

## Ski Lift

### The bearing's "System's Value"

Repair and replace cycle once every 3 - 5yrs

Operating Manufacturers

Doppelmayr Garaventa

Doppelmayr CTEC (North American Division)

Leitner Poma

Gimar Montaz Mautino (GMM)

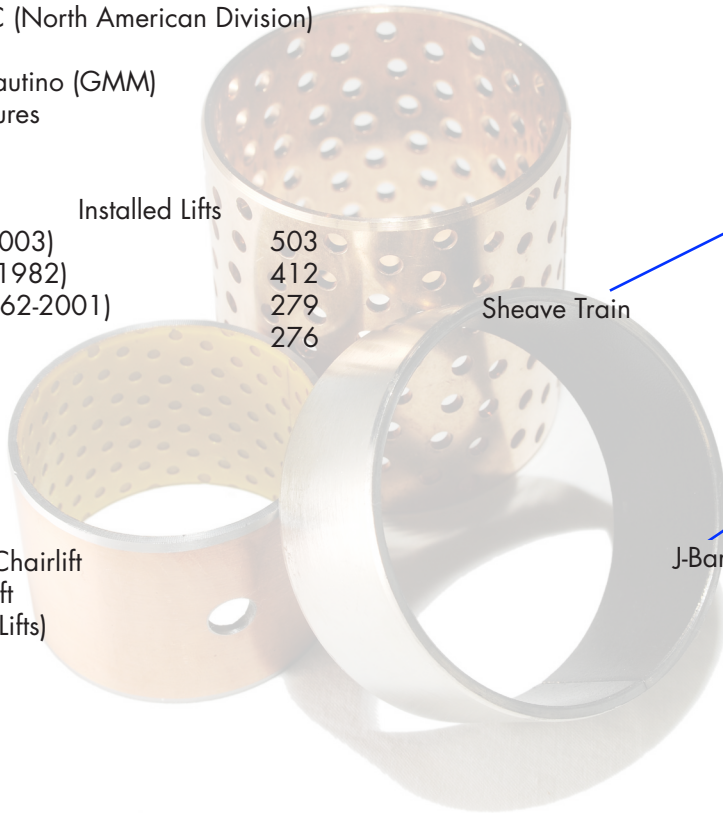
Defunct Manufactures

Approximately 52

Manufacturer	Installed Lifts
Riblet (1930's - 2003)	503
PHB/ Hall (1960-1982)	412
Borvig/Partek (1962-2001)	279
Lift Engineering	276

Surface Lifts  
Rope Tows  
J-Bar  
T-Bar

Aerial Lifts  
Detachable Grip Chairlift  
Fixed Grip Chairlift  
Gondolas (Cabin Lifts)



Sheave Train

J-Bar

T-Bar



## Bearing issues

Water contamination  
Corrosion, freezing, squeaking  
Lubrication issues  
Low temp grease dripping when air temp rises  
Inconsistent lube intervals  
Grease gets forced out of load zone which increases pin and bushing wear  
Grease attracts dust and dirt  
Poor installation practices  
Corrosion  
Abrasive particles due to oxidation

## Bearing Replacement Locations

Sheave Trains  
Grips  
Detachable Grips  
Hangers (Goosenecks)  
Weather Protection Hood  
Safety bar



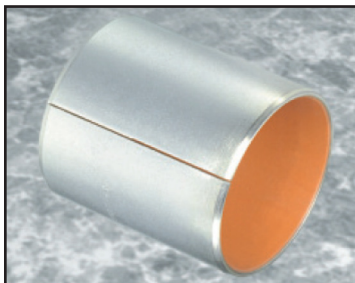
### DX®

Steel backed, porous bronze sinter, lined with acetal (POM)  
Indented for greased applications  
Low wear, low friction  
Temperature range -40 to +120C  
High load capacity  
- 140 MPa (20,000 psi)  
Dimensionally stable  
Good with cyclic load/movement  
PM & MB,

indented & unindented available  
Wide range of standard stock parts

## DX applications:

Sheave Trains  
Grips  
Chair Pivot  
Safety bar



### DS

DX performance with improved friction - Acetal + PTFE  
Can be used dry – lower coefficient of friction  
Excellent resistance to fretting corrosion to the shaft in low amplitude oscillation

Better dry wear resistance than DX  
BP Energrease LZ used for lubrication  
Overlay is thicker than DX  
Greater machining allowance

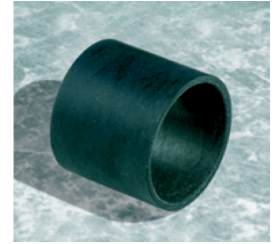
## DS applications:

Grip  
Chair Pivot  
Safety bar

## GAR-MAX®

- High load capacity
- Excellent shock resistance
- Excellent misalignment resistance

Excellent contamination resistance  
Very good friction and wear properties  
Good chemical resistance  
Other GAR-MAX products for special needs:  
HSG, High Strength GAR-MAX, twice the static load capacity of GAR-MAX  
MLG, Monolayer GAR-MAX, value engineered for lighter duty applications  
HPM, HydroPower GAR-MAX, designed for hydropower applications.



## GarMax applications:

Grip  
Chair Pivot  
Sheave Train - HPM  
Safety bar  
Weather Hood

## Advantages using self-lubricated bushings

Self lubricating  
No greasing required saves labor costs  
No grease to fall on customers – no need to replace ruined jackets (\$5 to \$6k per season)  
Increased bushing life by 2 to 3 times  
Reduced frequency of grip rebuild / replacement  
No squeaking

Direct “drop in” replacements for application

## Testimonial

*Dave Denzel, (Mountain Manager) “I wish we would have done this years ago. This helps so much with not having to budget for new bushings and not having to schedule replacing the old greased bronze bushings. I would highly recommend looking at GGB’s system for converting your lifts to maintenance free bushings”.*