



# Aviation Investigation Final Report

<b>Location:</b>	CHICAGO, Illinois	<b>Accident Number:</b>	CHI00FA244
<b>Date &amp; Time:</b>	August 16, 2000, 11:40 Local	<b>Registration:</b>	N764AT
<b>Aircraft:</b>	Boeing 727-264	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	105 None
<b>Flight Conducted Under:</b>	Part 121: Air carrier - Scheduled		

## Analysis

The tow bar fractured through a weld on a tow bar during the pushback of a Boeing 727. Weld material remained partially attached at both ends of the separation and in some locations the weld was not attached to its adjoining surface.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the fractured tow bar and the inadequate weld of the tow bar by an unknown person.

## Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: TAXI - PUSHBACK/TOW

### Findings

1. (C) MISC EQPT/FURNISHINGS, TOW BAR - FRACTURED
2. (C) MATERIAL INADEQUATE - UNKNOWN

## Factual Information

On August 16, 2000, at 1140 central daylight time, a Boeing 727-264, N764AT, operated by American Trans Air as flight 253, was substantially damaged during pushback at the Midway Airport, Chicago, Illinois. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 121 scheduled domestic passenger flight was operating on a flight plan. The 3 crew members, 4 flight attendants and 98 passengers aboard the aircraft reported no injuries. The driver of the pushback tractor reported no injuries. The flight was destined to the Dallas Fort Worth Airport, Dallas, Texas and was originating at the time of the accident.

The driver of the pushback tractor reported that when he applied the brakes to the tractor, the steering wheel "jumped" in his hands and the tractor veered to the right. The tow bar subsequently fractured at the location of a weld and the aircraft impacted the tractor's mirror.

Inspection of the tow bar revealed that the fracture occurred within the weld material with some of the weld material still attached to the tow bar. Photos of the tow bar are included in this report.

### Pilot Information

<b>Certificate:</b>	Airline transport; Commercial	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	February 22, 2000
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	8407 hours (Total, all aircraft), 2654 hours (Total, this make and model), 4777 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	N764AT
<b>Model/Series:</b>	727-264 727-264	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	22984
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	182
<b>Date/Type of Last Inspection:</b>	July 17, 2000 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	195500 lbs
<b>Time Since Last Inspection:</b>	219 Hrs	<b>Engines:</b>	3 Turbo jet
<b>Airframe Total Time:</b>	49819 Hrs	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	JT8D-17 SER
<b>Registered Owner:</b>	FIRST SECURITY BANK	<b>Rated Power:</b>	16000 Lbs thrust
<b>Operator:</b>	AMERICAN TRANS AIR	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	AMTA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MDW ,619 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	11:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	21°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	72°C / 55°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(MDW )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	DALLAS , TX (DFW )	<b>Type of Clearance:</b>	
<b>Departure Time:</b>	11:29 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	CHICAGO MIDWAY MDW	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	620 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	7 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	98 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	105 None	<b>Latitude, Longitude:</b>	41.78078,-87.770988(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gallo, Mitchell
<b>Additional Participating Persons:</b>	FRANK MOORE; SCHILLER PARK , IL JULIE HARKEY; INDIANAPOLIS , IN
<b>Original Publish Date:</b>	October 2, 2001
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=50058">https://data.ntsb.gov/Docket?ProjectID=50058</a>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).