



Spreaders For The Greenest Terminals

Mauritius Maritime Week 2022
Lars Meurling

BROMMA



CLIMATE CHANGE ZERO CARBON BY 2040

By means of our ambitious decarbonization strategy, we aim to be carbon neutral as a group by 2040, with an intermediate target of 28% CO2 reduction by 2030 (with 2019 as the baseline). To this end, we are fully committed to:

1. Replacing fossil fuels or reducing their use to the minimum
2. The use of renewable or carbon-neutral energy
3. Maximizing efficiency by investing in innovative low-emission technologies and constructing passive buildings
4. Compensation for any residual volumes as the last option (as low as reasonably possible)

The future of container terminals is electric and green



Key Environmental Focus

Waste Management	<ul style="list-style-type: none"> ▪ Hazardous ▪ Non- Hazardous Cargoes
Energy Consumption	<ul style="list-style-type: none"> ▪ Renewable Energy ▪ Non - Renewable Energy
Greenhouse Gas Emission (GHG)	<ul style="list-style-type: none"> ▪ Scope 1 (Direct Emission from Owned/Controlled resources e.g., Combustion fuel) ▪ Scope 2 (Indirect Emission from Purchased Energy) ▪ Scope 3 (Indirect Emission resulted from activities not controlled by the organisation but the organisation is impacted in its supply chain)
Water Consumption	<ul style="list-style-type: none"> ▪ Water Inflows/ Withdrawal ▪ Water Outflows/ Discharges

TAKING CLIMATE ACTION

TARGETS/COMMITMENTS

2021 PROGRESS

EMISSIONS

- Reduce absolute Scope 1 & 2 carbon emissions by 50% by 2030, and by 75% by 2040, against a 2019 baseline year
- Achieve net zero carbon emissions by 2050
- Establish a Scope 3 inventory by 2022 as a first step towards setting a Scope 3 emissions reduction target
- No reduction in Scope 1 and 2 carbon emissions as a result of global industry disruptions creating inefficiencies, an expanding business portfolio and a lack of critical viable technological solutions
- Embarked on a Scope 3 screening in the second half of 2021 to establish our Scope 3 inventory and develop an understanding of our entire carbon footprint

ENERGY

- Aim for 90% of our Rubber Tyred Gantry Cranes (RTGs) to be electric or hybrid by 2030
- Reached close to 50% electrification or hybridisation for RTGs in 2021

CONTRIBUTING TO:



Commitments

We will take leadership in the decarbonisation of logistics

We will deliver on our customer commitment to decarbonise their supply chains in time and our societal commitment to act and have impact in this decade

Strategic targets

All targets are for end of year

2040:

- Net zero across the business
- 100% green solutions to customers

2030:

- Aligned with the Science Based Targets initiative 1.5°C pathway
- Industry-leading green customer offerings across the supply chain

Overview of all ESG categories

Climate change
Environment and ecosystems (incl. ship recycling)



Brommas climate ambition is to cut down greenhouse emissions by 50 percent 2030



Materials Supply & Use ambitions

- Integration of CO2 reduction criteria in Bromma sourcing decisions
- Evaluation of fossil-free steel for inclusion in Bromma spreaders (partnership with SSAB)



Own operations ambitions

- Evaluation, reduction, and replacement of the energy used across Bromma
- Reduce, Reuse and Recycle Program across Bromma
- Company-wide use of electric vehicles



Use of spreaders ambitions

- Boosting our all-electric offering for all crane spreader applications
- Further developing energy-efficient solutions for hydraulic spreaders

Bromma started transitioning to electric spreaders over 20 years ago



2001

First all-electric yard spreader



2007

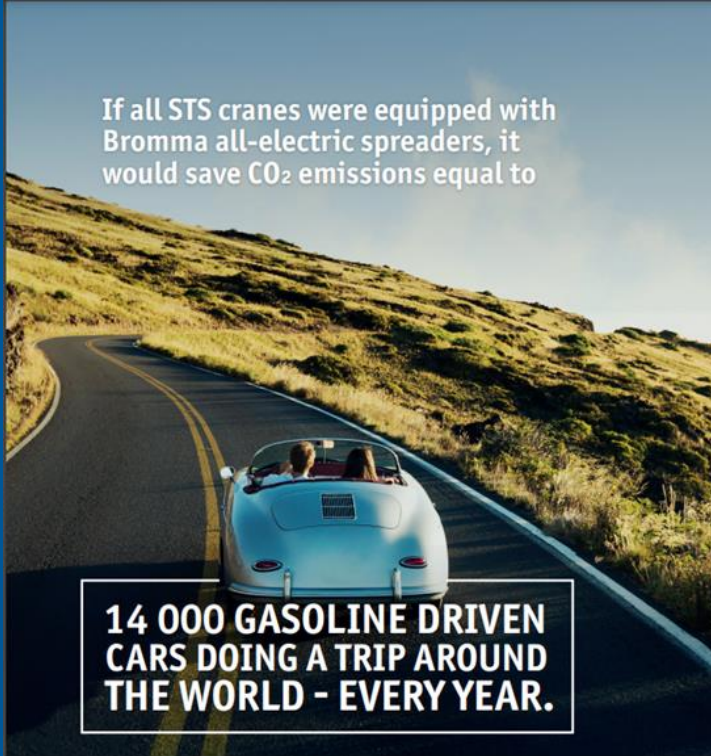
First generation all-electric ship-to-shore spreader



2022

Second generation all-electric separating twin STS spreader - STS45E G2 Plus

Emission Savings - 90%



If all STS cranes were equipped with Bromma all-electric spreaders, it would save CO₂ emissions equal to


14 000 GASOLINE DRIVEN CARS DOING A TRIP AROUND THE WORLD - EVERY YEAR.

BROMMA



If all STS crane spreaders would be all-electric, the savings would correspond to the energy consumption

OF 12 000 HOMES FOR A YEAR

An aerial photograph showing a winding asphalt road that curves through a dense, lush green forest. The road is the central focus, with a white car visible on the left side. The text is overlaid on the road, centered horizontally and vertically.

Container terminal operators require solutions which can help reaching their sustainability goals without compromising productivity

No compromises on productivity

	STS45 Hydraulic	STS45E G2 PLUS
Spreader Weight	12.7 MT	12.6 MT
Telescopic Speed		
20'-40'	25 sec	18 sec
20'-45'	30 sec	21 sec
Twin Expand/ Retract	20 sec	15 sec
Twinlift Up/ Down	8 sec	6 sec
Twistlock Rotation	1.5 sec	1 sec
Maximum Power Consumption	7.5kW	11kW
Power Source	Hydraulic	Electrical



Reduces energy consumption by 90%



Saves 15 ton CO2 emissions



Hydraulic oil spills eliminated



Significant cost savings for terminals



Game changer

- Emission savings
- Productivity specifications
- No risk of hydraulic oil spills





BROMMA

A Tradition of Innovation

BROMMA SMS

Next Level Performance

BROMMA SPREADER MONITORING SYSTEM



Standard in new spreaders and possible to retrofit to most existing models

BROMMA SMS AT A GLANCE

Get proactive

Knowing the spreader health allows you to address issues before they become real problems



...and what to do

SMS troubleshooting contain recommended solutions to more than 800 issues



Know where to direct your efforts...

SMS points you to the machine that needs your help...

...and helps you to pinpoint the root cause



Smarter maintenance

With SMS you can base the maintenance on the utilization of the machine

And keep track of the status



Understand the trends

The performance section allows you to see trends for your fleet...

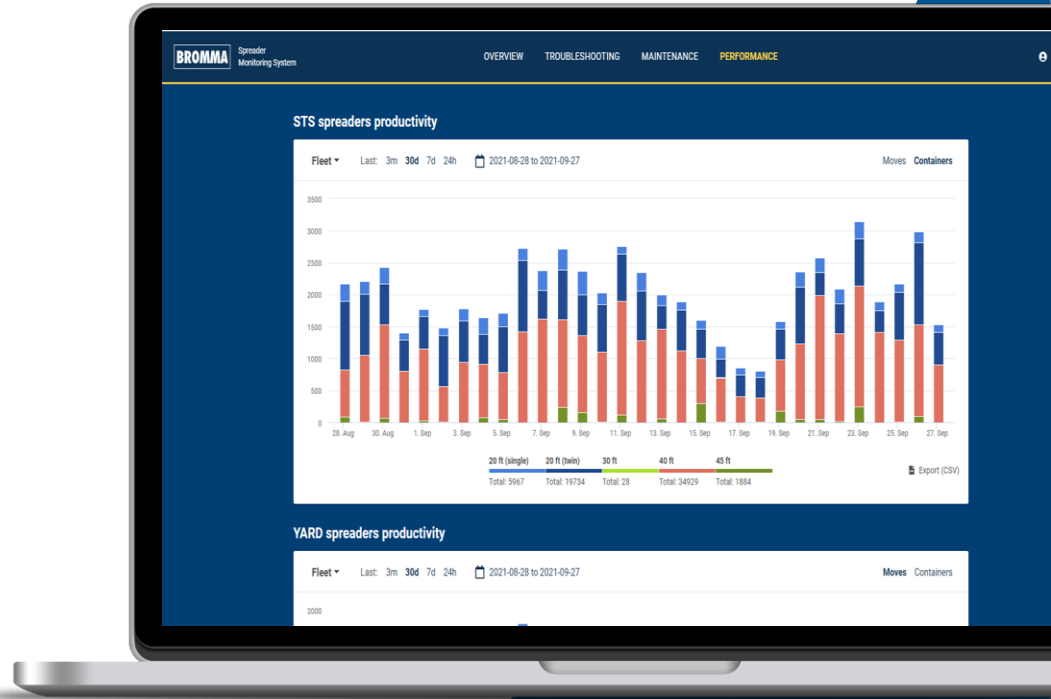
...and for single machines



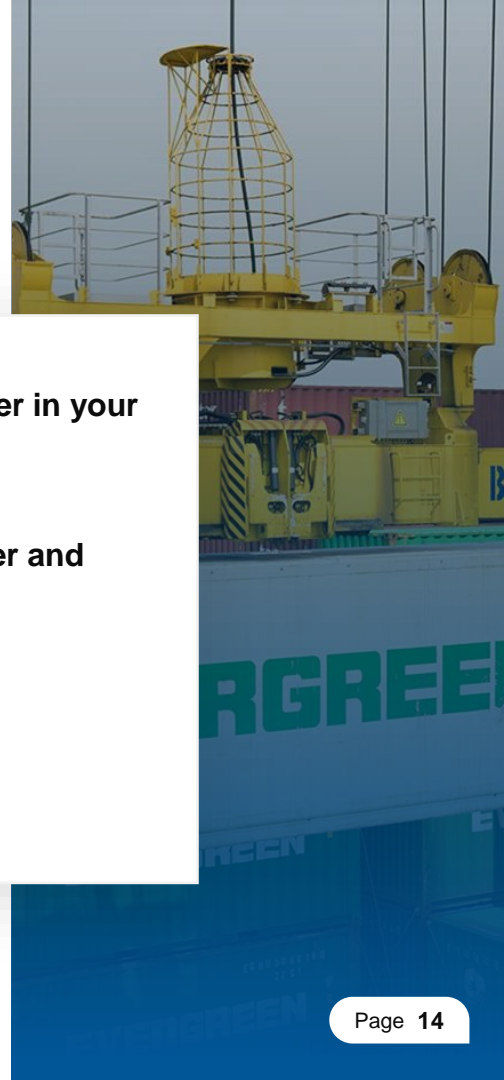
BROMMA SMS AT A GLANCE

SPREADER MONITORING SYSTEM IS A WEB APPLICATION PROVIDING:

- ✓ Real time monitoring of spreader “health” for each spreader in the fleet
- ✓ Packaged information on issues and recommended solutions, with highlights on what is most important
- ✓ Structured overview of planned maintenance for spreader fleet
- ✓ Statistics on performance, productivity and issues on fleet level and for individual spreaders



BROMMA SPREADER MONITORING SYSTEM



- ✔ It provides you with a real-time overview of the health condition of every spreader in your fleet, so you can be aware of any potential risks.
- ✔ It prevents incidents and when these incidents happen, they are diagnosed faster and resolutions suggested.
- ✔ Less time spent on planning maintenance manually.
- ✔ It let's you get a grip of your spreader fleet performance and plan ahead.

Come see us at booth 7

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