

## **ROLLOADER CRANES**

HIGH SPEED WITH EXCEPTIONAL PRECISION





### **GET THE ROLLOADER ADVANTAGE**

Time-management and organizational abilities today require transport solutions to be innovative and efficient. Transport on the road is wholly dependent on the services of skilled and motivated drivers. With the cost of fuel and labour increasing Kennis Rolloader Cranes offers the most cost effective robust loading solution for trailers today. This concept which was invented in the late 60's started in Holland, has proven to increase productivity and efficiency for fleet owners.

Today Kennis cranes are widely used by the haulage and construction Industries, for a wide variety of loads such as bricks, road barriers, wall panels, kerbstones, timber, prestressed concrete floor panel slabs. Kennis cranes are also used for applications in the rail, heavy equipment and glass industries.

### WHAT CAN KENNIS ROLLOADER CRANES DO FOR YOU?

Kennis cranes are specifically designed for heavy load/unloading needs that is demanded for the short haulage transportation in the construction industry.



Brick & Block Handling

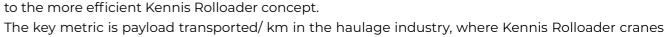
**MAXIMUM PAYLOAD** 



Concrete Floor Handling



Road Barrier Handling



excels in the most effective way

Over the years fleet owner that used different transportation and lifting system preferred and moved

boosting productivity by 60% when compared to regular fixed cranes.

- QUICK LOADING AND UNLOADING.
- ERGONOMIC AND PRECISE CONTROL OF THE CRANE'S MOVEMENT FOR ACCURATE PLACING OF THE LOAD
- HIGH PERFORMANCE AND HIGH PRECISION MOVEMENT
- MAXIMUM PRODUCTIVITY AND ABILITY TO HANDLE VARIETY OF LOADS
- EXCELLENT VIEW WITH TOP SEAT FOR LOADING / UNLOADING
- GREATER LOAD HANDLING AND WORKING AREA
- EFFICIENT POWER WITH LOAD SENSING HYDRAULIC SYSTEM AND SMART ENGINE CONTROL
- EXTRAORDINARY VERSATILE ATTACHMENT OPTIONS USING HIGH TENSILE STEEL
- MAXIMIZE TRACTION ON TRACTOR REAR
   AXLE BY REPOSITIONING CRANE ON
   TRAILER FOR OPTIMUM RIGHT WEIGHT
   DISTRIBUTION
- FLEXIBLE OPERATIONS AS COMBINATION IS EXCHANGEABLE WITH DIFFERENT TRAILERS
- QUICK SERVICE THANKS TO EASY CRANE MOUNTING / DEMOUNTING

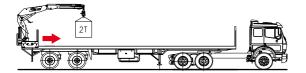




### HIGH LIFTING CAPACITY AND LOW TARE

The complete Kennis Rolloader concept is the combination of a light crane, light attachment and equally important a light trailer. Kennis Rolloader Cranes are made to perform many cycles at high speed and with exceptional precision.

With a lightweight, compact design and a short boom, Kennis cranes can do the same heavy job with a lower load moment (capacity) than a heavy rear mounted crane which will require a long boom. The steel structures of crane and crane equipment have been engineered to perform and endure tough heavy duty load cycles making the crane fast, extremely robust and durable while still very safe to operate.





### UNRESTRICTED VIEW FROM ITS ERGONOMIC CONTROL

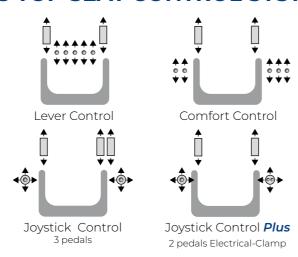
Heavy work and ergonomics can also go hand-in-hand with Kennis cranes. The top seat is designed to increase safety and efficiency by eliminating any blind spots. Multifunctional hand and foot pedal controls are not only intuitive and precise but also carefully positioned for the comfort of the operator. Protection of the operator under all-weather circumstances, the driver seats can be equipped with a foldable top canopy.

- Better visibility so as to view loading and unloading operations.
- · Simple, safe intuitive control.
- Precise and advanced top seat control with levers or four-axis joystick control and foot pedals.
- Ergonomically designed topseat and crane control joysticks improves comfort leading to efficiency, and also increases safety.

scanreco



### **KENNIS TOP SEAT CONTROL SYSTEMS**

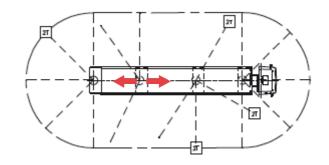


# RADIO REMOTE CONTROL Multifunction radio romoto control allows th

Multifunction radio remote control allows the operator to move 2-3-4 or more functions of the crane simultaneously, and to move freely around the trailer and keep control of the load position.

### **EFFICIENCY**

The main concept of the Kennis Rolloader cranes is that the operations are more productive. More than any other conventional methods today using a fixed crane. Typically a Kennis crane operator is 60% more productive no matter what type of load, Kennis Rolloader crane will always be able to move, and set the load down at the best required position.



### **ENVIRONMENTALLY FRIENDLY**

Trailer weight distribution can be optimized by changing the position of the crane, this improves the drivability.

C02 emissions, tire wear and fuel consumption can be reduced in combination with a lift axle(s)



### Faster loading cycle speeds

- Load / Unload independently without the use of any other handling equipment on site.
- The crane operation is closer to the load with a shorter boom maximizing the load capacity.
- Self-propelled powered base eliminates the necessity of moving your truck while loading, saving valuable time.
- A precise control of the crane's movement and for accurate placing of the load.
- Easily offload the crane from the trailer.
- Lower total tare weight so maximum payload is transported.
- Self-propelled crane with its own high performance fuel efficient power unit.

### **LONGER USEFUL LIFE**

A Kennis crane mounted on the trailer outlasts the useful life far longer than the tractor head truck. Different fleet of tractor heads can also be used for multiple other applications making the operations more flexible as it does not need to have specially fitted hydraulic kits to power the crane.

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### **CRANE CONTROL SYSTEM**

The innovative Kennis control system allows to maximize the crane lifting capacity securing the safety of the operations in any condition.



### KSS-5

The control system monitor **4 main parameters** to define the safe working conditions:

- 1. Tilting angle side control
- 2. Slewing angle encoder
- 3. Cylinders working pressure
- 4. Boom angles



### KSS-6

The control system monitor **6 main parameters** to define the safe working conditions:

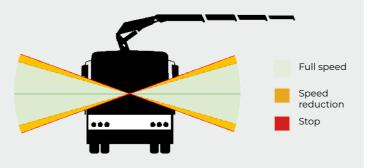
- 1. Tilting angle side control
- 2. Slewing angle encoder
- 3. Cylinders working pressure
- 4. Boom angles
- 5. Stabilizers position
- 6. Extensions outreach\*
- \* Only on cranes with outreach over 8 mt.

### 1. TILTING ANGLE SIDE CONTROL

The control system monitors the crane inclination and reduce the speed when tilting angle approach the limit and stopping it when the limit is fully reached.



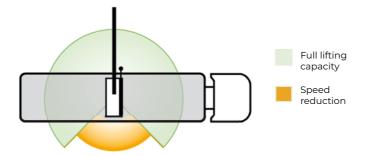
The 0-levelling position is set automatically when crane is in rest position and can be settled by operator.



### 2. SLEWING ANGLE ENCODER

Allows the control system to have a constant feedback on the position of the crane and return to the unstable position when needed.

Combined with the stabilizers position (on KSS-06) allows to manage the lifting capacity reduction in unstable area.



### 3. CYLINDER WORKING PRESSURE

Pressure sensors on lifting and articulation cylinders give a constant and accurate feedback to avoid structural overload.

### 4. BOOM ANGLE SENSOR

Thanks to an analogical sensor mounted on main boom and an analogical sensor mounted on 2<sup>nd</sup> boom, the system know the exact position of the crane allowing to identify and enable the movements to return to overload conditions.

### **5. STABILIZERS POSITION**

The KSS-06 crane control system computes data given by the positions of the stabilizers in combination with the load conditions, guaranteeing reliability of the working status by controlling the speed of the crane.

In combination with the SLEWING ANGLE ENCODER, crane speed is reduced only in the area where stabilizer is not deployed.

### 6. EXTENSION OUTREACH

A dedicated encoder mounted on cranes with more than 10 mt. outreach, is combined with the KSS-06 system to progressivly reduce the speed when crane reach high lifting conditions in working radious.



KSS-7

ADD-ON FOR KSS-5 AND KSS-6 In combination with the KSS-5 or KSS-6, the system monitor the trailer side tilting angle.

The trailer tilting sensor, mounted on the back axle, takes priority over the crane tilting sensor, offering the operator addition degrees of freedom given by the punctual vehicle loading status.

The stability system evaluate the crane angle and trailer angle. The trailer level is prior to the crane level.

The benefits is that when the crane is reaching the tilting angle of the crane, but the trailer is still stable it will overrule the system until the trailer starts to tilt.

CRANE TYPES	CRANE CONTROL SYSTEM						
IIFLS	KSS-5	KSS-7					
13-RL	<b>②</b>		•				
14-R/16-R	•		<b>Ø</b>				
R-20 / R-24			•				
R-30 / R-40		<b>9</b>	•				

### **CONNECTIVITY**

Access to the crane status, GPS position, usage and maintenance statistics trough a powerfull WEB interface.



A GPS gateway reads and transmit all the data analytics from the crane control system and storage into the Cloud in an organized and secure manner.

### **HUMAN MACHINE INTERFACE**

Thanks to a 7" display, the operator always view and control the full status of the crane and functionalities available:

**OPTIONAL** 

■ High resolution display

**STANDARD** 

- Multilanguage
- Easy use
- High speed data management
- Proven reliability



Stabilizers and Engine controls by dedicated push buttons panel:

- Fast click response
- High reliability
- IP69K protection





### STABLE AND SAFE STABILIZER

The Kennis Crane equipped with completely foldable sturdy pantographic stabilizer legs. These can be extracted and retracted quickly, and are neatly stowed in the lower base of the beam when not in use. Deploying the stabilizers for roller crane is easy for an operator and can quickly be retracted if the crane is rolled across the trailer bed during the operation.



### **TILTABLE RETRACTABLE LEGS**

When the use of pantographic legs is hindered or there are space restrictions on site (e.g. lifting road barrier), Kennis cranes can be optionally fitted with tiltable stabilizers.



### **ENGINES FOR THE WHOLE RANGE**

The innovative Kennis control system allows to maximize the crane lifting capacity securing the safet of the operations in any condition.

		TERMIC ENGINES	
Engine Model	Kubota D1305-E4B	Kubota D1803-CR-T	Kubota D2403-CR TE5
Kennis Models	13-RL/14-R/16-R	R-20 / R-24 / R30 / R-40	
Optional on		14-R*/16-R*	R-30** / R-40**
Power (kW/rpm)	18.5 / 2600	37.0 / 2700	48,6 / 2700
Torque (Nm / rpm)	80 / 1800	150 / 1800	198.5 / 1600
Cylinders (n)	3	3	4
Displacement [l]	1.261	1.826	2.434
Aspiration	Naturally Aspirated	Turbo charged	Turbo charged
Injection system	Indirect	Common Rail	Common Rail
Cooling system	Liquid	Liquid	Liquid
After treatment	-	DOC +DPF	DOC + DPF
Stage 5	-	YES	YES

<sup>\*</sup> SPD: P2, \*\* SPD: P1

		<b>ELECTRIC ENGINES</b>					
Engine Model	Kennis E-Power 21 kW	Kennis E-Power 37 kW	Kennis E-Power 74 kW				
Kennis Models	14-R / 16-R	14-R / 16-R	14-R/16-R				
IP Grade		65					
Power (kW/rpm)		20 / 2300					
Torque (Nm)		84					
Working temperature (°C)		-10 / +45					
Full recharge time (h)	7	5	9				
Power supply		380V / 16° / 3N					
Connecting plug	220V - 16A	380V - 16A	380V - 16A				
Max. Charge Current (A)	100						
Gas Polution	NO EXHAUST FUMES						
Noise Level	Up to 30% l	ower than conventional terr	mic engines				

CRANE	TER	MIC ENGI	INES	ELECTRIC ENGINES			
TYPES	Kubota D1305	Kubota D1803	Kubota D2403	21 kW	37 kW	74 kW	
13-RL	•						
14-R/16R	•	•		<b>②</b>	•	•	
R-20 / R-24							
R-30 / R-40		<b>②</b>	<b>②</b>				

OPTIONAL

### **AUTO-RPM**

The AUTO-RPM function increase the Engine speed only when required: crane movements and stabilizers movements.

This function secures to optimize the fuel consumption.



STANDARD

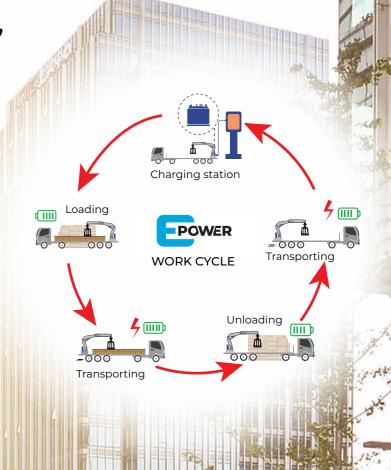
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E-Power helps to meet increasingly demanding environmental regulations, with direct tax benefits for the customers in certain countries.

Kennise-power cranes lead a pioneering role in the field of electrification and are the latest high-performance innovations, maintaining the best advantages in service and payload.

HYVA KENNIS E-POWER,
A GAME CHANGER IN
OUR ENVIRONMENTAL
COMMITMENT.



# POWER



### **100% ELECTRIC**

Electric motors used, feature Kennis integrated electric motors (IEM) and batteries with a new generation of power semiconductors, to achieve best in class efficiency.

### **SILENT LOADING & UNLOADING**

The electric motor ensures lower noise levels and provides a much healthier working environment for crane operators.

### LOWER ENVIRONMENTAL IMPACT

The electric power offers considerable benefits including improved energy efficiency and lower environmental impact – no exhaust fume emissions and lower noise levels. It also provides a much healthier working environment for crane operators as they no longer need to work with the noise and exhaust fumes from a diesel engine.

### **LONGER OPERATING TIMES**

The crane can be operated early in the morning or late at night and still comply with the current regulations.

### ON ROAD RECHARGE

The trailer is equipped with an ORR (On Road Recharge) system, which provides sufficient battery capacity to execute the daily job. The battery is charged while on the road, so no time is lost to charging.

### **IDEAL FOR USE IN URBAN AREAS**

The electric crane is the ideal solution for urban areas where strict environmental rules and regulations need to be observed.



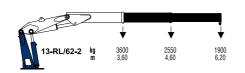


Type Crane	LIFTING CAPACITY (TM)	HYDRAULIC REACH (M)	FOLDABLE (YES/NO)	SLEWING ANGLE (°)	HEIGHT (MM)	WIDTH (MM)	WEIGHT (KG)	LENGTH FOLDED CRANE (MM)
13-RL/62-2	13	6.2	YES	405	2392	2408	2000	1000

### STANDARD FEATURES

- Design according to EN 12999:2020
- Slewing angle 405°, by means of slewing rack
- Kubota D1305 water cooled diesel engine - 3 cylinders
- Diesel tank volume: 25 liter
- Crane chassis and boom built out of high strength steel
- Crane head board made out of aluminium tear plate
- Quality valve block DANFOSS PVG32
- Pump with electronic controlled variable flow and load sensing
- Load holding and hose break valves
- Hydraulic system with high pressure and return filter
- Oil tank volume: 73 liters
- 12 Volts battery

# LOAD DIAGRAM

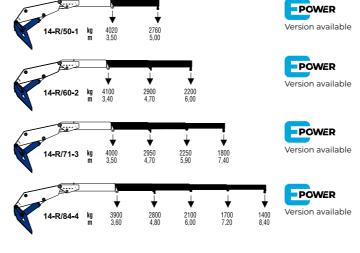


# 14-R Power Versions available

### **TECHNICAL DATA**

Type Crane	LIFTING CAPACITY (TM)	HYDRAULIC REACH (M)	FOLDABLE (YES/NO)	SLEWING ANGLE (°)	HEIGHT (MM)	WIDTH (MM)	WEIGHT (KG)	LENGTH FOLDED CRANE (MM)
14-R/50-1	14	5.0	YES	400	2530	2550	2900	1000
14-R/60-2	14	6.0	YES	400	2440	2550	3000	1082
14-R/71-3	14	7.1	YES	400	2530	2550	3100	1082
14-R/84-4	14	8.4	YES	400	2440	2550	3200	1082

### **LOAD DIAGRAMS**



### **STANDARD FEATURES**

- Design according to EN 12999:2020
- Slewing angle 400°, by means of slewing rack
- Kubota D1305 water cooled diesel engine - 3 cylinders
- Diesel tank volume: 32 liter
- Crane chassis and boom built out of high strength steel
- Crane head board made out of aluminium tear plate
- Quality valve block DANFOSS PVG32
- Pump with electronic controlled variable flow and load sensing
- Load holding and hose break valves
- Hydraulic system with high pressure and return filter
- Oil tank volume: 100 liters

**R-20** 





Type Crane	LIFTING CAPACITY (TM)	HYDRAULIC REACH (M)	FOLDABLE (YES/NO)	SLEWING ANGLE (°)	HEIGHT (MM)	WIDTH (MM)	WEIGHT (KG)	LENGTH FOLDED CRANE (MM)
16-R/60-2	16	6.0	YES	400	2440	2550	2900	1000
16-R/71-3	16	7.1	YES	400	2530	2550	3000	1082
16-R/84-4	16	8.4	YES	400	2530	2550	3100	1082

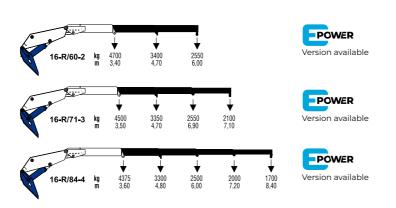
# TECHNICAL DATA

Type Crane	LIFTING CAPACITY (TM)	HYDRAULIC REACH (M)	FOLDABLE (YES/NO)	SLEWING ANGLE (°)	HEIGHT (MM)	WIDTH (MM)	WEIGHT (KG)	LENGTH FOLDED CRANE (MM)
R-20/74-3	20	7.4	YES	∞	2470	2515	4090	1350

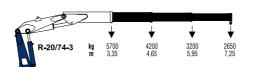
### STANDARD FEATURES

- Design according to EN 12999:2020
- Slewing angle 400°, by means of slewing rack
- Kubota D1305 water cooled diesel engine - 3 cylinders
- Diesel tank volume: 32 liter
- Crane chassis and boom built out of high strength steel
- Crane head board made out of aluminium tear plate
- Stowing bracket for clamp extensions,
   1 piece for total of 4 clamp extensions
- Quality valve block DANFOSS PVG32
- Pump with electronic controlled variable flow and load sensing
- Load holding and hose break valves
- Hydraulic system with high pressure and return filter
- Oil tank volume: 100 liters

### **LOAD DIAGRAMS**



### LOAD DIAGRAM



### **STANDARD FEATURES**

- Design according to EN 12999:2020
- Continuously slewing by means of a turntable bearing
- Kubota D1803 water cooled diesel engine
- Diesel tank volume: 45 liter
- Crane chassis and boom built out of high strength steel
- Crane head board made out of aluminium tear plate
- Quality valve block DANFOSS PVG32
- Pump with electronic controlled variable flow and load sensing
- Load holding and hose break valves
- Hydraulic system with high pressure and return filter
- Oil tank volume: 110 liters

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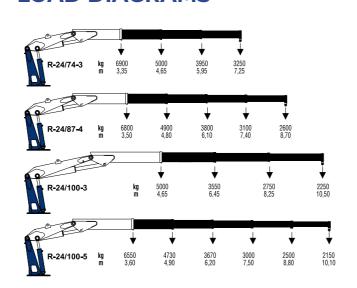


Type Crane	LIFTING CAPACITY (TM)	HYDRAULIC REACH (M)	FOLDABLE (YES/NO)	SLEWING ANGLE (°)	HEIGHT (MM)	WIDTH (MM)	WEIGHT (KG)	LENGTH FOLDED CRANE (MM)
R-24/74-3	24	7.3	YES	$\infty$	2470	2520	4290	1370
R-24/87-4	24	8.7	YES	$\infty$	2550	2520	4450	1370
R-24/100-3	24	10.0	NO	$\infty$	2300	2400	4500	-
R-24/100-5	24	10.1	YES	∞	2560	2520	4620	1370

### STANDARD FEATURES

- Design according to EN 12999:2020
- Continuously slewing by means of a turntable bearing
- Kubota D1803 water cooled diesel engine
- Diesel tank volume: 45 liter
- Crane chassis and boom built out of high strength steel
- Crane head board made out of aluminium tear plate
- Quality valve block DANFOSS PVG32
- Pump with electronic controlled variable flow and load sensing
- Load holding and hose break valves
- Hydraulic system with high pressure and return filter
- Oil tank volume: 110 liters

### **LOAD DIAGRAMS**

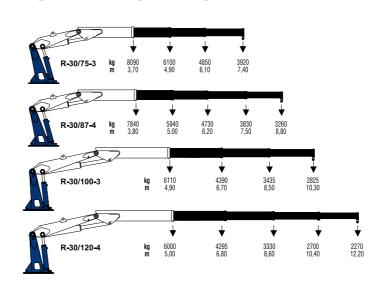


# R-30

### **TECHNICAL DATA**

Type Crane	LIFTING CAPACITY (TM)	HYDRAULIC REACH (M)	FOLDABLE (YES/NO)	SLEWING ANGLE (°)	HEIGHT (MM)	WIDTH (MM)	WEIGHT (KG)	LENGTH FOLDED CRANE (MM)
R-30/75-3	30	7.5	YES	$\infty$	2480	2550	5400	1590
R-30/87-4	30	8.7	NO	∞	2570	2550	5550	1590
R-30/100-3	30	10.3	NO	$\infty$	2365	2400	5750	-
R-30/120-4	30	12.2	YES	∞	2365	2400	6000	-

### **LOAD DIAGRAMS**



### **STANDARD FEATURES**

- Design according to EN 12999:2020
- Continuously slewing by means of a turntable bearing
- Kubota D1803 water cooled diesel engine
- Diesel tank volume: 75 liter
- Crane chassis and boom built out of high strength steel
- Crane head board made out of aluminium tear plate
- Quality valve block DANFOSS PVG32
- Pump with electronic controlled variable flow and load sensing
- Load holding and hose break valves
- Hydraulic system with high pressure and return filter
- Oil tank volume: 100 liters



### **TECHNICAL DATA**

Type Crane	LIFTING CAPACITY (TM)	HYDRAULIC REACH (M)	FOLDABLE (YES/NO)	SLEWING ANGLE (°)	HEIGHT (MM)	WIDTH (MM)	WEIGHT (KG)	LENGTH FOLDED CRANE (MM)
R-40/75-3	40	7.4	YES	∞	2480	2520	6140	1590
R-40/87-4	40	8.7	YES	∞	2570	2550	6300	1590
R-40/100-3	40	10.1	NO	∞	2450	2460	6500	-
R-40/120-4	40	12.0	NO	∞	2450	2460	6800	-

### STANDARD FEATURES

- Design according to EN 12999:2020
- Continuously slewing by means of a turntable bearing
- Kubota D1803 water cooled diesel engine
- Diesel tank volume: 75 liter
- Crane chassis and boom built out of high strength steel
- Crane head board made out of aluminium tear plate
- Quality valve block DANFOSS PVG32
- Pump with electronic controlled variable flow and load sensing
- Load holding and hose break valves
- Hydraulic system with high pressure and return filter
- Oil tank volume: 100 liters

## KENNIS ROLLOADER CRANE ATTACHMENTS

The success of Kennis crane is enhanced by selecting the correct light weight attachment which is uniquely matched to offer an optimized solution. With a wide range of attachment for multiple applications, Kennis crane attachments have evolved after understanding specific customer needs into a full multi-functional tool that boost their efficiency and productivity.



BASIC CLAMP



ECOHV POWER HEIGHT ADJUSTABLE CLAMP



DECO TWIN CLAMP



SGK POWER CLAMP



SECO SCISSOR CLAMP



SCISSOR PALLET FORK

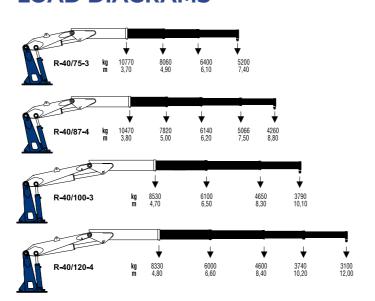


CONCRETE FLOOR CLAMP



GREATER VERSATILITY | MAXIMUM PAYLOAD
HIGH PERFORMANCE | INCREASED PRODUCTIVITY

### **LOAD DIAGRAMS**



### Tipping Solutions | Container Handling | Waste Handling | Cranes



Hyva is a leading provider of innovative and highly efficient transport solutions for commercial vehicles used in transport, construction, mining, materials handling and environmental service industries.

Founded in 1979 in the Netherlands, the company has a global presence with more than 30 wholly owned subsidiaries, extraordinary service coverage and 14 manufacturing facilities in Brazil, China, Europe and India.

For more information on Hyva, please visit www.hyva.com

or follow us on:









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Quality and environmental certified

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