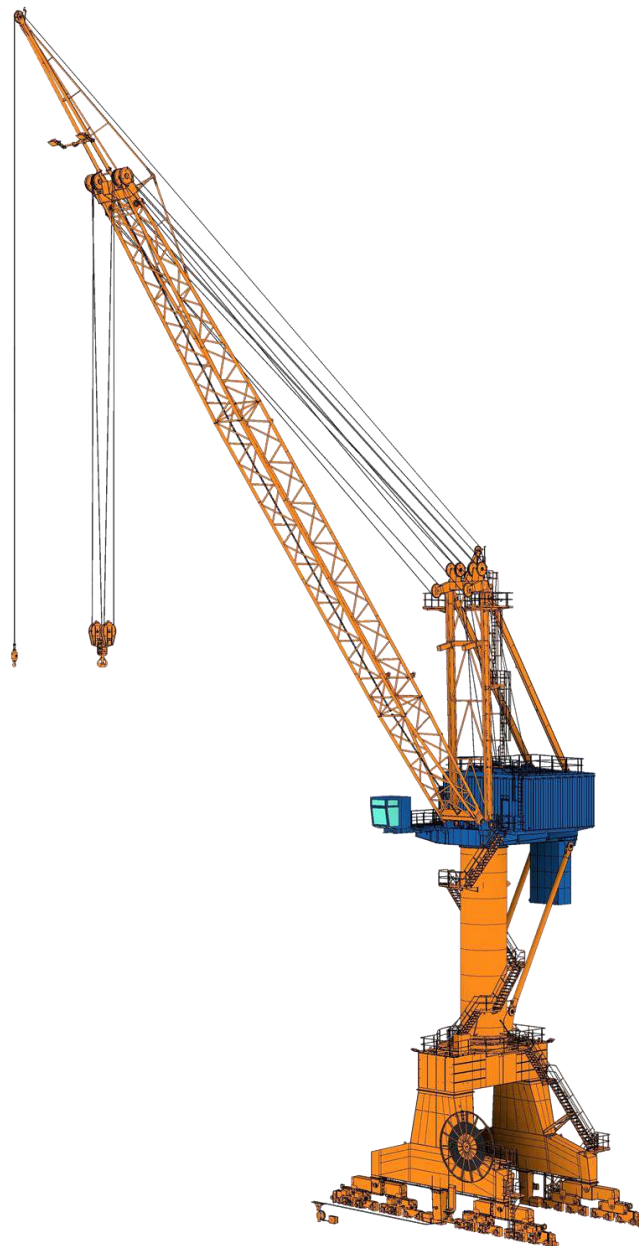


Slewing gantry crane with rope luffing system

Kranich S 1500-55

5/18/20/30/50/70t x 66/55/50/38/26/20...16m



List of changes

Version	Date	Description of the change	Person in charge Date
a	08.08.2019	Preparation of the control plan for assembly	
b			
c			

Control plan for assembly



Crane type: Slewing gantry crane with rope luffing system
5/18/20/30/50/70t x 66/55/50/38/26/20...16m

**Order No.
of supplier:** 23 2019 3679

Year of production: 2019

Contract No.:

Trans-No.:

**Acceptance date by
assembly management:**

Confirmations:

Assembly manager

Crane operator

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	Control plans mechanical engineering	(M)	page	6 - 19
	Control plan driver's cabin	(F)	page	20
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Main measuring devices: Folding rule, Measuring tape of steel, Vernier caliper, Feeler gauge

Special measuring devices: See control plan

Except for the registration of the control results, objections arising during the assembly are to be like wise noted in the control plan.

The observance of the rated values and controls prescribed in the control plan are to be confirmed.

The control plan is to be filled out in 3 copies:

- 1 copy receives the assembly management
- 1 copy receives the crane operator
- 1 copy is to be handed over by the crane operator to the manufacturer after commissioning of the crane.

Group: Steel structure

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
S 1	Check the laying of the crane track		levelling instrument	refer to track laying protocol, tolerances acc. to drawing 19023-0000-000-0	
S 2	Observance to the prescribed conservation			visual inspection	
S 3	Checking of tight fit of all bolts			visual inspection	
S 4	Checking of the observed tightening moment		Torque wrench or rotation angle method	check control plan 19023-0000-100-0 PSr 19023-0000-400-0 PSr	
S 5	Execution of the assembly weld of the components			visual inspection	
S 6	Bringing the counter mass into the machine house platform in accordance with drawings	100000 kg		certificate	

Group: Steel structure

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
S 7	Installation of the bolt connections according to the drawing supporting structure-support: - Supporting structure-front wall - Machinery house-platform - Supporting structure-front wall - Supporting structure-tension member - supporting structure-tension member - machinery house - platform - counterweight box				visual inspection	
S 8	Checking of all passage blockings for functioning				visual inspection	

Group hoisting gear

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 1	Hoisting gear assembly			acc. to the drawing 19023-0100-000-0	
M 2	Check of function of the disk brake and adjustment of the brake moment and automatic wear adjustment	according to the drawing 19023-0100-000-0		operating manual for disk brake type RST2	
M 3	Function of the safety brake Check of opening gap Check of hydraulic system	according to the drawing 19023-0100-000-0		Operating instruction for safety brake system SHI 232	
M 4	Check of contact surfaces of the brake shoes	90 % at least		re-align, if necessary	
M 5	Function of the overload safety device			acc. to the drawing 14020-0115-000-0 visual inspection	
M 6	Check of the mechanical parts of the overload safety device for free movement				
M 7	Function of the rope pressure device			movability of the rollers and levers	

Group hoisting gear

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 8	Assembly of limit switches according to drawing			acc. to the drawing 19023-0121-000-0 and assembly instruction of safety-encoders (manufacturer's instructions)	
M 9	Switch points of limit switches		tape rule	acc. to the drawing 19023-0000-000-0	
M 10	Check of the slack rope switching-off			functional test	
M 11	Check tightening moments of pre-stressed bolts		torque wrench	control: checking plan for bolts 19023-0100-000-0 PSr	
M 12	Check of all fastening bolts for loosening			visual inspection	
M 13	Lubrication and oil filling			acc. to greasing plan 19023 WA	
M 14	Tightness of gears Tightness of the hydraulic system of the safety brake			visual inspection	
M 15	Observance to the prescribed conservation			visual inspection	

Group auxiliary hoisting gear

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 1	auxiliary hoisting gear assembly			acc.to the drawing 19023-0200-000-0	
M 2	Function of the disk brake and adjustment of the brake moment and automatic wear adjustment	acc.to the drawing 19023-0200-000-0		operating manual for disk brake type RST1	
M 3	Function of the safety brake Check of opening gap Check of hydraulic system	acc.to the drawing 19023-0200-000-0		Operating instruction for safety brake system SHI 107	
M 4	Check of contact surfaces of the brake shoes	90 % at least		re-align, if necessary	
M 5	Function of the overload safety device			acc.to the drawing 12016-0115-000-0 visual inspection	
M 6	Check of the mechanical parts of the overload safety device for free movement				
M 7	Function of the rope pressure device			movability of the rollers and levers	

Group auxiliary hoisting gear

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 8	Assembly of limit switches according to drawing			acc. to the drawing 19023-0221-000-0 and assembly instruction of safety-encoders (manufacturer's instructions)	
M 9	Switch points of limit switches		tape rule	acc. to the drawing 19023-0000-000-0	
M 10	Check of the slack rope switching-off			functional test	
M 11	Check tightening moments of pre-stressed bolts		torque wrench	control: checking plan for bolts 19023-0200-000-0 PSr	
M 12	Check of all fastening bolts for loosening			visual inspection	
M 13	Lubrication and oil filling			acc. to greasing plan 19023 WA	
M 14	Tightness of gears Tightness of the hydraulic system of the safety brake			visual inspection	
M 15	Observance to the prescribed conservation			visual inspection	

Group: Slewing gear

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 1	Slewing gear assembly			acc. to the drawing 14020-0300-000-0	
M 2	Performance of the double shoe brake and adjusting the brake torque and automatic wear adjustment	according to the drawing 14020-0300-000-0		acc. to assembly and operating instructions for drum brake type EBE	
M 3	Contact pattern of the pinion teeth and roller bearing			inspections during commissioning	
M 4	Check of all fastening bolts on loosening			visual inspection	
M 5	Check pre-stressed bolts for tightening moments and check pre-stressing force		torque wrench or hydraul. tightening device	control: checking plan for bolts 14020-0300-000-0 PSr	
M 6	Lubrication and oil filling Dovetailing of the roller bearing ring Roller conveyor of the roller bearing ring Gear oil filling			acc.to greasing plan 14020 WA visual inspection	
M 7	Check of gear for oil tightness			visual inspection	
M 8	Observation of prescribed conservation			visual inspection	

Group luffing gear

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 1	luffing gear assembly			acc.to the drawing 19023-1800-000-0	
M 2	Function of the disk brake and adjustment of the brake moment and automatic wear adjustment	acc. to the drawing 19023-1800-000-0		Operating instruction for disk brake type RST1	
M 3	Function of the safety brake Check of opening gap Check of hydraulic system	acc. to the drawing 19023-1800-000-0		Operating instruction for safety brake system SHI 202	
M 4	Check of contact surfaces of the brake shoes	90 % at least		re-align, if necessary	
M 5	Function of the rope pressure device			movability of the rollers and levers	
M 6	Radius indicator Adjustment of the measuring system		tape measure	functional test	
M 7	Assembly of limit switching acc. to the drawing			acc.to the drawing 19023-1821-000-0 and assembly instruction of safety-encoders (manufacturer's instructions)	
M 8	Switch points of limit switches		tape measure	acc.to the drawing 19023-0000-000-0	

Group luffing gear

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
M 9	Check of the slack rope switching-off				functional test	
M 10	Switch point laying down of the jib				acc. to functional test	
M 11	Check pre-stressed bolts for tightening moments			torque wrench	control: checking plan for bolts 19023-1800-000-0 PSr	
M 12	Check of all fastening bolts on loosening				visual inspection	
M 13	Lubrication and oil filling				acc.to greasing plan 19023 WA	
M 14	Check of gear for oil tightness Tightness of the hydraulic system of the safety brake				visual inspection	
M 15	Observation of prescribed conservation				visual inspection	

Group: Gantry travelling gear

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 1	Assembly of travelling gear acc. to drawing			acc. to drawing 19023-0501-000-0 19023-0502-000-0 19023-0503-000-0 19023-0504-000-0	
M 2	Function of rail clamps	acc. to drawing 14020-0520-000-0 14020-0520-000-1 19023-0521-000-0 19023-0521-000-1		acc. to operating manual of motor DRS132S4 and bevel gear type KV107/T	
M 3	Function of the rail tongs			functional test	
M 4	Compliance with the free profile for the rail tongs			acc. to drawing 19023-0000-000-0	
M 5	Swinging arm and running wheel axles are tight			visual inspection	
M 6	Check of all fastening bolts for loosening			visual inspection	
M 7	Check tightening moments of pre-stressed bolts		torque wrench	control: checking plan for bolts 19023-0500-000-0 PSr	

Group: Gantry travelling gear

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
M 8	Lubrication and oil filling				acc. to greasing plan 19023 WA	
M 9	Check gear for oil tightness				visual inspection	
M 10	Observance to the rescribed conservation				visual inspection	

Group: Rope system and hinged points

Run No.	Inspection procedure	Measured values Rated Actual	Special measuring devices	Instructions for inspection procedure	Signature
M 1	Execution in accordance with the drawing rope system and hinged points			acc. to drawing 19023-0700-000-0	
M 2	Correct laying of rope (rope with right-hand lay on drum with left-hand rise and in vice versa)			visual inspection	
M 3	Free movement of ropes in all positions of jib			visual inspection	
M 4	Rope protection of rope sheaves, free movement			visual inspection	
M 5	Function of rope sheaves			visual inspection	
M 6	Set of rope sheaves at jib tip –main lift			control: checking plan for bolts 19023-0700-000-0 PSr visual inspection	
M 7	Set of rope sheaves at jib tip –auxiliary lift				
M 8	Set of rope sheaves supporting structure				
M 9	Set of rope sheaves luffing gear supporting structure				
M 10	Bearing jib -platform				
M 11	Rope compensation lever				

Group: Rope system and hinged points

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
M 12	Assembly of the rope inlets according to the drawing				acc. to the drawing 19023-0775-000-0	
M 13	Laying down of jib				functional test	
M 14	Function of bottom block 70 t Load tackle block 5 t				acc. to the drawing 14020-0740-000-0 14020-0741-000-0 function control	
M 15	Check of all fastening bolts for loosening				visual inspection	
M 16	Check of the tightening moments of all pre-stressed bolts			torque wrench	control: checking plan for bolts 19023-0700-000-0 PSr	
M 17	Lubrication				acc. to greasing plan 19023 WA	
M 18	Observance of the prescribed conservation				visual inspection	

Group: Cable drum arrangement travelling

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
M 1	Assembly of cable drum arrangement acc. to drawing				acc. to drawing 19023-5150-000-0	
M 2	Function of motor cable drum				see documentation on motor cable drum	
M 3	Check tight fit of motor cable drum				control: checking plan for bolts 19023-5150-000-0 PSr visual inspection	
M 4	Tight fit of guiding device				visual inspection	
M 5	Function of guiding device				visual inspection	
M 6	Check all fastening bolts for loosening				see documentation on motor cable drum visual inspection	
M 7	Control of the limit switching crane track				visual inspection	
M 8	Lubrication of the sub-assembly				see documentation on motor cable drum	
M 9	Observance to the prescribed preservation				visual inspection	

Group: Accessories

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
M 1	Installation of nameplates according to the drawing: sign-boards at the gantry sign-boards driver's cabin client's logo company logo, label carrying capacity labelling of passage blocking				visual inspection	
M 2	Assembly of repair crane acc. to drawing				acc. to the drawing 19023-6150-000-0 visual inspection	
M 3	Assembly of slipring body attachment acc. to drawing				acc. to the drawing 14020-2020-000-0 visual inspection (see maintenance manual)	
M 4	Alignment of the slip ring body				visual inspection	
M 5	Check of all fastening bolts for loosening				visual inspection	
M 6	Execution of assembly welds according to drawing				visual inspection	

Group: Accessories

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
M 7	Toolbox				content control	
M 8	Rescue equipment for crane operator				visual inspection	
M 9	Attachment extinguisher				visual inspection Control test sticker	
M 10	Observance to the prescribed conservation				visual inspection	

Group: Driver's cabin

Run No.	Inspection procedure	Measured values		Special measuring devices	Instructions for inspection procedure	Signature
		Rated	Actual			
F 1	Check for cabin seats. Adjustment options, springing, tidiness				visual inspection	
F 2	Air conditioning installation				visual inspection	
F 3	Check windscreen wiper system				visual inspection	
F 4	Lighting, stairs, Work lighting				visual inspection	
F 5	Check lock system				visual inspection function control	

Group: Speeds of mechanisms

According to the acceptance program.