

BUCKET BULLETIN

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Maxi-Lift Answers *Frequently Asked Questions* About Our Tiger-Tuff® Elevator Buckets

Editors note: The following questions and answers were compiled after speaking with end users and distributors about the benefits and applications for the Tiger-Tuff maximum duty elevator bucket.

1) WILL THE EXTRA WEIGHT REQUIRE ADDITIONAL HORSEPOWER OR ELECTRICITY?

Horsepower and electricity requirements are based on elevated capacity only. Horsepower does not need to take into account the weight of the elevator bucket. The formula for horsepower calculation is as follows:

$$HP = (W \times H) / 33,000$$

H = Height of lift in feet.

W = Weight of material elevated per minute (divide bushels per hour by 60 and multiply by weight of material per bushel.)

Remember, for every bucket being pulled up the elevator, there is an equally heavy bucket or counterbalance travelling down the other side. Their weights cancel each other out. Only the material being elevated should be considered.



After extensive field research, our Tiger-Tuff Maximum-Duty Elevator Buckets were engineered to perform better and last longer.

2) WILL THE ADDITIONAL WEIGHT REQUIRE HEAVIER BELTING?

In agricultural applications, most grains or commodities elevated are of relatively light density. For agricultural elevators, belting specifications are figured based on the projection of the bucket and not on weight. Therefore, a 16x8 Tiger-Tuff could replace a standard Maxi-Lift or cc-hd without increasing belting thickness. The new ten-inch projection Tiger-Tuff buckets do require heavier belting because of the extended projection. Contact your local belting source for your application.

3) WHY DID YOU DESIGN THE TIGER-TUFF WITH NO "EARS" OR "SHOULDERS"?

Plastic elevator buckets with ears or shoulders were designed after their steel counterparts, most of which had these features. Since these buckets were designed, we have learned through research that these ears do not contribute to the carrying capacity or the discharge of the buckets. In fact, they inhibit closer spacing, which can actually increase elevator capacity. The Tiger-Tuff was built to maximize life and capacity, therefore designed without ears.

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Maxi-Lift Introduces Tiger-Tuff Elevator Bucket Brochure

Maxi-Lift is pleased to introduce the Tiger-Tuff Elevator Bucket brochure to our growing selection of sales and reference materials. The brochure contains complete product and engineering information about the maximum duty elevator bucket.

Included are:

- Customer case studies
- Competitive comparisons
- Features and benefits
- Material specifications
- Size and capacity specifications
- Speed and capacity calculations

This useful brochure is a quick reference when evaluating the added benefits of using the Tiger-Tuff for handling agricultural and light industrial applications.

If you would like copies of this or any of our sales and reference materials give us a call, e-mail or fax your request to our customer service department. ☎



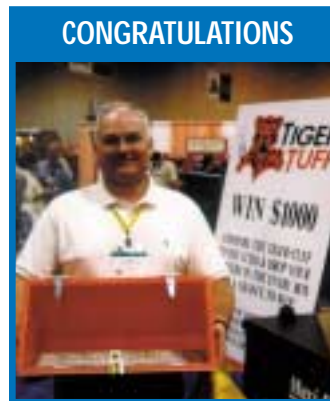
Maxi-Lift's booth at GEAPS Exchange '99 highlighted the superior qualities of the Tiger-Tuff. Hundreds of booth visitors completed an entry form, hoping to win \$1,000 in cash.

GEAPS CONTEST IS A WINNER

Tiger's Growl Worth \$1000 To Ohio Elevator Man

Maxi-Lift's Tiger-Tuff elevator bucket was the talk of GEAPS (Grain Elevator and Processing Society) Exchange '99 held in Tampa Florida this past March. Due in part to the quickly rising popularity of the new bucket design, and the fact Maxi-Lift was giving away \$1000 at the show.

To draw attention to the superior qualities of the Tiger-Tuff, entrants had to complete an entry form with their name and address. They then answered a series of questions about the physical characteristics of the Tiger-Tuff maximum duty elevator bucket versus the blue cc-hd. The comparison contrasted the high wear areas like front corners, front lips, sidewalls, and back walls. A display with both products was located in the show booth to allow a "hands on" evaluation. Entries were accepted during



all three days of the show with the drawing occurring on Tuesday just before lunch was served.

As hundreds gathered around the Maxi-Lift booth, Barbara Krupp-Selyem of the Country Grain Elevator Historical Society stuck her hand in the box of entries and pulled out the name of Bob Smegalski of The Andersons in Maumee, Ohio. The shocked winner made his way through the crowd to the cheers of many envious onlookers to accept his prize, \$1000 in cash. Congratulations Bob! ☎

If You Need Hanger Bearings, We Got 'em



Maxi-Lift Inc stocks a complete line of hanger bearings in UHMW, wood, Plastech food grade nylon, and Wearite industrial grade nylon. Bearings are available in the popular 220/226 style, or styles 19-B, 216, and 18-B. Maxi-Lift stocks hanger bearings in all standard sizes.

If you want a quiet, durable, long-wearing hanger bearing, ask about Wearite industrial duty or Plastech food grade nylon bearings. Samples of both are available on request. Give us a call about your specific hanger bearing application, or take a look at our bearings and other products on the Maxi-Lift web page. The address is www.maxilift.com. ☎

Tiger-Tuff Selected To Carry Canadian Grain Into Next Millennium

TIGER-TUFF Maximum-duty elevator buckets are the bucket of choice to elevate grain for the Saskatchewan Wheat Pool. The Canadian organization has undertaken the progressive step to build 22 new high-volume terminals. Known as Project Horizon, this \$270 million dollar expansion will provide modern facilities to handle grain for Manitoba, Saskatchewan and Alberta well into the next century.

Saskatchewan Wheat Pool solicited proposals from vendors on all components of the project. The pool awarded the general construction contract to J-Sons Inc of Bismarck, North Dakota. J-Sons coordinated the proposals and presented options to the Pool for

final approval.

Maxi-Lift's product line offered more flexibility, sizes, options and overall value to the Wheat Pool. The cornerstone bucket in our proposal was the TIGER-TUFF, with its thicker walls, lip, corners; the bucket provided the best VALUE for the dollar. The benefits of the extended life made the choice easy for Pool officials.

In all, more than 100,000 Maxi-Lift elevator buckets, ranging in size from 5X4 up to 20X8, are to be installed during Project Horizon.

Maxi-Lift worked with the elevator manufacturers, Intersystems, Inc. and Nord-Sen Metal Industries, to maximize capacity and give the most efficient fill and discharge. Testing was conducted at Nord-Sen Metal



More than 100,000 Maxi-Lift elevator buckets will be installed during Project Horizon, the Saskatchewan Wheat Pool's \$270 million expansion and modernization project.

Industries in Winnipeg, Manitoba to fine-tune the combined operation of elevator and buckets. During the testing, a complete videographic and photographic record was completed.

Project Horizon facilities will handle one hundred car trains and have storage capacity up to 1.5 million bushels. This increased volume warranted the need for a tougher, longer

lasting elevator bucket. This modernization of the Pool puts the organization in position to be the leader in central Canadian grain handling for years to come. The TIGER-TUFF will be there to help that happen. Built to handle the toughest applications, the TIGER-TUFF makes its mark on Canadian grain history.



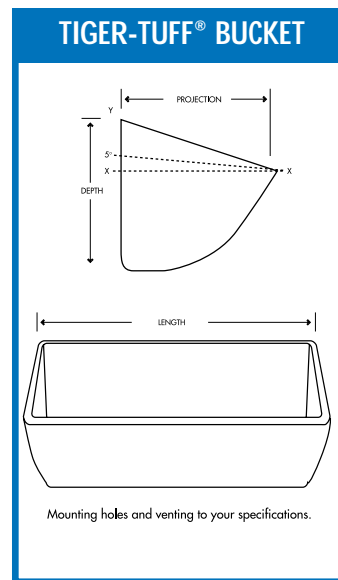
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4) CAN I RETROFIT MY CURRENT ELEVATOR WITH TIGER-TUFF BUCKETS?

In most cases, there is no problem replacing your existing buckets with the Tiger-Tuff. Typically, belt widths are nominal bucket width plus two inches. The Tiger-Tuff will easily fit onto these standard belt widths. Adjustment of the throat wiper may be required to accommodate the slightly larger projection. However, if you are not sure, consult your local millwright or Maxi-Lift to confirm.

5) WILL THE WIDER LIP AND WALLS CAUSE MORE OR LESS DAMAGE TO GRAIN?

Less. The broader surface of the Tiger-Tuff spreads the impact and disperses the energy to a wider area. Thinner walled buckets have a



smaller overall impact area; therefore the energy is concentrated in a smaller zone. Thinner walled buckets also tend to wear to sharp edges on the buckets more quickly, which also causes additional damage.

6) DO ROUND BOTTOM BUCKETS DISCHARGE AS WELL AS ANGLED BOTTOM CC STYLE BUCKETS?

Round bottom buckets like the Tiger-Tuff or Maxi-Lift's standard duty buckets discharge as well or better than the angled bottom cc buckets. Discharge characteristics are determined by a correct exit angle of material from the lip. It has little to do with additional breaks in the bottom.


7) HOW MUCH LONGER CAN THE TIGER-TUFF LAST THAN A STANDARD DUTY BUCKET?

With up to 36% more material in all of the high wear areas, it stands to reason the Tiger-Tuff will last longer than standard duty buckets. With so many factors contributing to wear on elevator buckets, it is impossible to say exactly how much longer. It will vary from

application to application. In some elevators, the Tiger Tuff has lasted twice as long and is still running. Additionally, because of the Tiger-Tuff's thicker build, elevated capacities will remain at their highest point for longer periods than with a standard bucket. This means more efficient operation and increased profit.

8) WILL I LOSE CAPACITY WITH TIGER-TUFF'S THICKER WALLS?

Absolutely not. The Tiger-Tuff was designed thicker by adding more material to the outside of the bucket.

The bucket has a slightly greater width and projection, but maintains its capacity. The shoulderless design also allows for closer spacing than standard to increase elevator capacity. 

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Inspect Your Elevator For *Long Life* of Components

By: Van Buchanan co-owner in Rubber Belting and Hose in Salina, Kansas.

We dropped a leg! No matter when it happens those words send chills through everyone involved...it is a dangerous situation. Could it have been prevented?

Regular inspection is the key to preventative maintenance. Is the belt slipping? If so, it could be worn pulley lagging, or the belt could be worn out on the pulley side. Maybe the belt is stretched and the cups are bottoming out in the boot. If there is a dust suppression unit, is too much oil being used? Has the cover become brittle and hard allowing slippage to occur?

Inspect the cups. If there are

broken or damaged cups, is the pattern uniform or is it erratic? A uniform pattern indicates that the obstruction is permanent and the cups are hitting or have hit over a period of time.

Irregular breakage indicates a one time or limited time occurrence such as tramp metal or a piece of concrete getting into the elevator. If the cups are wearing on one side, are they striking a joint in the trunking or is side-loading causing accelerated wear?

Cup pullout can be another cause for alarm. If the cups break off from the belt, are the bolts pulling through the belt? This could indicate dry rot and

the belt should be replaced in the very near future.

These are just a few of the things to look for if you have problems with a leg belt. Many of these problems can be prevented or detected by regular inspection. In more than twenty-five years of looking at leg problems, nothing is more valuable than a strobe light. It can help identify more problems with a leg in two minutes than you can in two hours without it. Yet it defies my mind that so few elevators have them. Please remember regular preventative maintenance is key to good safety. 🏠



www.maxilift.com

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- Engineering data
- Customer case studies
- Latest newsletter
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- Literature request form
- Direct e-mail access to Maxi-Lift personnel

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P.O. Box 700008
Dallas, TX 75370-0008



or e-mail [@info@maxilift.com](mailto:info@maxilift.com)

Faces On The Phone

Maxi-Lift is pleased to introduce a recent addition to our team. Paul Cervantes joined us in October of 1998. Paul is bilingual speaking both Spanish and English. His primary responsibilities are working with our Spanish speaking customers and distributors. Paul also works with other international customers, as

well as those here in the U.S.

Paul has been married to Donna Kay for nearly 16 years and they have a lovely daughter, Phoebe, age 4.

Paul brings 14 years of experience in sales and customer service and is a welcome addition to our team of professionals. 🏠



Meet our new staff member, Paul Cervantes