

PROSERIES[®]

Cobra Tugger Battery Handling Equipment



OWNER'S MANUAL

CONTENTS

Introduction	3
Symbol Identification Chart.....	4
Danger, Warning, Caution Labels.....	5
Truck Front Mounting	6
Cobra Tugger and Lift Truck Positioning	7
Operating Instructions	8
Extraction from the Lift Truck.....	9
Electromagnet Maintenance	10
Quick Clamp Assembly (Optional)	11
Cobra Tugger Drive Mechanism Maintenance .	13
Slider Strip Maintenance	14
Regular Maintenance Checklist.....	15

INTRODUCTION

PROSERIES[®]

The information contained in this document is critical for safe handling and proper use of the Cobra Tugger. It contains a global system specification as well as related safety measures, codes of behavior, a guideline for commissioning and recommended maintenance. This document must be retained and available for users working with and responsible for the battery handling equipment. All users are responsible for ensuring that all applications of the system are appropriate and safe, based on conditions anticipated or encountered during operation.

This owner's manual contains important safety instructions. Read and understand the sections on safety and operation of the battery before operating the battery and the equipment into which it is installed.

It is the owner's responsibility to ensure the use of this documentation and all related activities comply with applicable legal requirements in their respective countries

This owner's manual is not intended to substitute for any training on handling and operating the Cobra Tugger that may be required by local laws and/or industry standards. Proper instruction and training of all users must be ensured prior to any contact with the battery system.

For service, contact your sales representative or call:

EnerSys EMEA
EH Europe GmbH
Baarerstrasse 18
6300 Zug, Switzerland
Tel: +41 44 215 74 10

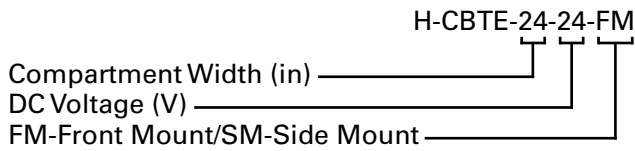
EnerSys World Headquarters
2366 Bernville Road
Reading, PA 19605, USA
Tel: +1-610-208-1991
+1-800-538-3627

EnerSys APAC
No. 85, Tuas Avenue 1
Singapore 639518
+65 6558 7333
www.enersys.com
















Your Safety and the Safety of others is Very Important

⚠ WARNING You can be killed or seriously injured if you don't follow these instructions.

SYMBOL IDENTIFICATION






Symbol Identification Chart

	Refer to accompanying documentation		Refer to Manual
	Do not operate without all guards and covers in place		Crush Hazard – Keep Hands Clear
	Entanglement Hazard – From chain, gear, or pulley		Pinch Point Hazard
	Crush Hazard From Falling Load		Crush Hazard – Keep Feet Clear
	Eye Protection Required		Safety Shoes Required
	Slip Hazard		Heavy Object – Do not exceed the recommended load weight
	Protective Clothing Required		Rubber Gloves Required
			Face Shield Required


This manual contains important information to help you properly operate and maintain your Cobra Tugger for maximum performance, economy, and safety. By practicing correct operating procedures and by carrying out the recommended preventive maintenance suggestions, you will experience long, dependable, and safe service.

LABELS

Danger, Warning, Caution Labels

⚠ DANGER!	
	Only certified operators should attempt to lift/carry loads with this unit. Keep the area under load clear when operating the unit.
	Do not attempt to pull loads over 2,500 lbs. (1,134 kg). Back injury or muscle strain may occur. Use care when operating on an incline.
	Do not attempt to operate this equipment if you are impaired (ill, under the influence of medication, alcohol, etc.). Errors in operation can cause hazardous and potentially LETHAL conditions.

⚠ CAUTION!	
	To reduce the risk of collision, ensure the unit is positioned for optimal visibility.
	Use care when transporting a load over wet floors/surfaces.
  	Eye protection, safety shoes, and protective clothing are required when operating this equipment.

⚠ CAUTION!	
	The operating temperature range for the battery is from -20°C to +50°C. Do not use outside of the manufacturer's recommendations.


⚠ CAUTION!	
	Do not operate without all guards, covers, and panels in place.


⚠ CAUTION!	
	Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.

⚠ WARNING!	
	Crush Hazard! Keep feet clear.

⚠ WARNING!	
	Crush Hazard! Keep hands clear.

⚠ WARNING!	
	Moving Parts! Keep hands and fingers clear.

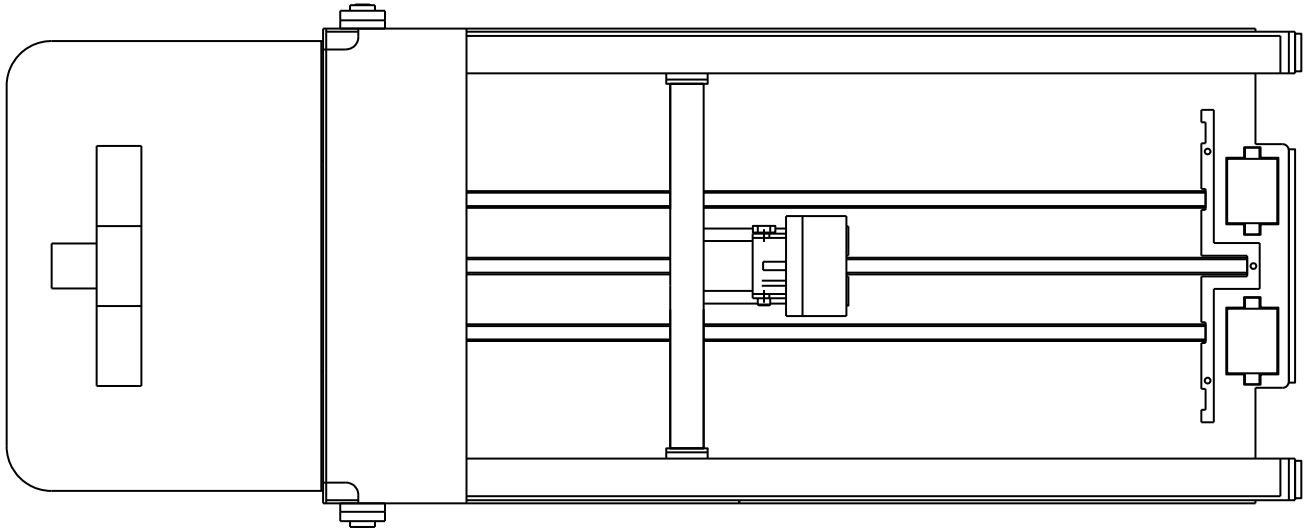
⚠ CAUTION!	
	Pinch Hazard! Keep hands clear.

⚠ CAUTION!	
	Maintain correct polarity of battery terminals during replacement.

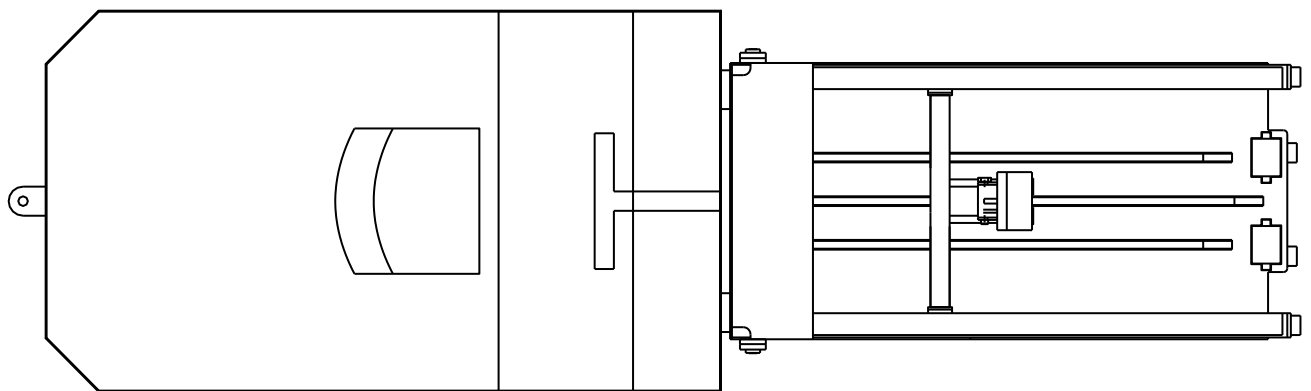


MOUNTING

Truck Front Mounting

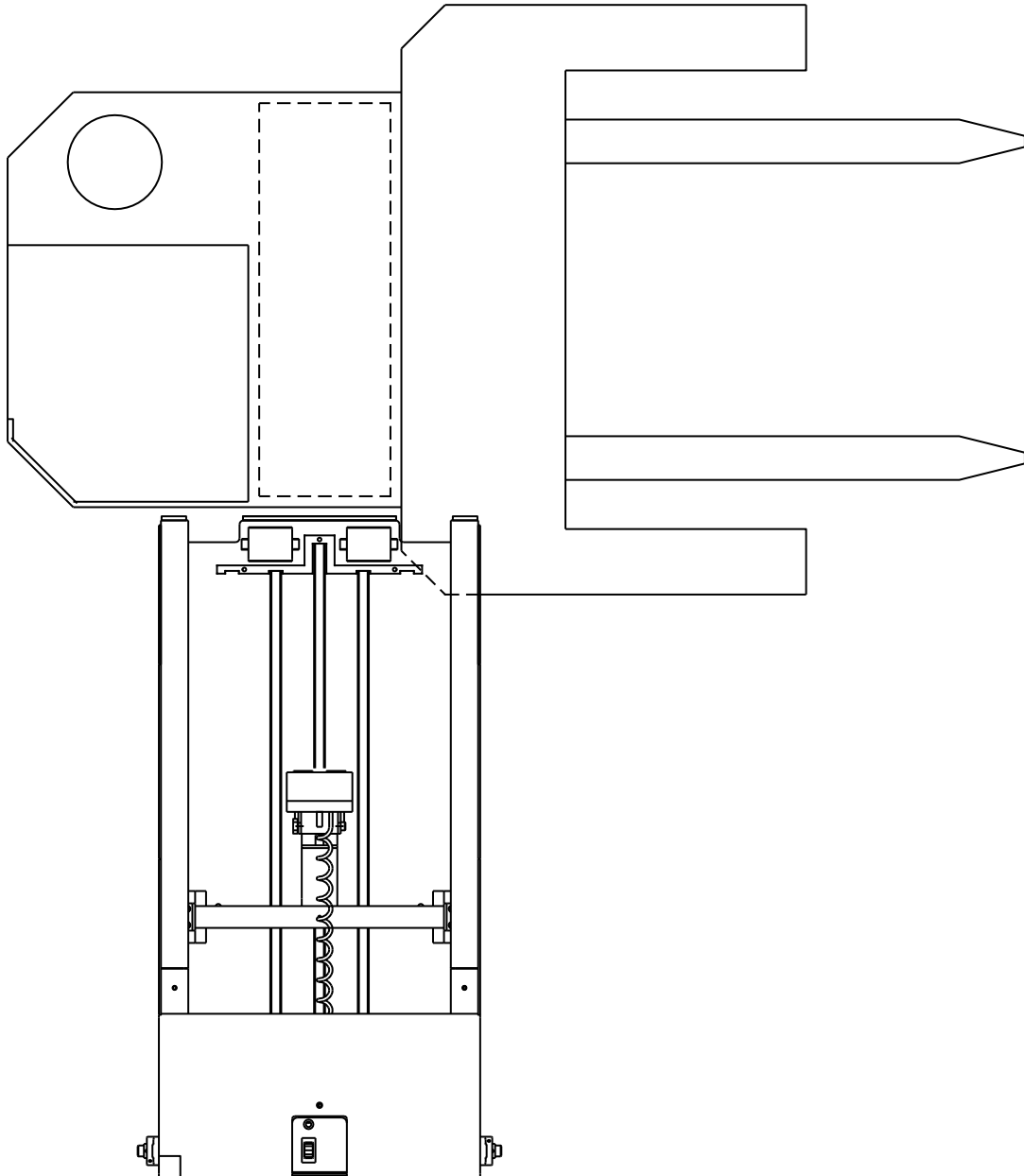


Fork Truck Front Mounting



POSITIONING

Cobra Tugger and Lift Truck Positioning



OPERATING INSTRUCTIONS

Operating Instructions

Description:



The Cobra Tugger is a manually propelled, electrically powered battery changer that is designed for low-volume applications and small to medium-sized batteries, such as those found in reach trucks, order pickers, and powered pallet trucks. Although the capacity of the EZR-BT is 2,300lbs, the handling of batteries at more than 2,000lbs becomes difficult and is not recommended.



Before operating the Cobra Tugger it is important that the operator thoroughly reviews and understands the proper Safety Procedures and Instructions as outlined in the Owner's Manual.



All operators must be trained or certified (if required) in the use of the Cobra Tugger.



Safety shoes, safety glasses, and protective clothing are mandatory in Battery Rooms. Be sure to wear them at all times. Rubber gloves, rubber aprons, and full face shields are required when washing and servicing forklift batteries. Always use **caution** and **common sense**.

Preparation:

1. Park the lift truck in a perpendicular position adjacent to the Cobra Tugger (Cobra Tugger and Lift Truck Positioning illustration on page 7).
2. Prepare the lift truck for battery removal as follows:
 - Lower the forks until they sit flat on the floor.
 - Engage the parking brake.
 - Remove any protective covers.
 - Unplug the battery and position the connector plug and cable to prevent snagging or pinching during the battery removal process.
 - Remove the battery retaining gate.

EXTRACTION

Extraction from the Lift Truck



1. Position the Cobra Tugger in front of the battery compartment and lower the unit so the front rollers are approximately 1.27 cm below the bottom of the battery to be removed.



2. Power the magnet out until it contacts the battery to be removed. Then turn on the magnet toggle switch. Push the rocker switch back to pull the battery out until it is just over the large black entry rollers on the Tugger.



3. Raise the Battery Tugger using the forklift controls until the rollers support the weight of the battery, and continue to pull the battery into the Tugger.



4. Drive the forklift to an appropriate empty roller stand.



5. Raise or lower the Tugger to the roller stand height, then press the rocker switch forward to push the battery out onto the roller stand.

Insertion into the Lift Truck:

1. Raise the Tugger to the roller stand level and retrieve the charged battery.
2. Position the Tugger in front of the lift truck battery compartment, and then raise or lower the battery to be **just slightly above** (approx. 1.27 cm) the level of the lift truck's roller or slider bed.
3. Press the rocker switch forward to push the battery as far as it will go into the lift truck. If using a powered pallet truck, make sure the pallet jack handle is in the vertical position, i.e. brakes are on.

Conclusion:

1. Pull the Cobra Tugger away from the lift truck and park it in a safe location.
2. Check the discharged battery, connect the cables, and turn on the charger.
3. Prepare the lift truck for operation as follows:
 - Install the battery retaining gate
 - Plug in the battery
 - Install the protective covers
 - Check the battery indicator gauge



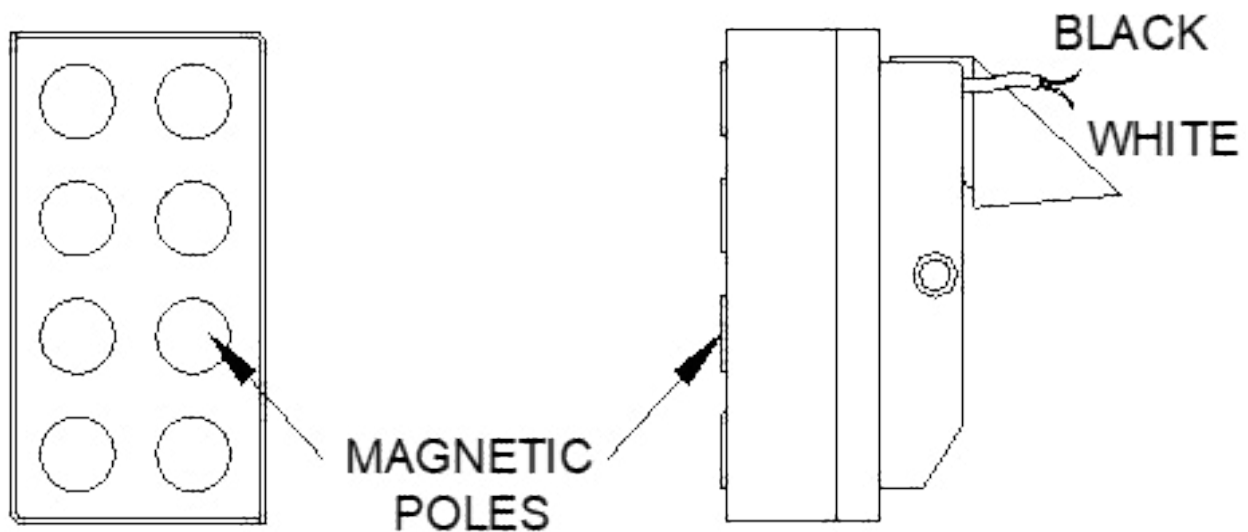
MAINTENANCE

Electromagnet Maintenance

Electromagnets require very little maintenance to provide a long useful life. Daily use of a shop towel to wipe the magnet face free of debris, grease, oil, or other foreign matter will ensure years of service life and thousands of safe operations.

The pulling capacity is greatly reduced when the face of the magnet is dirty. Use care when handling the magnet so as not to nick or mar the pulling surface. If the face is heavily worn, lightly surface grind a few thousandths off the face to clean up the pulling surface.

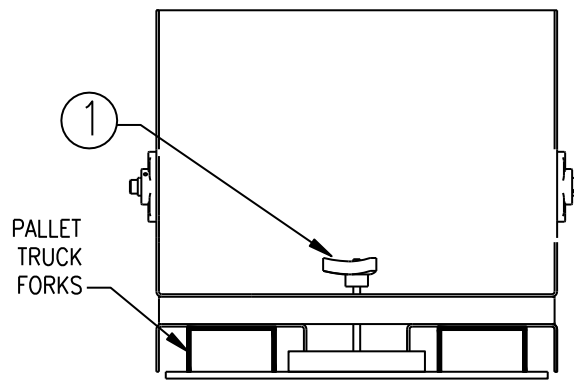
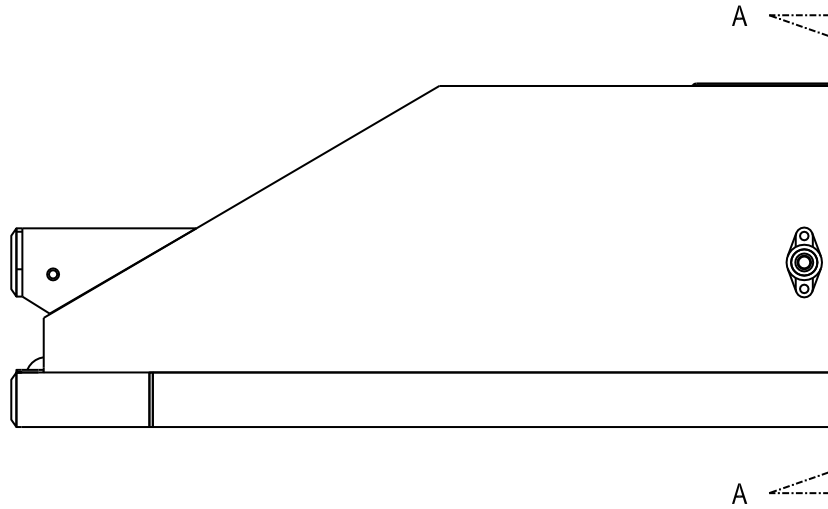
Never try to remove the electrical wires mounted in the magnet. Should you do this you will destroy the magnet and it will require rebuilding or replacement.



QUICK CLAMP

Quick Clamp Assembly (Optional)

Item	Qty.	Description	Part Number
1	1	QUICK CLAMP ASSEMBLY	BT-QC-75

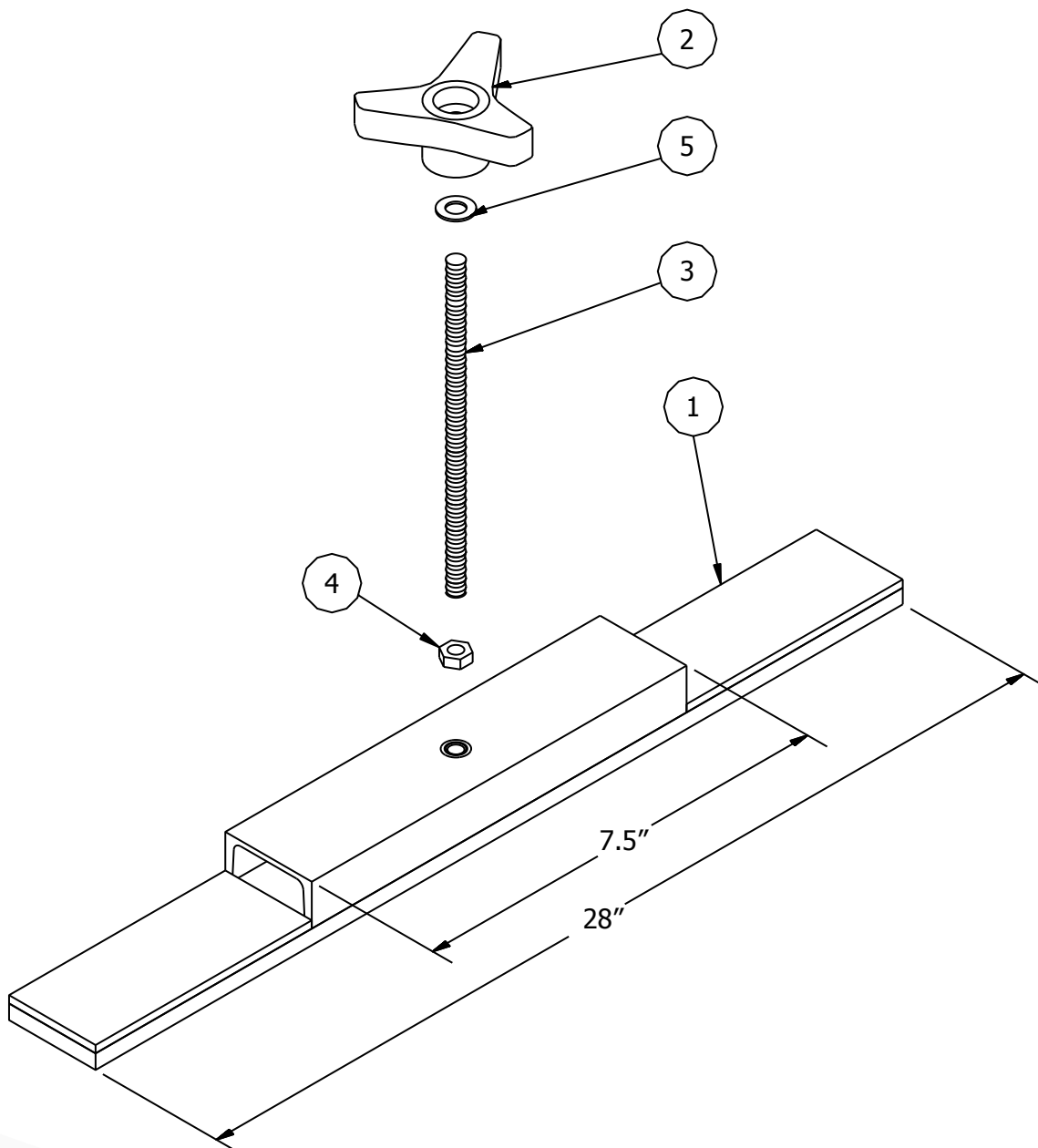


SECTION A-A

QUICK CLAMP

Quick Clamp Assembly (Optional) (cont.)

Item	Qty.	Description	Part Number
1	1	QUICK CLAMP ASSEMBLY	BT-QC-75
2	1	3-LOBED HAND WHEEL	CBS-2471
3	1	THREADED ZINC ROD 8" LG	CBS-2470-8
4	1	JAMB NUT	CBS-3980
5	1	PLAIN WASHER	CBS-1512



MAINTENANCE

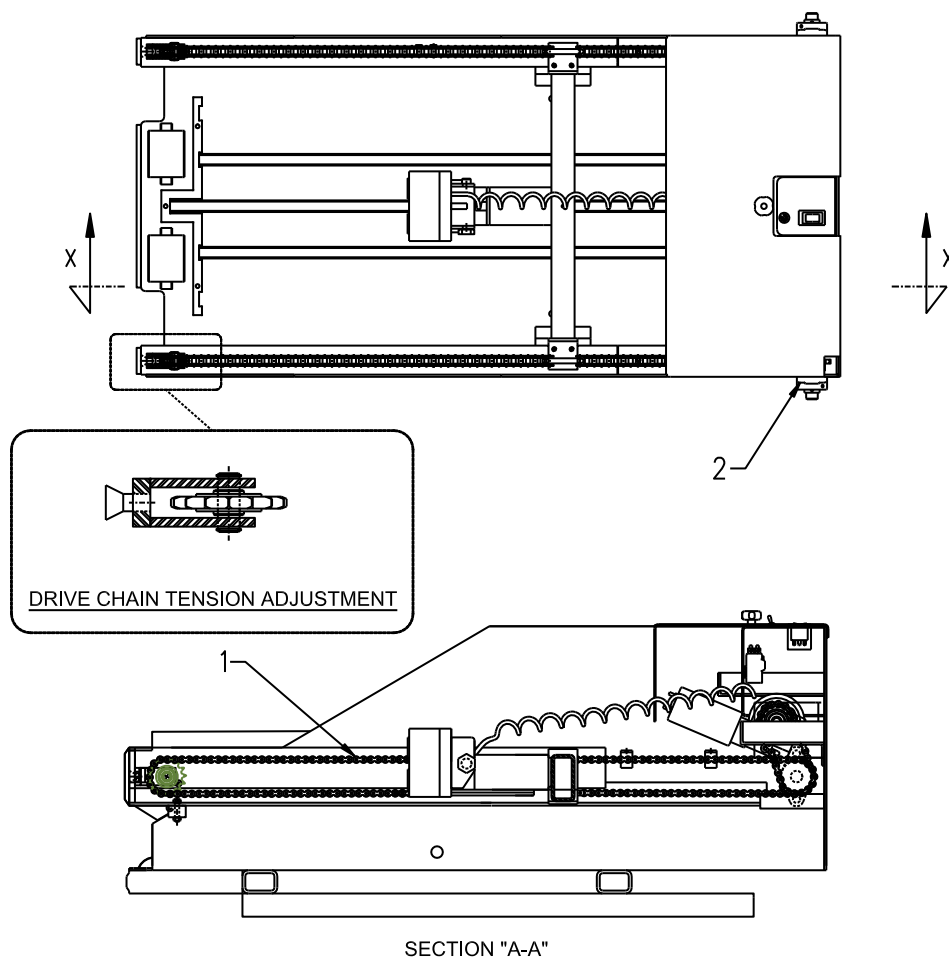
Cobra Tugger Drive Mechanism Maintenance

Item	Grease Points	# Points	Lubricant	Part Number
1	Drive Chain	3	TEF-LUBE 2000	Monthly
2	Bearing	2	'Rotanium' Blue Grease	2 Months

ATTENTION:

- Check monthly and tighten any bolts that have become loose.
- Check drive chain tension. There should be no more than 1/2" of deflection.
- See Drive Chain Tension Adjustment inset, below.
- If excessively slack, remove one full link or 1/2 link and reset tension.

If the chain is badly worn or stretched, replace it.



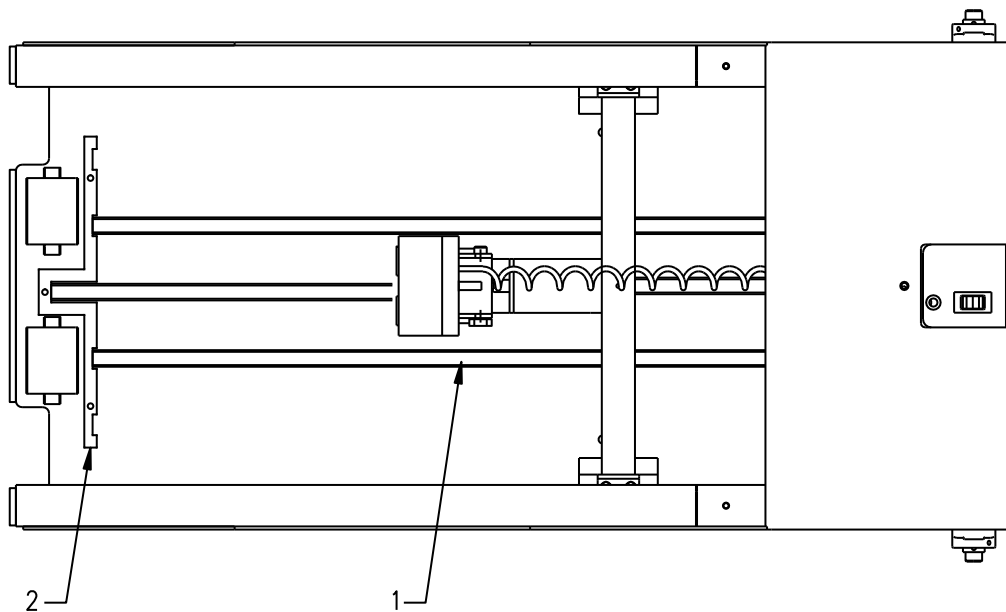
MAINTENANCE

Slider Strip Maintenance

The three (3) slider strips (**Number 1**) on the floor of the **Cobra Tugger** will require regular maintenance to provide long and useful service (weekly).

Wipe the top of the slider strips to remove debris, grease, oil, and any other foreign material. This will reduce the friction and ensure a long service life with thousands of safe operations.

If the slider strips are heavily worn, replace them. To do this, remove the front slider stop (**Number 2**) and slide the plastic Slider Strip out. Slide the new Slider Strip into the Slider Strip Channel and replace the front slider stop (**Number 2**).



Regular Maintenance Checklist

Repairs Required

Inspection Performed	Yes	No	Repairs Performed	Completed Date
1. Visual inspection of the unit for damaged or missing parts.				
2. Remove the console lid and chain guards.				
3. Check all electrical connections for security.				
4. Check power drive mounting and sprocket for security.				
5. Check reversing contactor condition and security.				
6. Check bearings for wear, damage, and security. Lubricate every 750 hours.				
7. Check bridge limit switches for proper adjustment and security.				
8. Check slider strips for wear, damage, and security.				
9. Check bed rollers and shafts for wear and/or damage.				
10. Check chain and sprockets for wear. Lubricate every 250 hours.				
11. Visually inspect to ensure all fasteners are in place and secure.				
12. General cleaning of unit (wipe down with a non-abrasive cleaner).				
13. Replace and secure all covers.				

www.enersys.com

© 2024 EnerSys. All rights reserved. Unauthorised distribution prohibited. Trademarks and logos are the property of EnerSys and its affiliates except UL, CE, and UK CA, which are not the property of EnerSys. Subject to revisions without prior notice. E.&O.E.

EMEA-EN-OM-PROS-CT-1124

EnerSys[®]

Power/Full Solutions