

Salt Spray Test Report

FFI Stainless Steel Lift Slide Comparative

A 3000 hour analysis of lift slide door hardware from various manufacturers

Functional Fenestration Inc (FFI) has proven superior salt environment weather-resistance.

Functional Fenestration is committed to the highest possible standards in hardware testing and quality. Functional Fenestration uses the gold standard of **3,000 hour corrosion testing** for our lift slide hardware, while other lift slide manufacturers test for far less hours or not at all. To identify the highest possible standards for hardware that resists the perils of coastal climate and other harsh corrosion conditions, All FFI salt-spray tests are performed to ASTM B-117 standards for 3,000 hours.



Two Stainless steel grades available; 304 & 430.



The only lift slide hardware with a 15-year warranty.

Lift Slide Corrosion Reports



- 1. Test requested by:** FUNCTIONAL FENESTRATION INC
- 2. Test Method:** 5% Salt Spray for 3000 Hours
- 3. Test Standard:** ASTM B-117
- 4. Test Agency:** Korea Testing & Research Institute, By D.H. Choi
- 5. Test Period:** 2008.3.28 < 8.4. Report Date: 2008.8.18
 2014.11.10 Report Date: 2015.1.3
 2015.11.25 Report Date: 2015.11.25
 2016.7.11 Report Date: 2016.7.11
- 6. Product Name:** Lift Slide Roller, Drive gear
- 7. Brands:** FFI, FPL, G-U, Siegenia, Hautau (distributed by Hoppe)

Lift Slide Hardware		Company					
		FFI (304)	FFI (439/430*)	FPL	G-U	Siegenia	Hautau
CORNER DRIVE CARRIAGE	Rust Condition	Minor surface corrosion	Some surface corrosion	Whole carriage corroded	Whole carriage corroded	Whole carriage corroded	Whole carriage corroded
	Operating Condition	Good	Good	Limited operation	Cannot operate	Cannot operate	Cannot operate
DRIVE GEAR LOCK	Rust Condition	Minor surface corrosion	Some surface corrosion	Whole gear corroded	Whole gear corroded	Whole gear corroded	Not Tested
	Operating Condition	Good	Good	Cannot operate	Cannot operate	Cannot operate	Not Tested

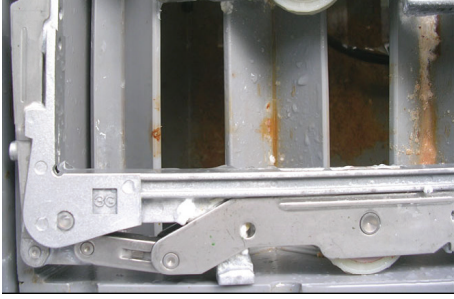
* 430 & 439 are very similar

Conclusions

- FFI** Small amounts of corrosion, however condition of product is good. Corrosion is not causing problems to operation and function.
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- FPL** Product was contaminated by corrosion and rust. Corrosion caused critical problems for function. Lifespan dramatically limited.
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- G-U** Product was contaminated by corrosion and rust. Corrosion caused critical problems for function. Product was impossible to operate.
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- Siegenia** Product was contaminated by corrosion and rust. Corrosion caused critical problems for function. Product was impossible to operate.
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- Hautau** Product was contaminated by corrosion and rust. Corrosion caused critical problems for function. Product was impossible to operate.

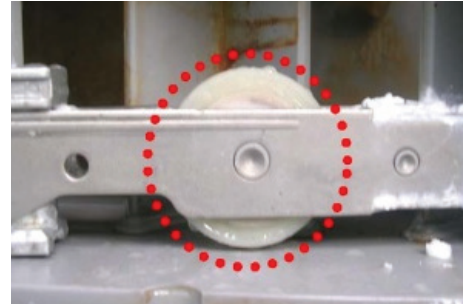


Manufacturer: Functional Fenestration Inc.
Lift Slide Material: Stainless Steel 304

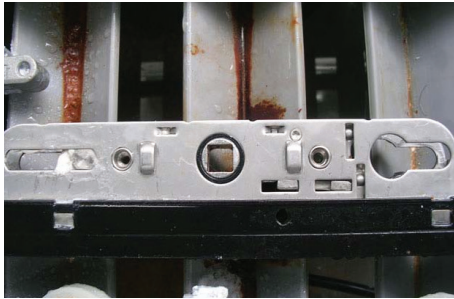


CARRIAGE

BODY	Minor corrosion
BAR	No corrosion
BEARING	Minor corrosion
OPERATION	No problem



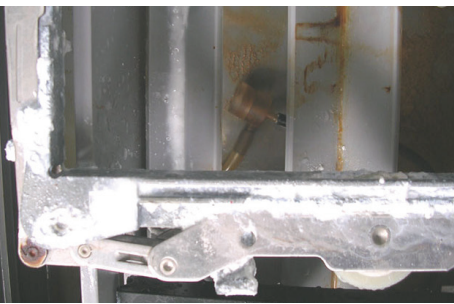
DRIVE GEAR



GEAR BOX	Minor corrosion
LINKAGE	SST Flat linkrod/Pin Fail-proof
AL SASH	No corrosion
OPERATION	No problem

15-years FFI warranty for 304
 Stainless Steel System against
 defects and corrosion failure.

Manufacturer: Functional Fenestration Inc.
Lift Slide Material: Stainless Steel 439 (430)



CARRIAGE

BODY	Minor corrosion
BAR	No corrosion
BEARING	Minor corrosion
OPERATION	No problem



DRIVE GEAR

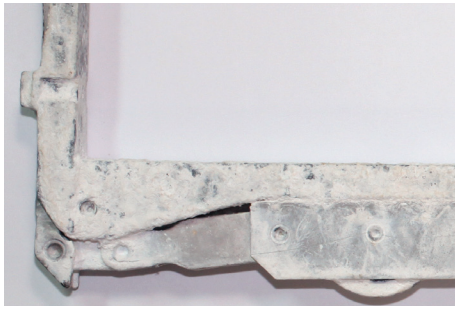


GEAR BOX	Minor corrosion
LINKAGE	SST Flat linkrod/Pin Fail-proof
AL SASH	No corrosion
OPERATION	No problem

15-years FFI warranty for 430
 Stainless Steel System against
 defects and corrosion failure.

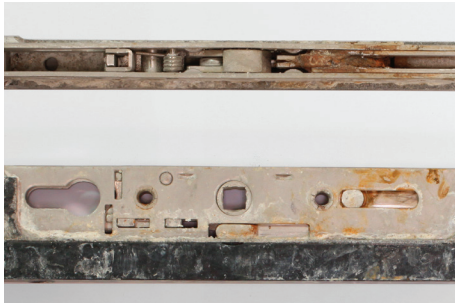
Within 5 miles of sea coast:
 warranted 2 years for corrosion
 failure.

Lift Slide Manufacturer: FPL



CARRIAGE (#97, 98, 94)

BODY	Plating is corroded. White rust is present.
BAR	Plating was corroded, Rust is present.
BEARING	Corrosion at 48 hours No longer functional
OPERATION	Cannot roll. Corroded plate is stuck between roller and housing.



DRIVE GEAR (#95)

GEAR BOX	Plating is corroded. There is serious rust.
LINKAGE	Stainless Flat linkrod/Pin Grade unknown
AL SASH	Severe corrosion
OPERATION	Impossible



Lift Slide Manufacturer: G-U Model G.U. 934, EV1



CARRIAGE (K-164 88-00-0-1)

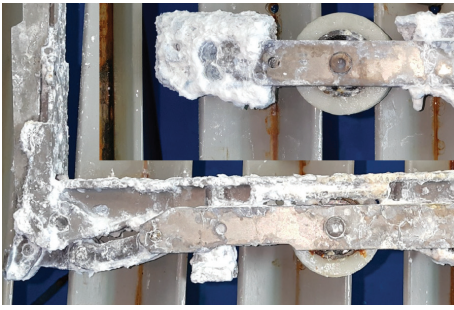
BODY	Plating is corroded. White rust is present.
BAR	Plating was corroded, Rust is present.
BEARING	Corrosion,
OPERATION	Cannot roll. Corroded plate is stuck between roller and housing.



DRIVE GEAR

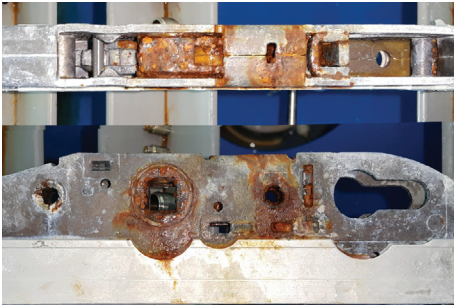
GEAR BOX	Plating is corroded. There is serious rust.
LINKAGE	Steel Cylindrical Rod with Set screw. Failure eminent
AL SASH	Severe corrosion
OPERATION	Impossible

Lift Slide Manufacturer: Siegenia Model HS Portal 300TS



CARRIAGE (PEU B0030-10001, PLW B0040-10001)

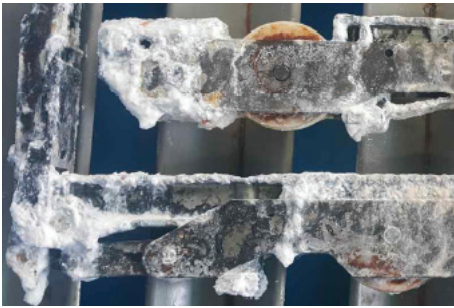
BODY	Plating is corroded. White rust is present.
BAR	Plating was corroded, Rust is present.
BEARING	Corrosion,
OPERATION	Cannot roll. Corroded plate is stuck between roller and housing.



DRIVE GEAR (PGKB 4080-52401)

GEAR BOX	Plating is corroded. There is serious rust.
LINKAGE	Steel Flat linkrod/Pin Corrosion eminent
AL SASH	Severe corrosion
OPERATION	Impossible

Lift Slide Manufacturer: Hautau (Distributed by Hoppe) Model HS 300 (#184575)









CARRIAGE (#184575)

BODY	Plating is corroded. White rust is present.
BAR	Plating was corroded, Rust is present.
BEARING	Corrosion,
OPERATION	Cannot roll. Corroded plate is stuck between roller and housing.



Summary: Lift Slide Hardware 3000 Hour Test Results

<p>FFI Stainless Steel 304</p>		<p>BODY: Minor corrosion BAR: No corrosion BEARING: Minor corrosion OPERATION: No problem</p>
<p>FFI Stainless Steel 439 (430)</p>		<p>BODY: Minor corrosion BAR: No corrosion BEARING: Minor corrosion OPERATION: No problem</p>
<p>FPL</p>		<p>BODY: Plating is corroded, serious white rust. BAR: Plating is corroded, rust is present. BEARING: Corrosion OPERATION: Cannot roll, plate is stuck between roller and housing.</p>
<p>G-U</p>		<p>BODY: Plating is corroded, serious white rust. BAR: Plating is corroded, rust is present. BEARING: Corrosion OPERATION: Cannot roll, plate is stuck between roller and housing.</p>
<p>Siegenia</p>		<p>BODY: Plating is corroded, serious white rust. BAR: Plating is corroded, rust is present. BEARING: Corrosion OPERATION: Cannot roll, plate is stuck between roller and housing.</p>
<p>Hautau (Distributed by Hoppe)</p>		<p>BODY: Plating is corroded, serious white rust. BAR: Plating is corroded, rust is present. BEARING: Corrosion OPERATION: Cannot roll, plate is stuck between roller and housing.</p>

FFI has coastal (304) and non-coastal (430) stainless steel versions.
We invite you to review our exclusive value-added features, low installation and service costs,
and pricing with the competition – you’ll be glad you did!
Call us today and we’ll walk you through it.



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