



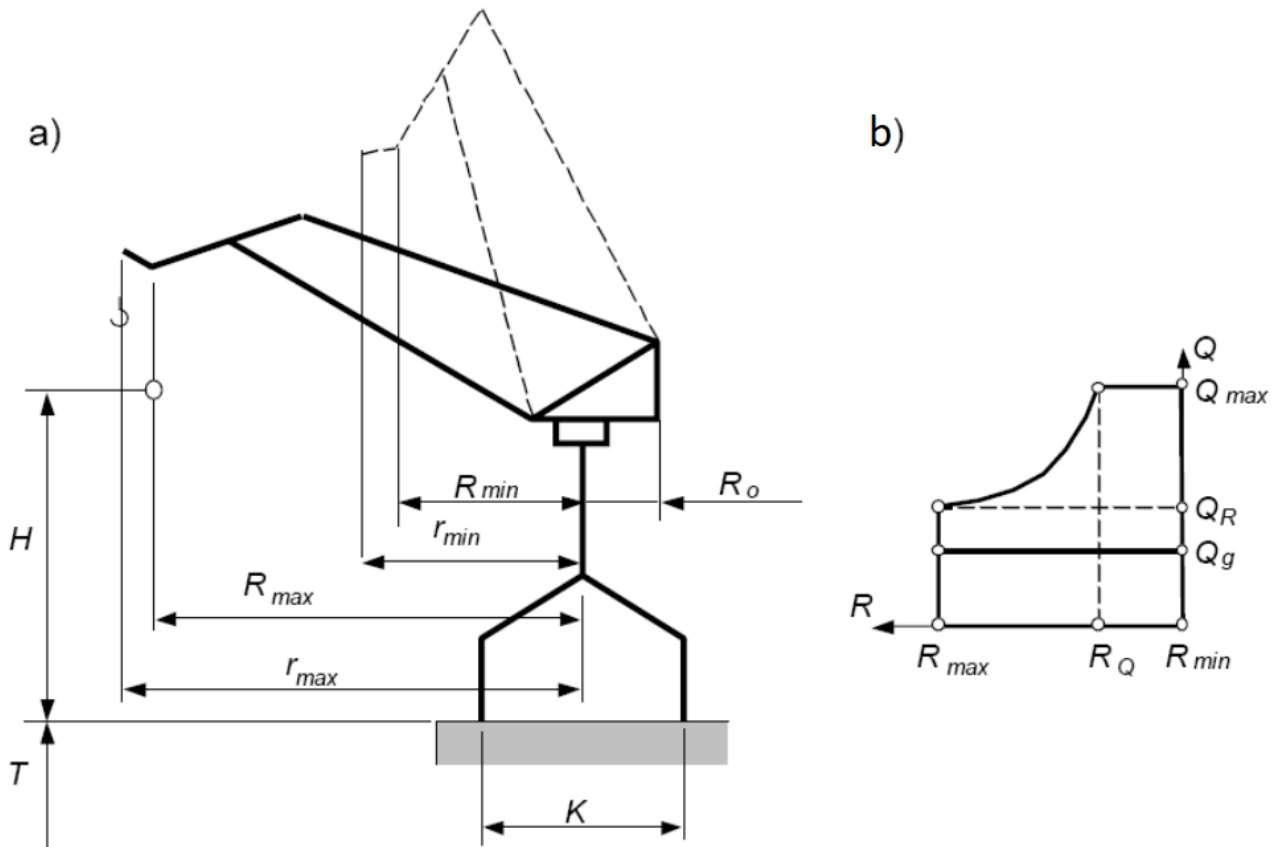
# Single boom portal crane

## Questionnaire

### Technical specifications

<b>1. Type of crane in structure</b>		
<b>2. Using of crane and crane's mechanisms</b>		
<b>2.1</b>	Type of drive	Electrical
<b>2.2 Estimated qualification groups of the crane and its mechanisms according to ISO 4301-1</b>		
<b>2.2.1</b>	Crane in general (A3-A8)	<b>A</b>
<b>2.2.2</b>	Main crane hoist (M1-M8)	<b>M</b>
<b>2.2.3</b>	Auxiliary crane hoist (M1-M8)	<b>M</b>
<b>2.2.4</b>	Crane outreach control mechanism (M1-M8)	<b>M</b>
<b>2.2.5</b>	Crane slewing mechanism (M1-M8)	<b>M</b>

2.2.6	Trolley rotating mechanism/load-handling device (jaws, hook etc.) (M1-M8)	<b>M</b>
2.2.7	Crane travelling mechanism (M1-M8)	<b>M</b>
2.2.8	Other groups:	<b>M</b>



2.3 Crane main hoist (illustration a)		
2.3.1	Lifting capacity, t : maximum $Q_{max}$	
	on maximum outreach $Q_R$	
	on grab mode $Q_g$	
2.3.2	Crane boom outreach, m: maximum $R_{max}$	
	minimal $R_{min}$ (only for cramped conditions)	
	maximal lifting capacity section end $R_Q$	
2.3.3	Lifting height, m	<b>H</b>
2.3.4	Lowering depth, m	<b>T</b>

<b>2.4 Crane auxiliary hoist (illustration b)</b>		
<b>2.4.1</b>	Lifting capacity, t	<b>Q</b>
<b>2.4.2</b>	Outreach, m maximal, $r_{max}$	
	minimal, (only for cramped conditions) $r_{min}$	
<b>2.4.3</b>	Lifting height, m	<b>H</b>
<b>2.4.4</b>	Lowering depth, m	<b>T</b>
<b>2.5</b>	<b>Portal track, m</b>	<b>K</b>
<b>2.6</b>	<b>Portal basement, m</b>	<b>B</b>
<b>2.7</b>	<b>Crane size along its way (with uncompressed buffers)</b>	Offered by the manufacturer
<b>2.8</b>	<b>Crane slewing device type</b>	
	Slewing ring	
	Swivel column	
	Circular/tapered rail	
<b>2.9</b>	<b>Boom system type</b>	
	Single boom crane	
	Double boom crane	
<b>2.10 Crane swing</b>		
<b>2.10.1</b>	In general	
	Full turn	
	Non-full-turn ( $\pm 90^\circ/\pm 180^\circ/\pm 270^\circ/\pm 370^\circ$ )	
	Other	
<b>2.10.2</b>	Load-handling device	
	Full-turn	

	Non-full-turn ( $\pm 90^\circ/\pm 180^\circ/\pm 270^\circ/\pm 370^\circ$ )	
	Other	
<b>2.11 Mechanisms speed</b>		
2.11.1	Main crane hoist, m/sec (m/min)	<b>V</b>
2.11.2	Auxiliary crane hoist, m/sec (m/min)	<b>V</b>
2.11.3	Crane outreach control mechanism, m/sec (m/min)	<b>V</b>
2.11.4	Crane slewing mechanism, m/sec (m/min)	<b>V</b>
2.11.5	Load-handling device (hook, traverse, spreader etc.) rotating mechanism, rpm	<b>V</b>
2.11.6	Crane travel, m/sec (m/min)	<b>V</b>
2.11.7	Other	
<b>2.12 Height from the rail head level</b>		
2.12.1	Lifting of the suspension, m	
2.12.2	Lowering of the suspension, m	
2.13	Swing radius (rear size)	<b>R<sub>0</sub></b>
2.14	Crane rail type	
2.15	Permissible wheel load, kN (t)	
<b>3. Operating conditions</b>		
3.1	<b>Operating temperature range, °C</b>	from                      up to
3.2	<b>Placement category</b>	outdoor
<b>3.3 Wind load</b>		
3.3.1	Maximum wind speed	
	in crane operation mode, m/sec	<b>V</b>

	out of use, m/sec	<b>V</b>		
<b>3.4</b>	<b>Seismic resistance, (Richter scale)</b>	from	up to	
<b>3.5 Dustiness level</b>				
<b>3.5.1</b>	Type of the dust (material)			
<b>3.5.2</b>	Density, mg/m <sup>3</sup>			
<b>3.6</b>	<b>Other special conditions</b>			
<b>4. Crane purpose</b>				
<b>4.1.</b>	<b>Load handling:</b>			
		Bulk load, specify:		
		General cargoes, specify:		
<b>4.2</b>	<b>Execution of technological operations:</b>			
<b>5. Load characteristics</b>				
<b>5.1.1 General cargo or load package of the 1<sup>st</sup> type</b>				
<b>5.1.1.1</b>	Maximum weight on a load-handling device, t			
<b>5.1.1.2</b>	Maximum dimensions, mm	length	width (diameter)	height (depth)
<b>5.1.1.3</b>	Availability of special slinging points	yes	no	
<b>5.1.1.4</b>	Load temperature, °C	from	up to	
<b>5.1.1.5</b>	Other:			
<b>5.1.2 General cargo or load package of the 2<sup>nd</sup> type</b>				
<b>5.1.2.1</b>	Maximum weight on a load-handling device, t			

5.1.2.2	Maximum dimensions, mm	length	width (diameter)	height (depth)
5.1.2.3	Availability of special slinging points	yes	no	
5.1.2.4	Load temperature, °C	from	up to	
5.1.2.5	Other:			

### 5.2.1 Bulk load of the 1<sup>st</sup> type

5.2.1.1	Name of material	
5.2.1.2	Load conditions (normal, frozen, caked, in pieces etc.)	
5.2.1.3	Density, t/m <sup>3</sup>	Maximum temperature, °C
5.2.1.4	Other:	

### 5.2.2 Bulk load of the 2<sup>nd</sup> type

5.2.2.1	Name of material	
5.2.2.2	Load conditions (normal, frozen, caked, in pieces etc.)	
5.2.2.3	Density, t/m <sup>3</sup>	Maximum temperature, °C
5.2.2.4	Other:	

## 6. Load handling device type and characteristics

6.1	Hooks	Main hook	One-horn hook	Double-hornhook
		Auxiliary hook	One-horn hook	Double-hornhook
6.2	Grab	Characteristics are offered by the manufacturer		
		Double-rope	Four-rope	
		Permanent	Mounted on a hook	
		Manual drive	Electric drive	Hydraulic drive
		Foreign drive	Russian drive	

		Drive trade mark		
		Intended for unloading wagons	Not intended for unloading wagons	
		Double jaw	Multi jaw	
		Orientation regarding crane ropes (for double-jaw four-rope grab)	Longitudinal opening	Lateral opening
		Volume capacity, m <sup>3</sup>	Calculated by the manufacturer according to items 6.2.1 & 6.2.2	
		Other:		
6.3	Magnet	Characteristics are offered by the manufacturer		
		Rectangular profile shape	Round profile shape	Special profile shape
		Load capacity		
		Quantity, pcs		
		Foreign drive	Russian drive	
		Drive trade mark		
		Type		
		Load temperature, °C	from	up to
		Other:		
6.4	Spreader	Characteristics are offered by the manufacturer		
		Permanent	Mounted on a hook	
		Foreign made	Russian made	
		Spreader trade mark		
		Manual drive	Electric drive	Hydraulic drive
		Container standard size		
		Replaceable by standard size	Sliding	
		Located along crane runway	Located across crane runway	
		Other:		

6.5	Traverse	Characteristics are offered by the manufacturer		
		Permanent		Mounted on hook
		Vacuum traverse	Hook traverse	Magnet traverse
		Located along bridge girder	Located across bridge girder	Need for rotation
		<b>Complete set of traverse</b>		
		<u>6.5.1 With hooks</u>	Quantity, pcs.	Lifting capacity, t
		<u>6.5.2 With magnets</u>		
		<u>6.5.3 With claws</u>	Separate crane mechanism	
			Electric drive	
			Hydraulic drive	
		<u>6.5.4 With slings</u>	Lifting capacity, t	
			Sling's length, mm	
			Sling type	
Quantity, pcs.				
<u>6.5.5 Other</u>				
6.6	Pliers	Characteristics are offered by the manufacturer		
		Permanent		Mounted on hook
		Foreign made		Russian made
		Trade mark		
		Manual drive	Electric drive	Hydraulic drive
		Located along the crane runway		Located across the crane runway
		Other:		
6.7	<b>Other</b> (load-handling device)			
<b>7. Constructional requirements</b>				
7.1	<b>Alignment restrictions for working movements of mechanisms:</b>			



7.2	<b>Crane's current supply type</b>	trolley	cable		
7.3	<b>Load-handling device current supply necessity</b>	yes	no		
7.4	<b>Type of the control system</b>	frequency			
7.5	<b>Complete set of the control cabin</b>				
<b>8. Additional requirements</b>					
8.1	<b>Lifting capacity limiter availability</b>	for each winch	other requirements		
8.2	<b>The parameter recorder setting is necessary</b> (Obligatory for cranes with 10t or more lifting capacity (A6-A8))	yes	no		
8.3	<b>Complete set of the crane</b>				
<b>No.</b>	<b>Name</b>	<b>Unit</b>	<b>Qty.</b>	<b>TM</b>	<b>Manufacturer</b>
1					
2					
3					
4					
5					
8.4	<b>Technical documentation, provided by the Customer</b>				
Dimensional drawing			Other:		
8.5	<b>Painting</b>				
8.5.1	Enamel + primer				
8.5.2	Enamel color: yellow /				

<b>8.6</b>	<b>Additional requirements of the Customer</b>	
<b>9. Customer information</b>		
<b>9.1</b>	<b>Company name</b>	
<b>9.2</b>	<b>Address</b>	
<b>9.3</b>	<b>Contact person</b>	
<b>9.4</b>	<b>Phone</b>	
<b>9.5</b>	<b>E-mail</b>	

**Thank you for the provided information!**

Please, send us this form to our e-mail address: [info@tehnoros.com](mailto:info@tehnoros.com)