

# CONTROL MODES NEXT EPSOLUTION

Classic Drive, Master Drive, Hydraulic Cabin and Electric Cabin

**PALFINGEREPSILON.COM** 

# HAVE YOU CHOSEN YOUR CONTROL MODE?





# STRIPPED BACK TO THE ESSENTIALS

# CLASSIC DRIVE – THE LIGHTWEIGHT ALTERNATIVE FROM PALFINGER EPSILON

#### **CONTROL MODES**

Precise, easy-to-operate crane control system hinged directly on valve.



JM Two mechanical joysticks, two mechanical foot pedals directly mounted on valve



**4 LM** Four mechanical levers, two mechanical foot pedals



**5 LM** Five mechanical levers, one mechanical foot pedal



Secured by the top seat against unintended activation.



Three levers hydraulically controlled from the top seat



**1FM** An additional free function offered by Classic Drive – operation via a directly mounted lever

## HIGHLIGHTS

- Lightweight, robust, tried and tested and reliable
- Distance of seat bucket to controls can be adjusted; seat can be accessed from both sides
- High-quality control valves in single and double-circuit operation for constant pump operation
- EN12999-compliant CE equipment for timber applications (CEH) and recycling applications including high-performance stability control (CERM) available
- External hose guide on crane column without rotary distributor
- Halogen lights as standard; LEDs optional
- Emergency stop, seat contact switch and operating hour counter on top seat

### ALIGNMENT OF TOP SEAT

#### **COMFORT PACKAGE**



Rear top seat mounted

centrally on column

ΗМ



HVL Turned 16° to the left by means of adjustment wedges



HVR Turned 16° to the right by means of adjustment wedges



ter, horn, seat heating, engine start/stop feature, speed +/-, fully cabled up to electro

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# SAFE IN THE SADDLE

# MASTER DRIVE -THE COMFORT TOP SEAT FROM PALFINGER EPSILON

#### **MULTI-FUNCTIONAL ARMREST**

All controls are within reach with the multi-functional armrest.



Changeover switch between crane and stabilizer operation unit, emergency stop, ON/OFF control for stabilizer and ON/OFF control of 1F/2F if selected.



Light control, engine start/stop feature, speed +/-, HPLS ON/OFF if selected, seat heating and signal horn



- Comfortable and ergonomically designed for maximum productivity
- All hydraulic functions routed within crane column via rotary distributor; no hose package positioned on the exterior of the column
- High-quality control valves in single and double circuit operation for constant pump operation as well as single-circuit design for variable pump operation as six-section version mounted on crane column
- Crane operation via ergonomically shaped and servo controlled joysticks
- EN12999-compliant CE equipment for timber applications (CEH) and recycling applications including adaptive high-performance stability control in "Light" (CERHL) or "Full" (CERH) available
- Stabilizer control can be switched ON/OFF from the top seat via electric buttons integrated into the armrests. PVG32 stabilizer valve mounted on slewing cylinder under protective cover
- Comfort package consisting of folding GRAMMER seat with mechanical suspension, adjustable armrests, seat heating, engine start/stop feature, speed +/- (fully cabled up to crane base)
- Seat support can be folded into transport position via pneumatic cylinders, actuated by an electric button on the crane base
- Cable remote control at crane base for stabilizer (KCA) or main boom, outer boom and slewing crane functions (KCHKS) optionally available

### **CONTROL MODES**

Servo controlled joysticks make it easy to work precisely.



**JH** Two hydraulic joysticks, two pedals



**4LH** Four hydraulic linear levers, two pedals



**5LH** Five hydraulic linear levers, one pedal

#### **EPSHOOD**

The newly developed crane operator protection EPSHOOD ensures optimum protection during work. The folding mechanism and technical thermoplastic keep wind, rain and sun away from the operator at all times, ensuring maximum comfort every time.



## HORIZONTALLY AND VERTICALLY AIR SUSPENDED COMFORT TOP SEAT

The comfortable, ergonomically shaped seat from the house of GRAMMER including seat heating and weight adjustment options.





# MAXIMUM COMFORT AS WELL AS MAXIMUM PROTECTION

# CAH -CABIN WITH HYDRAULIC SERVO CONTROL FROM PALFINGER EPSILON

## CABLE REMOTE CONTROL

Operate the crane comfortably and safely from the crane base.



KCA Cable remote control at crane base for all stabilizer functions; available with dead man's switch and emergency stop.



#### КСН

Cable remote control at the crane base for all stabilizer and crane functions (apart from cabin lift); available with dead man's switch and emergency stop. Changeover between stabilizer and crane operation unit included; mode of operation indicated via LEDs.

....EP

## HIGHLIGHTS

- All hydraulic functions routed within crane column via rotary distributor
- External hose package on column with electric cables
- High-quality control valves in single and double circuit designs for constant pump operation as well as single-circuit design for variable pump operation as seven-section version mounted on crane column
- Cabin lift can be elevated 1100 mm. ON/OFF control via buttons in cabin
- Stabilizer control can be switched ON/OFF via electric buttons on the cabin operator terminal. PVG32 stabilizer valve mounted on slewing cylinder under protective cover
- Comfort package consisting of seat with pneumatic suspension, DAB radio with CD player, two loudspeakers, interior lighting, windscreen wipers, protective windscreen shutter, adjustable arms seat heating, engine start/stop feature, speed +/- (fully cabled up to crane base) included
- Three LED lights on cabin as standard
- Cabin painted with RAL9003; side door painted with RAL9005
- Front and side door as standard
- Tamtron Standard (TTS) and Tamtron Timber (TTT) weighing system available in hydraulic or wireless solution (TTWS/TTWT)
- HYDAC vibration damper (SD) for main boom and slewing available
- Yellow warning light on cabin roof (WLG) available
- Water-heating system (WH) with external water hose on column or WEBASTO diesel heating system (DH)
- Air-conditioning system (AC) operated via additional hydraulic function available in combination with variable pump
- One (1F) or two (2F) additional hydraulic functions available at stabilizer valve. ON/OFF operation from the cabin

## **CONTROL MODES**

Servo controlled joysticks make it easy to work precisely.



JH Two servo controlled joysticks



4LH Four hydraulically piloted joysticks Each with two servo controlled fast pedals

#### **OPERATOR TERMINAL** All functions at a glance clearly arranged in the

operator's field of vision.



Crane operation/ stabilizer operation unit Windscreen wipers and wash system 12-V

Tamtron weighing equipment

Notification for 90% utilised apacity, indicator light for iclination, indicator light for main boom and operating hour counter

# Emergency stop

socket

## Stabilizer control and cabin lift

Engine start/stop feature and speed +/-

## Lighting for cabin and crane

Seat heating and free functions F1/F2

## HORIZONTALLY AND VERTICALLY **AIR SUSPENDED COMFORT TOP SEAT**

The comfortable, ergonomically shaped seat from the house of GRAMMER including seat heating and weight adjustment options.



# FOR THE HIGHEST DEMANDS AND MAXIMUM PROTECTION

# CAE -CABIN WITH ELECTRONIC CONTROL FROM PALFINGER EPSILON

## **OPERATOR TERMINAL**

All functions at a glance clearly arranged in the operator's field of vision.



# HIGHLIGHTS

- All hydraulic functions routed within crane column via rotary distributor
- External hose package on column with electric cables
- High-quality control valve combination consisting of Parker L 90LS and K220 in single-circuit design for variable pump operation as seven-section version mounted on crane column.
- Cabin lift can be elevated 1100 mm. ON/OFF control via joysticks in cabin
- Stabilizer control can be switched ON/OFF via joysticks in cabin. PVG32 stabilizer valve mounted on slewing cylinder under protective cover
- Comfort package consisting of seat with pneumatic suspension, DAB radio with CD player, two loudspeakers, interior lighting, windscreen wipers, protective windscreen shutter, adjustable armrests, seat heating, engine start/stop feature, speed +/- (fully cabled up to crane base) included
- Three LED lights on cabin as standard
- Cabin painted with RAL9003; side door painted with RAL9005
- Front and side door as standard
- HYDAC vibration damper for main boom and slewing as standard
- Tamtron Standard (TTS) and Tamtron Timber (TTT) weighing system available in hydraulic or wireless solution (TTWS/TTWT)
- Yellow warning light on cabin roof (WLG) available
- Water-heating system (WH) with external water hose on column or WEBASTO diesel heating system (DH)
- Air-conditioning system (AC) operated via additional hydraulic function available
- One (1F) or two (2F) additional hydraulic functions available at stabilizer valve ON/OFF operation via joysticks in cabin
- Cabin lift position monitoring system (KLP) available

### CABLE REMOTE CONTROL

Operate the crane comfortably and safely from the crane base.



#### KCE

Cable remote control at crane base for all stabilizer and crane functions; available with dead man's switch and emergency stop. Changeover between stabilizer and crane operation unit included; mode of operation indicated via LEDs.

#### **CONTROL MODES**

Electro-hydraulic joysticks for effortless work



**JEM** Two electric "Mini" joysticks



JEMP Two electric "Mini" joysticks with additional ON/OFF buttons



JEL Two electric "Large" joysticks



JELP Two electric "Large" joysticks with additional ON/OFF buttons

# HORIZONTALLY AND VERTICALLY AIR SUSPENDED COMFORT TOP SEAT

The comfortable, ergonomically shaped seat from the house of GRAMMER including seat heating and weight adjustment options.



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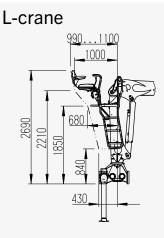
# EQUIPMENT

		HCDH CLASSIC	HMDH MASTER DRIVE	САН	CAE
		30M 30M	290 290 130 130	290 290 220	20E
		1K-F130M 2K-F130M	1K-R290 2K-R290 1K-F130 2K-F130 LS-K220	1K-R290 2K-R290 LS-K220	LS-K220E
NORM		<u> </u>	<u> </u>		
CEH	Safety package for timber loaders				
CERM	CE "Mini" package for recycling cranes		-	-	-
CERHL	CE "Light" for recycling loaders	-	-	-	-
CERH	CE package for recycling loaders	-		-	-
CONTROLS			-		-
M	2 mechanical joysticks, 2 mechanical foot pedals directly mounted on the valve		•	-	-
4LM	4 mechanical levers, 2 mechanical foot pedals directly mounted on the valve		-	-	-
5LM JH	5 mechanical levers, 1 mechanical foot pedal directly mounted on the valve 2 hydraulic servo controlled joysticks, 2 servo controlled foot pedals	-	-	-	-
JH 4LH	4 hydraulic servo controlled joysticks, 2 servo controlled foot pedals	-			-
5LH	5 hydraulic servo controlled levers, 2 servo controlled foot pedals	-		-	-
JEM	2 electric Joysticks with 3 proportional functions, model "Mini"		-	-	-
JEMP	2 electrical Joysticks with 3 proportional functions and additional ON/OFF buttons, model "Mini"	-	-	-	
JEL	2 electrical joysticks with 3 proportional functions, model "Large"		-		
JELP	2 electrical joysticks with 3 proportional functions and additional ON/OFF buttons, model "Large"	-	-	-	
HYDRAULICS					
1K-F130M	Parker F130CF control valve for single circuit operation for Classic Drive top seat, prepared for constant pump operation	<u> </u>	- 1	-	-
2K-F130M	Parker F130CF control valve for double circuit operation for Classic Drive top seat, prepared for constant pump operation	- 0	-	-	-
1K-R290	Nordhydraulic RSM290 control valve for single circuit operation and hydraulic pilot controls	-	- 0	- 0	-
2K-R290	Nordhydraulic RSM290 control valve for double circuit operation and hydraulic pilot controls	-		<b>–</b> –	-
1K-F130	Parker F130CF control valve for single circuit operation and hydraulic pilot controls, prepared for constant pump operation	-	- 🗆 -	-	-
2K-F130	Parker F130CF control valve for double circuit operation and hydraulic pilot control, prepared for constant pump operation	-	· 🗆 ·	-	-
LS-K220	Parker control valve for single circuit operation, ATTENTION: only in combination with SD	-	- 0	- 🗆	-
LS-K220E	Parker control valve for single circuit operation and electric controls, prepared for variable pump operation.	-	-	-	
CONTROL STAN					
нм	Rear top seat central mounted on column			-	-
HVL	Rear top seat central mounted on column, by adjustment wedges 16° turned to the left			-	-
	Attention: not available in combination with TGR / TUR and KFS! Rear top seat cental mounted on column, by adjustmend wedges 16" turned to the right				
HVR	Attention: not available in combination with TGL / TUL and KFS!			-	-
250 FURTHER O	PTIONS 17° safety shut down with a tilt sensor				_
N7	ATTENTION: Only required in Germany for CE timber!				-
СР	comfort package with seat heating, engine Start/Stop, RPM +/-, complete wired till electric box on crane base		-	-	-
1FM	one additional free function on CLASSIC DRIVE top seat, operation by directly mounted lever		-	-	-
1F	One additional free function on PVG32 control valve, operation by ON/OFF buttons from control stand	· ·			
2F	Additional second function on PVG32 stabilizer valve, operation by ON/OFF buttons from control stand	-			
KCA	Cable control for stabilizer on crane base by ON/OFF buttons	-			-
КСНКЅ	Cable control for main boom, knuckle boom, slewing on the crane base by ON/OFF buttons	-		-	-
ксн	Cable control for CAH cabin for all functions (except cabinlift) on crane base with ON/OFF buttons	-	-		-
		-		-	-
KFS	EPSHOOD automatic tiltable operator protection.				
LED	EPSHOOD automatic tiltable operator protection. LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen			-	-
LED LED 2	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen 2 x LED spotlights on knuckle boom. <b>ATTENTION: only for cabine cranes!</b>		-	-	-
LED LED 2 SD	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing	-	-	- - -	-   -
LED LED 2 SD SLP	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package	-		□ !	<u> </u>
LED LED 2 SD SLP TTSW	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.		-	-	1
LED LED 2 SD SLP TTSW TTS	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard weighing device for cabin. Handling via foot pedal on CAE.	-		- -	<u> </u>
LED LED 2 SD SLP TTSW TTS TTT	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard weighing device for cabin. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabine. Handling by ototpedal on CAE. Handling via additional button on joystick/lever on CAH.	-		-	<u> </u>
LED LED 2 SD SLP TTSW TTS TTT TTT TTWSW	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard Weather, weighing decive for cabin. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabine. Handling by footpedal on CAE. Handling via additional button on joystick/lever on CAH.   Tamtron wireless Standard Weather, weighing device for MASTER DRIVE.	-		- -	-
LED LED 2 SD TTSW TTS TTS TTT TTWSW TTWS TTWS TTW	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard weighing device for cabin. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabine. Handling by ototpedal on CAE. Handling via additional button on joystick/lever on CAH.	- - - - -		- ! - - - -	<u> </u>
LED LED 2 SD SLP TTSW TTS TTW TTWS TTWS TTWT WH	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard Weather, weighing decive for Cabin. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabin. Handling by footpedal on CAE.   Tamtron wireless Standard Weather, weighing device for cabin. Handling via foot pedal on CAE.   Tamtron wireless Standard Weather, weighing device for cabin. Handling via foot pedal on CAE.   Tamtron wireless Standard Weather, weighing device for cabin. Handling via foot pedal on CAE.   Tamtron wireless Timber weighing device for cabin. Handling by footpedal on CAE.   Tamtron wireless Timber weighing device for cabin. Handling by footpedal on CAE.   Water heating for crane operator cabin. ATTENTION: heated hose routed on exterior of crane column	- - - - - - -			- -
LED LED 2 SD SLP TTSW TTS TTT TTWSW TTWS TTWS TTWT WH DH	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard Weather, weighing decive for cabin. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabine. Handling by footpedal on CAE. Handling via additional button on joystick/lever on CAH.   Tamtron wireless Standard Weather, weighing device for MASTER DRIVE.   Tamtron wireless Standard Weather, weighing device for cabin. Handling via foot pedal on CAE.   Tamtron wireless Standard Weather, weighing device for cabin. Handling via foot pedal on CAE.   Tamtron wireless Standard weighing device for cabin. Handling via foot pedal on CAE.   Tamtron wireless Timber weighing device for cabine. Handling by footpedal on CAE.   Tamtron wireless Timber weighing device for cabine. Handling by footpedal on CAE.   Tamtron wireless Timber weighing device for cabine. Handling by footpedal on CAE.   Water heating for crane operator cabin. ATTENTION: heated hose routed on exterior of crane column   Webasto Diesel heating for crane operator cabin	- - - - - - - - - - - -			-
LED LED 2 SD SLP TTSW TTS TTS TTWS TTWS TTWS TTWT WH DH KLP	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard weighing device for cabine. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabine. Handling by footpedal on CAE. Handling via additional button on joystick/lever on CAH.   Tamtron wireless Standard Weather, weighing device for MASTER DRIVE.   Tamtron wireless Standard Weather, weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Standard Weather, weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Standard weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Standard weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Timber weighing device for cabine. Handling via foot pedal on CAE.   Water heating for crane operator cabin. ATTENTION: heated hose routed on exterior of crane column   Webasto Diesel heating for crane operator cabin.   Cabin lift monitoring for crane operator cabin.	- - - - - - - - - - - - -			
LED LED 2 SD SLP TTSW TTS TTW TTWS TTWS TTWT WH DH KLP AC	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard Weather, weighing decive for Cabin. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabin. Handling by footpedal on CAE. Handling via additional button on joystick/lever on CAH.   Tamtron wireless Standard Weather, weighing device for MASTER DRIVE.   Tamtron wireless Standard Weather, weighing device for AMSTER DRIVE.   Tamtron wireless Standard Weather, weighing device for Cabin. Handling via foot pedal on CAE.   Tamtron wireless Timber weighing device for cabin. Handling via foot pedal on CAE.   Tamtron wireless Timber weighing device for cabin. Handling via foot pedal on CAE.   Water heating for crane operator cabin. ATTENTION: heated hose routed on exterior of crane column   Webasto Diesel heating for crane operator cabin.   Cabin lift monitoring for crane operator cabin.   Air condition for cabin cranes. Air condition is powered by additional hydraulic function.	- - - - - - - - - - - -			-
LED LED 2 SD SLP TTSW TTS TTS TTWS TTWS TTWS TTWT WH DH KLP	LED spot lights (2x top seat, 2x spot lights knuckle boom), 2600 Lumen   2 x LED spotlights on knuckle boom. ATTENTION: only for cabine cranes!   Hydac swinging dampers for main cylinder and slewing   Substitute hose package   Tamtron Standard Weather, weighing decive for MASTER DRIVE. Handling by additional button on joystick/ lever.   Tamtron Standard weighing device for cabine. Handling via foot pedal on CAE.   Tamtron Timber weighing device for cabine. Handling by footpedal on CAE. Handling via additional button on joystick/lever on CAH.   Tamtron wireless Standard Weather, weighing device for MASTER DRIVE.   Tamtron wireless Standard Weather, weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Standard Weather, weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Standard weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Standard weighing device for cabine. Handling via foot pedal on CAE.   Tamtron wireless Timber weighing device for cabine. Handling via foot pedal on CAE.   Water heating for crane operator cabin. ATTENTION: heated hose routed on exterior of crane column   Webasto Diesel heating for crane operator cabin.   Cabin lift monitoring for crane operator cabin.	- - - - - - - - - - - - - - - - - - -			

Only equipment relevant for the respective control mode is shown

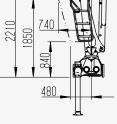
# **SLEWING RADIUS**

# Classic Drive (HCDH)

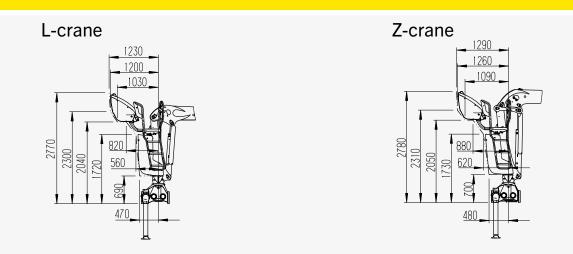


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Z-crane

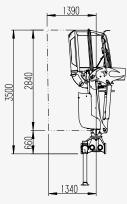


# Master Drive (HMDH)

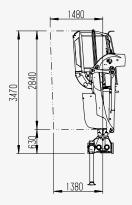


# Cabin (CAH & CAE)





Z-crane



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#### **EPSILON KRAN GMBH**

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