AMPHIBIOUS EXCAVATION FOR SUSTAINABLE FLOOD PREVENTION AND REHABILITATION

SAFEGUARDING WATERWAYS, STRENGTHENING COMMUNITIES

WELCOME

Hello Readers,

Welcome to the November / December edition of the EIK Newsletter!

Continuing our application-focused theme, this issue highlights one of today's most pressing challenges, flood prevention and waterway rehabilitation. We take a closer look at how EIK Long Reach Amphibious Excavator are being deployed to restore riverbanks, improve water flow, and support mitigation efforts in flood-prone regions. These on-ground projects reflect the important role of dependable equipment in protecting communities and maintaining critical infrastructure.

Beyond this feature, we also share updates from across our teams for meaningful collaborations, field highlights, and moments that showcase the expertise and commitment behind every EIK solution.

Warm regards,
EIK Marketing Team

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Keeping Southeast Asia Prepared for the Rainy Season

Toward the end of each year, Southeast Asia experiences prolonged and heavy rainfall, increasing the risk of flooding especially in areas where drains and waterways are restricted by dense vegetation or sediment buildup. Restoring these channels is essential to maintaining flow and reducing the chances of overflow during peak rainy months.

The maintenance works were carried out using the EIK AM70 Amphibious Undercarriage paired with a Kubota U50, supporting vegetation and debris clearance across soft, shallow, and waterlogged terrain. While mini amphibious excavators are not the most common size in the industry, their compact footprint, ease of transport, and ability to access confined areas make them particularly well-suited for environments where larger machines are unable to operate effectively.

With stable flotation and controlled mobility, the mini amphibious excavator allowed operators to maneuver directly within the channel, removing dense plant growth, accumulated debris, and blockages that had restricted natural water circulation. As the work progressed, water flow gradually improved, oxygen levels increased, and the ecosystem began to regain balance, contributing to a healthier and more resilient waterway.

This focused and practical approach helps strengthen local flood preparedness by keeping drainage channels open and functional ahead of the region's peak rainfall season, supporting both environmental sustainability and community resilience.

EIK AM70 Amphibious Excavator with Kubota U50

Helping Douala Stay Ahead of the Rain

The restoration of the Ngouelle drain in Bonaberi forms part of Douala's broader effort to strengthen its drainage network and reduce recurring flood risks. To support this initiative, SECA deployed an EIK AM200 Long Reach Amphibious Excavator for Caterpillar CAT320, selected for its reliable performance in submerged and soft-terrain environments.

The long reach amphibious excavator provides good floatation, stability and great working range. These capabilities allowed the project team to maintain consistent progress even during periods of heavy rain while clearing deeper sections of the drain and restoring water flow toward the Wouri River.

"Our goal was to approach this work on a larger and more efficient scale," shared Thierry Dika, Director of SECA Douala. "The new machine helps address the persistent flooding challenges faced by many communities in the city."

EIK AM200 Long Raech Amphibious Excavator for Caterpillar CAT320

Early feedback from neighbourhoods such as Grand Hangar has been encouraging, with residents reporting noticeable reduction in standing water soon after operations began. As SECA continues shaping and clearing priority sections across Bonaberi, Douala 3 and Douala 5, EIK remains committed to supporting the project with dependable equipment designed for demanding drainage conditions.

Restoring a Detention Pond - Amphibious Solutions for Challenging Soft Ground Conditions

Repeated rainfall had deposited a thick layer of sediment across this detention pond, reducing its depth and slowing water movement. To rebuild storage capacity before the next wet season, the project team initiated a clearing program to remove accumulated silt and improve overall pond performance.

EIK AM200 Long Reach Amphibious Excavator for Doosan DX200

To work efficiently in the fully saturated and sticky mud environment, EIK AM200 Long Reach Amphibious Exacavator for Doosan DX200 was deployed. Unlike conventional excavators that struggle to move or sink into soft ground, AM200 multi-synchronous drive system delivers high tracking power, much like a 4x4 drivetrain allowing the machine to travel smoothly even in thick, cohesive mud. The travel motors provide strong torque, enabling steady progress across areas where traction is normally lost.

With its stable flotation, long reach configuration and reliable mud-tracking capability, the operator was able to access deeply settled pockets of silt and reshape selected areas of the pond to improve water distribution. As clearing progressed, the pond gradually regained depth and restored more consistent flow during rainfall.

The operation demonstrated how amphibious excavators significantly reduce mobility limitations in sticky, waterlogged terrain and allow projects like this to be completed safely, efficiently, and without the need for temporary access paths.

Five Years of Progress on the Tullahan River Dredging

EIK 21m Long Reach for Kobelco SK520XDL-10

San Miguel Corporation's Tullahan River cleanup has entered its fifth year, continuing to reduce flooding risks and restore natural water flow in Metro Manila. With over 8.6 million metric tons of silt and waste removed to date, the program remains one of the region's most significant river rehabilitation efforts.

A key contributor to this progress is the 50-ton EIK long reach excavator, mounted on a barge to operate in deep and wide sections of the river. Its 21 meter reach and larger bucket capacity allow crews to remove greater volumes of debris per cycle, speeding up the workflow and improving overall dredging efficiency.

This high-capacity setup enables consistent extraction rates of 600–1,500 metric tons per day, even in waterlogged or soft-terrain conditions. Supporting equipment including amphibious excavators and transport units helps maintain access across shifting ground, ensuring uninterrupted operations throughout the year. As deeper channels reopen, nearby communities are already seeing faster drainage and fewer flood incidents.

Integrated Drain Expansion & Flood Mitigation Project

A flood mitigation and drainage improvement project commissioned by JPS Johor is progressing ahead of its original schedule. Initially planned for 24 months, the current pace indicates a potential completion within 20 months, reflecting strong coordination, steady progress, and the use of machinery suited for soft and waterlogged terrain.

EIK AM200 Long Reach Amphibious Excavator with Caterpillar CAT320

The project extends approximately 7.5 kilometres, beginning at Kampung Linau Kechil, a community that has long experienced seasonal flooding, and continuing from Jambatan Sungai Tongkang Pechah towards Jambatan Sungai Batu Pahat. The works are designed to improve water flow and reduce flood risk through channel widening, selective deepening, and the formation of a protective bund, supporting a more resilient drainage system during periods of heavy rainfall.

Careful consideration has been given to both environmental conditions and site safety throughout the project. In soft and water-logged terrain, conventional construction methods often require extensive ground preparation, which can disrupt surrounding areas and slow progress. The use of amphibious excavation methods allows work to be carried out directly on soft ground with minimal disturbance, reducing the need for temporary access materials while maintaining stable and controlled operations. The long-reach capability further supports efficient shaping and rehabilitation of the waterway, limiting repeated machine movements along the channel.

As the works progress, water flow through rehabilitated sections has become more consistent, drainage profiles are steadily improving, and the protective bund is taking form. These improvements represent an important step towards safer waterways and stronger, more resilient communities, offering reassurance to residents who have lived with recurring floods for many years.

EIK AM200 Long Reach Amphibious Excavator with Caterpillar CAT320

Excon Exhibition

Earlier this month, we visited EXCON to reconnect with familiar faces and catch up on the latest developments across the industry. The exhibition provided a valuable setting for open conversations about ongoing projects, day-to-day site challenges, and equipment performance in different working environments.

The focus extended beyond product discussions to listening and learning from customers, gaining a clearer understanding of their needs, and reinforcing established relationships. These interactions provided helpful perspectives on the industry's ongoing development.

As the year comes to a close, EXCON underscored the importance of collaboration, transparency, and shared learning. EIK continues to stand alongside our customers, supporting progress through partnership and collective experience.

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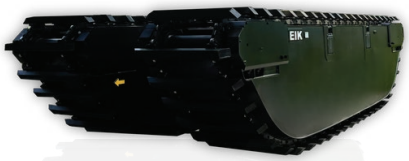
AMPHIBIOUS SERIES



Model
AM70-1ER

FRONT REACH SERIES

Model	Length (FT / M)
SK380XDLC-10	53FT / 16M

FRONT REACH SERIES

Model	Length (FT / M)
EC210D/DL	50FT / 15.5M

BUCKET SERIES

Bucket Type	Model	Size (Inch)	Capacity (M3)
Narrow Bucket	CAT320D2	20	0.35

BUCKET SERIES

Bucket Type	Model	Size (Inch)	Capacity (M3)
Heavy Duty Bucket	SK350LC-10	54	1.83

MATERIAL HANDLING

Model		Length (FT / M)
ZX470H		46FT / 14.0M

GRAB SERIES

Product Type	Model	Size
Hydraulic Orange Peel Grab	ZX350	1.2M³

GRAB SERIES

Product Type	Model	Size
Clamshell Bucket	R520LC-9S	2.0M³

OTHER ATTACHMENTS

Product Type	Model	Size
Counterweight	CAT330GC	2 Ton

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