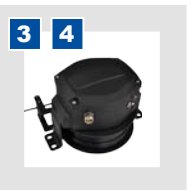# Telescopic Crane

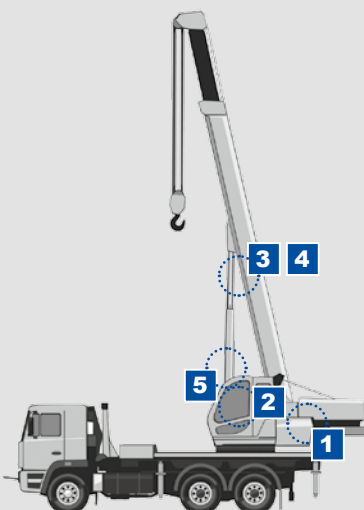## ↗ with telescoping monitoring system

↗ Requirements

- Load moment indication
- Main boom with 4 telescopes
- Telescope 1 is independently movable,
  telescopes 2, 3, 4 are synchronously movable
- Fixed fly jib
- Main boom with quick-action stroke roller
- Pre-selection of the telescoping mode
- Telescoping monitoring system (asynchronous main
  boom with 4 telescopes)
- Single movement cut-offs via digital outputs
- Processing of digital inputs
- Data logger according to market-specific standards
- Communication to crane controller
- J1939 display

↗ Product solution

- Pressure measurement via pressure sensor in the luffing cylinder
- Angle sensing at boom bottom
- Length measurement of the main boom total length
- Length measurement of the first telescope
- Graphical operation mode selection
- Load collective counters
- Operating hours counter

Hardware		
Controllers	1	qSCALE S6 IP66
Consoles	2	vSCALE D3
Sensors	3	gSENS LWG
	4	gSENS LG
	5	2x pSENS DAVS
		Wind speed sensor, rotary encoder, inclination sensor

Software	
Load moment indication	LMI application
	Graphical console application
	Datalogger

- Menu-driven, graphical set-up state pre-selection
- Pre-selection of 4 telescoping ways
- Graphical information screen for currently selected set-up state
- Output of status information and service screens as a language-neutral table or graphic
- Sensor calibration via console (password-protected service menu)
- User limits (radius, angle, height, slew angle)
- Virtual wall
- Reduction of movement speed depending on length, angle, utilization
- Release of crane movements
- Visualization of status information from crane controller, Visualization of motor data (J1939)
- Communication to crane control via CAN and I/O

↗ Overview

		Kudesnik	Altec
Regulations	EU		
	USA		■
	Russia	■	
Requirements Load Moment Indication	Load moment indication	■	■
	Single Movement Release / cut-off	■	■
	General cut-off		
	Digital Inputs	■	■
	Digital Outputs	■	■
	Angle sensing at boom bottom	■	■
	Angle sensing at boom top		
	Load sensing in luffing cylinder	■	■
Requirements Console	Customized fully graphical OM selection (guided menu)	■	■
	Customized OM Configuration list / Numerical OM selection		
	Graphical OM Info screen	■	■
	Numerical OM selection (OM Code)		
	Real crane pictures		
	Schematic crane pictures	■	■
Standard functions	Virtual walls	■	■
	User limits (radius, angle, height, slew angle)	■	■
	Telescopic control	■	
	Sensor adjustment via console (protected)	■	■
	Status information by symbols	■	■
	Status information with additional text	■	■
	Extended error messages (multi levels)		■
	Servicescreens (multi level with text)	■	■
	Servicescreens (tables or graphics)	■	
Special features	Monitoring load on runner in main boom OM		
	Interpolation of rated loads by main boom angle in luffing jib OM		
	Superlift		
	Monitoring of inclination for ship mounting		
	Visualization of inclination by bubble level	■	■
	Free fall function for hoist		
	Load on main boom with jib mounted	■	
	Communication to crane controller	■	■
	Visualization of status information from crane controller	■	■
	Visualization of motor data (J1939)	■	■
	Outrigger monitoring, display, automatic load chart selection		■
	Camera input		■
	Reduction of crane movement speed	■	
	Context-sensitive on screen information		■
	Load spectrum counter, lift counter	■	
	Operating hours counter	■	■
	On screen configuration for available hoist and OM		■

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