

INTRODUCTION

Introduction to the Bambi Bucket®

Since its introduction to the marketplace in 1983, the Bambi Bucket has become the preferred means of helicopter fire fighting by over 600 companies and agencies worldwide. The industrial fabrics used in the construction of the Bambi Bucket are designed specifically for the Bambi Bucket and meet substantial safety factors to provide the operator with a quality product that is designed to last.

This manual is intended to provide the user with information that will allow for the proper repair assessment evaluation of the Bambi Bucket. The repair assessment process is mostly identical for all sizes of the Bambi Buckets, with exceptions noted for minor bucket design variations between the models. In these cases subsections describing the different types of damage will be presented. Diagrams, photos and part descriptions are provided as an aid for quick identification and evaluation of parts and components on the Bambi Bucket.

This manual contains specific guidelines for the assessment of the operational condition of Bambi Buckets. At the end of each section of the Repair Assessment Manual is a guide that sorts the component defects into one of four categories, **Safety, Operational, Monitor, and OKAY**. Use the guideline definitions below to determine how urgently a repair should be carried out:

Attached as a supplement is the repair assessment process and guidelines for the Bambi Bucket fitted with the PowerFill II shallow water pumping system. The following guidelines are also to be used to sort the component defects into categories and determine the urgency of repairs.

Category 1: Safety

All defects in this category must be repaired immediately before further operation of the Bambi Bucket. Ignoring defects in this category could result in personal injury or damage to equipment. These defects can compromise the following functions of the Bambi Bucket:

1. Structural integrity
2. Flight stability
3. Water release
4. Flight Safety

Category 2: Operational

All defects in this category should be repaired before the next operational day, or approximately 8 hours of flight time. The defects do not compromise the safety of the bucket, but may lead to Category 1 defects if not addressed within a short time frame.

Category 3: Monitor

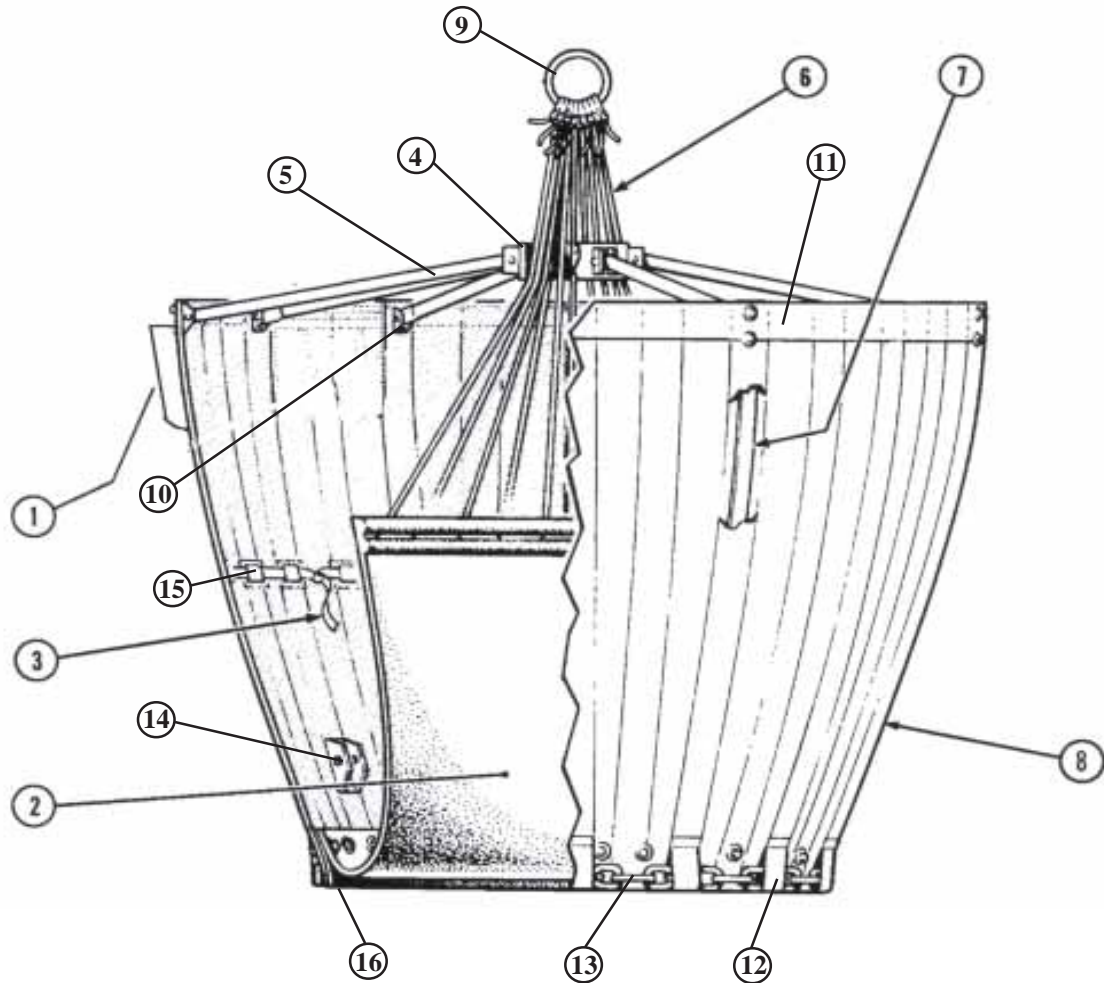
Many defects such as wear, abrasion and minor impact damage do not need urgent attention. Defects of this nature should be monitored daily and repaired before the progress to Category 2 defect.

Category 4: OKAY

The Bambi Bucket does not need repairs.

SECTION A.: PARTS - SHELL AND VALVE MODELS 6072-1821

Parts Diagram



<u>Diagram #</u>	<u>Description</u>	<u>Diagram #</u>	<u>Description</u>
1	Ballast Plates	9	Riser Ring
2	Dump Valve	10	IDS Brackets
3	Cinch Strap	11	Top Webbing
4	IDS Hub	12	Bottom Webbing Loops
5	IDS Spokes	13	Bottom Chain
6	Purse Line Set	14	Hub Restrainer Bracket
7	Side Battens	15	Cinch Strap Loop
8	Bambi Bucket Shell	16	Bottom Webbing

Figure 1



Bambi Bucket®

The Weapon of Choice

Lightweight, tough, and easily stowed, the Bambi Bucket has proven itself in action worldwide as the most powerful and effective weapon for aerial fire suppression. The award-winning foam compatible Bambi Bucket comes complete and ready to deploy with a simple electrical hookup. The design of the Bambi Bucket creates a solid column of water or foam to be dropped on targets with absolute precision!

A helicopter with a Bambi Bucket is a highly efficient, independent firefighting vehicle. It is the ultimate aerial firefighting solution that puts more water on the fire than any other system, at a lower cost.



Photo courtesy of Corporation Whale C.A.

Since its inception and introduction to the industry in 1983, the award-winning Bambi Bucket has been hailed worldwide for its rapid response capability and operational effectiveness. It is these characteristics that are so critical in mounting immediate attacks against fires in both urban and remote wildland areas.

Features

- Compact and portable
- Lightweight
- Variable fill capability
- Fast fill and shallow water capability
- Pilot controlled dump patterns
- Eighteen sizes available, 72 to 2,600 U.S. Gallons (270-9,840 litres)
- Dump valve opens instantly

The Bambi Bucket versus Fixed Wing Systems

Fixed wing tankers are less efficient in comparison to helicopters due to the usually excessive shuttle time between the water source and the fire. By contrast, helicopters can utilize a local water source. The benefit is the reduced delivered water cost using helicopter-borne buckets, shown to be less than one third that of fixed-wing tanker aircraft.



Bambi Bucket and Helwell Tank, photo courtesy of Mulligan & Associates

Worldwide with the Bambi Bucket

The effectiveness of the Bambi Bucket has drawn attention from resource management and fire suppression authorities worldwide. Over one thousand commercial operators, government agencies and military organizations in over 95 countries now operate the Bambi Bucket.

BAMBI BUCKET SPECIFICATIONS

Model #	Capacity		Gross Weight		Empty Weight	
	U.S. Gal	Liters	Lbs	Kg	Lbs	Kg
6072	72	270	666	303	66	30
8096	96	365	870	395	70	32
9011	108	410	971	441	70	32
1012	120	455	1072	487	72	33
1214	144	545	1273	579	73	33
1518	180	680	1574	797	75	34
1821	210	795	1876	853	76	35
2024	240	910	2135	970	135	61
2732	324	1225	2853	1300	154	70
3542	420	1590	3667	1667	167	76
4453	530	2000	4587	2085	170	85
5566HD	660	2500	5805	2638	304	138
5870HD	700	2655	6170	2805	330	150
6578HD	780	2955	6846	3111	356	162
7590	900	3405	7775	3534	375	170
HL5000	1320	5000	11390	5177	390	177
HL7600	2000	7570	17115	7780	465	211
HL9800	2600	9840	22180	10081	530	241

**Models 9011 & larger come complete with The FireSock water and foam dispersal accessory

Bambi Bucket®

with the TORRENTULA™ VALVE

For years, the Bambi Bucket has been the weapon of choice worldwide for aerial firefighting. Now, the Bambi Bucket with the Torrentula dump valve makes the Bambi a much more lethal weapon! This innovative, fast-acting, reliable valve provides the operator deadly precision with multiple drops and/or variable flow rates. This Bambi Bucket shows no mercy when attacking numerous hotspots!

Performance

The revolutionary design of this unique valve gives the Bambi Bucket major performance enhancements, provides pilots with ultimate control.

Multiple Water Drops: each bucket load can be unloaded in as many separate dumps as the operator requires

Variable Flow Rate: infinitely variable from 0-100%

Compact Stowage: bucket still collapses completely allowing transport to the fire site inside the helicopter

Bambi Bucket with the Torrentula Valve Specifications

Model #	Capacity			Gross Weight		Empty Weight	
	USG	Imp. Gal.	Liters	Lb.	Kg	Lb.	Kg
BBT 2732	315	265	1190	2845	1295	183	83
BBT 3542	410	345	1555	3660	1665	197	89
BBT 4453	520	435	1960	4580	2080	217	98
BBT 5566 HD	640	535	2400	5777	2600	425	191
BBT 5870 HD	680	566	2574	6124	2778	451	204
BBT 6578 HD	760	635	2850	6818	3068	476	214
BBT 7590 HD	880	735	3300	7747	3486	495	225
BBT HL5000	1300	1080	4900	11362	5112	510	230
BBT HL7600	2000	1665	7570	17087	7690	585	263
BBT HL9800	2600	2165	9840	22152	9968	650	292

The All-New Power Fill!

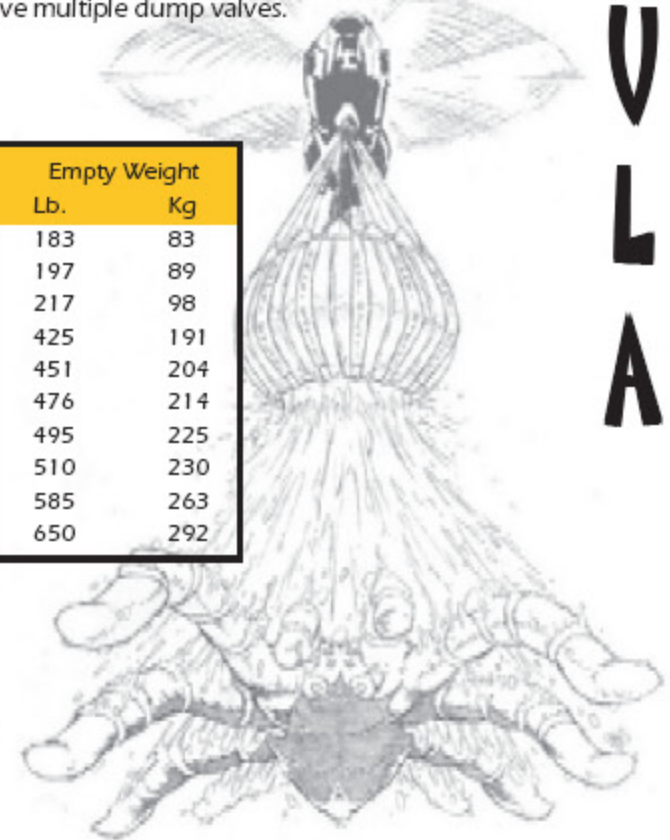
The innovative spirit of SEI's R&D and engineering personnel has produced the next significant development in Bambi Buckets. The addition of the Power Fill to the Bambi Bucket enables a fast bottom fill from water sources as shallow as 18 inches (46 cm)! Medium sized Bambi Buckets can be filled in approximately 30 seconds, larger Type I buckets (HL 5000-HL9800) in 50 to 100 seconds. Please contact SEI Industries or SEI Industries International for more information.



Faster Bucket Filling: improving on the traditional fast dip fill of the standard Bambi Bucket, the Bambi Bucket with the Torrentula Valve is also capable of an extremely fast bottom fill. This provides operators with an even faster turnaround time.

Quick Open & Close: split second valve actuation allows precision drops

Low Power Draw: the exclusive ground-breaking design of the Torrentula valve does not fight gravity to dump. The design also provides for extremely low hydrodynamic drag at the valve itself. These features reduce power draw and distinguish the Torrentula valve over all competitive multiple dump valves.



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