



STEELBRO

NEW ZEALAND

(HEAD OFFICE)

STEELBRO New Zealand Limited
1-31 Treffers Road
P.O. Box 11-077
Sockburn
Christchurch

Telephone: +64 3 348 8499

Facsimile: +64 3 348 5786

Email: steelbro@steelbro.com

AUSTRALIA

STEELBRO Australia Pty Limited
92 William Angliss Drive
Laverton North
Victoria 3026
Australia

Telephone: +61 3 9369 0888

Facsimile: +61 3 9369 0999

Email: enquiries@steelbro.com

MALAYSIA

STEELBRO (M) Sdn.Bhd
Karung Berkunci 502 Lot 10,
Jalan Hishamuddin 2
Pejabat Pos Pelabuhan Klang,
Kaw 20, Selat Klang Utara
42000 Pelabuhan Klang 4200
Port Klang

Selangor, Darul Ehsan, Malaysia

Telephone: +60 3 3176 3833

Facsimile: +60 3 3176 2833

Email: malaysia@steelbro.com

INTERNATIONAL

STEELBRO INTERNATIONAL DIVISION
1-31 Treffers Road, P.O. Box 11-077
Sockburn, Christchurch, New Zealand

Telephone: +64 3 348 8499

+61 401 691974

+61 413 831361

Facsimile: +64 3 348 5786

Email: steelbro@steelbro.com

Visit our website: www.steelbro.com

Distributed by:

STEELBRO
CONTAINER HANDLING SOLUTIONS

STEELBRO

Our History



1878

Brothers Joseph and David Steel started Steel Bros. Coach Factory in Christchurch New Zealand with just £5 capital each.

By 1895 Steel Bros. was employing over 22 staff and had developed a reputation for producing "carriages of an extremely high standard".



Circa 1900

Steel Bros. take their first tentative steps into producing 'motor carriages'. The company's first commercial body building orders were for delivery trucks.



Circa 1930

The company is now in full swing designing and building motor bodies. Chassis from vehicle manufacturers like Austin, Dennis, Whippet, Bedford, Chevrolet, Hudson and Leyland all pass through Steel Bros. workshops.



1939 – 1945

W.W.II perversely enabled Steel Bros. to grow. Wartime Government contracts for everything from grenade castings to concrete mixers enables the company to build up staff numbers and new engineering skills.

Landing craft and dummy aircraft were also built by the company to help the war effort. Steel Bros. landing craft saw action in the battle of Guadalcanal and Steel Bros. dummy aircraft 'fooled the enemy' on airfields throughout New Zealand.



1946 – 1960

Through the 1950s and 60s Steel Bros. expanded to become New Zealand's leading motor body building and engineering company. The company also began to export its products; commencing with orders for Fiji and other South Pacific countries.



1960

Steel Bros. introduced the Hiab truck-mounted crane into New Zealand. Within ten years of their introduction Hiab cranes were to be found working with almost every kind of industry throughout the country.



1967

In February of 1967, the first Toyota Corona to be assembled in New Zealand came off the production line. Although a 'first' for Toyota cars, it was far from a first for Steel Bros. Over the previous 10 years the company had fully assembled about 5000 truck cabs and bodies including over 80% of the rubbish trucks then made in the country.



1970 – 1980

Steel Bros. is by now a very large and respected business. As well as building truck bodies, it is now assembling an increasing range of Toyota cars. The company is also designing and building trailers and semi-trailers and building Lotus sports cars. Exports go throughout the Pacific, Australia, South East Asia and the United States.



1980 – 1990

In 1983 the New Zealand Railways system was deregulated and road transport operators were relieved of the restrictions under which they had previously been forced to operate. Although not done 'overnight', STEELBRO™ (as the company was now known) began to wind down its vehicle assembly and motor body building business and concentrate more on the production of trailers – and one other ground-breaking product...



1990 – Present

Although originated in Germany in the 1960s, STEELBRO™ developed what has proved to be the most successful version of the Sidelifter. Innovative design, high quality manufacture and excellent value for money has made the STEELBRO™ Sidelifter the preferred option for operators both in New Zealand and around the world. The effect of the Sidelifter's success on STEELBRO™ has been so profound that the company now concentrates on just two product categories: trailers, container trailers and Sidelifters.

of its parts"



HENDRICKSON - providing innovative commercial vehicle suspension system solutions for over 75 years.

Hendrickson International draw on over 75 years of suspension development experience to provide a wide range of truck and trailer suspension solutions for the commercial vehicle industry world wide.

Over the past 17 years, Hendrickson Asia Pacific have been a proud trailer suspension supplier to Steelbro New Zealand. Their innovative design has provided optimum rollover stability and operating cost. These features are now further enhanced in the Intraax axle brake and suspension range. The light weight 10 tonne capacity AANT230 through to the 13 tonne capacity AA300ETD provide a total trailer axle & suspension package to suit world markets.



Kubota is proud of its 15 year Partnership with STEELBRO™. As STEELBRO™ celebrates its 125 years, Kubota moves into its 113th year. Both companies have a proud history.

The Kubota V2203-E power plant, 'is at the heart of the matter'. This four cylinder 2.2 litre engine is emission compliant with all the latest exhaust emission regulations, (US EPA Tier 2 and EC Tier 1). Proven reliability and performance in this stop-start application, in varied locations world wide, bears testimony to this successful partnership.

This engine is the flag ship of O3 Series and is the engine of choice for many Original Equipment Manufacturers around the world. The STEELBRO™ Sidelifter Application calls for reliable starting performance, and fast load pick up, to deploy the sidelifter stabilisers for rapid loading and unloading of the container.

Kubota, like STEELBRO™, has a global commitment to stable supply and after sales support through its "World Wide Service" network. It is our goal to be more than a supplier, but the 'Best Partner'.



STEELBRO™ New Zealand Limited acknowledges and thanks all of the equipment owners and operators who gave freely of their time during photography for this publication.

STEELBRO™ Sidelifters are the world's best-selling self-loading container trailers. Since 1979, when Steelbro first committed its resources to developing the concept of container transportation and placement, Steelbro Sidelifters have become synonymous with efficient container handling. They are widely recognised as having set the benchmark for design and technical innovation.

STEELBRO™ Sidelifters can be specified to handle a wide range of container specifications. Standard specifications allow for either 1 x 40', 1 x 20' or 2 x 20' ISO containers. Other container-handling configurations can be catered for, including units capable of lifting 45' or 48' containers. Trombone and drop-deck models to suit specific applications can be supplied as well as Steelbro's skeletal semi-trailers.

STEELBRO™ New Zealand Limited is staffed by world-class designers and engineers. Their depth of experience and sound engineering practices gives both Steelbro and their customers greater flexibility in design, manufacture and delivery lead times.

New Zealand's engineering abilities rival the best anywhere in the world and in many areas are often superior. STEELBRO™ New Zealand Limited is widely acknowledged within the industry as being a world leader in the field of container handling equipment design and manufacture.



STEELBRO
CONTAINER HANDLING SOLUTIONS

- One of the benefits of the Sidelifters low-folding arms is dramatically demonstrated in these two pictures. Straddle carrier and forklift operators have improved visibility during loading and unloading - vastly reducing the risk of damage to the sidelifter.



- Thanks to the effectiveness of the STEELBRO™ Sidelifter, the loading or unloading of containers can take place in one safe and efficient operation. As one container is devanned, another is taken away, saving time and money for the transport operator and customer alike.



- Oversize and heavy-duty loads are no problem to the STEELBRO™ Sidelifter. Here, a front-end loader on a flat rack is easily swung aboard.

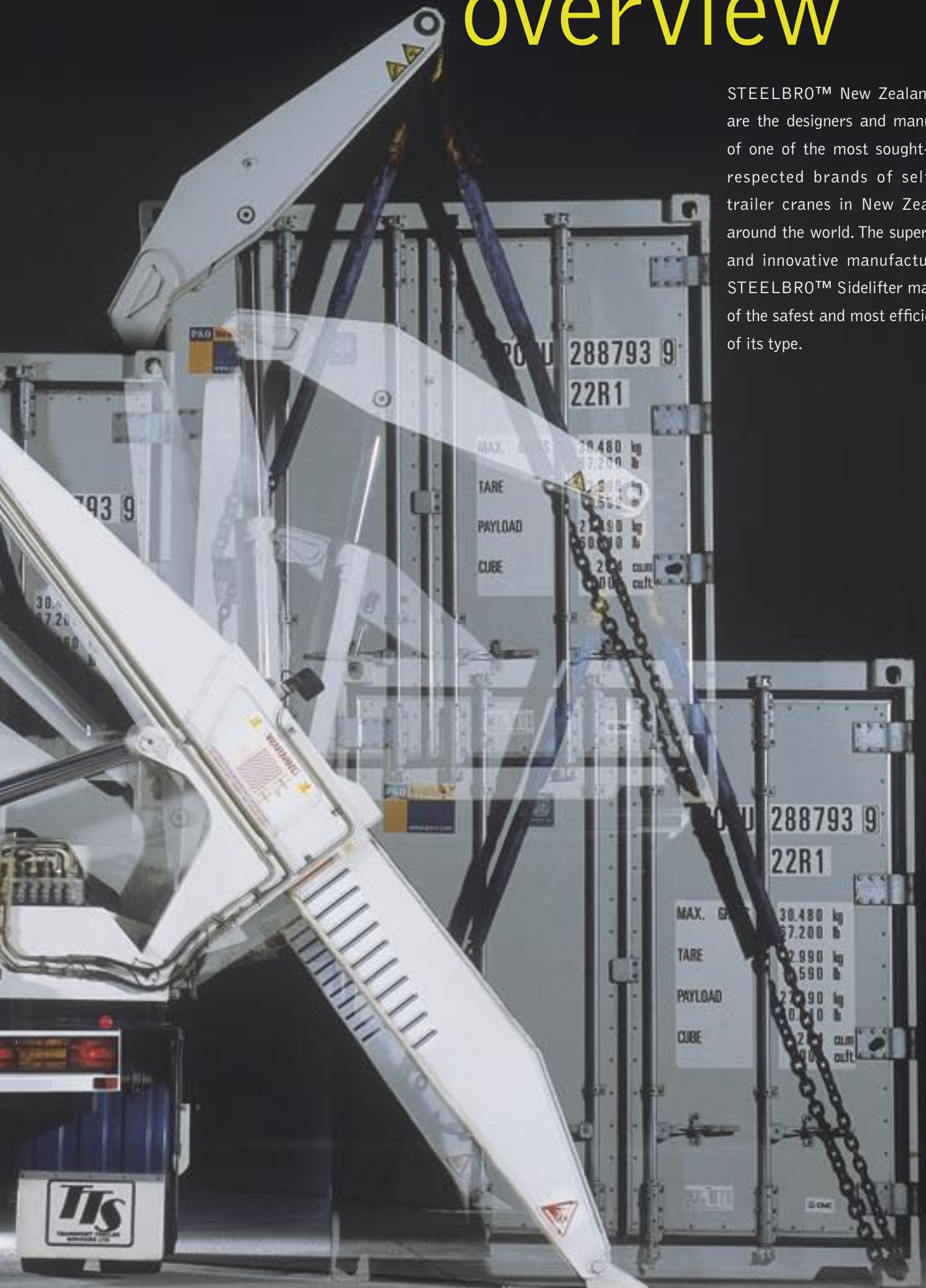


- STEELBRO™ skeletal trailers are an important 'partner' to the STEELBRO™ Sidelifter. Built to individual customer specifications, they are lighter and more cost effective than conventional flat bed trailers.



overview

STEELBRO™ New Zealand Limited are the designers and manufacturers of one of the most sought-after and respected brands of self-loading trailer cranes in New Zealand and around the world. The superior design and innovative manufacture of the STEELBRO™ Sidelifter makes it one of the safest and most efficient cranes of its type.



- In one simple 'fluid' operation, a STEELBRO™ truck-mounted Sidelifter effortlessly loads and offloads containers. Two-speed cordless radio remote control (see previous page) makes operation safer and much more efficient.



- A STEELBRO™ Sidelifter makes light work of moving this UK 155mm self-propelled howitzer.



- A STEELBRO MK6 Sidelifter in the field



- A newly delivered Czech Republic truck-mounted Sidelifter

military applications

The sidelifter concept has proved highly successful with its adaptation to military operations. With the need to deploy artillery assets faster than ever before has come the desire for a flexible, efficient and safe materiel handling solution. The Sidelifter has proved to be the ideal answer for (amongst others) various elements of the U.S., British, and other NATO forces.

During peacetime deployments and exercises, STEELBRO™ Sidelifter can be used for loading munitions and moving items of artillery to and from exercises. In times of conflict however, its versatility really comes to the fore.

Whether working at railheads, weapons dumps, or near forward positions, the STEELBRO™ Sidelifter permits containerised and palletised arms and munitions to be moved quickly and safely. The compact design of the Sidelifter also enables it to be carried aboard some military cargo aircraft.

More information is available at:
www.armedforces-int.com

• This STEELBRO™ Klaus Sidelifter demonstrates its ability to be transported by a USAF Lockheed C5A Galaxy.



STEELBRO™ around the world

From Sweden to Sydney, San Francisco to Salzburg, operators over 100 countries around the world have embraced STEELBRO™ Sidelifters as being the most versatile and efficient.

In California, Kiwi Container Lifting Services began with a 20' Truckmount unit. As customers increasingly appreciated the benefits sidelifers were bringing to their own businesses, Kiwi Containers were quickly able to expand. Now the company handles 20', 24', 30', 40' and 45' containers including Hi-Cubes under the 13'6" California height ceiling.

Similarly, Jan Lilled of Kurt Jonssons Åkeri AB in Gothenburg, Sweden, found that the STEELBRO™ Sidelifter design minimised the wear on the crane arm bushes when compared to other makes. In addition, the STEELBRO™ Sidelifter gave them more load flexibility and greater safety. After more than five years experience with STEELBRO™ Sidelifters and being one of the largest sidelifter operators in Sweden, Jan Lilled says that the equipment has more than fulfilled his requirements. In fact his expectations of quality and reliability have been exceeded.

The superior technology and durability of the equipment combined with exceptional customer service, are two fundamental reasons why STEELBRO™ Sidelifters are so popular worldwide.

STEELBRO™ is renowned for going the extra mile. No matter where in the world the equipment is used, it is commissioned properly, operators are trained correctly, and spares, service and friendly advice are always easily available.



- The variety of loads handled by STEELBRO™ Sidelifters is shown to good effect in this picture from Holland. A 20' semi-trailer operated by Jan Dohmen B.V., fitted out with a STEELBRO™ Sidelifter crane earns its keep moving bulk liquids.



- Brent Pullan of Kiwi Container Lifting Services poses his brand new Sidelifter rig next to the Golden Gate Bridge in San Francisco.





- Even in the harshest conditions, STEELBR0™ Sidelifters can take the heat. In this picture we see a line-up of units belonging to GUPER of Malaysia.



- Despite the Arctic cold of a Faeroe Islands winter, STEELBR0™ Sidelifters keep right on working. No matter what the temperature, STEELBR0™'s superior technology always gets the job done.



- In a little patch of paradise (in this case the Caribbean island of Martinique), a STEELBR0™ Sidelifter will be found hard at work. Toiling outside in the 45°C heat, two technicians from Christchurch recently assembled this STEELBR0™ Klaus machine.



- STEELBR0™ Sidelifters can be found on the highways of Australia.



- Simple and effective. Using a cordless radio remote control, operators can effortlessly move the position of the sidelifter cranes to suit the container size.

flexibility and versatility

Flexibility and versatility is the key to the success of the STEELBR0™ Sidelifter concept. Its compact design, weight lifting ability, safety and ease of operation ensure that containers can be effortlessly lifted from one 'platform' to another. Of all of its features however, it is the sidelifter's versatility that owners and operators appreciate most.

The STEELBR0™ Sidelifter can be mounted in a variety of configurations. Cranes can be truck-mounted, mounted onto STEELBR0™ rigid semi-trailers or STEELBR0™ Trombone semi-trailers. Trailers can be specified to carry 10', 20', 30', 40' and 45' containers, or conversely two 20' containers. Both Skeletal and Trombone semi-trailers are available in ISO and Hi-Cube configurations.



- The three-crane STEELBR0™ SB121 Sidelifter is designed specifically to deliver lightweight boxes and retrieve empty ones.



- In these views a 20' container is about to be lifted from a STEELBR0™ Sidelifter trailer onto a STEELBR0™ Skeletal semi-trailer.

- This truck-mounted sidelifter makes short work of placing a 20' container onto a flat bed rail wagon. The cordless radio remote controller allows the operator to freely move around for improved efficiency and safety.



safer, smarter, sidelifters

Safety and integrity are more than just features of STEELBRO™ Sidelifters. The safety features and in-built integrity of the crane system deliver the benefits of reliability, safety, ease of operation and reduced operating costs.

The low-folding arms are designed to not only reduce the risk of damage when containers are being loaded or offloaded, they also dramatically lower the crane system's centre of gravity. This unique feature contributes to better on-road stability, compliance with SRT regulations as well as reduced wear on the trailer.

A powerful and responsive hydraulic system is at the heart of every STEELBRO™ Sidelifter. It delivers a potent yet flexible lifting ability. Using either the 'Turtle' or 'Hare' modes on the control units, operators can vary the speed of operation and because of the system's proportional control sensitivity, move containers with confidence.

Crucial to the safety and integrity of every STEELBRO™ self-loading trailer system are components supplied by our strategic partners.



- Uniquely designed hydraulic systems make the STEELBRO™ Sidelifter powerful and responsive.

Powering the operation of every STEELBRO™ skeletal and trombone self-loading trailer is an onboard Kubota diesel engine. These emission-compliant V2203-E four cylinder powerplants deliver reliable starting, fast load pick up and sidelifter stabiliser deployment.

- Hendrickson International suspension systems provide superior stability and reduced operating costs for our skeletal and trombone trailers.

- Danfoss (New Zealand) Limited provides superb control of all STEELBRO™ hydraulic systems. Their Sauer Danfoss proportional control valves ensure that each movement made is fully independent of other simultaneous movements.

- Parker Hannifin via its Enzed network supplies the 'arteries' of each trailer and crane hydraulic system. Their tough cover hose systems and soft seal dry technology hose fittings are amongst the most trusted in the world.

- And for exceptional visibility in all weathers (and lighting conditions) we use lighting systems from Hella-New Zealand. Their range of LED Multivolt signal and marker lamps deliver improved safety for transport operators with state of the art lighting systems preferred by operators around the world.



- Kubota diesel engines deliver onboard power to STEELBRO™ Sidelifter cranes and Trombone trailers. This feature enables operators to easily switch trailers between tractor units.



- Hydraulic cylinders controlled by Danfoss systems deliver unrivalled lifting power via Parker Hannifin hoses and couplings to the sidelifter.



the new STEELBRO™ SMARTlift

The new STEELBRO™ **SMARTlift** load monitoring function allows operators to use sidelifter technology to its maximum capacity without compromising stability.

The STEELBRO™ **SMARTlift** System controls all Sidelifter hydraulic and electric functions. It checks that Stabilisers are touching the ground before allowing crane arms to function. Among other features, the STEELBRO™ **SMARTlift** System will alert the operator when a Service is due and provides an accurate record of operating time. The system can also self diagnose electrical faults. Any transport operator interested in increased safety, more efficient operation, and protecting their equipment will benefit from STEELBRO™ **SMARTlift** System technology.

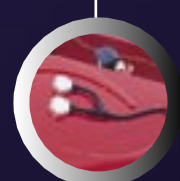
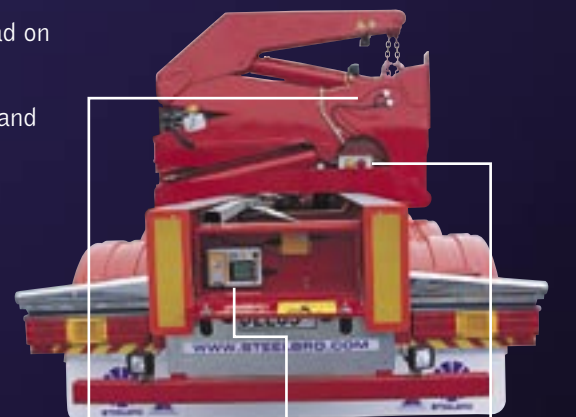
STEELBRO™ **SMARTlift** Load Monitoring uses its intelligent software and sensors to monitor and control the Sidelifter lifting operation every 50 milliseconds. STEELBRO™ **SMARTlift** Load Monitoring warns the operator if the load is moved to the limits of the 'safe working envelope' and prevents the operator from moving the load further into an area where the load could become unstable.

- Prevents use of Sidelifter on dangerous road cambers and elevations
- Estimates load mass on each crane
- Prevents Crane Module Traverse if the Stabilisers are extended
- Prevents extension of heavy load beyond steeply angled Stabilisers
- Prevents movement of load over the off side of the trailer
- Prevents the repositioning of stabiliser legs if there is load on the lifting pin
- Self diagnosis of electrical and sensor faults

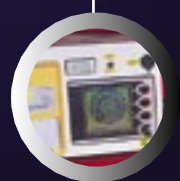
All electronic componentry in the new STEELBRO™ **SMARTlift** system has been tested to the toughest European standards for temperature, water tightness, shock, radio disturbance and even salt corrosiveness.



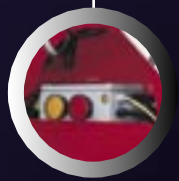
- The STEELBRO™ electronic control system is more robust, reliable and easier to maintain, encased in a rugged housing to ensure maximum of protection from the elements.



Intelligent software and sensors



Compact housing & LCD display



Operator warning lights

"The whole is equal to the sum



Danfoss (New Zealand) Limited is proud to be associated with STEELBRO™ and would like to take this opportunity to congratulate them on the wonderful achievement of 125 years in business.

The STEELBRO™ Sidelifter makes use of Sauer-Danfoss advanced PVG 32 Proportional Control Valves to control every movement. The advanced features of the PVG 32 Valve ensures that each movement made is fully independent of other simultaneous movements. The PVG 32 Valve gives the operator full proportional control of the machine and allows him to move the load quickly when required or very slowly to position the load precisely.



Hella-New Zealand Ltd have worked together with STEELBRO™ New Zealand Ltd for more than 30 years.

Since the mid-1990's, our association has reached new heights with the introduction of Hella's unique range of Multivolt ultra-durable LED signal and marker lamps.

Hella and STEELBRO™ have combined these products to provide a safe high-tech lighting system for their self-loading trailers.

These LED signal & marker lamps also provide a fit & forget solution to the high maintenance costs normally associated with conventional bulb lamps.

As world leaders in their respective technologies Hella NZ & STEELBRO™ have demonstrated the very real sales and marketing benefits of combining their respective products for a safe and low maintenance system.



Parker Hannifin (N.Z.) Limited and its Enzed Network has been proudly associated with STEELBRO™ New Zealand for over seven years.

During this time Parker have been able to provide innovative solutions to problems encountered by STEELBRO™, which has enabled them to stay in the forefront of their market.

Examples of these innovations have been changing their tube fittings to Parker E02 Fittings. These E02 fittings are the latest in soft-seal dry technology and enable STEELBRO™ to achieve the 6000psi pressure ratings they require.

The innovation of 381 Tough Cover Hoses gives STEELBRO™ the confidence that their product will have superior longevity.

As STEELBRO™ have come up with its innovative designs, Parker has supported them with new fittings designed and manufactured at their Mt. Wellington plant.

Parker is a global company, a feature which has allowed STEELBRO™ to market the fact that parts are readily available off the shelf, worldwide.

