

# **RAM** **SPREADERS**

## **Model 3350**

**Twin40 Headblock - SingFlex  
for Container Lifting Cranes**



**Performance Through Innovation**



RAM's model 3350 is an innovative solution designed to allow single or multiple containers to be handled safely and reliably in a single crane operation to enhance container handling performance.

The model 3350 known as "SingFlex" is designed for use with conventional single hoist cranes and offers the operator the facility to handle single 20ft, 30ft, 40ft and 45ft containers in the conventional manner (subject to spreader capability) or alternatively two x 40ft, four x 20ft or any other configuration as depicted in the chart on the adjacent page.

SingFlex is suitable for use with any conventional singlelift container handling crane with adequate rated lifting capacity. It can also be retrofitted to most existing container handling crane.

Features of SingFlex allow spreaders and containers to be manipulated using onboard mechanisms for precise positioning during loading or discharge operations. The SingFlex system can be adapted for use with most brands of standard spreaders.

### **Design and Construction**

The RAM model 3350 headblock system have been designed to the internationally acclaimed DIN 15018 standard (H2-B4 classification) and recognizes the need for robust machinery and structure to withstand the constant demands of a typical container handling duty.

The Headblock is manufactured to the highest standards in our own ISO 9001 certified facilities using modern automated welding processes and carefully tested before dispatch.

### **Auto Change over (Single Spreader to Twin Spreader & visa versa)**

The model 3350 SingFlex Headblock system features RAM's patented auto-connector which allows the crane operator to switch from single to twinlift mode without assistance from support staff to minimize changeover time and disruption to operations.

### **Headblock Facilities**

The model 3350 headblock system allows the operator to adjust the gap, skew angle and full gap adjustment, skew and offset capability longitudinal offset between spreaders and containers within the range shown on the adjacent page from a conveniently place control console in the operators cab.

The headblock system is also designed to accommodate a height differential between containers being handled of up to 550mm. Warning signals are sent via the control Bus system to the crane controller if this value is exceeded.

## TECHNICAL DATA

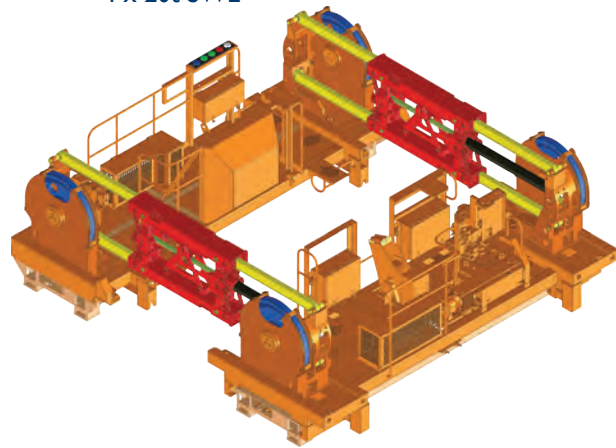
For 120t single hoist ship-to-shore cranes with RAM 2940 twinlift telescopic spreader

Operation Mode	Equipment	Container Size	Capacities	Tare Weight
<b>Single Spreader</b>	Master headblock	1 x Hatch Cover	41t SWL	9.8t (excluding spreader's weight)
		1 x 20ft	32.5t SWL	
		1 x 40ft / 45ft	50t SWL	
		2 x 20ft	2 x 32.5t SWL	
<b>Twin Spreader</b>	Master or slave headblock	1 x Hatch Cover	41t SWL	12.7t (excluding spreader's weight)
		1 x 20ft	32.5t SWL	
		1 x 40ft / 45ft	40t SWL	
		2 x 20ft	2 x 32.5t SWL	
	Master and slave headblock	2 x 20ft	2 x 32.5t SWL	
		2 x 40ft / 45ft	2 x 40t SWL	
		4 x 20ft	4 x 20t SWL	

## Operational Speeds

### Function

Gap adjustment	0 ~ 1600mm	16 sec
Longitudinal offset	± 200mm	5 sec
Skewing	± 5°	5 sec
Vertical float	± 550mm	



## Electrical Control

Electrical control of the headblock functions from the crane operators cab is via a Gateway linked into the cranes controller. The Gateway will consist of a PLC and ASi master and will communicate with the Headblock via a 2 wire bus system (ASi) run via the cranes spreader umbilical cable.

Bus systems for Master and Slave spreaders are run in parallel to control the spreaders.

All Electrical components are sourced from internationally recognized component manufactures and specifically selected for the arduous duty normally encountered in container handling operations.



RAM Spreaders continues to develop its product range, both in response to customer expectations and in anticipating future developments. With such a wide range of spreader models and options we can meet the needs of most terminal operators but we're always happy to develop bespoke solutions to deliver the most effective and practical container handling solution.

RAM Spreaders is the world's leading independent, dedicated specialist spreader manufacturer. The company has manufacturing facilities in China; service and repair centres in Singapore, UK and Germany; and sales and after-sales service support throughout Asia, Americas, Europe, Middle East and Africa.

## PRODUCT RANGE

A comprehensive range of product for:

- Ship-to-Shore Cranes
- Yard Stacking Cranes
- Mobile Harbour Cranes
- Straddle Carrier

Product range includes:

- Electro-Hydraulic Spreaders (Single and Twinlift)
- All-Electric Spreaders (Single and Twinlift)
- Light Weight Spreaders
- Overheight Spreaders
- Twin40 Headblock
- Revolver® / Rotating Spreaders
- PinSmart (Automated Twistlock Handling Machine)

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