaben (kN): Voraussetzung für die Gültigkeit

(Katz in L2) 1. Baugenauigkeit der Kranbahn nach DIN 4132
nach DIN 15018 2. Spurkranzspiel Rad/Laufbahnprofil <= 13 mm
3. Hallenbetrieb

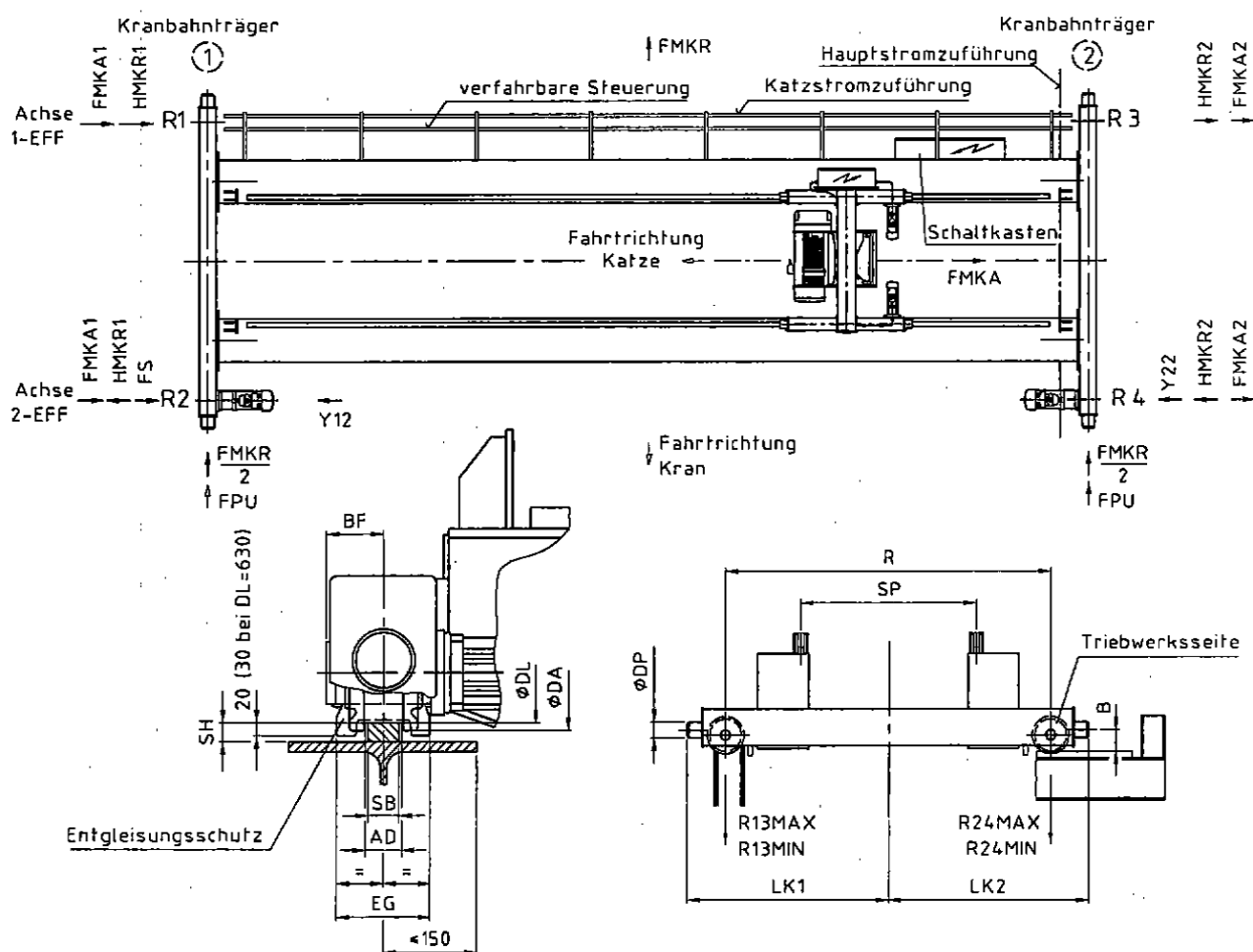
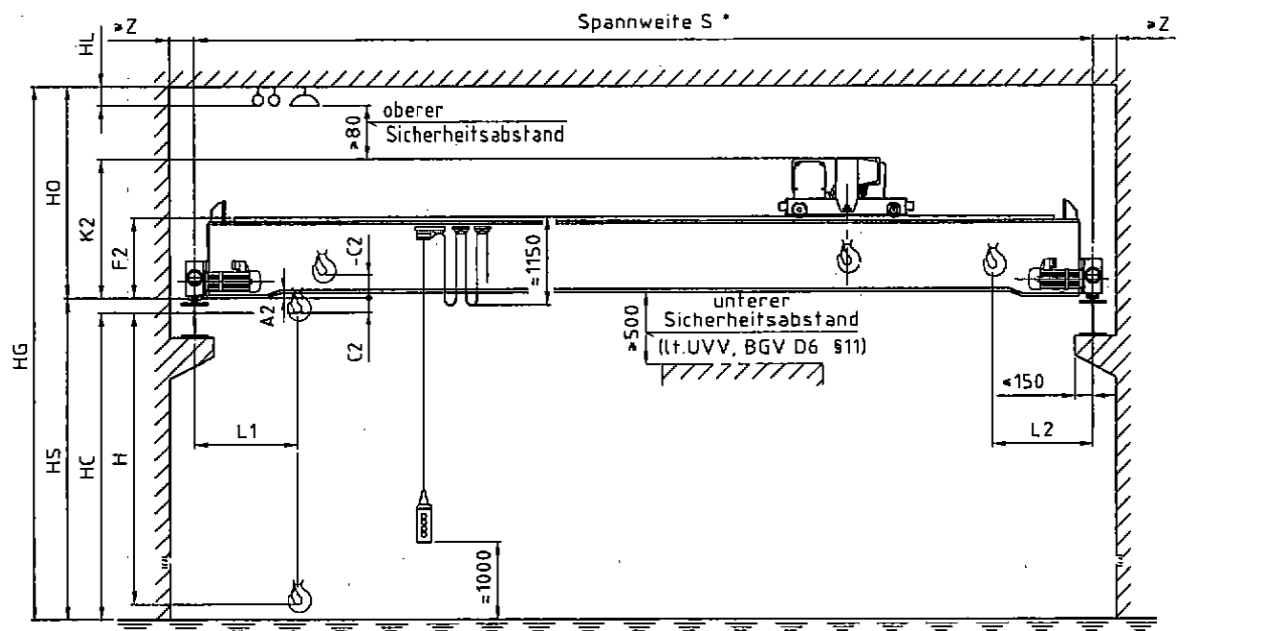
Radlasten (netto) : R13MAX= 111 R24MAX= 110
R13MIN= 23.1 R24MIN= 23.2

Massenkr. Kranfahren : FMKR = 7.7 HMKR1 = 1.9 HMKR2 = 8.7
Massenkr. Katzfahren : FMKA = 2.2 FMKA1 = .1 FMKA2 = 1

Schräglaufräfte : FS = 32.1 Y12 = 5.5 Y22 = 26.6
max. Pufferendkraft : FPU = 25.1

Die technische Klärung ist abgeschlossen.

Dieses Datenblatt in Verbindung mit der aufgeführten Übersichtszeichnung entspricht der genehmigten Ausführung und ist Grundlage der zu liefernden Krananlage.



* Kranbahntoleranz gemäß DIN 4132 Abschnitt 5.7.1 und VDI 3576, Toleranzklasse T2 kundenseitig vorausgesetzt
 zulässig bei: $S \leq 15 \text{ m} \pm 5 \text{ mm}$
 $S > 15 \text{ m} \pm (5 + 0,25(S-15)) \text{ mm}$

ABUS

Laufkran ZL Variante 2 aufgebockt

Anderung	Format
	4

ABUS Kransysteme GmbH
 Sonnenweg 1
 D-51647 Gummersbach
 Tel. +49 2261 37-0 Fax +49 2261 37-247

Datum	Name
Bearb. 11.02.2002	101
Gepr. 11.02.2002	101
Urspr.	135764 000

161608 - 000

Ers. f.:

Plot:

Bereich
TL
D