

Ground Ignition Weights

Weights In Pounds Mass	Apollo 7	Apollo 8	Apollo 9	Apollo 10	Apollo 11	Apollo 12	Apollo 13	Apollo 14	Apollo 15	Apollo 16	Apollo 17
Ground Ignition Time											
Relative to Range Zero (sec)	-2.988	-6.585	-6.3	-6.4	-6.4	-6.5	-6.7	-6.5	-6.5	-6.7	-6.9
S-IB stage, dry	84,530	---	---	---	---	---	---	---	---	---	---
S-IB stage, oxidizer	631,300	---	---	---	---	---	---	---	---	---	---
S-IB stage, fuel	276,900	---	---	---	---	---	---	---	---	---	---
S-IB stage, other	1,182	---	---	---	---	---	---	---	---	---	---
S-IB stage, total	993,912	---	---	---	---	---	---	---	---	---	---
S-IB/S-IVB interstage, dry	5,543	---	---	---	---	---	---	---	---	---	---
Retromotor Propellant	1,061	---	---	---	---	---	---	---	---	---	---
S-IC stage, dry	---	305,232	294,468	293,974	287,531	287,898	287,899	287,310	286,208	287,855	287,356
S-IC stage, oxidizer	---	3,128,034	3,301,203	3,302,827	3,305,786	3,310,199	3,304,734	3,312,769	3,312,030	3,311,226	3,314,388
S-IC stage, fuel	---	1,357,634	1,431,678	1,423,254	1,424,889	1,424,287	1,431,384	1,428,561	1,410,798	1,439,894	1,431,921
S-IC stage, other	---	6,226	5,508	5,491	5,442	5,442	5,401	5,194	4,283	5,396	5,395
S-IC stage, total	---	4,797,126	5,032,857	5,025,546	5,023,648	5,027,826	5,029,418	5,033,834	5,013,319	5,044,371	5,039,060
S-IC/S-II interstage, dry	---	12,436	11,591	11,585	11,477	11,509	11,454	11,400	9,083	10,091	9,975
S-II stage, dry	---	88,500	84,312	84,273	79,714	80,236	77,947	78,120	78,908	80,362	80,423
S-II stage, oxidizer	---	793,795	821,504	823,325	819,050	825,406	836,741	837,484	837,991	846,157	844,094
S-II stage, fuel	---	154,907	158,663	158,541	158,116	157,986	159,931	159,232	158,966	160,551	160,451
S-II stage, other	---	1,426	1,188	1,250	1,260	1,250	1,114	1,051	1,082	991	934
S-II stage, total	---	1,038,628	1,065,667	1,067,389	1,058,140	1,064,878	1,075,733	1,075,887	1,076,947	1,088,061	1,085,902
S-II/S-IVB interstage, dry	---	8,731	7,998	8,045	8,076	8,021	8,081	8,060	8,029	8,055	8,019
S-IVB stage, dry	21,852	25,926	25,089	25,680	24,852	25,064	25,097	25,030	25,198	25,099	25,040
S-IVB stage, oxidizer	193,330	192,840	189,686	192,089	192,497	190,587	191,890	190,473	195,788	195,372	195,636
S-IVB stage, fuel	39,909	43,395	43,709	43,388	43,608	43,663	43,657	43,546	43,674	43,727	43,752
S-IVB stage, other	1,432	1,626	1,667	1,684	1,656	1,873	1,673	1,687	1,655	1,643	1,658
S-IVB stage, total	256,523	263,787	260,151	262,841	262,613	261,187	262,317	260,736	266,315	265,841	266,086
Total Instrument Unit	4,263	4,842	4,281	4,267	4,275	4,277	4,502	4,505	4,487	4,502	4,470
Spacecraft/Lunar Module Adapter	3,943	3,951	4,012	3,969	3,951	3,960	3,947	3,962	3,964	3,961	3,961
LM (LTA Apollo 8)	---	19,900	32,034	30,735	33,278	33,562	33,493	33,685	36,238	36,237	36,262
Command and Service Module	32,495	63,531	59,116	63,560	63,507	63,559	63,795	64,448	66,925	66,949	66,942
Total Launch Escape System	8,874	8,890	8,869	8,936	8,910	8,963	8,991	9,027	9,108	9,167	9,104
Total Spacecraft (CSM)	45,312	96,272	104,031	107,200	109,646	110,044	110,226	111,122	116,235	116,314	116,269
Total Vehicle	1,306,614	6,221,823	6,486,577	6,486,873	6,477,875	6,487,742	6,501,733	6,505,548	6,494,415	6,537,238	6,529,784

Actual weights at S-IC stage ignition, compiled from Saturn launch vehicle flight evaluation reports. Weights to do not add to vehicle totals due to truncated decimal data in report.

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