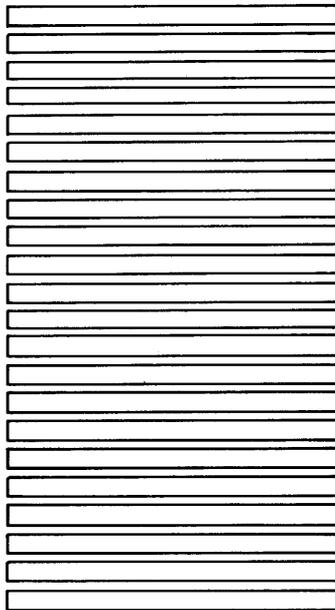


727
AIRPLANE
CHARACTERISTICS
AIRPORT PLANNING



BOEING
COMMERCIAL AIRPLANE COMPANY
(A DIVISION OF THE BOEING COMPANY)

THIS PAGE INTENTIONALLY LEFT BLANK

727 AIRPLANE CHARACTERISTICS

REVISIONS					
Page	Date	Page	Date	Page	Date
Original 1 to 108	February 1969	41	June 1978	88	December 1972
Rev. 1 1 to 144	December 1972	42	June 1978	89	February 1969
Rev. 2 1 to 108	June 1978	43	June 1978	90	June 1978
Rev. C	April 1985	44	June 1978	91	June 1978
1	February 1969	45	June 1978	92	June 1978
2	June 1978	46	June 1978	93	June 1978
3	June 1978	47	June 1978	94	June 1978
4	June 1978	48	June 1978	95	June 1978
5	June 1978	49	June 1978	96	June 1978
6	Blank	50	June 1978	97	June 1978
7	February 1969	51	June 1978	98	June 1978
8	December 1972	52	June 1978	99	April 1985
9	June 1978	53	June 1978	100	April 1985
10	June 1978	54	Blank	101	April 1985
11	June 1978	55	June 1978	102	April 1985
12	June 1978	56	June 1978	103	April 1985
13	June 1978	57	February 1969	104	April 1985
14	June 1978	58	February 1969	105	April 1985
15	June 1978	59	June 1978	106	April 1985
16	June 1978	60	June 1978	107	April 1985
17	June 1978	61	June 1978	108	April 1985
18	June 1978	62	June 1978	109	April 1985
19	December 1972	63	June 1978	110	April 1985
20	June 1978	64	June 1978	111	April 1985
21	June 1978	65	June 1978	112	April 1985
22	June 1978	66	June 1978	113	April 1985
23	June 1978	67	February 1969	114	April 1985
24	June 1978	68	February 1969	115	April 1985
25	June 1978	69	February 1969	116	April 1985
26	June 1978	70	June 1978	117	April 1985
27	February 1969	71	June 1978	118	April 1985
28	February 1969	72	June 1978	119	April 1985
29	June 1978	73	June 1978	120	April 1985
30	June 1978	74	December 1972	121	April 1985
31	June 1978	75	June 1978	122	April 1985
32	June 1978	76	June 1978	123	April 1985
33	June 1978	77	June 1978	124	April 1985
34	June 1978	78	June 1978	125	April 1985
35	June 1978	79	June 1978	126	April 1985
36	June 1978	80	June 1978	127	April 1985
37	June 1978	81	June 1978	128	April 1985
38	June 1978	82	June 1978	129	April 1985
39	June 1978	83	June 1978	130	April 1985
40	June 1978	84	June 1978	131	April 1985
		85	June 1978	132	April 1985
		86	December 1972	133	December 1972
		87	December 1972	134	June 1978

727 AIRPLANE CHARACTERISTICS

REVISIONS

Page	Date	Page	Date	Page	Date
135	December 1972				
136	Blank				
137	June 1978				
138	Blank				
139	June 1978				
140	Blank				
141	June 1978				
142	Blank				
143	June 1978				
144	Blank				
145	June 1978				
146	Blank				
147	June 1978				
148	Blank				
149	June 1978				
150	Blank				
151	June 1978				
152	Blank				
153	June 1978				
154	Blank				
155	June 1978				

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
1.0	PREFACE	1
1.1	Scope	2
1.2	Introduction	2
1.3	Brief Description and Comparison of the 727 Family of Airplanes	3
2.0	AIRPLANE DESCRIPTION	7
2.1	General Characteristics	8
2.2	General Dimensions	12
2.3	Ground Clearances	14
2.4	Interior Arrangements	15
2.5	Cabin Cross Sections	19
2.6	Lower Cargo Compartment Capacities	22
2.7	Door Clearances	25
3.0	AIRPLANE PERFORMANCE	29
3.1	Payload/Range for Long-Range Cruise	30
3.2	C.A.R. Takeoff Runway Length Requirements	37
3.3	C.A.R. Landing Runway Length Requirements	51
4.0	GROUND MANEUVERING	55
4.1	General Information	56
4.2	Turning Radii, No Slip Angle	57
4.3	Minimum Turning Radii	59
4.4	Visibility From Cockpit	60
4.5	Runway and Taxiway Turn Paths	62
4.6	Runway Holding Bay (Apron)	66
5.0	TERMINAL SERVICING	67
5.1	Airplane Servicing Arrangement—Typical Turnaround	68
5.2	Terminal Operations—Turnaround Station	70
5.3	Terminal Operations—En Route Station	72
5.4	Ground Service Connections	74
5.5	Engine Starting Pneumatic Requirements	81
5.6	Air Conditioning Requirements	82
5.7	Ground Towing Requirements	87

TABLE OF CONTENTS (Continued)

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
6.0	JET ENGINE WAKE AND NOISE DATA	89
6.1	Jet Engine Exhaust Velocities and Temperatures	90
6.2	Airport and Community Noise	96
7.0	PAVEMENT DATA	99
7.1	General Information	100
7.2	Landing-Gear Footprint	104
7.3	Maximum Pavement Loads	106
7.4	Landing-Gear Loading on Pavement	107
7.5	Flexible Pavement Requirements—U.S. Army Corp of Engineers Method S-77-1 and FAA Method	109
7.6	Flexible Pavement Requirements, LCN Conversion	111
7.7	Rigid Pavement Requirements, Portland Cement Association	114
7.8	Rigid Pavement Requirements, LCN Conversion	116
7.9	Rigid Pavement Requirements, FAA Design Method	120
7.10	ACN/PCN Reporting System	122
7.11	Tire Inflation Charts (Variable Pressure)	131
8.0	FUTURE 727 DERIVATIVE AIRPLANES	133
9.0	SCALED 727 DRAWINGS	135