



CS SERIES

The new generation of telescopic cylinders for front mounted and underbody hoists.

Setting new standards
for the future of tipping.



Introducing the CS RANGE of new laser welded, telescopic hoists.

Since 1916, when the Edwards Brothers of Bolton developed the world's first vehicle powered hydraulic tipping hoist, Edbro has been at the forefront of tipping technology.

Now, in our 80th year, we are proud to introduce the CS RANGE of new laser welded, telescopic hoists which will set the standards for tipping into the 21st century.

The new CS range has been many years in development, and fully tested for over 7 years in some of the world's most arduous operating conditions.

The new cylinder has been designed in response to the demands from both bodybuilders and operators for greater strength and stability, the future requirements for 44 tonne vehicle operating weights and more, and the need to maximise payloads in today's highly competitive markets.

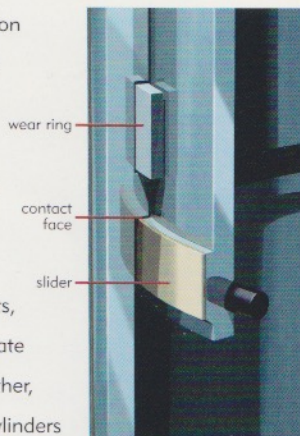
As you would expect from Edbro, we have only introduced the CS range now that we are sure that all of the above criteria have been met, and we have a product that is suited to the vehicles of the future.

That is why Edbro is The Industry Standard.

CS - ONE-PIECE CONSTRUCTION

The special one-piece tubular construction of the CS cylinder puts material where it matters and is a natural evolution from previous displacement designs. It sets new industry standards when compared with other one-piece methods found in both Europe and the USA.

However, unlike some European products, which experience problems where separate clips are used to hold the cylinders together, or inadequate tolerances between the cylinders which can cause seizing up, the CS cylinder "stop contact" area has a unique design which ensures both strength and reliability, particularly when subject to side load forces.



The CS 'stop contact' faces are an integral part of the tube construction eliminating grooves and loose rings. This avoids the possibility of scoring and subsequent oil leak problems for maximum reliability.



This streamlined method of construction also provides the maximum diameter at the top of the extended tube, a critical point in any tipping cylinder design. Close tube tolerances ensure the maximum power/weight ratio for most effective lift capability. A gland nut on the base tube provides easy assembly, and the one piece construction eliminates waste during manufacture.



CS - LASER-WELDING TECHNOLOGY

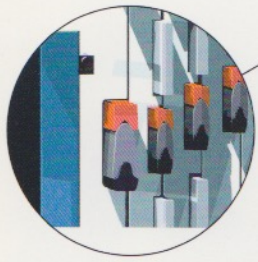
To ensure the optimum finished product, Edbro have invested in the very latest, laser-welding technology in order to provide excellent levels of concentricity and the most accurate, high quality welds.

This is a natural progression for the company that has always been at the forefront in its manufacturing techniques, with friction welding, automated tube grinding, polishing and machining systems. Together with highly efficient computer-aided manufacturing methods, Edbro has a modern plant and highly skilled workforce which is geared to the future demands of worldwide markets.

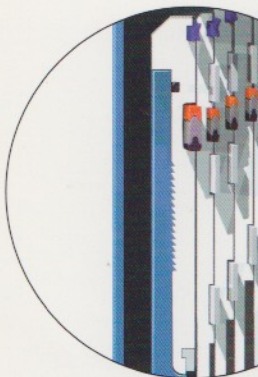
The combination of new technology and high spec lightweight materials provides the maximum available lift diameter at the top of the CS cylinder, within a smaller base tube size, giving the ultimate power to weight ratio.



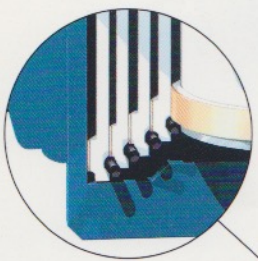
Edbro's unique new double lip wiper seal ensures the efficient lubrication of each tube and prevents contamination.



The main seal has a three piece construction which 'floats' in a housing groove and provides low friction and smooth operation under all conditions.



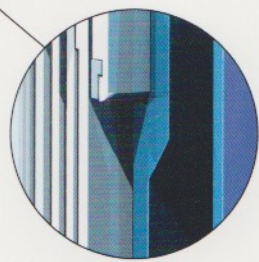
A single gland nut on the base tube allows for easy assembly and servicing, with no special tools required.



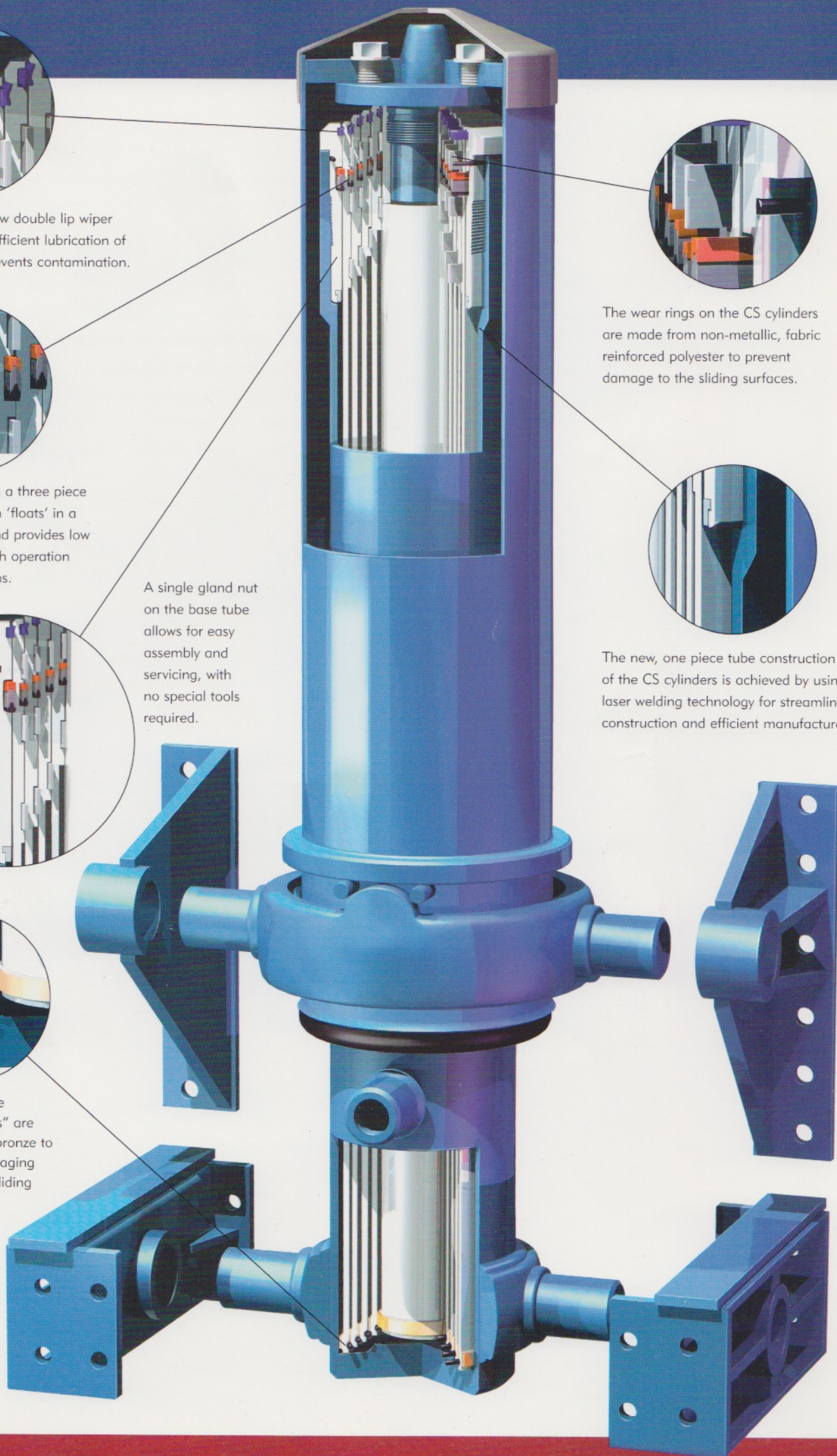
The surfaces of the CS cylinder "sliders" are sprayed in silicon bronze to eliminate any damaging friction when the sliding tubes extend.



The wear rings on the CS cylinders are made from non-metallic, fabric reinforced polyester to prevent damage to the sliding surfaces.



The new, one piece tube construction of the CS cylinders is achieved by using laser welding technology for streamlined construction and efficient manufacture.



CS - THE BEST MATERIALS

The new CS hoist is made entirely using high grade steel alloys, which allows us to provide the ultimate power to weight ratio, ensuring maximum lifting effort from the lowest weight assembly.

The internal "sliders", which feature in every cylinder design to provide a smooth operation, are made from the Edbro tried and tested silicon bronze coated construction, as featured on the current 'D' series cylinders to provide the very best in durability and reliability.

Other non-metallic components, including wear rings and wipers are endurance tested to provide long life, smooth operation and avoid scoring of the sealing surfaces.

The unique construction of the Edbro double lip wipers gives effective lubrication of the sealing surface to minimise seal wear and prevent corrosion, whilst avoiding oil contamination from dirty or dusty working conditions.



CS - SHORTER CONSTRUCTION

A further benefit of the new CS design is its shorter construction, providing the maximum tipping capability from the lowest installed height.

This feature enables both OE manufacturers and bodybuilders to meet the criteria for height restrictions in modern vehicle design, without compromising quality and performance.

CS - VIRTUAL "MAINTENANCE-FREE" REALITY

The new CS hoist is a 'fit and forget' component for both truck and trailer installations. As well as the durable nature of its materials and robust construction of its working parts, it has a long-life, well established sealing system adapted from the proven D series cylinder design, giving freedom from oil leaks which contaminate the vehicle and damage road surfaces.

There is also the elimination of downtime incurred in seal replacement, and the complete elimination of the need for regular seal adjustment which is required with old-fashioned, 'chevron' seal packs.



CS - THE CYLINDER WITH PROVEN EXPERIENCE

As well as being rigorously tested for over seven years in some of the most demanding, international conditions and on a whole range of applications, Edbro have been utilising the new CS cylinders for 3 years on the current TS range of underbody hoists with spectacular success. Both bodybuilders and operators have reported improved operating efficiency and speed of tip with no downtime.

The new seals, wipers and wear rings already have a proven track record in service and the one piece tube construction is established as the future standard in telescopic cylinder manufacture.

CS - THE FUTURE OF TIPPING

The launch of the CS Series is occasioned by the model CS17 for GVW up to 44 tonne and is just the first of many new applications to be introduced by EDBRO. The CS Series will eventually provide a range with lift capacities exceeding 70 tonne to suit all tipper requirements worldwide.

This comprehensive range is to be introduced over the next two years for both rigid vehicles and trailer installations, and a combined ram/tank design to be known as the CX series will replace the current UK rigid truck front hoist market leader. It all adds up to the most comprehensive Edbro programme of new product development in recent years, and a demonstration of the high standards, to which our competitors can only aspire.



EDBRO - OVER 80 YEARS OF INNOVATION

As world leaders in tipping technology, Edbro are responsible for some of the most important advances in the industry.

Our experience is gained from over 80 years of manufacturing innovative equipment.

Today, all the expertise of our global network goes into maintaining our reputation for original design.

This is your assurance of quality, and access to an unparalleled degree of technical knowledge and support.



1916
80
YEARS
1996

Edbro brings you the HIGHS and LOWS of tipping



The **HIGHEST** lift capacity and speed of tip



The **LOWEST** installed heights



The **HIGHEST** strength and durability



The **HIGHEST** life expectancy



The **LOWEST** maintenance costs



The **LOWEST** net weight



The **LOWEST** downtime



The **HIGHEST** payloads



The **HIGHEST** quality and reliability

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