

The Mobilift AX & Mobilift AXR

Wheelchair Lifts for Aircraft

Specifications and Technical Reference

Adaptive Engineering Inc.



The Mobilift AX / AXR is used to enplane and deplane disabled passengers on regional and narrow body aircraft that are ground loading. The lifts comply with the US Air Carrier Access Act requirements and the FAA regulations for boarding lifts. The lift protects both the passenger and the airline employee from the risks of hand carrying a boarding chair.

The Mobilift AX has served at half the primary airports in the United States and Canada because it offers superior reliability, safety and ease of operation.

Passenger comfort and safety

The lift deck is supported at all four corners (instead of from a single tower), which feels better and more stable to the passenger. The lifting mechanism itself is smooth and continuous, without hesitations or jerkiness. Passengers who can't use stairs but can stand have parallel handrails to hold on to while on the lift. The four-point support structure also makes the lift safe – each lift is load tested to 3000 lbs before it is placed in service.

Reliability and manual operation

The Express Mobilift AX has a manual crank drive that avoids the problems with reliability and maintenance common to powered lifts. This drive makes the Mobilift outstandingly reliable and low maintenance. It doesn't have electric or hydraulic components or batteries, so it doesn't have failures of those systems. Poor weather does not interfere with the lifting operation at all. The Mobilift works effectively when it is used many times daily or when it is used a few times a year. The lifting mechanism works together with counterbalance springs that do much of the work for the operator. Maintenance checks are recommended only annually.

Aircraft damage protection

The Express Mobilift AX is designed to operate safely on the ramp and to minimize risk to the aircraft. When positioning the lift, the brakes release when the operator uses the push handle – if the operator lets go, the brakes lock and the lift stops immediately. This keeps the lift braked near the aircraft and when it is parked. In addition, the operator has complete control over the lift's position, good visibility, and a feel for its movement. The lift eliminates the risks from large, powered lifts with joystick controls close to the plane. The body of the lift is positioned well back from the fuselage. Expected points of contact on the airplane sill are covered with non-marking bumpers.

Fast cycle times

The deck of the lift can be raised to sill height in 30 seconds or less. Moving the lift into position or back away from the aircraft is helped by clear lines of sight for the operator and precise, manual positioning. Mobility of the lift is high and it can easily be moved by a single operator. If the lift is stored remotely, it can be towed at normal ramp speeds.

Training for operators

Lift operators don't need strength, special skills, or licenses. Training takes less than an hour and is supported by pictograms on the lift, as well as a training video or manual.



Model AX & Model AXR Technical Specifications

Weight:	AX - 880 lbs. (393 kg) / AXR - 920 lbs. (410 kg)
Height:	AX - 78" (2.21 m) / AXR - 110" (2.80 m)
Width:	AX - 73" (1.85 m) / AXR - 73" (1.85 m)
Length:	AX - 90" (2.30 m) / AXR - 90" (2.30 m)
Lift platform size:	Designed for standard aircraft boarding chairs
Ground ramp length:	AX - 90" (2.30 m) / AXR - 38" (0.97 m)
Bridge ramp length:	AX - 77" (1.95 m) / AXR - 77" (1.95 m)
Capacity:	AX - 600 lbs. (270 kg) / AXR - 600 lbs. (270 kg) Factory load tested to 3000 lbs. (1,300 kg) Certified test results available on request
Max. sill height:	AX - 78" (1.98 m) AXR - 108" (2.74 m) Note: reaches 737, 727, DC9, MD80, F28

General Information

- Time to position at aircraft - under one minute.
- Typical lifting time is 20 seconds to maximum height for the AX and 30 seconds for the AXR.
- Minimum safety factors - cables: 12.0, other load-carrying components: 4.0.
- Service requirements are minimal and can be handled by any mechanic.
- Parts delivery is 48 hours in most cases.
- Patents: 5,040,638 and 4,926,973 (others pending, all rights reserved)

Features and Benefits

- Easy operation
- Auto-safety crank with two load-activated drum brakes
- 360 degree visibility for positioning
- Automatic self-leveling
- Designed to meet FAA 90 mph (145 kph) windload requirement
- Dead-man parking brake to prevent rolling
- Automatic gate opening
- Counter balanced platform for easy lifting
- Quick-change spare tire
- Tow bar with automatic brake release
- Slip-resistant surfaces
- Non-marking bumpers
- Reflective marking tape
- High-level placement bumper
- Complete training package available
- Comprehensive owner's manual

Materials

- 6061 T6 aluminum space frame construction
- Stainless steel cables (7 X 19 aircraft grade)
- Sealed ball bearings
- Industrial duty wheels
- Stainless steel fasteners and fittings
- Urethane bumpers

Design and Test Standards

- The Mobilift AX and AXR conform to stringent FAA jet blast stability requirements as verified by wind load software.
- Critical components have been tested successfully for extreme weather performance from -50° F to + 130° F.
- Each lift is factory load tested to 3000 lbs. to ensure the integrity of all components. Test reports are available on request.

ADA Compliance

- The Mobilift AX & AXR models are both fully ADA, FAA & Air Carrier Access Act compliant

Mobilift AX / AXR Testimonials

"I have had the opportunity to use the lift and it worked wonderfully. I was loaded and unloaded with ease."

Disabled Passenger

"The lift is light, easily maneuverable adjacent to aircraft and is extremely quick to react to the needs of our busy ground support crew."

San Francisco International Airport

"The operation takes about two minutes from start to finish, even for the newest employees. This lift has met or exceeded all of our expectations as a useful, functional and reliable piece of equipment"

Rhineland Oneida County Airport

Aircraft Compatibility – Model AX

Mobilift AX

- ATR 42, ATR 72
- BAe Jetstream 31, 41, BAe 125
- Beechcraft 1300, 1900C, 1900D, Super King
- Air 350
- CRJ, Challenger, Global Express
- Casa C212, CN235
- Cessna 402, 406
- De Havilland Dash 7, Dash 8, Twin Otter
- Dornier 228, 328, 428, 528, 728, 928
- Embraer 110, 120, 123, 135, 145
- Fairchild Metroliner (no adapter required)
- Fokker F27, 50
- Saab 340A, 340B, 2000
- Shorts 330, 360

Mobilift AX

- Fokker F28
- Boeing 737, 727, 717
- Avro RJ/146
- MD80, DC9
- ERJ 170 / 190

Environmental

The Mobilift is a manually powered lift that uses no engines, motors or even electrical power. As a result, it meets all environmental restrictions for emissions that may be in place.

Warranty

Every Mobilift carries a 2 year warranty from the date of invoice. The lift is also covered by after-sales support and assistance. Parts can generally be shipped within 48 hours.

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