

INNOVATION.  
NOT DUPLICATION.™



CRUSHING SOLUTIONS

## LIFTING SAFETY

H-E PARTS INTERNATIONAL (H-E PARTS) SPECIALIZES IN PROVIDING WEAR MANAGEMENT SOLUTIONS. H-E PARTS LINER DEVELOPMENT PROGRAM HAS BEEN DEVELOPED TO OPTIMISE LINER DESIGNS ON A SITE BY SITE BASIS AND INVOLVES THE ONGOING ANALYSIS OF SITE OPERATIONAL REQUIREMENTS, MACHINE OPERATING PARAMETERS AND WORN LINER PROFILES.

H-E Parts International (H-E Parts) prides itself on not only providing industry benchmark crusher liners, but also the safest lifting assemblies for quick, reliable and zero harm servicing.

H-E Parts proprietary CME™ crusher liners, designed for use with H-E Parts LockLift™ and Safe-T Lift™ mantle lifting systems, offer customers the optimal manganese steel grade for the job, while providing customers with the safest means available to remove and replace crusher liners.

### CME™ PRODUCT LINE

#### MNELITE

Range of 20 to 24-percent manganese steel, setting the benchmark for high-performance, long-life wear products.

#### MNPREMIUM

Mid-range 18-percent manganese steel, striking a balance between wear life and overall cost.

#### MNSTANDARD

Range of 14 to 18-percent manganese steel, providing a low cost option for applications where wear rates are relatively low or where MTTR is not a significant factor.

Within each product range, H-E Parts is able to provide modified grades designed specifically to better suit individual requirements, including Super Heavy Duty, High Toughness or Extended Life.

## ZERO HARM

SOME INHERENT HAZARDS IN CHANGING CRUSHER LINERS THAT HAVE LED TO FATALITIES AND DISABILITIES INCLUDE ENTERING JAW CRUSHER CHAMBERS AND POORLY WELDED LIFTING LUGS.

THESE HAZARDS CAN BE AVOIDED WITH THE USE OF H-E PARTS LOCKLIFT™ AND SAFE-T LIFT™ DEVICES.



# LOCKLIFT™

## FOR CONE CRUSHER LINERS

H-E Parts LockLift™ range of mantle lifters are utilised with H-E Parts CME™ range of crusher liners to allow the liner to be lifted through the centre hole of the mantle after the head nut is removed. All styles utilise a jacking arrangement to separate the head and mantle before lifting, to ensure that a fully controlled lift takes place and that the lifting gear is not overloaded by lifting the head along with the liner.

H-E Parts patented LockLift™ lifting system has been developed in response to safety issues associated with welding lifting lugs onto crusher liners. By removing the need to weld on lifting lugs, H-E Parts can provide customers with a safe, cost-effective solution that also reduces mantle change times.

All lifting components used in the LockLift™ system are designed and proof load tested to Australian standards AS4991-2004 (Lifting Devices).

360 degree lifting point gives consistent capacity and is readily available.

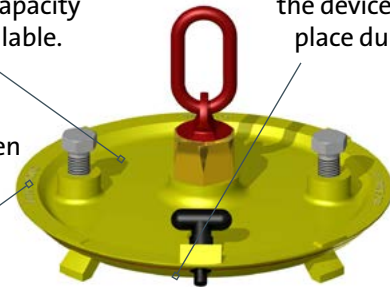
Safety pin to ensure the device is locked in place during the lift.

Jacking bolts to break seal between mantle and head before lifting.

Lifting tabs used to lift mantle from inner face

Risers to indicate tab locations.

Wear indicator to assist checking lifting safety of worn liners.



## COMMON LOCKLIFT™ STYLES

H-E Parts has developed LockLifts™ to suit all brands of crusher, including Nordberg Metso HP Series\*, Raptor\*, Symons\*, Trio\* and Fuller\*. The design utilised varies between machine models.



LockLift™ to suit  
HP Series\*



LockLift™ to suit  
MP Series\*



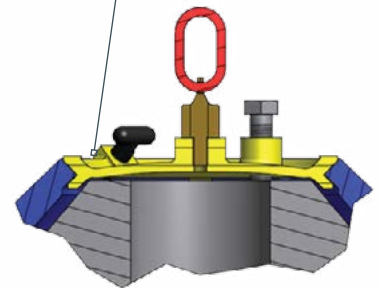
LockLift™ pad for  
breaking seal



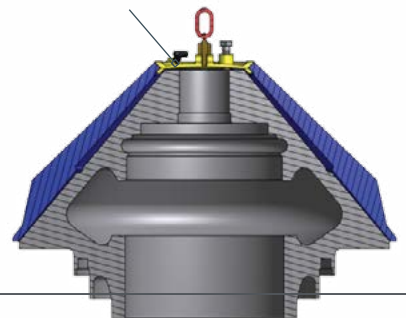
LockLift™ to suit  
Symons\*

H-E Parts International replacement parts are compatible with the makes and/or models of the third-party equipment described. H-E Parts International is not an authorized repair facility of these third parties and it does not have an affiliation with any manufacturers of these third-party products. All brands, original equipment manufacturer (OEM) part numbers or references are owned by the respective OEM entities or their affiliates. These terms are used by H-E Parts International for identification and cross reference purposes only and are not intended to indicate affiliation with, or approval by the OEM, of H-E Parts International or its products. All parts are manufactured by, for and warranted by H-E Parts International and are not manufactured by, purchased from or warranted by the OEM.

H-E Parts CME™ manganese liners are LockLift™ ready



Locks in above the pouring hole. Backing can't interfere with the lifting process



## IFAP SAFETY AWARD WINNER



H-E Parts won the prestigious Skilled Safety Innovation Award at the IFAP/CGU Safe Way Awards for our innovative LockLift™ lifting device.

Assessed on a qualitative basis by a judging panel, the SKILLED Safety Innovation Award acknowledges H-E Parts strong commitment to safety through the establishment and practice of leading safety solutions within the workplace.

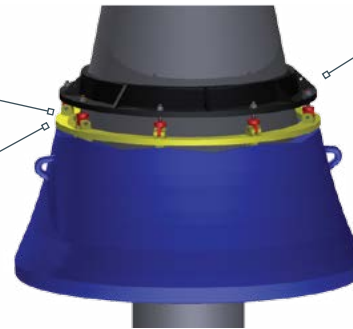
# LOCKLIFT

## FOR GYRATORY CRUSHER LINERS

H-E Parts is able to provide the LockLift™ device for gyratory crushers that operate on the same principles as other LockLift™ styles. The high capacity jacking system can allow liners to be removed from the mainshaft without cutting. Once the liner is freed from the head the Locklift™ can be used to remove the liner safely without welding.

LockLift™ ring engaged on bottom mantle

Similar lifting method as seen on the design to suit an MP1000\*

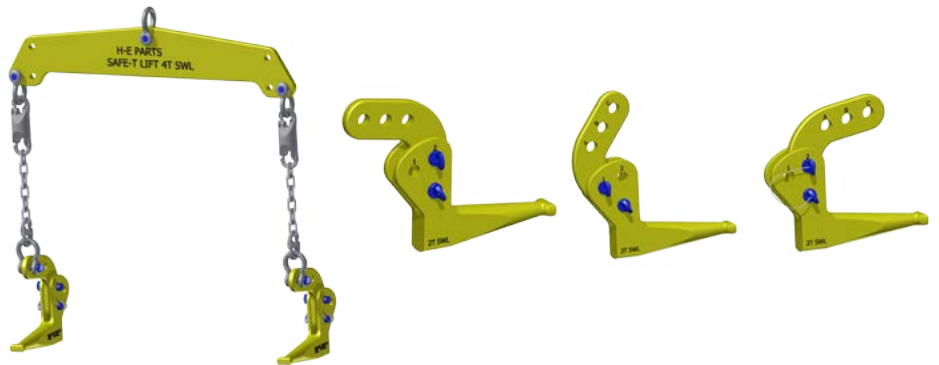


High capacity jacking assembly allows liners to be removed without cutting

## SAFE-T LIFT™

For Jaw Crusher Liners

Developed by H-E Parts, the Safe-T lift™ is a captive lifter that locates into a specially cast hole in the jaw. The lifter is inserted into the jaw at 90 degrees to the axis of the jaw, and then turned upwards to lock it into place. All this can be done without entering the crushing chamber. Safe-T lift™ can be designed to allow jaws to hang at the exact jawstock angle, making installation easier.



## UNIVERSAL LIFTING DEVICE

- Keeps lifting point away from turning moment
- Ability to adjust lift to suit:
  - Liner type
  - Liner thickness
  - Angle required for installation/removal
- Need to weld eliminated

## CERTIFICATION

All H-E Parts lifting devices are designed to comply with the following Australian standards:

- AS4991: Lifting Devices.
- AS3990: Mechanical Equipment – Steelwork.
- AS1418.1: Cranes – General Requirements.



## INNOVATION

ADDING VALUE THROUGH INNOVATION, H-E PARTS REPUTATION IS WORLD CLASS.

H-E PARTS LINER DEVELOPMENT PROGRAM GOES ABOVE AND BEYOND THE NORMAL INDUSTRY PRACTICE OF CONDUCTING A TRIAL ON A GIVEN SET OF LINERS, AND INSTEAD UTILISES ALL THE AVAILABLE INFORMATION TO PROVIDE A CUSTOMISED SOLUTION.