PELICAN CASE TEST

AIR TRANSPORTATION ASSOCIATION

SPECIFICATION 300 - PACKAGING OF AIRLINE SUPPLIES - Category I

Author: Kevin Deighton

Product Devopment Engineer

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PELICAN PRODUCT CASE TESTING
TO
AIR TRANSPORTATION ASSOCIATION
SPECIFICATION 300 - PACKAGING OF AIRLINE SUPPLIES

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ABSTRACT

The following report documents the results of testing eight (8) Pelican cases to examinations based upon the Air Transportation Association (ATA) Specification 300 - Packaging of Airline Supplies. The cases were tested to comply with the requirements for Category I - Containers reusable for a minimum of 100 round trips. The cases were tested for impact and drop test resistance. Based upon the requirements of ATA 300, five (5) of the seven (7) cases suffered no damage that would compromise the integrity of the unit and subsequently passed the test. The two cases that failed the test suffered damage that can be classified as a failure.

I DESCRIPTION

The following cases were subjected to the ATA test:

Model Numbers :	1400	1650
	1500	1700
	1550	1750
	1600	

All of the above cases are constructed from 1627-T10 Polypropylene, block copolymer resin. Each unit is comprised of a lid and base, permanently attached together by a hinge arrangement, closed by latches. The cases are sealed against the ingress of water by an O-Ring seal attached to the lid. To facilitate changes in air pressure, each case is fitted with a purge valve.

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III. TEST RESULTS

1. Impact Test

All of the cases passed the impact test without any degradation to the structural integrity of the container.

2. Drop Test

The 1400, 1500, 1550, 1600, and 1650 cases passed the drop test without any degradation to the structural integrity of the container. The following cases did not pass the test:

Case 1700: The main handle area collapsed after the drop test with weight.

Case 1750: The main handle area collapsed after the drop test with weight.

II EXAMINATION AND TEST

1. Impact Tests

The impact test for Category I containers was accomplished by subjecting the containers to an impact by a bar of 3.2 centimeters in diameter with a hemispherical end, weighing 6 kilograms being dropped with its longitudinal axis vertical, onto the weakest point of any exterior surface of the container. The drop was executed from a height of 0.5 meters from the bottom of the bar to the surface of the container. A failure is classed as penetration of the outer wall or damage to the container that permanently degrades the structural integrity of the container.

2. Drop Tests

The cases were initially dropped from a height of 76 centimeters onto each corner, face and edge with the results being noted after each drop. The cases were next subjected to the same series of drop tests with the inclusion of secured weight. The weights used were as follows:

Case 1400	18.1 Kilograms
Case 1500	13.6 Kilograms
Case 1550	18.1 Kilograms
Case 1600	22.7 Kilograms
Case 1650	22.7 Kilograms
Case 1700	22.7 Kilograms
Case 1750	22.7 Kilograms