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1.3 720/720B Airplanes — Description and Comparison

1.0 PREFACE

1.1 Scope

This document provides, in a standardized format, the recommended minimum airplane characteristics data needed for general airport planning. Since operational practices vary among airlines, specific data should be coordinated with the using airlines prior to facility design. The Boeing Company should be contacted for any additional information required.

Format of the document reflects the results of a coordinated effort by representatives from the following organizations:

Aerospace Industries Association of America
Airport Operators' Council International
Air Transport Association of America
International Air Transport Association

1.2 Introduction

This document conforms to NAS 3601. It provides characteristics of the Boeing Model 720 family of airplanes for airport operators, airlines, and engineering consultant organizations. Airplane changes and available options may alter model characteristics; the data presented herein reflect typical airplanes in each model category.

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Attention: Chief, Airport Studies
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1.3 A Brief Description and Comparison of the 720 and 720B Airplanes

The Model 720 and 720B airplanes are derivatives of the Model 707-100 series design which was, in turn, a derivative of the 707 prototype (Boeing Model 367-80). Both the 720 and 720B are passenger airplanes and are generally used on domestic routes although many 720B were built for overseas travel.

The 720 is essentially a lightened and shortened version of the 707-100 with lower takeoff and landing weights and less fuel capacity. The 720 wing is the same as that of the 707-100 except that additional leading-edge flaps were added to improve takeoff and landing performance. The same constant body section (height and width) used in the 707 family was used in the 720.

The 720B is the same as the 720 except that it has fan engines and a slightly greater fuel capacity, tail width, overall length and gross weight. Use of the fan engines resulted in a marked improvement in maximum payload, required takeoff field length, and design range.

The data on the following page provide an overall comparison of the 720, 720B, and 707-120B. (The 707-120B data are included because the 720 was a derivative of the 707-100 series.) Minor dimensional and/or performance differences may exist between airplanes of the same model as a result of customer option; however, the data presented reflects typical airplanes in each model category.

MODEL	ENGINE TYPE	LENGTH		SPAN		BODY		VERTICAL TAIL HEIGHT*	MAXIMUM RAMP WEIGHT
		OVERALL	FUSELAGE	WING	TAIL	HEIGHT	WIDTH		
720	JT3C	FT IN. 136 - 2	FT IN. 130 - 6	FT IN. 130 - 10	FT IN. 39 - 8	FT IN. 14 - 3	FT IN. 12 - 4	FT IN. 41 - 5	LB 230,000
720B	JT3D	136 - 9	↓	↓	43 - 4	↓	↓	41 - 2	235,000
707-120B**	JT3D	145 - 1	138 - 10	↓	↓	↓	↓	41 - 8	258,000
720	JT3C	(METERS) 41.50	(METERS) 39.78	(METERS) 39.88	(METERS) 12.10	(METERS) 4.33	(METERS) 3.76	(METERS) 12.62	(KILOGRAMS) 104,400
720B	JT3D	41.68	↓	↓	13.21	↓	↓	12.55	106,700
707-120B**	JT3D	44.22	42.32	↓	↓	↓	↓	12.7	117,100

* HEIGHT ABOVE GROUND AT OPERATING EMPTY WEIGHT (O.E.W.)

** THE 707-120B IS SHOWN HERE FOR INFORMATION BECAUSE THE 720 IS A DERIVATIVE OF THE 707-100 SERIES.