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***Estes Body Tube/Kit Reference***

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## **Foreword**

It is the intent of this document to provide a comprehensive listing and characterization of all known body tubes in the Estes Industries kit line. Only kits have been considered; no starter sets, cold power models, or RTFs have been included.

For the purpose of this listing, a body tube is defined as a structural tube component that provides form and/or shape for the model; we have also included motor mount tubes. Body tube couplers and engine hook sleeves have not been included except in those cases where this type of part has been incorporated into the form of the model (e.g.: JT-80C, used as the tail rings in #2010, Star Rider).

The Body Tube Reference has been organized by kit number, rather than by part number, unlike its companion reference the Estes Nose Cone/Kit Reference List. The reason for this goes to the opposite way in which the two lists tend to be used: the Nose Cone reference is most often used to find a late model kit that can be scavenged for its nose to hopefully clone an older model. The Body Tube list is organized to tell the modeler the type, length and quantity of tubes comprising a particular model. This is also consistent with the general observation that while the majority of the kits tend to have only one nose cone, the obverse tends to be true for body tubes.

This document also includes two appendices, which provide further detailed information for the modeler. Appendix I clarifies tube use and other specific kit information; Appendix II expands the 1974 Custom Parts Catalog by identifying the "new" body tubes and associated part numbers created since its release.

In closing, I would like to extend a very special thank you to Bill Eichelberger, whose input to this activity helped confirm a significant amount of the research. I would also like to thank the many other "Old Rockets" rocketeers who offered input on the Newsgroup in support of this compilation. This data has been very helpful while cross-checking and confirming my own measurements and assessments, and is greatly appreciated.

December 2005

John Brohm

# Estes Body Tube/Kit Reference List

## Legend

- The Body Tube Reference List provides the part number, type and quantity of each tube type included in the listed kit. Quantity is indicated by a number in parentheses; an absence of parentheses is an indication of a single tube. Pre-colored body tubes also have their color attribute indicated in parentheses when applicable.
- Most kit entries have been contained in a single line; an entry that requires more than one line is grouped in a box to avoid confusion between lines.
- Many of the later model kit instructions do not include body tube part numbers; where possible, these have been added using the 1974 Custom Parts Catalog as the reference. No available or known part number is indicated by the entry "??????".
- To the maximum extent possible, tube lengths have been confirmed by direct measurement. Certain tube types were found to have a variation in length, so in these cases, the generic length from the 1974 Custom Parts Catalog was used as the entry. This topic is covered more fully in Appendix I.
- In later model kits, Estes sometimes varied the prefix for "Body Tube" in the part designation. Instead of the more familiar "BT", some kit instructions might show "#" or perhaps no prefix at all. Heavy walled tubes have been observed to have their prefix vary between "HBT" and "HD". For the sake of uniformity in the listing, we have adopted "BT" and "HBT" as the designation prefixes.

Certain early kits contained "special" body tubes, and these were designated "SBT". Again, for the sake of uniformity, this special tube designation method was preserved in this listing where warranted.

- Clarifying notes pertaining to certain kits are provided in Appendix I. Kits so affected are annotated in the Kit Name column with a reference to Appendix I.

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
K-1/1201	Scout	030340	BT-30A	3.5"						
K-2	Mark	030342	BT-30B	6.125"						
K-3	Space Plane	030344	BT-30C	5.5"						
K-4/1204	Streak	030314	BT-10H	3.062"						
K-5/1205	Apogee II	030322	BT-20D	6.50"	030324	BT-20G	3.5"	030604	PST-20J	2.75"
K-6	Ranger	030406	BT-60D	11.00"	030414	BT-60K	7.00"	030326	BT-20J (3)	2.75"
K-7	Phantom	030602	PST-20	8.00"						
K-7B	Phantom (Appendix 1)	030620	PST-50FJ	6.00"	030604	PST-20J	2.75"			
K-8/1208	Sky Hook	030346	BT-30F	7.00"						
K-9	Spaceman	030412	BT-60J	2.75"						
K-10/1210	Cobra	030406	BT-60D	11.00"	030368	BT-50S	4.00"	030326	BT-20J (3)	2.75"
K-11/1211	WAC Corporal	030320	BT-20B	8.65"						
K-12/1212	Farside (Appendix 1)	030360	BT-50H	7.75"	030362	BT-50J (2)	2.75"	030326	BT-20J	2.75"
		030368	BT-50S	4.00"				030334	BT-20M (2)	2.25"
K-12X	Farside X	030360	BT-50H	7.75"	030362	BT-50J (2)	2.75"	030326	BT-20J	2.75"
		030418	BT-60R	5.00"				030334	BT-20M (2)	2.25"
K-13/1213	Falcon	030326	BT-20J	2.75"						
K-14/1214	Drifter	030360	BT-50H	7.75"	030326	BT-20J	2.75"			
K-15	Sprite	030350	BT-30K	2.344"	030172	RT-70	0.688"			
K-16	Delta	030360	BT-50H	7.75"	030326	BT-20J	2.75"	030334	BT-20M	2.25"
		030362	BT-50J	2.75"						
K-17/1217	Aerobee 300	030306	BT-5P	5.1"	030366	BT-50L	12.7"	030326	BT-20J	2.75"
K-18/1218	X-Ray	030320	BT-20B	8.65"	030608	PST-50S	4.00"			
K-19	Invader	030326	BT-20J	2.75"						

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length	
K-20	Mars Snooper	030360	BT-50H	7.75"	030322	BT-20D	6.5"	030308	BT-5T (3)	1.5"	
					030326	BT-20J	2.75"				
K-21	Gemini Titan	030324	BT-70	17.5"	030414	BT-60K	7.00"	030320	BT-20B	8.65"	
								030324	BT-20G (2)	3.5"	
K-22/1222	V-2	030390	BT-55S	4.00"	030324	BT-20G	3.5"				
K-23/1223	Big Bertha	030396	BT-60	18.00"	030320	BT-20B	8.65"				
K-24/1224	Gyroc	030322	BT-20D	6.5"							
K-25/1225	Alpha	030360	BT-50H	7.75"	030326	BT-20J	2.75"				
EK-25/1419	Alpha II	030360	BT-50H	7.75"	030324	BT-20G	3.5"				
K-26/1226	ARCAS	030392	BT-55V	16.5"	030326	BT-20J	2.75"				
K-27/1227	Honest John	030372	BT-50W	9.5"	030326	BT-20J	2.75"				
K-28	Thor-Agena B	030414	BT-60K	7.00"	030380	BT-52S	3.938"	030326	BT-20J	2.75"	
K-29/1229	Saturn 1b	030442	BT-101T	2.78"	030430	BT-70V	10.6"	030376	BT-51N (8)	12.42"	
			030436	BT-100Z	10.89"	030422	BT-63Y (2)	1.34"	030352	BT-50	18.00"
							030326	BT-20J (4)	2.75"		
K-30	Little Joe II	030428	BT-70H	7.15"	030326	BT-20J	2.75"				
K-31	Star Blazer	030322	BT-20D	6.5"	030334	BT-20M	2.25"				
K-32	Starlight	030366	BT-50L	12.7"	030172	RT-70 (2)	0.688"	030326	BT-20J	2.75"	
K-33/1233	Trident	030372	BT-50W	9.5"	030326	BT-20J	2.75"	030302	BT-5 (3)	18.00"	
			030368	BT-50S							4.00"
K-34/1234	Nighthawk	030320	BT-20B	8.65"							
K-35/1235	Constellation	030360	BT-50H	7.75"	030608	PST-50S	4.00"	030326	BT-20J	2.75"	

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
K-36/1236	Saturn V	030438	BT-101	16.5"	030420	BT-63CJ	3.00"	030364	BT-50KE	15.00"
		030440	BT-101K	7.59"	030412	BT-60J	2.75"	030360	BT-50H	7.75"
		030432	BT-80	7.6"	030394	BT-58	12.75"	030326	BT-20J (3)	2.75"
K-37/1237	Scrambler	030406	BT-60D	11.00"	030616	PST-65R	5.00"	030326	BT-20J (3)	2.75"
K-38	Avenger (Appendix 1)	030392	BT-55V	16.35"	030360	BT-50H	7.75"	030326	BT-20J	2.75"
		030386	BT-55J	2.75"				030334	BT-20M	2.25"
K-39/1239	Semi-Scale Saturn V	030402	BT-60AJ	10.00"	030378	BT-52AG	2.1"	030326	BT-20J	2.75"
		030268	JT-60P	1.5"						
K-40	Midget	030368	BT-50S	4.00"	030334	BT-20M	2.25"	030318	BT-20AE	1.5"
K-41/1241	Semi-Scale Mercury Redstone	030416	BT-60KF	16.1"	030326	BT-20J	2.75"			
K-42/1242	Orbital Transport	030352	BT-50	18.00"	030322	BT-20D	6.5"	030308	BT-5T (4)	1.5"
					030326	BT-20J	2.75"			
K-43	Mars Lander	030434	BT-100CE	3.50"	030408	BT-60FG	6.7"	030332	BT-20DJ	4.00"
		030174	RT-99D	0.391"						
K-44/TK-44	Birdie	030326	BT-20J	2.75"	(Motor mount only)					
K-45	Beta	030320	BT-20B	8.65"	030318	BT-20AE	1.5"			
K-46/1246	Shrike	030352	BT-50	18.00"	030356	BT-50AH	1.875"	030326	BT-20J (2)	2.75"
		0303608	PST-50S	4.00"						
K-47	Cherokee-D	030392	BT-55V	16.35"	030362	BT-50J	2.75"			
K-48/1248	Bandit (Appendix 1)	030392	BT-55V	16.35"	030374	BT-51CI	3.875"	?????	PBT-20B	8.65"
		030390	BT-55S	4.00"	?????	PBT-50H	7.75"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
K-49/1249	Sprint	030372	BT-50W	9.5"	030326	BT-20J	2.75"			
K-50/1250	Interceptor	030382	BT-55	18.00"	030326	BT-20J	2.75"			
K-51/1251	Semi-Scale Sandhawk	030388	BT-55KG	16.69"	030360	BT-50H	7.75"			
K-52/1200P	Omega	030398	BT-60AD	14.00"	030360	BT-50H	7.75"	030368	BT-50S	4.00"
		030418	BT-60R (2)	5.00"						
K-53	Stinger	030320	BT-20B	8.65"						
K-54/1254	SAROS	030360	BT-50H	7.75"	030322	BT-20D	6.5"	030334	BT-20M	2.25"
K-55/1255	Goblin	030384	BT-55IJ	9.00"	030362	BT-50J	2.75"			
K-56/1256	Alpha III	030357	WBT-50EE	5.5"	030326	BT-20J	2.75"			
K-57/1257	Sky Dart	030366	BT-50L	12.7"	??????	PBT-20KB				
K-58/1258	Demon	030382	BT-55	18.00"	030390	BT-55S	4.00"	030362	BT-50J	2.75"
K-59	SPEV	030428	BT-70H	7.15"	030380	BT-52S	3.938"	030326	BT-20J	2.75"
		030408	BT-60FG	6.7"						
TK-1/0801	Mosquito	030304	BT-5BJ	2.00"						
TK-2/0802	Screamer	030306	BT-5P	5.1"						
TK-3/0803	Mini-Bertha	030320	BT-20B	8.65"	030308	BT-5T	1.5"			
TK-4/0804	Hornet	030344	BT-30C	5.5"	030348	BT-30J	2.75"	030308	BT-5T	1.5"
TK-31/0831	Star Blazer	030322	BT-20D	6.5"	030334	BT-20M	2.25"	030308	BT-5T	1.5"
TK-40	Midget	030332	BT-20DJ	4.00"	030304	BT-5BJ	2.00"	030308	BT-5T	1.5"
TK-45/0845	Beta	030320	BT-20B	8.65"	030318	BT-20AE	1.5"	030308	BT-5T (2)	1.5"
0650/KC-1	Quasar	030360	BT-50H	7.75"	030326	BT-20J	2.75"			
0651/KC-2	Der Red Max	030410	BT-60HE	8.5"	030324	BT-20G	3.5"			
0652/KC-3	Patriot	030396	BT-60	18.00"	030320	BT-20B	8.65"			



## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
0653/KC-4	Starship Vega									
0654/KC-5	BOMARC	030382	BT-55	18.00"	??????	PBT-20	18.00"	??????	BT-50 (2)	6.375"
0657	BOMARC	030382	BT-55	18.00"	030359	BT-50FE (2)	6.5"	030326	BT-20J	2.75"
0802	Quark (Appendix 1)	030304	BT-5	1.75"						
0803	Bandito (Appendix 1)	030333	BT-20 (Black)	7.5"	030309	BT-5	1.625"			
0804	Firehawk	031763	BT-20 (Silver)	7.00"						
0805	Mini BOMARC	030320	BT-20B	8.65"	030310	BT-5CJ (2)	3.00"	030304	BT-5BJ	2.00"
0806	Pegasus	030320	BT-20B	8.65"	030304	BT-5BJ	2.00"			
0806	Firestreak SST (Appendix 1)	060618	(Plastic)	6.469"	030306	BT-5	6.5"			
0807	Condor	030366	BT-50L	12.7"	030304	BT-5BJ	2.00"			
0807	Lucky Seven (Appendix 1)	030468	BT-5	1.375"	(BT-5 = motor mount; main body is injection molded plastic)					
0809	Gauchito	030466	BT-58	6.125"	030290	BT-5	1.75"			
0810	220 Swift	030290	BT-5	1.75"						
0815	Javelin	030306	BT-5P (2)	5.1"						
	Super Flea	030310	BT-5CJ	3.00"	030304	BT-5BJ	2.00"			
0816	Wolverine	030360	BT-50H	7.75"	030304	BT-5BJ	2.00"			
0817	Aero-Hi	030320	BT-20B	8.65"	030304	BT-5BJ	2.00"			
0818	Rogue	030320	BT-20B	8.65"	030304	BT-5BJ	2.00"			
0819	Little John	030372	BT-50W	9.50"	030304	BT-5BJ	2.00"			
0820	EAC Viper	030372	BT-50W	9.50"	030304	BT-5BJ	2.00"			
0821	Firecat	030372	BT-50W	9.50"	030351	BT-48BE	2.5"	030326	BT-20J	2.75"
0834	X-Ray	030291	BT-5 (Black)	8.00"	030604	PST-20J	2.75"			
0835	Nike-Arrow	030329	BT-20	5.00"	030292	BT-5 (Silver)	9.00"	030304	BT-5BJ	2.00"
0846	Eclipse (Appendix 1)	030320	BT-20B	8.65"	030304	BT-5BJ	2.00"			
0850	Star Snoop	030418	BT-60R	5.00"	030304	BT-5BJ	2.00"			
0851	Cloud Hopper	030418	BT-60R	5.00"	030304	BT-5BJ	2.00"			
0852	Galaxy Guppy	030418	BT-60R	5.00"	030304	BT-5BJ	2.00"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
0853	Zoom Broom	030418	BT-60R	5.00"	030304	BT-5BJ	2.00"			
0854	Missile Toe	030418	BT-60R	5.00"	030386	BT-55J	2.75"	030304	BT-5BJ	2.00"
0855	Sky Shriek	030418	BT-60R	5.00"	030304	BT-5BJ	2.00"			
0860	Star Dart	030310	BT-5CJ (2)	3.00"						
0861	SARK	030306	BT-5P (2)	5.1"						
0862	A.S.P.	030316	BT-20	18.00"	030304	BT-5BJ	2.00"			
0863	Estes Star Liner	030320	BT-20B	8.65"	030310	BT-5CJ	3.00"			
0864	Spartan	030372	BT-50W	9.50"	030304	BT-5BJ	2.00"			
0865	Mini Mean Machine	030318	BT-20 (2)	18.00"	030304	BT-5BJ	2.00"			
0866	Mini Tri-Pak	030303	BT-5	6.00"	030305	BT-5 (2)	4.00"	030304	BT-5BJ	2.00"
0867	Airborne Surveillance Missile	030359	BT-50FE	6.5"	030306	BT-5P	5.1"			
0868	Big Yank	030330	BT-20L (2)	12.00"	030304	BT-5BJ	2.00"			
0870	Pulsar	??????	BT-5	5.00"						
0871	Vector	??????	BT-5	5.00"						
0872	Sparrow	030305	BT-5 (2)	4.00"						
0873	Hawkeye (Appendix 1)	030303	BT-5	6.00"	030172	JT-5C (2)	0.75"			
0874	Mini Scale Combo Pak	??????	BT-5 (2)	5.00"	030310	BT-5CJ (2)	3.00"			
0875	Dragonfly	??????	BT-5	5.00"						
0876	Micron (Appendix 1)	030332	BT-20DJ	4.00"	030290	BT-5	1.75"			
0877	Meanie	030368	BT-50S	4.00"	030290	BT-5	1.75"			
0878	Scout III	030340	BT-30A	3.5"						
0880	Skinny Mini	??????	BT-5 (3)	9.00"						
0881	Mini Mars Lander	??????	BT-60	1.56"	???????	BT-5	1.56"			
0882	Ninja	030323	BT-20E	7.75"	030304	BT-5BJ	2.00"			
0885	Sprite	??????	BT-5	9.00"						
0886	Gnome (White)	030301	WBT-5	8.00"						
0886	Gnome (Silver)	??????	BT-5	8.00"						
0887	Leprechaun	030301	WBT-5	8.00"						
0889	X-15	030414	BT-60K	7.00"	030304	BT-5BJ	2.00"			
0890	Jammin'	030306	BT-5P	5.1"	030305	BT-5	4.00"			
0891	Prime Number Explorer	??????	BT-55	13.625"	???????	BT-5	9.00"			
0892	Little Joe II	??????	BT-58	5.375"	030304	BT-5BJ	2.00"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
0893	Red Alert	030303	BT-5	6.00"	030304	BT-5BJ	2.00"			
0895	Solar Warrior (Appendix 1)	030336	BT-20	9.75"	030319	BT-20	1.50"	030304	BT-5BJ	2.00"
0896	Mini Patriot	??????	BT-20	5.69"	??????	BT-20	1.25"	030290	BT-5	1.75"
0897	Lumina	030306	BT-5P	5.1"	030305	BT-5	4.00"			
0898	Mini-Cobra	030305	BT-5	4.00"	030304	BT-5BJ (2)	2.00"			
1202	Mark II	030340	BT-30A	3.50"	030348	BT-30J	2.75"			
1202	Mini Meanie	031174	BT-5	1.434"		Motor mount tube				
1203	Freaky Flyer	031174	BT-5	1.434"		Motor mount tube				
1207	Phantom	030608	PST-50S	4.00"	030604	PST-20J	2.75"			
1220	Mars Snooper II	030372	BT-50W	9.5"	030322	BT-20D	6.5"	030304	BT-5BJ (3)	2.0"
					030326	BT-20J	2.75"			
1238	Avenger	030382	BT-55	18.00"	030360	BT-50H	7.75"	030326	BT-20J	2.75"
		030386	BT-55J	2.75"				030334	BT-20M	2.25"
1247	Cherokee-D	030382	BT-55	18.00"	030362	BT-50J	2.75"			
1256	Alpha III	030357	WBT-50EE	5.5"	030326	BT-20J	2.75"			
1258	Alpha III (Appendix 1)	030380	BT-50EE (Red)	5.5"	030326	BT-20J	2.75"			
1259	Orbital Transport (Re-release) (Appendix 1)	030352	BT-50	18.00"	030317	BT-20D	6.50"	031174	BT-5 (4)	1.438"
					030326	BT-20J	2.75"			
1260	No.2 Sky Writer	030349	BT-50 (Yellow)	9.50"	060158	BT-50	9.50"	030326	BT-20J	2.75"
1261	Baby Bertha (Appendix 1)	030400	BT-60	7.50"	030326	BT-20J	2.75"			
1262	Cosmic Cobra	031660	BT-56 (Yellow)	10.25"						
1265	Scissor Wing Transport	030352	BT-50	18.00"	030362	BT-50J	2.75"	030330	BT-20L	12.00"
1265	Scissor Wing Transport ('05)	030352	BT-50	18.00"	030362	BT-50J	2.75"	030451	BT-20	12.00"
1266	Camroc Carrier	030614	PST-60R	5.00"	030372	BT-50W	9.50"	030326	BT-20J	2.75"

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1267	Maxi V-2	030441	BT-101KJ	10.5"	030364	BT-50KE	15.00"			
1268	Pershing 1-A	030445	BT-101LA	21.4"	030366	BT-50L	12.70"			
1269	Maxi Honest John	030433	BT-80KD	14.2"	030366	BT-50L	12.70"			
1270	Nike-X	030382	BT-55	18.00"	030320	BT-20B	8.65"			
1271	Renegade	030396	BT-60	18.00"	030410	BT-60HE	8.5"	030364	BT-50KE	15.00"
1272	Vostok	030382	BT-55	18.00"	030326	BT-20J	2.75"			
1273	Andromeda	030360	BT-50H	7.75"	030368	BT-50S	4.00"	030316	BT-20 (2)	18.00"
					030356	BT-50AH (2)	1.875"			
1274	Klingon Battle Cruiser	030359	BT-50FE	6.50"	030326	BT-20J	2.75"	030306	BT-5P	5.1"
								030298	BT-2CB (2)	3.25"
1275	Starship Enterprise	030174	RT-99D	0.391"	030366	BT-50L	12.70"	030316	BT-20	18.00"
					030360	BT-50H (2)	7.75"	030332	BT-20DJ	4.00"
1276	Antares	030372	BT-50W	9.50"	030326	BT-20J	2.75"			
1277	Icarus	030366	BT-50L	12.70"	030608	PST-50S	4.00"	030326	BT-20J	2.75"
1278	Vigilante	030382	BT-55	18.00"	030386	BT-55J	2.75"	030326	BT-20J	2.75"
								030334	BT-20M	2.25"
1279	Nike Ajax	030387	BT-55KA	10.625"	030352	BT-50	18.00"	030326	BT-20J	2.75"
1280	Firefly	No Tubes								
1281	Alien Invader	030366	BT-50L	12.70"	030362	BT-50J (2)	2.75"	030326	BT-20J	2.75"
1282	Photon Disruptor	030372	BT-50W	9.50"	030322	BT-20D	6.5"			
1283	U.S.S. Atlantis	030352	BT-50	18.00"	030322	BT-20D (2)	6.5"	030326	BT-20J	2.75"
1284	Space Shuttle	??????	BT-67GI	7.938"	??????	BT-46HI (2)	9.00"	??????	ST-76 (2)	6.50"
								030332	BT-20DJ	4.00"
1285	Teros	030372	BT-50W	9.50"	030326	BT-20J	2.75"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1286	Scamp	030372	BT-50W	9.50"	030326	BT-20J	2.75"			
1287	LTV Scout	030415	BT-60KC	12.84"	030488	SBT-139BJ	2.00"	030446	SBT-123BE	2.50"
					030447	SBT-127GC	7.26"	030322	BT-20D	6.5"
1288	Starlab	030449	SBT-394AJ	1.00"	030372	BT-50W	9.50"	030316	BT-20	18.00"
					030362	BT-50J	2.75"	030320	BT-20B	8.65"
1289	Odyssey	030384	BT-55IJ	9.00"	030358	BT-50EE	5.5"	030332	BT-20DJ	4.00"
1290	Sky Raider	030382	BT-55	18.00"	030384	BT-55IJ	9.00"	030362	BT-50J	2.75"
1291	Maxi Alpha	030433	BT-80KD	14.2"	030432	BT-80	7.6"	030366	BT-50L	12.70"
1292	Wizard	030320	BT-20B	8.65"						
1293	Black Brant III	030367	BT-50N	14.00"	030326	BT-20J	2.75"			
1294	Cobra-1500	030382	BT-55 (3)	18.00"	030326	BT-20J	2.75"			
1295	Mean Machine	030396	BT-60 (4)	18.00"	030362	BT-50J	2.75"			
1296	Satellite Interceptor	030370	BT-50V	16.5"	030326	BT-20J	2.75"	030304	BT-5BJ (2)	2.00"
1297	Solar Sailer	030352	BT-50	18.00"	030359	BT-50FE	6.50"	030330	BT-20L (2)	12.00"
1298	X-Wing Fighter	030335	BT-20XW	8.00"	030311	BT-5XW (4)	1.375"	030301	BT-3XW (4)	1.5"
1299	T.I.E. Fighter	030369	BT-50TF	16.00"	030332	BT-20DJ	4.00"			
1300	Blue Ninja (Appendix 1)	030407	BT-60 (Blue)	8.00"	030406	BT-60 (Blue)	12.00"	030463	HBT-1000	4.00"
1301	R2-D2	030435	BT-100D	4.093"	030326	BT-20J	2.75"			
1301	Storm Caster (Appendix 1)	031189	RT-60 (Slot)	12.00"	030397	BT-60	12.00"	030373	BT-50	9.50"
1302	Maxi X-Wing									
1302	CC Express (Appendix 1)	030382	BT-55	18.00"	030387	BT-55	3.50"	030368	BT-50S	4.00"
								030362	BT-50J	2.75"
1310	Colonial Viper	030372	BT-50W	9.50"	030380	BT-52S (3)	3.938"	030326	BT-20J	2.75"
1311	Laser Torpedo	030360	BT-50H	7.75"	030322	BT-20D	6.5"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1320	Starship Vega	030366	BT-50L	12.70"	030326	BT-20J	2.75"	030310	BT-5CJ (3)	3.00"
1321	Maxi Alpha III	030429	WBT-80A (2)	9.00"	030431	WBT-80MA	3.22"	030366	BT-50L	12.70"
1322	Delta Star	030366	BT-50L	12.70"	030368	BT-50S	4.00"	030326	BT-20J	2.75"
					030362	BT-50J	2.75"	030334	BT-20M	2.25"
1323	Stiletto	030369	BT-50TF	16.00"	030326	BT-20J	2.75"			
1324	Polaris	030372	BT-50W	9.50"	030368	BT-50S	4.00"	030326	BT-20J	2.75"
1325	Gamma	030372	BT-50W	9.50"	030358	BT-50EE	5.5"	030326	BT-20J	2.75"
1326	Colossus	030429	WBT-80A (4)	9.00"	030431	WBT-80MA	3.22"	???????	???????	
1327	AstroCam 110	031606	WBT-1312	12.00"	030326	BT-20J	2.75"			
1328	Kadet	030373	WBT-50W	9.50"	030326	BT-20J	2.75"			
1329	Multi Roc	030366	BT-50L	12.70"	030358	BT-50EE	5.5"	030326	BT-20J	2.75"
					030362	BT-50J	2.75"	030334	BT-20M	2.25"
1330	Challenger-II	030393	WBT-56	18.00"	030362	BT-50J	2.75"			
1331	Maxi Icarus	030396	BT-60	18.00"	030614	PST-60R	5.00"	030378	BT-52AG	2.1"
								030362	BT-50J	2.75"
1332	Sea Strike "D"	030382	BT-55	18.00"	030386	BT-55J	2.75"	030362	BT-50J (2)	2.75"
		030390	BT-55S	4.00"						
1333	Scorpion	030352	BT-50	18.00"	030354	BT-50AE	1.5"	030326	BT-20J (2)	2.75"
1334	Skybolt	030392	BT-55V	16.35"	030362	BT-50J	2.75"			
1335	Blue Bird Zero	030382	BT-55 (2)	18.00"	030326	BT-20J	2.75"			
1336	Boeing ALCM	031135	ST-106	6.25"	031038	ST-73	3.00"			
1337	NASA Space Shuttle	030365	BT-50P	11.00"	030326	BT-20J	2.75"			
1338	Space Transporter America	030396	BT-60	18.00"	030322	BT-20D	6.50"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1339	Patrol Cruiser Excalibur	030420	BT-63CJ	3.00"	030322	BT-20D	6.5"	030301	BT-3XW (9)	1.5"
		030406	BT-60D	11.00"	030318	BT-20AE	1.5"			
1340	SS-1C SCUD-B	030404	BT-60AE	14.25"	030322	BT-20D	6.5"	030326	BT-20J	2.75"
1341	World Federation Star Probe	030427	BT-80S	4.50"	030366	BT-50L (2)	12.70"			
1342	Starblazer X-20	030372	BT-50W	9.5"	030322	BT-20D	6.5"			
1343	Orion Starfighter	030364	BT-50KE	15.00"	030324	BT-20G	3.5"	030326	BT-20J	2.75"
	Torellian Invader	030364	BT-50KE	15.00"	030324	BT-20G (6)	3.5"			
1344	NOMAD	030352	BT-50	18.00"	030316	BT-20	18.00"	030326	BT-20J (2)	2.75"
1345	Dragon Ship 7	030407	BT-60DS	12.5"	030322	BT-20D	6.5"	030301	BT-3XW (9)	1.5"
					030318	BT-20AE	1.5"			
1350	Black Hole Space Probe	030352	BT-50	18.00"	030326	BT-20J	2.75"	031017	ST-41 (2)	1.25"
1355	Spin Fin	030320	BT-20B	8.65"	030326	BT-20J	2.75"			
1356	Astro Bee	030372	BT-50W	9.5"	030326	BT-20J	2.75"			
1357	SAM-4	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1358	F-61 Starfighter	030372	BT-50W	9.50"	030322	BT-20D	6.5"			
1359	Orbital Interceptor	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1360	Tartar	030382	BT-55	18.00"	030326	BT-20J	2.75"			
1361	Skytracer	030360	BT-50H	7.75"	030326	BT-20J	2.75"			
					030318	BT-20AE (2)	1.5"			
1362	The Bat	030366	BT-50L	12.70"	030326	BT-20J	2.75"	030332	BT-20DJ	4.00"
1363	Rigel 3	030387	BT-55KA	10.625"	030390	BT-55S	4.00"			
								030326	BT-20J	2.75"

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1364	Falcon Commander	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1365	Sky-Hi	030352	BT-50	18.00"	030362	BT-50J	2.75"	030326	BT-20J	2.75"
								030334	BT-20M	2.25"
1366	Star Speeder	030386	BT-55J	2.75"	030330	BT-20L	12.00"			
1367	Vindicator	030382	BT-55	18.00"	030326	BT-20J	2.75"			
1368	Comet	030382	BT-55	18.00"	030326	BT-20J	2.75"			
1369	S.S. Cassiopeia	030449	SBT-394AJ	1.00"	030360	BT-50H	7.75"	030316	BT-20	18.00"
		030372	BT-50W	9.50"	030362	BT-50J	2.75"			
1370	Meteor	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1371	Starship Nova	030412	BT-60J	2.75"	030364	BT-50KE	15.00"	030326	BT-20J	2.75"
					030377	BT-50F	5.00"			
1372	Alien Explorer	030360	BT-50H	7.75"	030356	BT-50AH (2)	1.875"	030316	BT-20	18.00"
		030368	BT-50S (2)	4.00"						
1373	Soaring Eagle	030352	BT-50	18.00"	030320	BT-20B	8.65"	030375	BT-51 (2)	2.00"
1374	Attack Craft Orion	030360	BT-50H	7.75"	030326	BT-20J	2.75"			
1375	Scorpius	030366	BT-50L	12.70"	030326	BT-20J	2.75"	030308	BT-5T (4)	1.5"
					030318	BT-20AE (4)	1.5"			
1376	Pegasus	030383	BT-55C	14.00"	030359	BT-50FE	6.5"	030326	BT-20J	2.75"
1377	Hercules	030372	BT-50W	9.5"	030362	BT-50J	2.75"	030326	BT-20J (2)	2.75"
		030608	PST-50S	4.00"						
1378	Firecat	031140	ST-1010	10.50"	031038	ST-73	3.00"			



## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1379	Mach-2	030396	BT-60	18.00"	030362	BT-50J	2.75"			
1380	Phoenix (Appendix 1)	030433	BT-80KD	14.2"	030432	BT-80	7.6"	030360	BT-50H	7.75"
1380	Phoenix (Re-release)	030437	BT-80 (2)	11.00"	031278	HBT-1000	8.00"			
1381	Yankee	030320	BT-20B	8.65"						
1382	Comanche-3	030352	BT-50	18.00"	030362	BT-50J (2)	2.75"	030326	BT-20J	2.75"
		030366	BT-50L	12.70"				030334	BT-20M	2.25"
1383	Hyperion	030449	SBT-394AJ	1.00"	030405	BT-60C	1.00"	030326	BT-20J	2.75"
		030274	JT-80C	1.00"	030352	BT-50	18.00"			
1385	Space Shuttle Columbia	030414	BT-60K	7.00"	030326	BT-20J	2.75"			
1386	Asteroid Explorer	030372	BT-50W	9.50"	030326	BT-20J	2.75"			
1387	Maxi Streak	030408	BT-60FG	6.7"	030362	BT-50J	2.75"			
1388	Apache-2	030366	BT-50L	12.70"	030362	BT-50J	2.75"	030326	BT-20J	2.75"
								030334	BT-20M	2.25"
1389	Sandpiper	030360	BT-50H	7.75"	030324	BT-20G	3.50"			
1390	Aero Fin	030320	BT-20B	8.65"						
1391	Mini Shuttle	030418	BT-60R	5.00"	030326	BT-20J	2.75"			
1392	Nova Scout Ship	030372	BT-50W	9.50"	030324	BT-20G	3.50"	030326	BT-20J	2.75"
1398	X-Wing Fighter (Boxed)									
1399	T.I.E. Fighter (Boxed)									
1901	Sea Dart (Appendix 1)	030384	BT-55IJ	9.00"	030354	BT-50AE	1.5"			
1902	Space Station Aquarius	030412	BT-60J	2.75"	030381	BT-55E	2.1"	030366	BT-50L	12.7"
								030326	BT-20J (7)	2.75"

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1903	Xarconian Destroyer	030387	BT-55KA	10.625"	030326	BT-20J	2.75"			
1903	Maxi Alpha III (Re-release)	030429	WBT-80A (2)	9.00"	030431	WBT-80MA	3.22"	030366	BT-50L	12.70"
1904	Maverick	030372	BT-50W	9.50"	030326	BT-20J	2.75"			
1904	V-2	030432	BT-80	7.6"	030360	BT-50H	7.75"			
1905	Stinger	030360	BT-50H	7.75"	030326	BT-20J	2.75"			
1906	Sizzler	030352	BT-50	18.00"	030326	BT-20J	2.75"			
1907	Cyclone	031190	ST-1312	12.00"	030326	BT-20J	2.75"			
1908	Scrambler-2	030418	BT-60R	5.00"	030383	BT-55C	14.00"	030362	BT-50J	2.75"
1909	U.S.S.F. Fireflash	030379	BT-50B	10.25"	030326	BT-20J	2.75"			
1910	USS Pleiades	030387	BT-55KA	10.625"	030326	BT-20J (2)	2.75"	030334	BT-20M (3)	2.25"
1911	Courier	030336	BT-20N	9.75"						
1913	Advanced Target Drone	030365	BT-50P	11.00"	030326	BT-20J	2.75"			
1914	Galactic Taxi	030379	BT-50B	10.25"						
1915	Harpoon	030372	BT-50W	9.50"	030326	BT-20J	2.75"			
1916	MX Missile	030406	BT-60D	11.00"	030334	BT-20M	2.25"			
1917	Zinger	030323	BT-20E	7.75"						
1918	Titan II	030415	BT-60KC	12.875"	030334	BT-20M	2.25"			
1919	Honest John	030387	BT-55KA	10.625"	030326	BT-20J	2.75"			
1920	Starship Excalibur	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1921	Mercury Redstone	031274	ST-2010 (2)	9.75"	030326	BT-20J	2.75"			
1922	Marauder	030412	BT-60J	2.75"	030387	BT-55KA	10.625"	030326	BT-20J	2.75"
1923	Cougar	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1924	Defender	030382	BT-55	18.00"	030362	BT-50J	2.75"			
1925	Exocet MM 38 Aerospatiale	030382	BT-55	18.00"	030326	BT-20J	2.75"			
1926	V-2	030432	BT-80	7.6"	030360	BT-50H	7.75"			
1927	Aries SST	030360	BT-50H	7.75"	030326	BT-20J	2.75"			
1928	Manta Bomber	030274	JT-80C (2)	1.00"	030306	BT-5P (2)	5.1"	030326	BT-20J	2.75"
		030359	BT-50FE	6.50"				030318	BT-20AE (2)	1.5"
1929	Stealth	030372	BT-50W	9.50"	030326	BT-20J	2.75"			
1930	Wasp	030391	BT-55W	12.00"	030362	BT-50J	2.75"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1931	Delta Wedge	030333	BT-20P	13.75"						
1933	X-16	030365	BT-50P	11.00"	030326	BT-20J	2.75"			
1935	Neptune	030383	BT-55C	14.00"	030326	BT-20J	2.75"			
1936	Sunbird	030336	BT-20	9.75"						
1937	Astro	030320	BT-20B	8.65"						
1938	Laser	030320	BT-20B	8.65"						
1939	Nebulon Warrior	030386	BT-55J	2.75"	030330	BT-20L	12.00"	030332	BT-20DJ (2)	4.00"
1940	Marte MK 2	030330	BT-20L	12.00"	030362	BT-50J (2)	2.75"			
1941	Fox Fire	030336	BT-20	9.75"						
1942	SR-71 Blackbird	030366	BT-50L	12.70"	030359	BT-50FE (2)	6.5"	030326	BT-20J	2.75"
1943	Magician	030384	BT-55IJ	9.00"	030362	BT-50J	2.75"			
1944	D-Region Tomahawk	030396	BT-60	18.00"	030407	BT-60DS	12.5"	030362	BT-50J	2.75"
1945	Searcher	030330	BT-20L	12.00"	030306	BT-5P	5.1"			
1946	Starhawk	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1947	Flying Saucer	No Tubes								
1948	Big Bertha	030396	BT-60	18.00"	030320	BT-20B	8.65"			
1949	Viking	030320	BT-20B	8.65"						
1950	Echo	030323	BT-20E	7.75"						
1950	Eliminator	031300	BT-56 (2)	12.00"	030463	HBT-1000	4.00"			
1951	Mighty Moe	030336	BT-20	9.75"						
1951	Executioner	031180	BT-80 (Slotted)	14.2"	030433	BT-80KD	14.2"	030366	BT-50L	12.7"
1952	Halley's Tail	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1952	V-2 (Re-release)	030441	BT-101KJ	10.50"	030364	BT-50KE	15.00"			
1953	FireAero	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1954	Starbird	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1955	Ranger	030382	BT-55	18.00"	030362	BT-50J	2.75"			
1956	Blazer	030320	BT-20B	8.65"						
1957	Nike-Apache	030387	BT-55KA	10.625"	??????	BT-5	9.00"	030326	BT-20J	2.75"
1958	Black Brant II	??????	BT-55	13.625"	??????	BT-55	1.906"	030362	BT-50J	2.75"
					??????	BT-55	1.875"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1959	Scout II	030340	BT-30A	3.5"						
1960	Nova Payloader	030366	BT-50L	12.70"	030608	PST-50S	4.00"	030326	BT-20J	2.75"
1961	Crusader Swing Wing	030407	BT-60DS	12.50"	030330	BT-20L	12.00"			
1970	Der V-3	030433	BT-80KD	14.2"	030360	BT-50H	7.75"			
1971	Nimbus	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1972/7000	Bull Pup 12D	030384	BT-55IJ	9.00"	030324	BT-20G	3.5"			
1973	Interceptor II	030382	BT-55	18.00"	030326	BT-20J	2.75"			
1974	Explorer	030407	BT-60DS	12.50"	030326	BT-20J	2.75"			
1976	Jupiter-C	??????	ST-20	16.00"	030326	BT-20J	2.75"			
1977	Der Big Red Max	030396	BT-60	18.00"	030320	BT-20B	8.65"			
1977	Geo Sat LV	030614	PST-60R	5.00"	030382	BT-55	18.00"	030326	BT-20J	2.75"
					030372	BT-50W (2)	9.50"			
1978	Gemini-Titan	030407	BT-60DS	12.50"	030326	BT-20J	2.75"			
1979	Clipper	030369	BT-50TF	16.00"	030362	BT-50J	2.75"	030326	BT-20J (2)	2.75"
1980	Long Shot	030352	BT-50 (2)	18.00"	030326	BT-20J	2.75"			
1981	D.A.R.T.	030414	BT-60K	7.00"	030326	BT-20J	2.75"			
1982	Transtar Carrier	030412	BT-60J	2.75"	030387	BT-55KA	10.625"	030326	BT-20J	2.75"
1983	Arrow	030407	BT-60DS	12.50"	030324	BT-20G	3.50"			
1984	Phaser	030336	BT-20	9.75"						
1986	Reliant	030320	BT-20B	8.65"						
1987	Sentinel	030396	BT-60	18.00"	030326	BT-20J	2.75"			
1988	Argosy	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1989	Liberty	030372	BT-50W	9.50"	030326	BT-20J	2.75"			
1991	Zipper	030320	BT-20B	8.65"						
1991	Blue Star	030320	BT-20B	8.65"						
1992	Dasher	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1993	Lancer	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
1994	Ram Jet	??????	BT-55 (2)	5.313"	030330	BT-20L	12.00"			
1995	Helio Copter	030393	WBT-56	18.00"	030326	BT-20J	2.75"			
1996	Eggspress	??????	ST-20	2.00"	030391	BT-55W	12.00"	030326	BT-20J	2.75"

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
1997	Pathfinder	030396	BT-60	18.00"	030382	BT-55	18.00"	030362	BT-50J	2.75"
1998	Mega Sizz'	030396	BT-60	18.00"	030414	BT-60K	7.00"	030362	BT-50J	2.75"
1999	Corsair	030362	BT-50J	2.75"	030336	BT-20	9.75"			
2000	Voyager II	030387	BT-55KA	10.625"	030326	BT-20J	2.75"			
2001	Saturn V	030449	BT-101SV	24.625"	030434	BT-80SV	8.81"	030466	BT-58SV	6.125"
								030370	BT-50SV	16.25"
2002	Thunderhawk	030352	BT-50	18.00"	030326	BT-20J	2.75"			
2003	SDI Satellite	?????	BT-55	6.50"	030326	BT-20J	2.75"	030334	BT-20M (8)	2.25"
2004	Tornado	030332	BT-20DJ	4.00"	030319	BT-20	1.50"			
2005	Javelin	030320	BT-20B	8.65"						
2006	Calypso	030372	BT-50W	9.50"	030324	BT-20G	3.50"			
2007	IRIS	030359	BT-50FE (2)	6.50"	030326	BT-20J	2.75"			
2008	Yellow Jacket	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
2009	Rain Maker	030384	BT-55IJ	9.00"	?????	BT-5	12.25"	030326	BT-20J	2.75"
2010	Star Rider	030366	BT-50L	12.70"	030274	JT-80C (2)	1.00"	030326	BT-20J	2.75"
2011	Super Nova	030369	BT-50TF	16.00"	030608	PST-50S	4.00"	030326	BT-20J (2)	2.75"
		030362	BT-50J	2.75"						
2013	Recruiter	030407	BT-60DS	12.5"	?????	BT-55	5.313"	030324	BT-20G	3.5"
2014	Firehawk	030396	BT-60	18.00"	030326	BT-20J	2.75"			
2015	Strike Fighter	030384	BT-55IJ	9.00"	?????	BT-5 (2)	5.00"	030326	BT-20J	2.75"
		030362	BT-50J (2)	2.75"						

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2016	Explorer Aquarius	030382	BT-55	18.00"	030362	BT-50J	2.75"	030320	BT-20B (6)	8.65"
								030332	BT-20DJ (12)	4.00"
2017	S.W.A.T.	030396	BT-60	18.00"	030414	BT-60K	7.00"	030326	BT-20J (3)	2.75"
2018	Super Big Bertha	030433	BT-80KD (2)	14.2"	030352	BT-50	18.00"			
2019	Titan IIIE	??????	BT-70	6.25"	030368	BT-50S (2)	4.00"	??????	BT-950 (2)	6.25"
		??????	BT-60	13.313"	030362	BT-50J	2.75"	??????	BT-5 (2)	3.75"
		??????	BT-60 (2)	10.375"						
2021	Rascal	030414	BT-60K	7.00"	030326	BT-20J	2.75"			
2022	Warp II (Appendix 1)	030614	PST-60R	5.00"	030384	BT-55IJ	9.00"	030326	BT-20J (2)	2.75"
						??????	BT-55	3.25"		
2024	ATA-31	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
2025	Meteor	030384	BT-55IJ	9.00"	030326	BT-20J	2.75"			
2026	Athena	030373	WBT-50W	9.50"	030326	BT-20J	2.75"			
2027	Silver Streak	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
2028	Cajun	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
2029	Raven	030396	BT-60	18.00"	030326	BT-20J	2.75"			
2030	Hornet	??????	BT-50	13.625"	030326	BT-20J	2.75"			
2031	Army Hawk	030396	BT-60	18.00"	030326	BT-20J	2.75"			
2032	Magnum	030396	BT-60	18.00"	030412	BT-60J	2.75"	030362	BT-50J	2.75"
		030614	PST-60R	5.00"						
2033	Trident II	030372	BT-50W	9.50"	030316	BT-20 (2)	18.00"	030326	BT-20J	2.75"
		030358	BT-50EE	5.50"						
2034	Deep Space Transport	030382	BT-55	18.00"	030360	BT-50H (2)	7.75"	030326	BT-20J	2.75"

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2035	Optima	030433	BT-80KD (2)	14.2"	030437	BT-80	11.00"	??????	BT-50	13.625"
								030362	BT-50J	2.75"
2036	Super Vega	030396	BT-60	18.00"	030358	BT-50EE (3)	5.50"	??????	BT-50	3.375"
		030414	BT-60K	7.00"						
2037	National Aero Space Plane	030396	BT-60	18.00"	??????	BT-60	2.00"	030326	BT-20J	2.75"
2038	Alien Space Probe	??????	BT-80	9.50"	030326	BT-20J	2.75"			
2039	Space Racer	030325	BT-20	9.00"						
2040	Stinger	030320	BT-20B	8.65"						
2041	Menace	?????	BT-50	13.625"	030326	BT-20J	2.75"			
2042	America	030373	WBT-50W	9.50"	030326	BT-20J	2.75"			
2043	Photon Probe	030382	BT-55	18.00"	030326	BT-20J	2.75"			
2044	Solar Sailer II	030366	BT-50L	12.70"	030359	BT-50FE	6.50"	030316	BT-20	18.00"
2045	Dark Star	030396	BT-60	18.00"	030324	BT-20G	3.5"			
2046	Surveyor	030323	BT-20E	7.75"	??????	BT-5	5.00"	030290	BT-5 (2)	1.75"
2048	Saturn 1b (Appendix 1)	030438	SBT-267	1.375"	030397	BT-58	6.375"	030329	SBT-703 (8)	7.813"
		030436	SBT-261	7.625"	030379	SBT-116	11.00"	030362	BT-50J	2.75"
2050	Super Neon	030352	BT-50	18.00"	??????	BT-50 (6)	3.125"	030326	BT-20J	2.75"
2051	Solar Probe	030418	BT-60R	5.00"	??????	BT-50	15.75"	030326	BT-20J	2.75"
2052	Photon Disruptor II (Apx 1)	??????	BT-55	13.563"	030360	BT-50H	7.75"	030326	BT-20J	2.75"
2053	Blackhawk	030353	BT-50 (2)	8.25"	030326	BT-20J	2.75"	030334	BT-20M	2.25"
2053	GBU-24 Paveway III (Apx 1)	030374	BT-55	10.75"	030329	BT-20 (2)	5.00"			
2054	Beta Launch Vehicle (Apx 1)	030400	BT-60	13.25"	030392	BT-55	3.25"	030334	BT-20M	2.25"
2054	Python 4 (Appendix 1)	030374	BT-55	10.75"	030375	BT-55	8.65"	030327	BT-20	6.00"
2055	White Tiger	030352	BT-50	18.00"	030326	BT-20J	2.75"			
2055	BLU-97B	030413	BT-70	10.00"	030329	BT-20	5.00"			
2056	Patriot (Appendix 1)	030408	BT-60	13.25"	030409	BT-60 (Yellow)	3.25"	030326	BT-20J	2.75"
2056	Patriot (Re-release)	030414	BT-60 (2)	6.656"	030426	BT-60 (Yellow)	3.25"	030326	BT-20J	2.75"
2060	Bandit	085860	HBT-1090 (Bk)	11.00"	030331	BT-20	2.5"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2061	Rampage	??????	HBT-1090 (O)	11.00"	??????	HBT-1090 (Bk)	3.00"	030331	BT-20	2.5"
2062	Dagger	??????	HBT-1090 (P)	11.00"	??????	HBT-1090 (C)	6.00"	030331	BT-20	2.5"
2063	Mars Snooper	030360	BT-50H	7.75"	030322	BT-20D	6.5"	030308	BT-5T (3)	1.5"
					030326	BT-20J	2.75"			
2064	Impulse	??????	BT-25 (NCR)	18.00"	??????	BT-25 (NCR)	6.50"	??????	HBT-1000 (2)	4.50"
2065	Maxi-Force	??????	BT-25 (NCR)	18.00"	??????	BT-25 (NCR)	6.50"	??????	HBT-1000 (3)	4.50"
		??????	BT-25 (NCR)	15.50"						
2066	Patriot									
2067	Delta Clipper	??????	HBT-1090	13.25"	??????	HBT-1090	3.188"	??????	BT-50	3.188"
		??????	HBT-1090	4.75"				030362	BT-50J	2.75"
2068	Greyhawk	030384	BT-55IJ	9.00"	030368	BT-50S (2)	4.00"	030326	BT-20J	2.75"
								030318	BT-20AE (2)	1.50"
2070	Bail-Out!	030396	BT-60	18.00"	030334	BT-20M	2.25"			
2071	CATO	??????	BT-60	10.00"	??????	BT-20	6.906"			
2072	Scrambler	??????	BT-56	12.00"	??????	ST-20	2.00"	030326	BT-20J	2.75"
2073	Astro-Blaster	030362	BT-50J	2.75"		Motor mount tube				
2075	A.R.V. Condor	030353	BT-50	8.25"	030326	BT-20J	2.75"	030305	BT-5 (2)	4.00"
		??????	BT-50	6.00"						
2076	Pegasus	??????	BT-50 (Red)	9.50"	030326	BT-20J	2.75"			
2077	Sky Winder	031217	HBT-20	9.25"	030295	BT-5	1.375"			
2078	Omloid	??????	BT-236 (Blue)	0.50"	??????	BT-56 (Blue)	7.00"	??????	BT-56 (Blue)	4.00"



## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2083	Terrier/Sandhawk	031181	BT-1835	15.313"	030388	BT-55KG	16.69"	030360	BT-50H	7.75"
								??????	BT-50	3.875"
2085	Jayhawk	??????	BT-25 (NCR)	13.00"	??????	HBT-1000	8.50"			
2086	Tomcat (Appendix 1)	??????	BT-60	12.50"	??????	BT-50 (2)	12.7"	030326	BT-20J	2.75"
2090	Strato Blaster									
2091	Maniac	??????	BT-56 (Yel/2)	12.00"	030463	HBT-1000	4.00"			
2092	Mongoose (Appendix 1)	030355	BT-50 (Yellow)	18.00"	030356	BT-50 (Yellow)	1.875"	030326	BT-20J	2.75"
2093	Broad Sword	030433	BT-80KD (2)	14.2"	030352	BT-50	18.00"			
2094	Shadow	030433	BT-80KD (2)	14.2"	030437	BT-80	11.00"	??????	HBT-1000 (2)	13.625"
								031281	HBT-1000	2.75"
2096	Turbo Copter	??????	BT-20 (White)	11.00"						
2097	Manta	??????	BT-50 (Black)	11.00"	030326	BT-20J	2.75"			
2102	TIE Fighter	030369	BT-50TF	16.00"	030326	BT-20J	2.75"			
2103	X-Wing Fighter	030335	BT-20XW	8.00"	030311	BT-5XW (4)	1.375"	030301	BT-3XW (4)	1.5"
2104	R2-D2	030435	BT-100D	4.093"	030326	BT-20J	2.75"			
2105	Hijax (Appendix 1)	085877	HBT-1090	11.00"	031205	PST-1090	6.00"	085870	BT-20	2.5"
2107	Firestreak	085878	HBT-1090	11.00"	030326	BT-20J	2.75"			
2109	Renegade (Appendix 1)	030401	BT-60	18.00"	030415	BT-50 (2)	5.00"	030408	BT-20 (2)	2.75"
		030404	BT-60	3.25"				030409	BT-5 (2)	0.75"
2110	Outlander (Appendix 1)	030402	BT-60	5.688"	030412	BT-50 (4)	3.00"	030310	BT-20	5.00"
		030411	BT-60	2.00"				030319	BT-20 (8)	

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2111	Mercury Atlas (Appendix 1)	??????	BT-344	18.00"	??????	HBT-1000	9.50"	??????	HBT-950 (2)	5.25"
					??????	HBT-1000 (2)	3.625"			
2112	Transwing Super Glider	031291	HBT-50 (2)	9.00"	030326	BT-20J	2.75"			
2113	Starbase Starcruiser									
2114	Corkscrew									
2115	SR-X									
2116	Sweet Vee									
2119	36 D Squared	030413	BT-70	10.00"	031681	BT-60	8.00"	030364	BT-50KE (2)	15.00"
		031680	BT-70	4.50"						
2120	Venus Probe	031140	BT-1750	0.75"	030403	BT-55	12.50"	031701	HBT-760	14.50"
					031166	BT-55 (Slotted)	4.00"			
2122	Invader	??????	HBT-5	1.688"		Motor mount tube				
2123	Raider	??????	HBT-5	1.688"		Motor mount tube				
2124	F-22 Air Superiority Fighter									
2125	AIM-9 Sidewinder	031172	BT-55 (Slotted)	11.25"	031173	BT-55 (Slotted)	3.75"	??????	BT-20	
		030381	BT-55	11.19"						
2127	Sizzler	031175	BT-60WH	18.00"	030386	BT-55G		031700	HBT-760	10.75"
2128	Long Shot (Appendix 1)	030340	BT-56 (3)	12.00"	030341	BT-56	3.75"	031281	HBT-1000	2.75"
								031760	HBT-760	2.75"
2129	Python	031181	BT-1835	15.313"	031762	BT-1835	11.00"	030360	BT-50H	7.75"
2130	Mach-12 (Appendix 1)	030342	BT-56 (Yellow)	7.00"	030343	BT-56 (Yellow)	4.00"			
2131	Mk-109 Stingray	031176	HBT-1090	12.00"	030331	BT-20	2.5"			
2132	Banshee	085860	BT-1090 (Blk)	11.00"	030331	BT-20	2.5"			
2133	AstroSat LSX (Appendix 1)	030346	BT-56 (White)	8.00"	030347	BT-56 (White)	4.00"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2136	Gemini DC (Appendix 1)	031177	BT-50WH	18.00"	030330	BT-20 (2)	6.00"	030326	BT-20J	2.75"
2137	Flash	085860	BT-1090 (Blk)	11.00"	031206	BT-1090 (Hol)	11.00"	030331	BT-20	2.5"
2138	Firebird	031178	BT-55	18.00"	030326	BT-20J	2.75"			
2139	Fat Boy	031179	BT-80WH	8.00"	030326	BT-20J	2.75"			
2140	Venom	031180	BT-50WH	11.00"	030326	BT-20J	2.75"			
2141	Silver Comet	030435	BT-80T	11.00"	030360	BT-50H	7.75"			
2142	R2-D2									
2143	Death Star	031183	HBT-1000 (Slit)	7.375"	031184	HBT-1000	7.375"	030326	BT-20J	2.75"
2144	TIE Fighter	030462	HBT-1000 (2)	9.00"	030461	HBT-760	4.00"	Main tubes are black.		
2147	Star Destroyer	031227	HBT-1000	15.00"	031226	HBT-1000	12.00"	031225	HBT-1000	2.813"
2149	SM-3 Seahawk	031181	BT-1835	15.313"	031188	BT-55 (Slotted)	13.75"	030391	BT-55	4.313"
								030360	BT-50H	7.75"
2150	Rattler-7 (Appendix 1)	030357	BT-50 (Beige)	5.50"	030307	BT-5 (Beige)	5.50"	030326	BT-20J	2.75"
2151	Big Dawg	031167	BT-55	7.5"	030326	BT-20J	2.75"			
2153	AIM 120 AMRAAM	031191	BT-55 (2)	11.00"	030326	BT-20J	2.75"			
2154	Wildfire	031168	BT-50	9.50"	030326	BT-20J	2.75"			
2155	Super Nova Payloader (Ap 1)	030398	BT-60 (Blue/2)	12.00"	030612	PST-55	12.00"	030463	BT-1000	4.00"
2156	Prowler	031189	BT-60 (Slotted)	12.00"	030397	BT-60 (2)	12.00"	030329	BT-20	5.00"
2157	Saturn V	030449	BT-101SV	24.625"	030434	BT-80SV	8.81"	030466	BT-58SV	6.125"
								030370	BT-50SV	16.25"
2158	AGM-57X Heat Seeker	031186	HBT-1090	11.00"	031208	HBT-1090	2.875"	030331	BT-20	2.5"
2159	Fireflash (Appendix 1)	030372	BT-50 (Gray)	9.00"	030326	BT-20J	2.75"	030293	BT-5 (2) Blk	9.00"
		030351	BT-50 (Black)	9.00"						
2162	Big Daddy	031751	BT-30 (NCR)	10.00"	030368	BT-50S	4.00"			
2163	Exo-Skell									
2165	Super Big Bertha (Re-release)	030433	BT-80KD (2)	14.2"	030352	BT-50	18.00"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2166	Maxi Honest John	030433	BT-80KD	14.2"	030366	BT-50L	12.7"			
2167	Mercury Redstone Liberty Bell	031169	ST-20	10.00"	031170	ST-20 (Slotted)	9.375"	030326	BT-20J	2.75"
2170	Star Dart (Appendix 1)	030314	BT-20	9.00"						
2171	Sizzler	030323	BT-20E	7.75"						
2172	Monarch	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
2173	Menace	030395	BT-60	14.7"	030326	BT-20J	2.75"			
2174	Polaris	030381	BT-50	11.25"	030362	BT-50J	2.75"	030326	BT-20J	2.75"
2175	Nemesis	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
2176	Echostar (Appendix 1)	031188	BT-55	13.75"	030362	BT-50J	2.75"	030317	BT-20D	6.5"
		??????	BT-55	3.25"	030608	PST-50S	4.00"	030326	BT-20J	2.75"
2177	Night Wing	030366	BT-50L	12.70"	030326	BT-20J	2.75"			
2178	Hi-Flier	030314	BT-20	9.00"						
2179	Guardian	030381	BT-55	11.19"	030362	BT-50J	2.75"	030326	BT-20J	2.75"
2180	Chrome Dome (Silver)	060370	BT-56 (Blue)	8.50"						
2181	Chrome Dome (Gold)	060371	BT-56 (Red)	8.50"						
2182	Wacky Wiggler	031674	BT-1090 (Slit)	3.563"	031676	BT-1090	2.00"	031675	BT-1090 (5)	1.25"
								030331	BT-20	2.50"
2183	Shuttle Xpress	060174	BT-55 (Print)	4.625"	060368	BT-55 (Print)	4.25"			
2184	Meteor Masher	030379	BT-55	9.00"	030383	BT-50	2.5"	030328	BT-20	12.00"
		030380	BT-55	5.625"						
2185	Screamin' Mimi (Appendix 1)	030396	BT-60	18.00"	030325	BT-20	4.00"	030362	BT-50J	2.75"
2186	Eagle Boosted Glider	030452	BT-20 (Print)	12.00"						
2187	Oracle	060865	BT-60 (Lower)	15.56"	060974	BT-60 (Upper)	12.00"			
2188	Canadian Arrow	030458	BT-80	12.00"	030360	BT-50H	7.75"			
2189	Rubicon	030457	BT-321	6.00"	030366	BT-50L	12.70"	030456	BT-50A (6)	10.00"
2190	Cosmos Mariner	030470	BT-55	14.125"	030471	HBT-1000	13.438"			

## Estes Body Tube/Kit Reference List

Kit Number	Kit Name	P/N	Designation	Length	P/N	Designation	Length	P/N	Designation	Length
2191	Space Ship One (Appendix 1)	030469	BT-200	3.75"	030408	BT-20J	2.75"			
2192	Thunderstar	030455	BT-60P	16.00"	030332	BT-20DJ	4.00"			
2193	Vanguard Eagle	030453	BT-60V	4.313"	030454	BT-55V	7.00"	030408	BT-20J	2.75"
2196	Space Ship One (Appendix 1)	030400	BT-60	7.50"	030456	BT-50	10.00"			

## Appendix I: Comments & Observations

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### 1.0 General

In 1974, Estes published their Custom Parts Catalog, providing the modeler with a comprehensive listing of the parts comprising the Estes line at that time. Originally intended to facilitate the purchase of spare parts and scratch-building supplies, the 1974 Custom Parts Catalog has, over time, become the Rosetta Stone for anyone conducting a forensic examination of the older kits.

Unfortunately, the Parts Catalog has not been maintained, at least not in the public domain, and with Estes' evolving product line there have been new parts introduced for which little in the way of specific product information is available. Further compounding this dearth of part information was the change in kit parts listing information that occurred in many of the kits released from the mid-eighties to the late nineties: the instruction sets included in many of these kits did illustrate the parts but seldom provided any descriptive part data. For a Cloner, this lack of specific data makes it very difficult to know the actual type and length of the body tubes needed to re-create models from this era unless the modeler happens to have access to an original kit.

Additional confusing examples can be found where only part numbers are provided in the instructions. Relying on part numbers would be an acceptable practice if Estes were to ensure a consistent use of its parts nomenclature from kit to kit, but there are plenty of examples where part numbers were, and are, re-used to designate completely different parts.

A classic example is kit #2022, Warp-II, a very fine two-stage payload model and arguably a reasonable cloning candidate. A quick look at the instruction set (which can be found at <http://www.oldrocketplans.com/estes/est2022/est2022.htm>) shows that only a part number is provided to identify each body tube. Checking the 1974 Custom Parts Catalog, one finds that the part numbers for the booster and sustainer body tubes exist, but denote tubes different than those identified by the instructions. If a modeler were to re-create the Warp-II using only this information, the result would be much different than the original.

Fortunately these problems affect a relatively small subset of the Estes kit line, and many of the subjects that most modelers would care to clone consist of parts well documented in the 1974 Custom Parts Catalog. Nevertheless, the most interesting cases are invariably the exceptions, so we provide the following commentary to discuss various anomalies and issues observed while compiling this reference list.

### 2.0 Tube Length Variations

While compiling this list, we found several tube types that were cut with varying degrees of precision. Some kits contained exact length body tubes, yet a number of other kits contained tubes whose length could vary as much as +/- 1/8" relative to the dimensions provided in the 1974 Custom Parts Catalog.

The tube types exhibiting this kind of variation tended to be the most commonly used tube types, and so for the purpose of the Reference Listing, we've used the generic length Estes provided in the Custom Parts Catalog. For the benefit of the modeler, we provide the following commentary on the key findings as follows:

- P/N 030306, BT-5P: 5.1"

The following is an observation that affects a number of the kits in the 08xx series. Many of the earlier (pre-80's) kits have this tube exactly 5-3/32" (5.093", or 5.1" according to the Parts Catalog) in length, while many of the later model kits have a BT-5 tube that is exactly 5.00" in length. Our hesitation in simply declaring the 5.00" tubes a variation of the BT-5P stems from

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the observation that we found almost no intermediate measurements, suggesting that the 5.00" part might be a new tube.

The question is further complicated by the fact that many late model kit instructions do not provide a part designation or part number for the 5.00" tube, so it is not clear whether Estes actually created a new part (the 5.00" version) or changed the tolerance on the older, BT-5P, part.

Estes' own information does little to clarify this; for example the instruction set for the Manta Bomber (#1928) lists the BT-5P as 5" long, while the part in the kit examined measured 5-1/8". We found other examples where Estes' kit instructions listed tube lengths in variance with the Parts Catalog information, so this by itself is not strong evidence that the 5.00" tube is meant to be a BT-5P.

While circumstantially it is very compelling to declare the newer tube a BT-5P, we have nevertheless chosen to show the 5.00" part in the list without a known part number. Perhaps in time data will be found that will definitively resolve this question.

- P/N 030320, BT-20B: 8.65"

Most of the examples of this type were found to be 8-5/8" (8.625") long.

- P/N 030366, BT-50L: 12.7"

We found this tube varying substantially (with a few examples as long as 12.75"), with most examples having a nominal length of 12-11/16" (12.6875").

- P/N 030378, BT-52AG: 2.1"

Most examples of this type were found to be 2-3/32" (2.093") long.

- P/N 030433, BT-80KD: 14.2"

Most examples of this type were found to be 14-3/16" (14.188") long.

- P/N 030437, BT-80: 11.00"

Many examples of this type were found to be 10-7/8" (10.875") long.

### 3.0 BT-52

One of the more enigmatic body tube types is the BT-52, and because of the controversy surrounding its listed dimensions, and its importance to at least a couple of the coveted classic kits (the Thor-Agena B and the SPEV), we have elected to include a special discussion of this tube type here.

One of the earliest tube types created by Estes was the BT-50, a near 1" tube that has appeared in a large number of Estes' kits, either as an airframe component or as a motor mount tube. As Estes expanded their kit offering, there arose a need to create two new tube types, initially intended as the stock for certain scale parts. These were the BT-51, a +1" tube used to represent the Redstone tanks found in the Saturn 1b (K-29), and the BT-52, another +1" tube used to represent the Agena upper stage in the Thor-Agena B model (K-28). Since all three tubes were fairly close in diameter, Estes adopted the practice of marking the interior of the two newer tubes with a colored spiral

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stripe so that the different types could be easily distinguished. The BT-51 was marked with an interior black spiral stripe, and the BT-52 was marked with an interior green spiral stripe. The following photo provides a direct comparison of these tube types:



**From Left to Right: BT-50, BT-51 and BT-52**

The 1974 Custom Parts Catalog lists BT-52 as having an OD of 1.114", an ID of 0.988", for a wall thickness of 0.063". However, the evidence clearly shows that this entry is wrong; all of the extant examples of original BT-52 found in the kits examined for this listing have an OD of 1.014" and a wall thickness of 0.013". Even the Custom Parts Catalog itself leaves a few clues that call the BT-52 tube listing into question. One only needs to check the diameters listed for balsa nose cones #36 and #37 on page 9 of the Custom Parts Catalog; here, #36 is BNC-52AG, the nose for kit K-39, the Semi-Scale Saturn V, and shows its outside diameter as 1.014". Immediately following is #37, BNC-52G, the nose for the Thor-Agena B, showing the shoulder diameter of 0.988" (which is the correct dimension for the shoulder, but is incorrectly listed in the place of the OD).

BT-52 was used as an airframe part in only a handful of kits, as follows:

- K-28: Thor-Agena B (BT-52S Agena upper stage)
- K-39/1239: Semi-Scale Saturn V (BT-52AG S-IVB section)
- K-59: SPEV (BT-52AG payload section)
- 1310: Colonial Viper (BT-52S outboard engine sections)



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Thereafter, BT-52 found use as an engine hook retainer sleeve (its ID being a slip fit over BT-50) and it is in this capacity that most present day modelers will have seen the type. For this purpose, BT-52AG was included in the following kits:

- K-52/1200P, Omega
- 1267, Maxi V-2
- 1268, Pershing
- 1321, Maxi Alpha III
- 1331, Maxi Icarus
- 1379, Mach-2
- 1926, V-2
- 1970, Der V-3
- 2001, Saturn V
- 2035, Optima
- 2036, Super Vega

The longer BT-52S was also used as an engine hook retainer sleeve and was found in the following kits:

- 1269, Maxi Honest John
- 1291, Maxi Alpha
- 2018, Super Big Bertha

The re-released Maxi Honest John (#2166) uses an updated version of the BT-52S as the retainer sleeve, the outside of the tube having a rough black paper wrap instead of the former glassine wrap. Shorter versions of this same black tube can be found in a number of the late model kits.

In recent times, Estes changed the engine hook sleeve to a very thick walled tube, yet retained the practice of designating this part as BT-52 (typically BT-52AG, 2.1" long, just like the Custom Parts Catalog suggests). This fact has been pointed out by fellow "Old Rockets" modeler Doug Sams in previous group discussions concerning BT-52. An example of a late model kit that incorporates this thick walled part, and identifies it as BT-52AG (P/N 030450), is the re-released Maxi V-2, #1952.

We measured this "new" BT-52AG, taken from the re-released V-2 (#1952), and curiously, it was found to have an OD of 1.118" and an ID of 0.984", very close to the dimensions listed in the 1974 Custom Parts Catalog. These findings raise an ironic question whether the "new" Estes team was victimized by the old BT-52 listing errors found in the 1974 Custom Parts Catalog.

In summary, it is very evident that the original BT-52 had an OD of 1.014", a wall thickness of 0.013", and that the 1974 Custom Parts Catalog entry is wrong. Cloners can hope that the model rocket companies, especially those that cater to the cloning community, will make the effort to re-create and stock a correctly sized BT-52 body tube.

### 4.0 Kit Commentary

As mentioned, a number of the body tube part numbers have been re-used over time to designate new parts; in some cases this apparent configuration management problem can confuse the modeler as to the actual part used in a particular kit. The following commentary highlights the cases where this kind of confusion was observed.

- 1) K-7B/1207 Phantom

The instruction set for kit K-7B lists the clear body tube as P/N 030620, PST-50FJ, 6.00" long. We did not have the opportunity to examine an original K-7B but did have a couple of 1207 kits on

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hand. Each of these included a different part, measured as listed, being P/N 030608, PST-50S, 4.00" long. Accordingly, we show a separate entry in the Reference Listing for kits K-7B and 1207.

2) K-12/1212 Farside

The kit instructions list the BT-50H as 7-1/2" long; this is clearly an error as this information is not consistent with the Parts Catalog listing or the actual measurement taken of the kit part.

3) K-38 Avenger

The instructions for the K-version have the illustrations for Part D (BT-20J) and Part E (BT-20M) reversed; BT-20J is the longer part at 2.75" while the BT-20M is 2.25" long.

4) K-48/1248 Bandit

PBT-50H is the same as BT-50H, only the tube has been factory punched to enable the venting scheme incorporated into this kit. The same comment applies to the PBT-20B. No part numbers have been found for these two parts.

5) 0802 Quark

This body tube has been assigned P/N 030304, which conflicts with Parts Catalog 030304 BT-5BJ, 2.00" long.

6) 0803 Bandito

This black pre-colored BT-20 part has been assigned P/N 030333, 7.50" long; this conflicts with BT-20P (13.75" long) as found in the earlier #1931, Delta Wedge.

7) 0806 Firestreak SST

The motor mount tube has been assigned P/N 030306, BT-5, and is 6.50" long; this conflicts with the Parts Catalog entry P/N 030306, BT-5P, 5.1" long.

8) 0807 Lucky Seven

The motor mount tube has been assigned P/N 030468, BT-5, 1.375" long; this duplicates the older 030311, BT-5XW, found in #1298, X-Wing Fighter.

9) 0846 Eclipse

The instructions for this kit appear to have a parts designation typo. The motor mount is listed as 030304, BT-5J, when in fact the part supplied in the kit is the BT-5BJ, 2.00" long; the actual part is consistent with the part number.

10) 0873 Hawkeye

The body tube in this kit has been assigned P/N 030305, BT-5, and is 6.00" long. We perceive the part number to be in error for the following reasons:

- This assignment conflicts with 030305, BT-5, 4.00" in kit #0890, Jammin'
- Kit #0893, Red Alert, assigns P/N 030303 to BT-5, 6.00".

Accordingly, for this listing we use 030305 = BT-5/4.00", and we use 030303 = BT-5/6.00". The entry for the Hawkeye has been adjusted to reflect this.

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Additionally, the kit instructions identify the JT-5C couplers, used to represent the outboard engine nacelles, as P/N 030172; the Parts Catalog lists this part as P/N 030252.

11) 0876 Micron

The plan provided at the Ye Olde Rocket Shoppe (YORP) Plans website shows the motor mount tube as BT-5T (1.5"). This is in error, as the part measures out at 1.75" long. The Gauchito (#0809) assigns P/N 030290 to BT-5, 1.75" long; this is what is used in the Reference Listing.

12) 0895 Solar Warrior

This kit contains two outboard tubes intended to represent engine nacelles on the model. These tubes have been assigned P/N 030319, BT-20, and are 1.50" long. It is not understood why Estes did not re-use the existing Parts Catalog part number for this tube, P/N 030318, BT-20AE.

Also note that the same new part numbering occurs in kit #2004, Tornado, and in kit #2110, Outlander.

13) 1258 Alpha III 40<sup>th</sup> Anniversary

The instructions show this Red Prismatic body tube as having P/N 030380, BT-50EE; this conflicts with Parts Catalog P/N 030380, BT-52S.

14) 1259 Orbital Transport (Re-release)

The Orbiter body tube is shown as PN 030317, BT-20D, 6.50"; the Parts Catalog listing (and the K-42 listing) for the same part is PN 030322. The difference could be explained by the fact that the new tube is wrapped in a white paper, except that there are many other late model examples where Estes assigns old part numbers to new white tubes of the same size.

Also note that Estes has changed the Scramjet tubes from the BT-5T (1.5") tubes (as used in kit K-42) to the newer, and shorter, P/N 031174 BT-5 1.438" tubes.

15) 1261 Baby Bertha

The body tube in this kit is assigned P/N 030400, BT-60, and is 7.50" long. This conflicts with the earlier use of this part number in kit #2054, Beta Launch Vehicle, where the body tube is BT-60, 13.25" long.

16) 1265 Scissor Wing Transport (Re-release)

This kit assigns P/N 030451 to a section of BT-20, 12.00". The original issue used the traditional P/N 030330, BT-20L, 12.00" long.

17) 1300 Blue Ninja

The longer Blue Prismatic tube in this kit has been assigned P/N 030406, BT-60, 11.00" long; this conflicts with the Parts Catalog entry P/N 030406, BT-60D, 11.00" long. It's evident that the older tube was/is a plain brown, glassine wrapped, body tube.

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### 18) 1301 Storm Caster

This kit is peculiar for its inconsistent collection of part numbers. For some reason, Estes has used the prefix "RT" for the aft, slotted body tube. Normally "RT" was used to designate "Ring" tubes, as can be found in the Parts Catalog.

The upper white body tube section has been assigned P/N 030397, BT-60, 12.00" long; this conflicts with the earlier use of this part number in kit #2048, Saturn 1b, where this part number is assigned to the BT-58 body tube.

Finally, the motor mount tube, which is a white BT-50 tube, has been correctly assigned P/N 030373, which represents a white BT-50, 9.50" long. This part number was first used in kit #1328, Kadet, and was given the part designation WBT-50W.

### 19) 1302 CC Express

The booster section in this kit has been assigned P/N 030387, BT-55, and is 3.50" long; this conflicts with the earlier use of this part number in kit #1279, Nike Ajax, where the part number represents BT-55KA, 10.625" long.

### 20) 1380 Phoenix

The Reference listing includes an entry for the older version of the kit as well as the re-release.

The original kit release used the post-1974 created P/N 030433 BT-80KD (14.2") as the lower tube and the Catalog-listed 030432 BT-80 (7.6") as the upper body tube.

The re-release used two newer tubes, each P/N 030437 BT-80 (11.00"), the newer tubes being white.

Other differences between the two kits consist of the upgraded motor mount tube (the older BT-50H being replaced with the newer heavy walled HBT-1000 tubing), and the replacement of the waterslide decals with the self-adhesive type.

### 21) 1901 Sea Dart

The aft body tube section in the kit is identified on the kit instructions as P/N 030354, BT-50AE; in the Parts Catalog, this tube is 1.50" long. The tube found in the kit was BT-50, but only 1.0" long. Not having a second kit on hand to examine, we've chosen to show the kit instruction information in the Reference Listing but note that this could be an error, subject to further confirmation.

### 22) 2022 Warp II

The kit instructions indicate that the two body tubes comprising this model are P/N 030384, Booster, and P/N 030392, Sustainer. According to the 1974 parts Catalog, these tubes would be BT-55IJ, 9.00", and BT-55V, 16.35", respectively; using such tubes would create a much longer Warp-II and would render the staging less reliable.

There are two errors in play here: first, the sustainer should have been assigned the part number given to the booster – the sustainer tube measures exactly 9.00" long and is clearly meant to be P/N 030384 BT-55IJ. The part number initially assigned to the sustainer (and presumably was incorrectly reversed with the booster) is clearly wrong, as the booster measures 3.35" long – the correct part number has not been identified yet, even though the 3.25" BT-55 (and the re-used 030392) is used in later model kits.

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We have shown the corrected information in the Reference Listing to avoid any confusion.

23) 2048 Saturn 1b

The 1/100<sup>th</sup> Saturn 1b is one of Estes' most sought after kits, arguably surpassed only by the much older 1/70<sup>th</sup> Saturn 1b. In order to meet the scale requirements of the model, Estes introduced several new body tubes special to this kit; unfortunately, these new tubes are distinguished in the kit instructions only by part numbers.

For the purpose of the Reference Listing we have added a part designation for these tubes; this starts with an "SBT" prefix, in keeping with the nomenclature Estes used to use in the past (e.g.: the Scout LTV). The first three significant digits of the measured outer diameters of these tubes make up the remainder of the tube designation. Since several of these new tubes are of large diameter, it was too difficult to directly measure the diameter reliably; consequently, we used the circumference measurement technique to make this measurement as accurate as possible.

P/N 030438 has been assigned to the aft body tube (the engine section skirt); this conflicts with Parts Catalog entry P/N 030438, BT-101, 16.5" long.

P/N 030436 has been assigned to the S-IVB body tube section; this conflicts with Parts Catalog entry P/N 030436, BT-100Z, 10.89" long.

24) 2052 Photon Disruptor II

The main body tube has been assigned P/N 030388; in the Parts Catalog this part number corresponds to BT-55KG, 16.69" long. However, the tube found in two samples of the kit is BT-55, 13-9/16". We show an unknown part number and the correct length for this tube in the Reference Listing.

25) 2053 GBU-24 Paveway III

The BT-55 section (10.75") provided in this kit has been assigned P/N 030374; this conflicts with Parts Catalog entry 030374, BT-51CI, 3.875" long.

26) 2054 Beta Launch Vehicle

The short length (3.25") of BT-55 provided in this kit has been assigned P/N 030392; this conflicts with Parts Catalog entry 030392, BT-55V, 16.35" long.

27) 2054 Python 4

The main body tube is listed as P/N 030374, BT-55, 10.75" long; this conflicts with the Parts Catalog entry, P/N 030374, BT-51CI, 3.875" long.

28) 2056 Patriot

The original issue of this kit supplied the main body tube as one piece, P/N 030408, BT-60, 13.25" long. This assignment conflicts with Parts Catalog entry P/N 030408, BT-60FG, 6.7" long.

The re-issue was re-packaged in a smaller bag, making it necessary to break the single piece body tube into two tubes; these were assigned P/N 030414, BT-60, 6.656" long. Rather than designating these tubes BT-60FG (which would have been correct), Estes instead assigned a part number that conflicted with Parts Catalog Entry 030414, BT-60K, 7.00" long.

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In each case, the kit represented the upper instrument section with a pre-colored yellow tube, BT-60, 3.25" long. Oddly, this same part was assigned two different part numbers: 030409 for the original kit, and 030426 for the re-release. P/N 030409 would later be assigned to the BT-5 pod sections (0.75" long) in the Renegade, #2109.

29) 2086 Tomcat

Even though the tubes identified in the Reference Listing correspond to known body tube types (BT-60DS and BT-50L), we have chosen not to use the associated part numbers as these tubes include factory punched holes and slots, which would change the part numbers. The actual part numbers are not known.

30) 2092 Mongoose

The pre-colored yellow booster section of this model is assigned P/N 030356, BT-50, 1.875" long. Even though the part is different (having a pre-finished outer covering), the size and type information does correlate directly to the Parts Catalog, where P/N 030356 is a BT-50AH, 1.875" long.

31) 2105 Hijax (and 2107, Firestreak)

Even though the main tubes in these two models are the same type, length and finish, their part numbers are different due to the fact that the Hijax makes use of plastic launch lugs and a plastic shock cord attachment, causing the Hijax tube to have a different factory punching.

32) 2109 Renegade

There are several part-numbering problems with this kit.

Starting with the upper stage body tube, this part has been assigned P/N 030401, BT-60, 18.00"; Estes could have re-used the original part number 030396.

The engine mount tubes are assigned P/N 030408, BT-20, 2.75" long; not only could the original part number have been re-used for this part (030326) but this assignment conflicts with Parts Catalog entry 030408, BT-60FG, 6.7" long.

The fin pod tubes have been assigned P/N 030409, BT-5, 0.75" long; this assignment conflicts with the earlier use of this part number in kit #2056, Patriot, where this part number was assigned to the 3.25", pre-colored yellow, BT-60 section.

33) 2110 Outlander

The main body tube is assigned P/N 030402, BT-60, 5.688" long; this conflicts with Parts Catalog entry P/N 030402, BT-60AJ, 10.00".

The four BT-50 tanks are assigned P/N 030412, BT-50, 3.00" long; this conflicts with Parts Catalog entry P/N 030412, BT-60J, 2.75" long.

The motor mount tube is assigned P/N 030310, BT-20, 5.00" long; this conflicts with Parts Catalog entry P/N 030310, BT-5CJ, 3.00" long.

34) 2111 Mercury Atlas

The main body tube is listed as 18-7/8" long; the tube found in the kit measured 18.00" long.

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35) 2128 Long Shot

The main body tubes are assigned P/N 030340, BT-56, 12.00" long; this conflicts with Parts Catalog entry P/N 030340, BT-30A, 3.50" long.

36) 2130 Mach 12

The longer body tube is assigned P/N 030342, BT-56 (Yellow), 7.00"; this conflicts with Parts Catalog entry P/N 030342, BT-30B, 6.125" long.

37) 2133 AstroSat LSX

The nose cone used in this kit is P/N 072054, PNC-55IR, also found in kits #1972, Interceptor II, #2068, Greyhawk, and #2183, Shuttle Xpress. BT-55 and BT-56 have ODs that are very close, and Estes has taken advantage of this fact by re-using a PNC-55 part in a BT-56 kit rather than tooling a new part.

38) 2136 Gemini DC

The side pod tubes are assigned P/N 030330, BT-20, 6.00"; this conflicts with Parts Catalog entry P/N 030330, BT-20L, 12.00" long.

39) 2150 Rattler-7

The main body tube is assigned P/N 030357, BT-50 (Beige), 5.50" long; this assignment conflicts with the earlier use of P/N 030357, WBT-50EE, 5.50" long, found in kit #K-56/1256, Alpha III.

40) 2155 Super Nova Payloader

The two main body tubes are assigned P/N 030398, BT-60 (Blue), 12.00" long; this conflicts with Parts Catalog entry P/N 030398, BT-60AD, 14.00".

41) 2159 Fireflash

The gray lower body tube is assigned P/N 030372, BT-50 (Gray), 9.00" long; this conflicts with Parts Catalog entry P/N 030372, BT-W, 9.50" long.

42) 2170 Star Dart

The body tube is assigned P/N 030314, BT-20, 9.00" long; this assignment conflicts with the earlier P/N 030325, BT-20, 9.00", as used in kit #2039, Space Racer.

43) 2176 Echostar

The booster section is listed as P/N 030392, BT-55, 3.25"; this conflicts with the Parts Catalog entry P/N 030392, BT-55V, 16.35" long.

The longer motor mount tube is identified as P/N 030317, BT-20, 6.5" rather than the traditional part number P/N 030322, BT-20D, 6.5" long.

44) 2185 Screamin' Mimi

The four whistle tubes are assigned P/N 030325, BT-20, 4.00" long; this conflicts with the earlier use of this part number for BT-20, 9.00" long, as found in kit #2039, Space Racer.

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45) 2191            Space Ship One

The motor mount tube has been assigned P/N 030408, BT-20J, 2.75" long; this conflicts with the traditional part number for this tube, P/N 030326.

46) 2196            Space Ship One (E-engine)

The main body tube has been assigned P/N 030400, BT-60, 7.50" long; this conflicts with the earlier use of this part number, P/N 030400, BT-60, 13.25" long, as found in kit #2054, Beta Launch Vehicle. It is, however, consistent with the usage in the late model kit #1261, Baby Bertha.



## Appendix II: New Body Tubes

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The following lists the new body tubes identified since the issuance of the 1974 Custom Parts Catalog. Only those body tubes for which known part numbers could be found are listed, and to the greatest extent possible, we have tried to identify the kit that the new tube was first documented.

### BT-2 Body Tubes

P/N	Designation	Length	Comments
030298	BT-2CB	3.25"	Found in #1274, Klingon Battle Cruiser.

### BT-3 Body Tubes

P/N	Designation	Length	Comments
030301	BT-3XW	1.5"	Found in #1298, X-Wing Fighter. P/N would be re-used later in the original 0886, Gnome; see below.

### BT-5 Body Tubes

P/N	Designation	Length	Comments
030290	BT-5	1.75"	Found in #0810, 220 Swift.
030291	BT-5 (Black)	8.00"	Found in #0834, X-Ray.
030292	BT-5 (Silver)	9.00"	Found in #0835, Nike-Arrow.
030293	BT-5 (Black)	9.00"	Found in #2159, Fireflash.
030295	BT-5	1.375"	Found in #2077, Sky Winder.
030301	WBT-5	8.00"	White BT-5 found in the original #0886, Gnome.
030303	BT-5	6.00"	Found in #0893, Red Alert.
030304	BT-5	1.75"	Found in #0802, Quark. P/N conflicts with the older BT-5BJ, 2.00" long. Should use 030290, above.
030305	BT-5	4.00"	Found in #0870, Jammin'.

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### BT-5 Body Tubes, Continued;

P/N	Designation	Length	Comments
030306	BT-5	6.50"	Found in #0806, Firestreak. P/N conflicts with the older 030306 BT-5P, 5.1" long.
030307	BT-5 (Beige)	5.50"	Pre-finished Beige; found in #2150, Rattler-7.
030309	BT-5	1.625"	Found in #0803, Bandito.
030311	BT-5XW	1.375"	Found in #1298, X-Wing Fighter. Later duplicated by P/N 030468 BT-5, below.
030409	BT-5	0.75"	Found in #2109, Renegade. P/N conflicts with the older BT-60 (Yellow), in #2056, Patriot.
030468	BT-5	1.375"	Found in #0807, Lucky Seven. Should have re-used the older 030311 BT-5XW, above.
031174	BT-5	1.438"	Found in #1259, Orbital Transport (Re-release).

### BT-20 Body Tubes

P/N	Designation	Length	Comments
030310	BT-20	5.00"	Found in #2110, Outlander. P/N conflicts with the older BT-5CJ, 3.00" long.
030314	BT-20	9.00"	Found in #2170, Star Dart. P/N conflicts with 030325 found in #2039, Space Racer, below.
030317	BT-20D	6.50"	Found in #1259, Orbital Transport (Re-release). Should have re-used the older 030322.
030319	BT-20	1.50"	Found in #2004, Solar Warrior. Should have re-used the older 030318 BT-20AE.
030323	BT-20E	7.75"	Found in #1917, Zinger.
030325	BT-20	9.00"	Found in #2039, Space Racer.
030327	BT-20	6.00"	Found in #2054, Python 4.
030329	BT-20	5.00"	Found in #2156, Prowler. P/N conflicts with the older SBT-703, found in #2048, Saturn 1b.
030330	BT-20	6.00"	Found in #2136, Gemini DC. P/N conflicts with the older BT-20L, 12.00" long.
030331	BT-20	2.50"	Found in #2060, Bandit.
030333	BT-20P	13.75"	Found in #1931, Delta Wedge.
030333	BT-20 (Black)	7.50"	Found in #0803, Bandito. P/N conflicts with the older BT-20P, as found in #1931, Delta Wedge, above.
030335	BT-20XW	8.00"	Found in #1298, X-Wing Fighter.
030336	BT-20	9.75"	Found in #0895, Solar Warrior.
030408	BT-20	2.75"	Found in #2109, Renegade. P/N conflicts with the older BT-60FG; should have used 030326 BT-20J.
030451	BT-20	12.00"	Found in #1265, Scissor Wing Transport (Re-release). Should have re-used the older 030330, BT-20L.

## Appendix II: New Body Tubes

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### BT-20 Body Tubes, Continued;

P/N	Designation	Length	Comments
030452	BT-20 (Black)	12.00"	Found in #2186, Eagle Boosted Glider.
031763	BT-20 (Silver)	7.00"	Found in #0804, Firehawk.
085870	BT-20	2.50"	Found in #2105, Hijax.

### BT-50 Body Tubes

P/N	Designation	Length	Comments
030349	BT-50 (Yellow)	9.50"	Yellow pre-finished, found in #1260, No. 2 Sky Writer.
030351	BT-50 (Black)	9.00"	Pre-finished black; found in #2159, Fireflash.
030353	BT-50	8.25"	Found in #2053, Blackhawk.
030355	BT-50 (Yellow)	18.00"	Yellow pre-finished, found in #2092, Mongoose.
030356	BT-50 (Yellow)	1.875"	Found in #2092, Mongoose.
030456	BT-50A	10.00"	Found in #2189, Rubicon.
030357	WBT-50EE	5.50"	White body tube, as found in the older #1256, Alpha III.
030357	BT-50 (Beige)	5.50"	Pre-finished Beige; found in #2150, Rattler-7. P/N conflicts with the older WBT-50EE, above.
030365	BT-50P	11.00"	Found in #1337, NASA Space Shuttle.
030367	BT-50N	14.00"	Found in #1293, Black Brant III.
030369	BT-50TF	16.00"	Found in #1299, TIE Fighter.
030370	BT-50SV	16.25"	Found in #2001, Saturn V
030372	BT-50 (Gray)	9.00"	Pre-finished gray; found in #2159 Fireflash. P/N conflicts with the older BT-50W, 9.50" long.
030373	WBT-50W	9.50"	White body tube, as found in #1328, Kadet.
030377	BT-50F	5.00"	Found in #1371, Starship Nova.
030379	BT-50B	10.25"	Found in #1909, U.S.S.F. Fireflash. P/N later re-used for special tube in #2048, Saturn 1b.
030380	BT-50EE (Red)	5.50"	Red Prismatic body tube, found in #1258, 40th Anniversary Alpha III. P/N conflicts with the older, and different, BT-52S.
030381	BT-50	11.25"	Found in #2174, Polaris. P/N conflicts with the older BT-55E, 2.1" long; see below.
030412	BT-50	3.00"	Found in #2110, Outlander. P/N conflicts with the older BT-60J, 2.75" long.

## Appendix II: New Body Tubes

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### BT-50 Body Tubes, Continued;

P/N	Designation	Length	Comments
030415	BT-50	5.00"	Found in #2109, Renegade. P/N conflicts with the older BT-50F, above, and BT-60KC, below. Should have used 030377 BT-50F.
031168	BT-50 (Slotted)	9.50"	Found in #2154, Wildfire.
031177	BT-50WH	18.00"	Slotted, found in #2136, Gemini DC
301180	BT-50WH	11.00"	Slotted, found in #2140, Venom.
060158	BT-50 (Printed)	9.50"	Found in #1260, No. 2 Sky Writer.

### BT-51 Body Tubes

P/N	Designation	Length	Comments
030375	BT-51	2.00"	Found in #1373, Soaring Eagle.

### BT-55 Body Tubes

P/N	Designation	Length	Comments
030374	BT-55	10.75"	Found in #2053, GBU-24 Paveway III. P/N conflicts with the older BT-51CI.
030375	BT-55	8.65"	Found #2054, Python 4.
030381	BT-55E	2.1"	Found #1902, Space Station Aquarius.
030381	BT-55	11.19"	Found in #2125, Sidewinder. P/N conflicts with the older BT-55E, above.
030383	BT-55C	14.00"	Found in #1376, Pegasus.
030387	BT-55KA	10.625"	Found in #1279, Nike-Ajax.
030387	BT-55	3.50"	Found in #1302, CC Express. P/N conflicts with the older BT-55KA, above.
030391	BT-55W	12.00"	Found in #1930, Wasp.
030391	BT-55	4.313"	Found in #2149, SM-3 Seahawk. Conflicts with BT-55W, above.

## Appendix II: New Body Tubes

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### BT-55 Body Tubes, Continued;

P/N	Designation	Length	Comments
030392	BT-55	3.25"	Found in #2022, Warp-II. P/N conflicts with the older BT-55, 16.35" long. This part (and number) would later be re-used (equally incorrectly) in #2054, Beta Launch Vehicle.
030403	BT-55	12.50"	Found in #2120, Venus Probe.
030454	BT-55V	7.00"	Found in #2193, Vanguard Eagle. Designation conflicts with the older 030392 BT-55V, 16.35" long.
030470	BT-55	14.125"	Found in #2190, Cosmos Mariner.
031166	BT-55 (Slotted)	4.00"	Found in #2120, Venus Probe.
031167	BT-55 (Slotted)	7.50"	Found in #2151, Big Dawg.
031172	BT-55 (Slotted)	11.25"	Found in #2125, Sidewinder.
031173	BT-55 (Slotted)	3.75"	Found in #2125, Sidewinder.
031178	BT-55 (Slotted)	18.00"	Found in #2138, Firebird.
031188	BT-55 (Slotted)	13.75"	Found in #2149, SM-3 Seahawk.
031191	BT-55 (Slotted)	11.00"	Found in #2153, AIM 120 AMRAAM.

### BT-56 Body Tubes

P/N	Designation	Length	Comments
030340	BT-56	12.00"	Found in #2128, Long Shot. P/N conflicts with the older BT-30A, 3.5" long.
030341	BT-56	3.75"	Found in #2128, Long Shot.
030342	BT-56 (Yellow)	7.00"	Pre-finished Yellow, found in #2130, Mach 12. P/N conflicts with the older BT-30B, 6.125" long.
030343	BT-56 (Yellow)	4.00"	Pre-finished Yellow, found in #2130, Mach 12.
030393	WBT-56	18.00"	White body Tube, as found in #1330, Challenger-II.
031300	BT-56 (Purple)	12.00"	Pre-finished Purple, found in #1950, Eliminator.
031660	BT-56 (Yellow)	10.25"	Pre-finished Yellow, found in #1262, Cosmic Cobra.
060370	BT-56 (Blue)	8.50"	Blue prismatic; found in #2180, Chrome Dome (Silver).
060371	BT-56 (Red)	8.50"	Red prismatic; found in #2181, Chrome Dome (Gold).

## Appendix II: New Body Tubes

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### BT-58 Body Tubes

P/N	Designation	Length	Comments
030397	BT-58	6.375"	Found in #2048, Saturn 1b.
030466	BT-58SV	6.125"	Found in #2001, Saturn V; later used in the #0809, Gauchito.

### BT-60 Body Tubes

P/N	Designation	Length	Comments
030395	BT-60	14.7"	Found in #2173, Menace.
030397	BT-60	12.00"	Found in #1301, Storm Caster. P/N conflicts with the older BT-58, 6.375" long, as found in #2048, Saturn 1b. Would be re-used later in #2156, Prowler.
030398	BT-60 (Blue)	12.00"	Pre-finished solid blue; found in #2155, Super Nova Payloader. P/N conflicts with the older BT-60AD, 14.00" long.
030400	BT-60	13.25"	Found in #2054, Beta Launch Vehicle. P/N later re-used in #1261, Baby Bertha; see below.
030400	BT-60	7.50"	Found in #1261, Baby Bertha. P/N conflicts with the older BT-60, found in #2054, BLV, above.
030401	BT-60	18.00"	Found in #2109, Renegade.
030402	BT-60	5.688"	Found in #2110, Outlander. P/N conflicts with the older BT-60AJ, 10.00" long.
030404	BT-60	3.25"	Found in #2109, Renegade.
030405	BT-60C	1.00"	Found in #1383, Hyperion.
030406	BT-60 (Blue)	12.00"	Blue Prismatic tube, as found in #1300, Blue Ninja. P/N conflicts with older BT-60D, 11.00" long.
030407	BT-60DS	12.50"	Found in #1345, Dragon Ship 7. P/N would later be re-used in #1300, Blue Ninja; see below.
030407	BT-60 (Blue)	8.00"	Blue Prismatic tube, as found in #1300, Blue Ninja. P/N conflicts with older BT-60DS, 12.50" long.
030408	BT-60	13.25"	Found in the original #2056, Patriot. P/N conflicts with the older BT-60FG, 6.7" long.
030409	BT-60 (Yellow)	3.25"	Found in the original #2056, Patriot.
030411	BT-60	2.00"	Found in #2110, Outlander.
030414	BT-60	6.656"	Found in #2056, Patriot (Re-release). P/N conflicts with the older BT-60K, 7.00" long.
030415	BT-60KC	12.84"	Found in #1287, LTV Scout.
030426	BT-60 (Yellow)	3.25"	Found in #2056, Patriot (Re-release).

## Appendix II: New Body Tubes

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### BT-60 Body Tubes, Continued;

P/N	Designation	Length	Comments
030453	BT-60V	4.313"	Found in #2193, Vanguard Eagle.
030455	BT-60P	16.00"	Found in #2192, Thunderstar.
031175	BT-60WH	18.00"	Found in #2127, Sizzler.
031189	RT-60 (Slotted)	12.00"	Found in #1301, Storm Caster. Tube slotted for fins; odd designation, as usually "RT" means "Ring Tube". Re-designated "BT-60" in #2156, Prowler.
031681	BT-60	8.00"	Found in #2119, 36 D Squared.
060865	BT-60 (Printed)	15.56"	Found in #2187, Oracle.
060974	BT-60 (Printed)	12.00"	Found in #2187, Oracle.

### BT-70 Body Tubes

P/N	Designation	Length	Comments
030413	BT-70	10.00"	Found in #2055, BLU-97B.
031680	BT-70	4.50"	Found in #2119, 36 D Squared.

### BT-80 Body Tubes

P/N	Designation	Length	Comments
030427	BT-80S	4.50"	Found in #1341, World Federation Star Probe.
030429	WBT-80A	9.00"	White body tube, as found in #1321, Maxi Alpha III.
030431	WBT-80MA	3.22"	White body tube, as found in #1321, Maxi Alpha III.
030433	BT-80KD	14.2"	Found in #1269, Maxi Honest John.
030434	BT-80SV	8.81"	Found in #2001, Saturn V.
030435	BT-80T	11.00"	Found in #2141, Silver Comet. Brown tube; 030437, below, is White.

## Appendix II: New Body Tubes

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### BT-80 Body Tubes, Continued;

P/N	Designation	Length	Comments
030437	BT-80	11.00"	Found in #1380, Phoenix (Re-release)
030458	BT-80	12.00"	Found in #2188, Canadian Arrow.
031179	BT-80WH	8.00"	Slotted, found in #2139, Fat Boy
031180	BT-80 (Slotted)	14.2"	Found in #1951, Executioner.

### BT-100 Body Tubes

P/N	Designation	Length	Comments
030435	BT-100D	4.093"	Found in #1301, R2-D2.

### BT-101 Body Tubes

P/N	Designation	Length	Comments
030441	BT-101KJ	10.50"	Found in #1267, Maxi V-2.
030445	BT-101LA	21.4"	Found in #1268, Pershing 1-A
030449	BT-101SV	24.625"	Found in #2001, Saturn V.

### BT-200 Body Tubes

P/N	Designation	Length	Comments
030469	BT-200	3.75"	Found in #2191, Space Ship One.



## Appendix II: New Body Tubes

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### BT-321 Body Tubes

P/N	Designation	Length	Comments
030457	BT-321	6.00"	Found in #2189, Rubicon.

### BT-1750 Body Tubes

P/N	Designation	Length	Comments
031140	BT-1750	0.75"	Found in #2120, Venus Probe.

### BT-1835 Body Tubes

P/N	Designation	Length	Comments
031181	BT-1835	15.313"	Found in #2083, Terrier-Sandhawk. Tube is slotted, and used for the Terrier Booster.
031762	BT-1835	11.00"	Found in #2129, Python.

### BT-30 (NCR) Body Tubes

P/N	Designation	Length	Comments
031751	BT-30 (NCR)	10.00"	Slotted; found in #2162, Big Daddy.

## Appendix II: New Body Tubes

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### HBT-20 Body Tubes

P/N	Designation	Length	Comments
031217	HBT-20	9.25"	Found in #2077, Sky Winder.

### HBT-50 Body Tubes

P/N	Designation	Length	Comments
031291	HBT-50	9.00"	Found in #2112, Transwing Super Glider.

### BT-760 Body Tubes

P/N	Designation	Length	Comments
030461	HBT-760	4.00"	Found in #2144, T.I.E. Fighter.
031700	HBT-760	10.75"	Found in #2127, Sizzler.
031701	HBT-760	14.50"	Found in #2120, Venus Probe.
031760	HBT-760	2.75"	Found in #2128, Long Shot.

### HBT-1000 Body Tubes

P/N	Designation	Length	Comments
030462	HBT-1000 (Black)	9.00"	Black pre-finished, found in #2144, T.I.E. Fighter.
030463	HBT-1000	4.00"	
030471	HBT-1000	13.438"	Found in #2190, Cosmos Mariner.

## Appendix II: New Body Tubes

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### BT-1000 Body Tubes, Continued;

P/N	Designation	Length	Comments
031183	HBT-1000 (Slotted)	7.375"	Found in #2143, Death Star.
031184	HBT-1000	7.375"	Found in #2143, Death Star.
031225	HBT-1000	2.813"	Found in #2147, Star Destroyer.
031226	HBT-1000	12.00"	Found in #2147, Star Destroyer.
031227	HBT-1000	15.00"	Found in #2147, Star Destroyer.
031278	HBT-1000	8.00"	Found in #1380, Phoenix (Re-release).
031281	HBT-1000	2.75"	Found in #2128, Long Shot.

### HBT-1090 Body Tubes

P/N	Designation	Length	Comments
031176	HBT-1090	12.00"	Found in #Mk-109 Stingray.
031186	HBT-1090 (Red)	11.00"	Pre-finished red; found in #2158.
031206	HBT-1090 (Holo)	11.00"	Holographic covering, found in #2137, Flash.
031208	HBT-1090 (White)	2.875"	Pre-finished white; found in #2158.
031674	HBT-1090 (Green)	3.563"	Green prismatic; found in #2182, Wacky Wiggler.
031675	HBT-1090 (Green)	1.25"	Green prismatic; found in #2182, Wacky Wiggler.
031676	HBT-1090 (Green)	2.00"	Green prismatic; found in #2182, Wacky Wiggler.
085860	HBT-1090 (Black)	11.00"	Black pre-finished, found in #2060, Bandit.
085877	HBT-1090	11.00"	Found in #2105, Hijax.
085878	HBT-1090	11.00"	Found in #2107, Firestreak.

## Appendix II: New Body Tubes

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### "PST" Body Tubes (Clear Plastic Payload tubes)

P/N	Designation	Length	Comments
030612	PST-55	12.00"	Found in #2155, Super Nova Payloader.
031205	PST-1090	6.00"	Found in #2105, Hijax.

### ST-4 Body Tubes

P/N	Designation	Length	Comments
031017	ST-41	1.25"	Found in #1358, F-61 Starfighter.

### ST-7 Body Tubes

P/N	Designation	Length	Comments
031038	ST-73	3.00"	Found in #1378, Firecat.

### ST-10 Body Tubes

P/N	Designation	Length	Comments
031135	ST-106	6.25"	Found in #1336, Boeing ALCM.
031140	ST-1010	10.50"	Found in #1378, Firecat.

## Appendix II: New Body Tubes

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### ST-13 Body Tubes

P/N	Designation	Length	Comments
031190	ST-1312	12.00"	Found in #1907, Cyclone (brown tube).
031606	WBT-1312	12.00"	White body tube, as found in the original #1327, AstroCam 110.

### ST-20 Body Tubes

P/N	Designation	Length	Comments
031169	ST-20	10.00"	Found in #2167, Mercury Redstone Liberty Bell.
031170	ST-20 (Slotted)	9.375"	Found in #2167, Mercury Redstone Liberty Bell.
031274	ST-2010	9.75"	Found in #1921, Mercury Redstone.

### "SBT" Body Tubes

P/N	Designation	Length	Comments
030329	SBT-703	7.813"	Found in #2048, Saturn 1b.
030379	SBT-116	11.00"	Found in #2048, Saturn 1b. P/N conflicts with the older BT-50B, found in #1909, U.S.S.F. Fireflash.
030436	SBT-261	7.625"	Found in #2048, Saturn 1b. P/N conflicts with the older BT-100Z, 10.89" long.
030438	SBT-267	1.375"	Found in #2048, Saturn 1b. P/N conflicts with the older BT-101, 16.5" long.
030446	SBT-123BE	2.50"	Found in #1287, LTV Scout. 1.23" in diameter.
030447	SBT-127GC	7.26"	Found in #1287, LTV Scout. 1.27" in diameter.
030449	SBT-394AJ	1.00"	Found in #1288, Starlab. 3.94" in diameter. Thick walled (0.042"); same OD as BT-101.
030488	SBT-139BJ	2.00"	Found in #1287, LTV Scout. 1.39" in diameter.