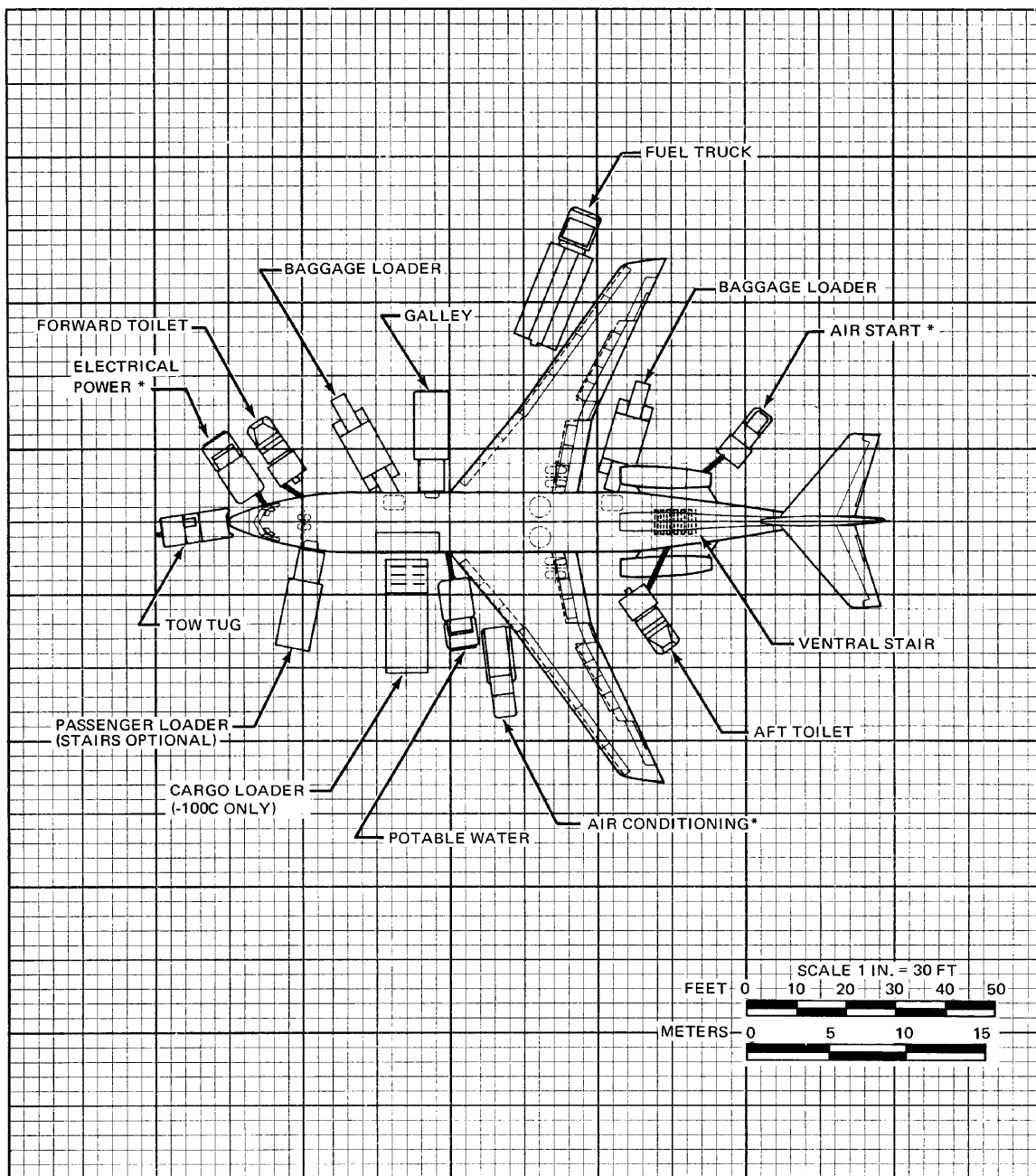


5.0 TERMINAL SERVICING

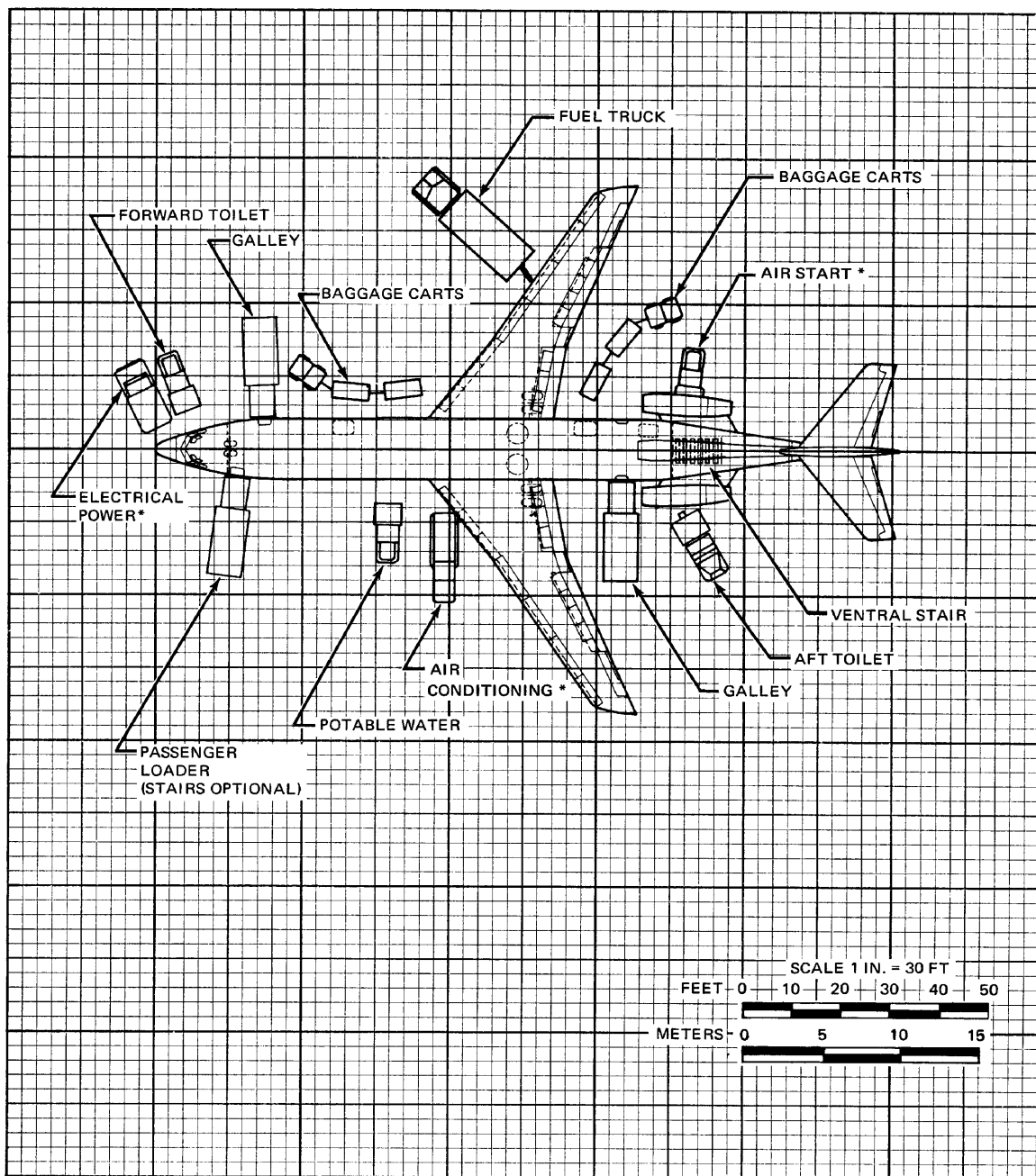
- 5.1 Airplane Servicing Arrangement
(Typical Turnaround)
- 5.2 Terminal Operations – Turnaround Station
- 5.3 Terminal Operations – En Route Station
- 5.4 Ground Service Connections
- 5.5 Engine Starting Pneumatic Requirements
- 5.6 Air Conditioning Requirements
- 5.7 Ground Towing Requirements



* NOT REQUIRED IF AUXILIARY POWER UNIT IS IN USE

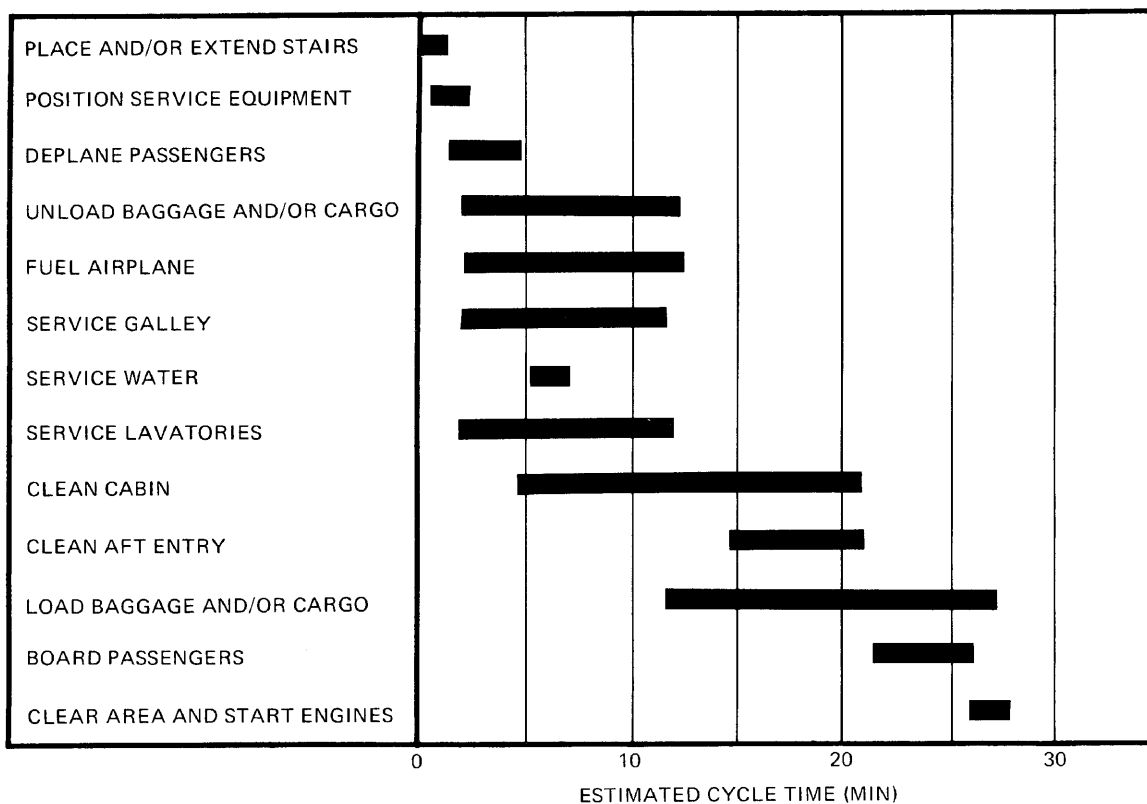
5.1 AIRPLANE SERVICING ARRANGEMENT—TYPICAL TURNAROUND

MODELS 727-100, -100C



* NOT REQUIRED IF AUXILIARY POWER UNIT IS IN USE

AIRPLANE SERVICING ARRANGEMENT—TYPICAL TURNAROUND **MODEL 727-200**

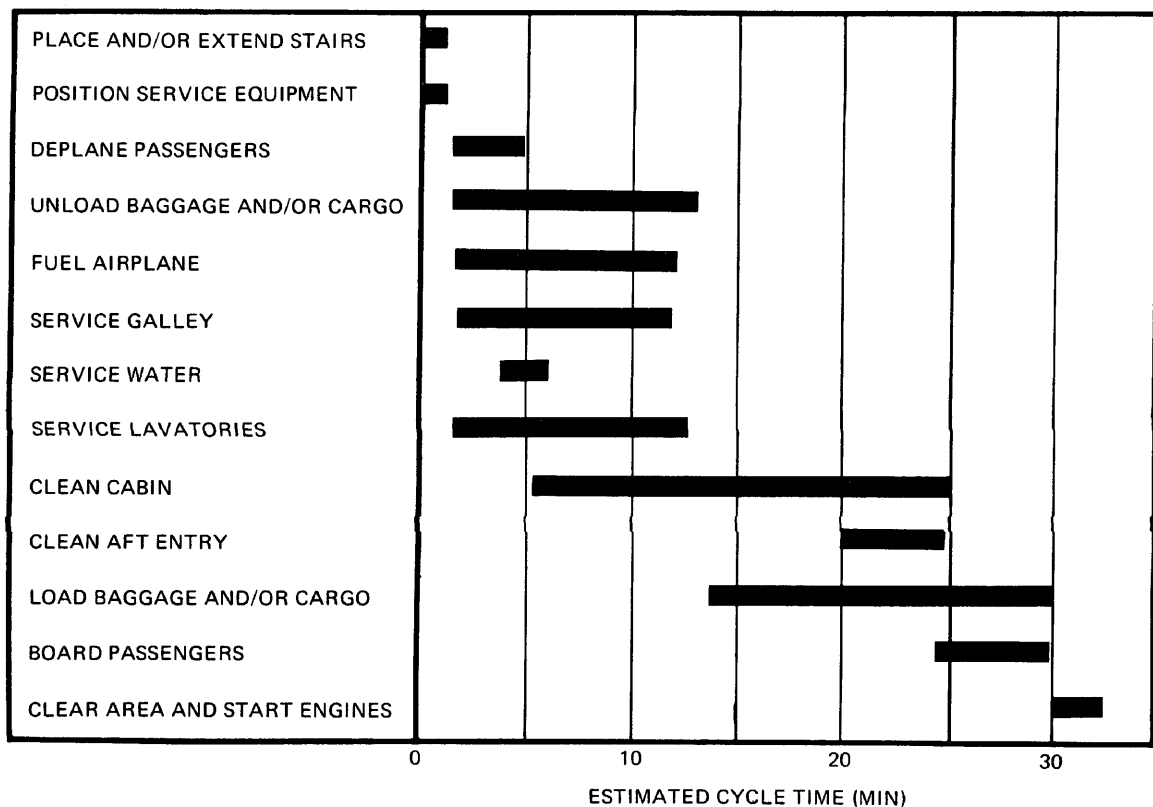


NOTES:

- ESTIMATES BASED ON 28 FIRST-CLASS AND 66 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

5.2 TERMINAL OPERATIONS—TURNAROUND STATION

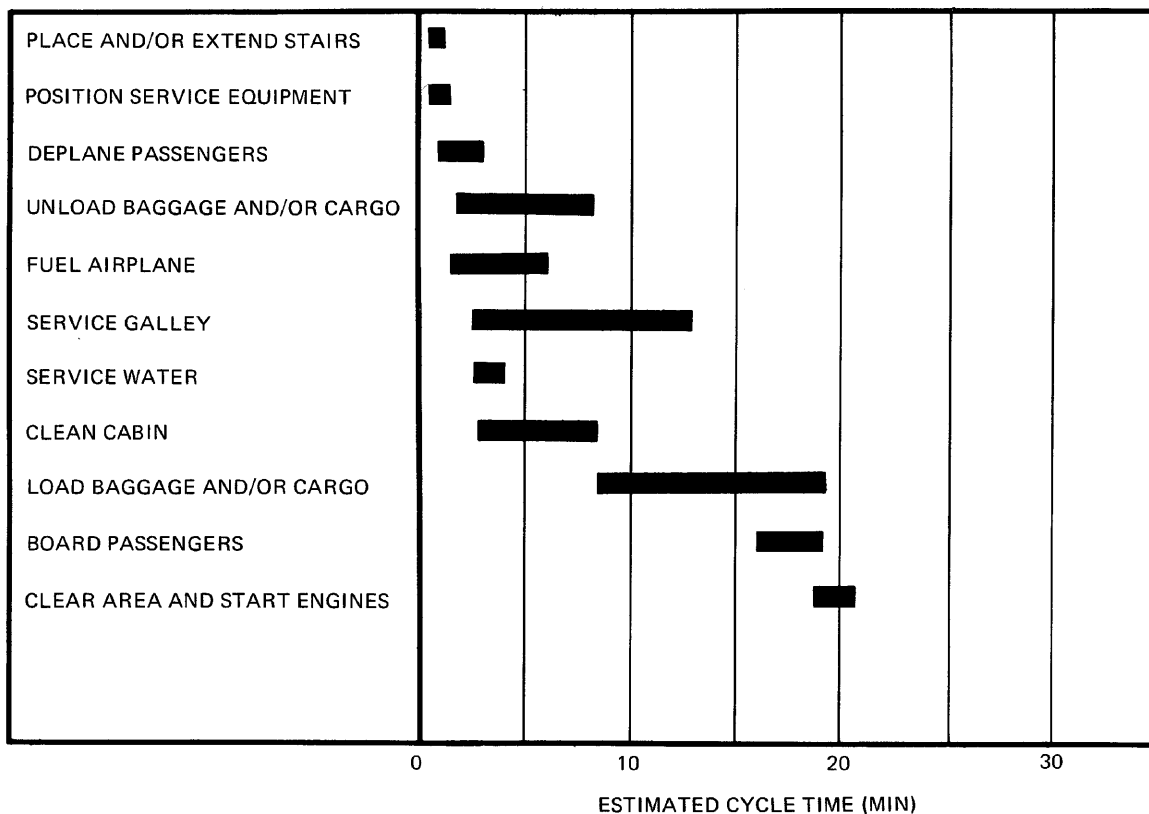
MODELS 727-100, -100C



NOTES:

- ESTIMATES BASED ON 20 FIRST-CLASS AND 114 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

TERMINAL OPERATIONS—TURNAROUND STATION
MODEL 727-200

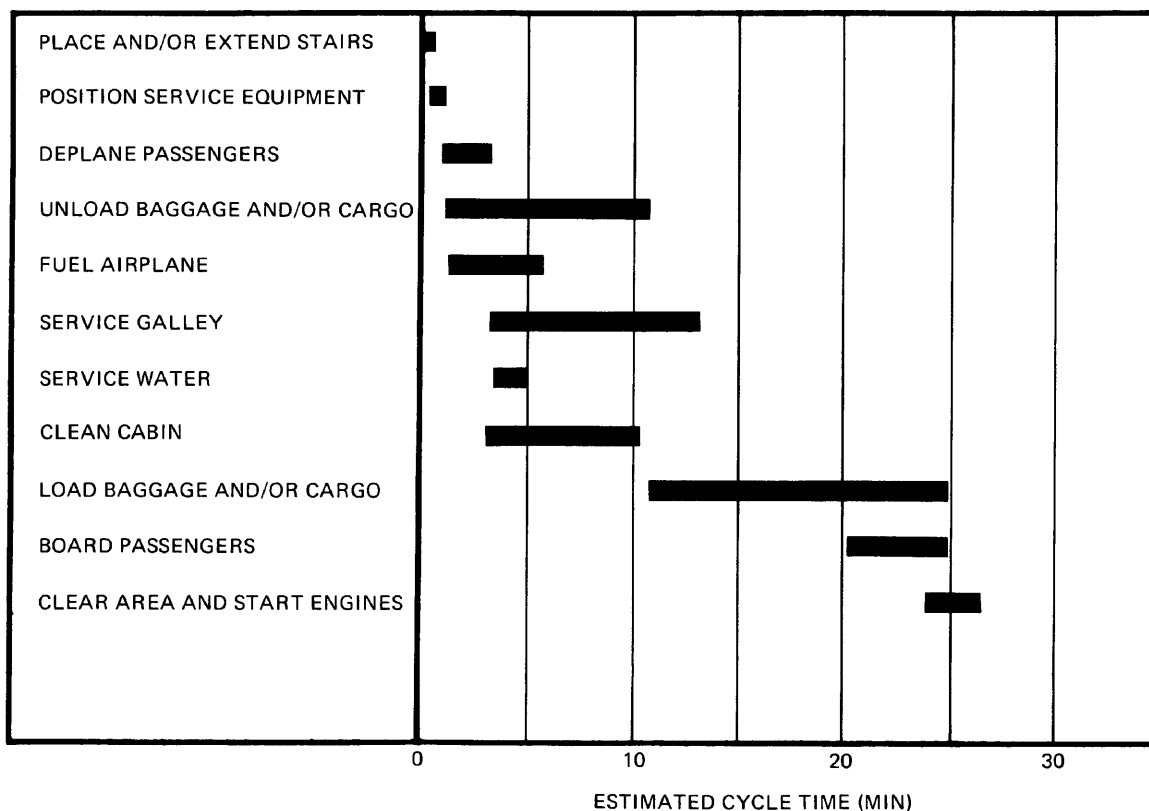


NOTES:

- ESTIMATES BASED ON 28 FIRST-CLASS AND 66 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- 75% PASSENGER EXCHANGE
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

5.3 TERMINAL OPERATIONS—EN ROUTE STATION

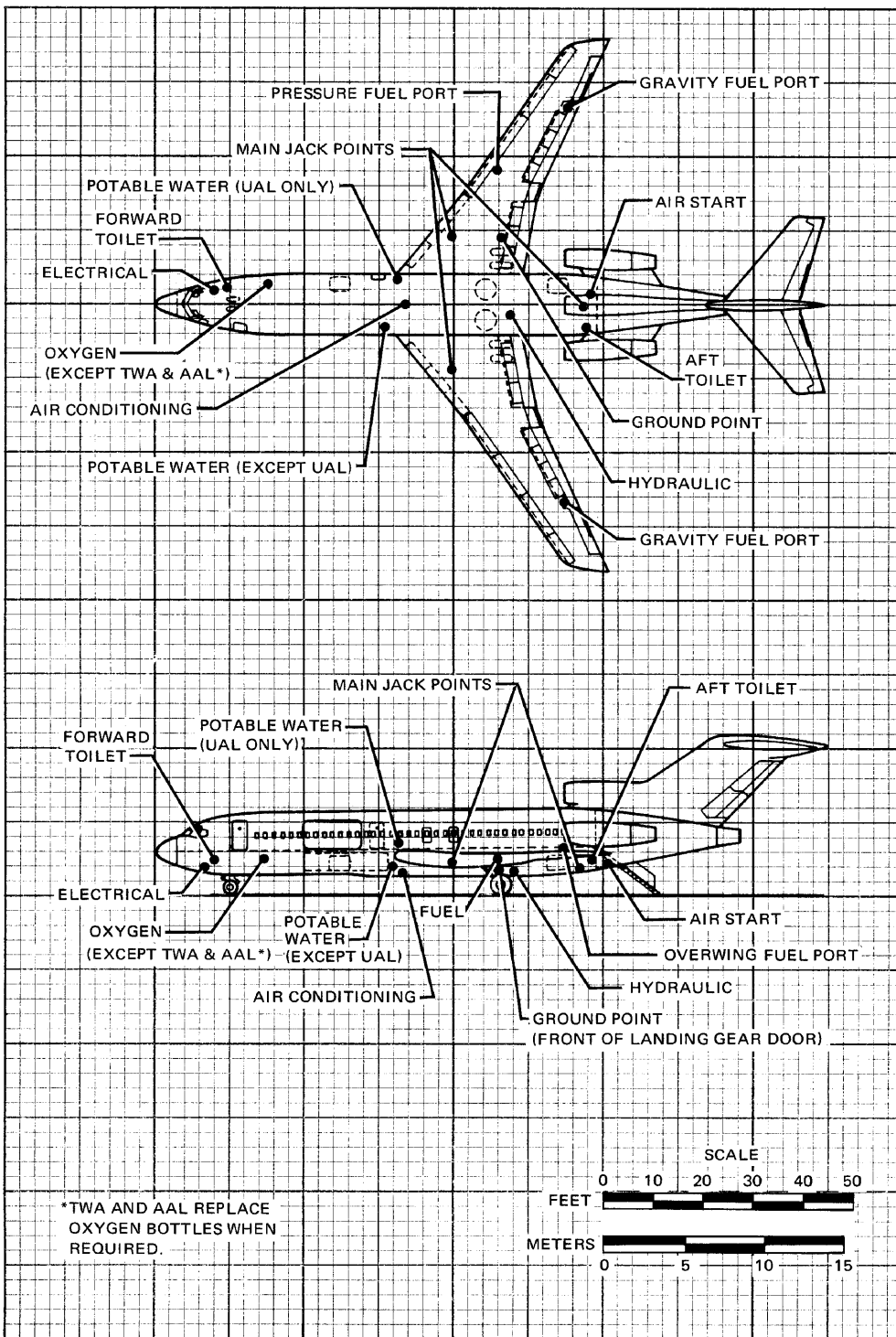
MODELS 727-100, -100C



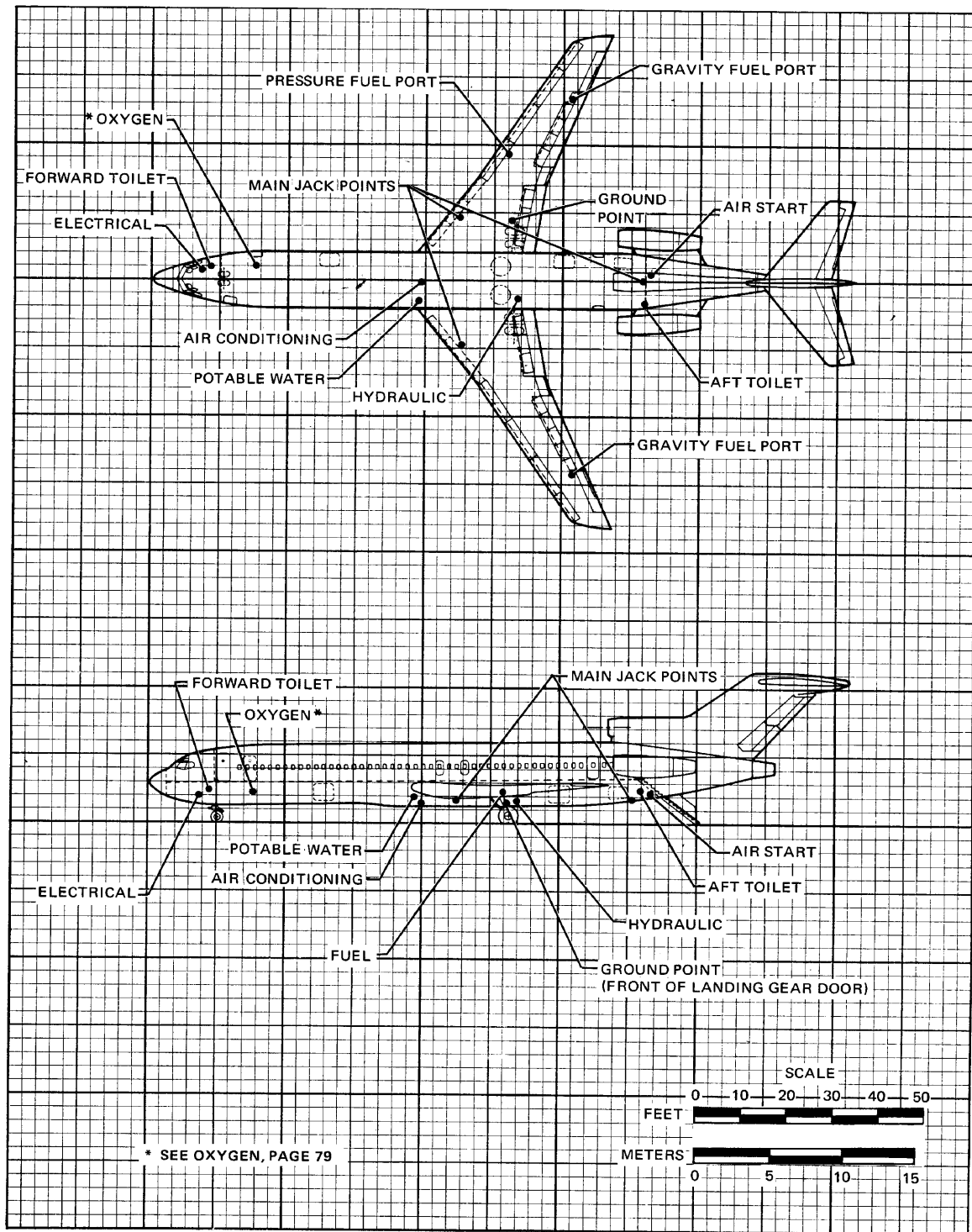
NOTES:

- ESTIMATES BASED ON 20 FIRST-CLASS AND 114 TOURIST PASSENGER MIX WITH 65% LOAD FACTOR
- BOTH ENTRY DOORS IN USE
- FUEL RATE OF 600 GPM (2,271 LPM)
- 75% PASSENGER EXCHANGE
- THIS DATA IS PROVIDED TO ILLUSTRATE THE GENERAL SCOPE AND TYPES OF TASKS INVOLVED IN TERMINAL OPERATIONS. VARYING AIRLINE PRACTICES AND OPERATING CIRCUMSTANCES THROUGHOUT THE WORLD WILL RESULT IN DIFFERENT SEQUENCES AND TIME INTERVALS TO ACCOMPLISH THE TASKS SHOWN. BECAUSE OF THIS, GROUND OPERATIONS REQUIREMENTS SHOULD BE COORDINATED WITH THE USING AIRLINES PRIOR TO RAMP PLANNING.

TERMINAL OPERATIONS—EN ROUTE STATION
MODEL 727-200



5.4 GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C



GROUND SERVICE CONNECTIONS
MODEL 727-200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
		F	M	LEFT SIDE		RIGHT SIDE		F	M
				F	M	F	M		
<u>AIR CONDITIONING, CABIN</u> TWO SERVICE CONNECTIONS: 8 IN. (20.3 CM) SEE PAGES 82 THRU 85 3 IN. (7.6 CM) SEE PAGES 82 THRU 85	-100 & -100C	50	15.2	0	0	0	0	4	1.2
	-200	60	18.3	0	0	0	0	4	1.2
	-100 & -100C	90	27.4	-	-	1	0.3	6	1.8
	-200	110	33.5	-	-	1	0.3	6	1.8
<u>AIR, PNEUMATIC STARTING</u> ONE CONNECTION: 3 IN. (7.6 CM) SEE PAGE 81	-100 & -100C	90	27.4	-	-	1	0.3	6	1.8
	-200	110	33.5	-	-	1	0.3	6	1.8

GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C, -200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
		F	M	LEFT SIDE		RIGHT SIDE		F	M
				F	M	F	M		
<u>ELECTRICAL POWER</u> ONE SERVICE CONNECTION 60 KW, 200/115 V, 400 HZ, 3-PHASE AC GROUND JACK RH MAIN LANDING GEAR DOOR	-100 & -100C ALL EXCEPT EAL EAL -100 & -100C	12 90 65	3.7 27.4 19.8	- - -	- - -	3 2 12	0.9 0.6 3.7	6 6 5	1.8 1.8 1.5
<u>FUEL (AND DEFUEL)</u> TWO UNDERWING PRESSURE CONNECTIONS MAXIMUM FUEL RATE— 600 GPM (2,271 LPM) AT 50 PSI (3.52 KG/CM ²) MAXIMUM DEFUEL RATE— 200 GPM (757 LPM) TANK CAPACITY—7,174 /7,680 U.S. GAL. (27,150/29,070 L) TWO OVERWING GRAVITY CONNECTIONS	-100 & -100C -100 & -100C	67 70	20.4 21.3	- 40	- 12.2	28 40	8.5 12.2	7 8	2.1 2.4
								TOP OF WING	

GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
				LEFT SIDE		RIGHT SIDE			
		F	M	F	M	F	M	F	M
<u>ELECTRICAL</u> POWER ONE SERVICE CONNECTION 100 KW, 200/115 V, 400 HZ, 3-PHASE AC GROUND JACK RH MAIN LANDING GEAR DOOR	-200								
	ALL EXCEPT EAL	12	3.7	-	-	3	0.9	6	1.8
	EAL	90	27.4	-	-	2	0.6	6	1.8
	-200	75	22.9	-	-	12	3.7	5	1.5
<u>FUEL (AND DEFUEL)</u> TWO UNDERWING PRESSURE CONNECTIONS MAXIMUM FUEL RATE— 600 GPM (2,271 LPM) AT 50 PSI (3.5 KG/CM ²) DEFUEL RATE—200 GPM (757 LPM) TANK CAPACITY - 8105 U.S. GAL. (30,680 L) TWO OVERWING GRAVITY CONNECTIONS	-200	77	23.5	-	-	28	8.5	7	2.1
	-200	80	24.4	40	12.2	40	12.2	8	2.4
								TOP OF WING	

* AN ADDITIONAL 2,480 U.S. GAL (9,387 L) CAPACITY
IS AVAILABLE AS AN OPTION ON THE ADVANCED
727-200. SEE PAGES 11 AND 23.

GROUND SERVICE CONNECTIONS MODEL 727-200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
		F	M	LEFT SIDE		RIGHT SIDE		F	M
				F	M	F	M		
HYDRAULIC ONE SERVICE CONNECTION	-100 & -100C	72	21.9	4	1.2	-	-	5	1.5
FILL PRESSURE—50 PSIG (3.5 KG/CM ²)	-200	92	28	4	1.2	-	-	5	1.5
FILL RATE—1 GPM (3.8L)									
RESERVOIR CAPACITIES:									
SYSTEM A—5.4 U.S. GAL. (20.4 L)									
SYSTEM B—3.1 U.S. GAL. (11.7 L)									
STANDBY—0.65 U.S. GAL. (2.5 L)									
OXYGEN ONE SERVICE CONNECTION*	-100& -100C -200	22	6.7	-	-	5	1.5	7	2.1
MAXIMUM FILL PRESSURE— 1,850 PSI (129 KG/CM ²)									
CAPACITY— 286 CU FT ³ (8.1 CUM)									
POTABLE WATER TWO SERVICE CONNECTIONS:	-100 & -100C	48	14.6	5	1.5	-	-	6	1.8
UAL ONLY	-100	46	14.0	-	-	6	1.8	12	3.7
FILL PORT—¾ IN. (1.9 CM)	-200	46	14.0	5	1.5	-	-	6	1.8
OVERFLOW—1 IN. (2.54 CM)									
TANK CAPACITY—40 U.S. GAL. (151.4 L)									
FILL PRESSURE:									
MINIMUM—10 PSI (0.7 KG/CM ²)									
MAXIMUM— 125 PSI (8.75 KG/CM ²)									

* SOME AIRLINES REPLACE OXYGEN BOTTLES

GROUND SERVICE CONNECTIONS

MODELS 727-100, -100C, -200

SYSTEM	MODEL	DISTANCE AFT OF NOSE		DISTANCE FROM AIRPLANE CENTERLINE				HEIGHT FROM GROUND	
		F	M	LEFT SIDE		RIGHT SIDE		F	M
				F	M	F	M		
<u>TOILETS</u>									
<u>FORWARD TOILETS</u>									
TWO SERVICE CONNECTIONS: DRAIN—4 IN. (10.16 CM) FLUSH—1 IN. (2.54 CM)	-100, -100C & -200	14	4.3	-	-	5	1.5	8	2.4
<u>AFT TOILETS</u>									
THREE SERVICE CONNECTIONS: DRAIN—4 IN. (10.16 CM) FLUSH—TWO 1 IN. (2.54 CM)	-100 & -100C -200	87 107	26.5 33	4 4	1.2 1.2	- -	- -	8 9	2.4 2.7
TOILET FLUSH REQUIREMENTS:									
FLOW—20 GPM (75.7 LPM) PRESSURE—20 PSI (1.4 KG/CM ²)									
TOTAL SERVICE TANK REQUIREMENTS:									
WASTE—70 U.S. GAL. (2.65 L) FLUSH—18 U.S. GAL. (68.1 L) CHEMICAL—12 U.S. GAL (45.4 L)									

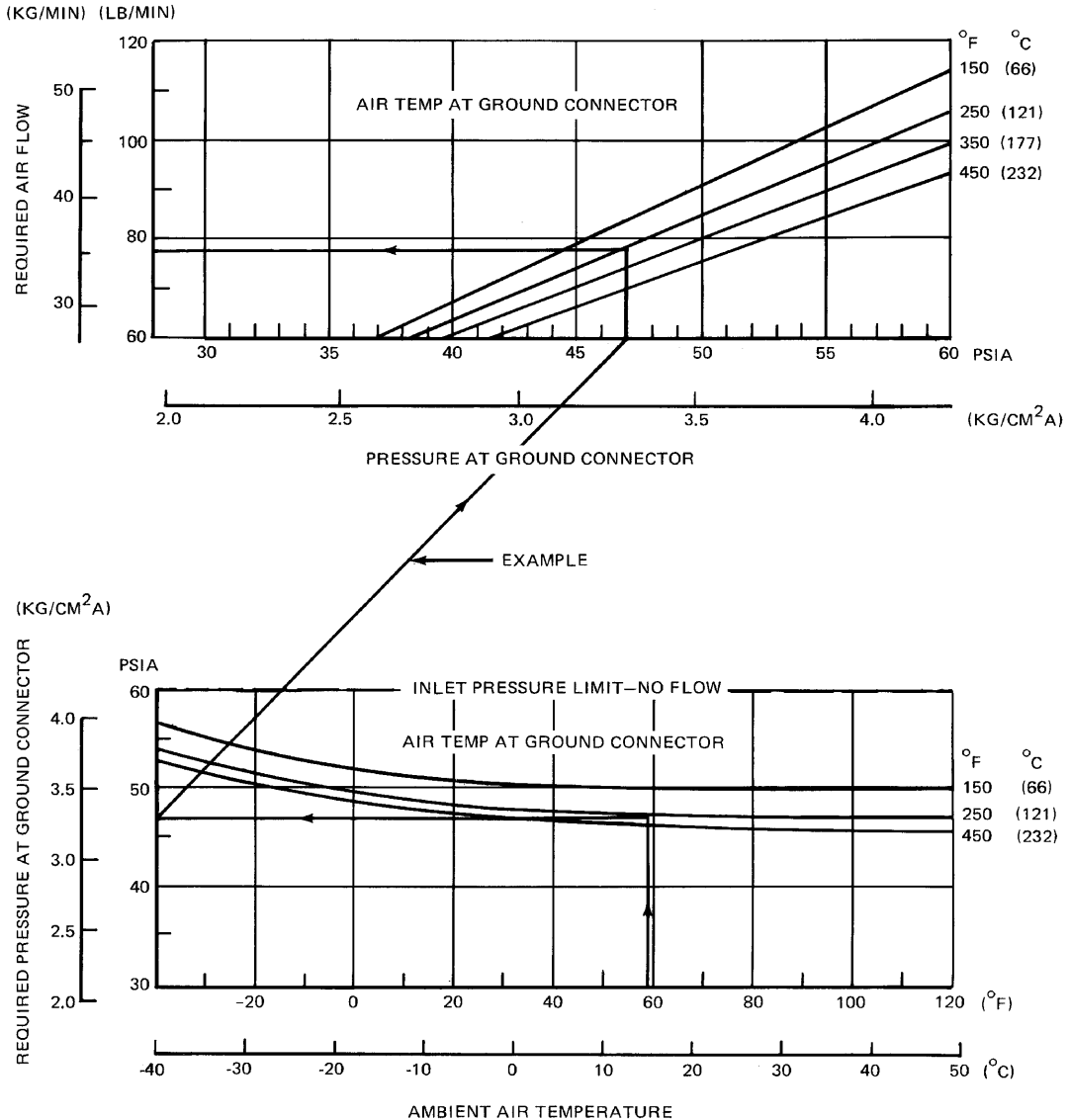
GROUND SERVICE CONNECTIONS
MODELS 727-100, -100C, -200

NOTES:

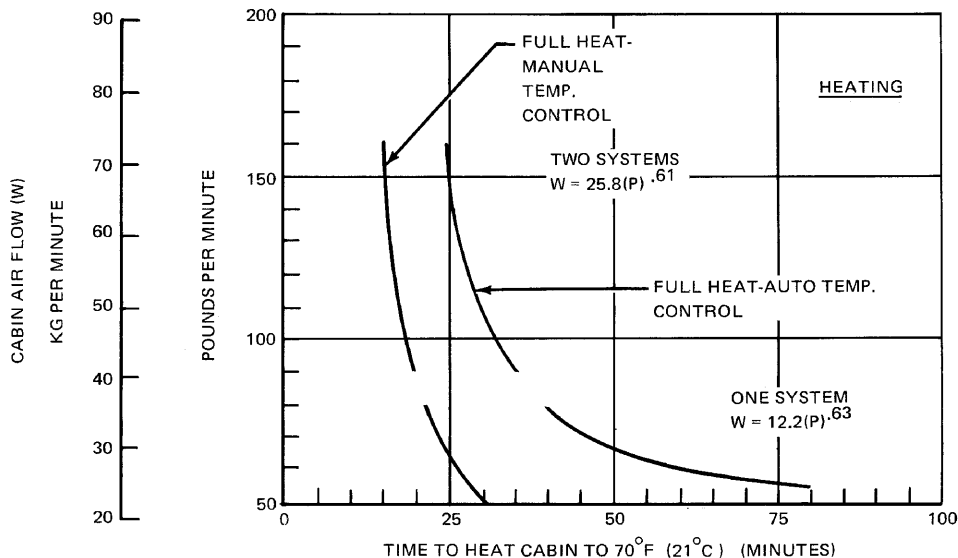
- JT8D ENGINES
- MINIMUM STARTING REQUIREMENTS
- SEA LEVEL

EXAMPLE:

AMBIENT TEMPERATURE = 59°F (15°C)
 GROUND CONNECTION TEMPERATURE = 250°F (121°C)
 REQUIRED PRESSURE AT GROUND CONNECTION =
 47 PSIA (3.30 KG/CM² A)
 REQUIRED AIR FLOW AT GROUND CONNECTION =
 77 LB/MIN (34.9 KG/MIN)



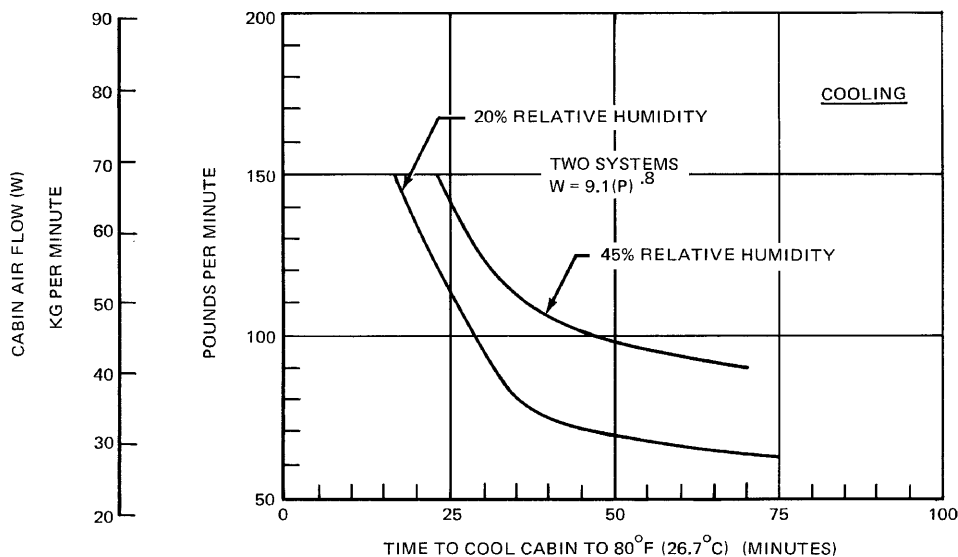
5.5 ENGINE STARTING PNEUMATIC REQUIREMENTS—SEA LEVEL
 MODELS 727-100, -100C, -200



CONDITIONS:

- CABIN INITIALLY AT 0°F (-17.8°C)
- NO OCCUPANTS OR OTHER HEAT LOADS; ALL DOORS AND HATCHES CLOSED
- AIR TEMPERATURE AT GROUND CONNECTION 300°F (149°C)
- $W_{\text{cart}} = 1.14 \times W$

P = PSIG AT GROUND CONNECTION



CONDITIONS:

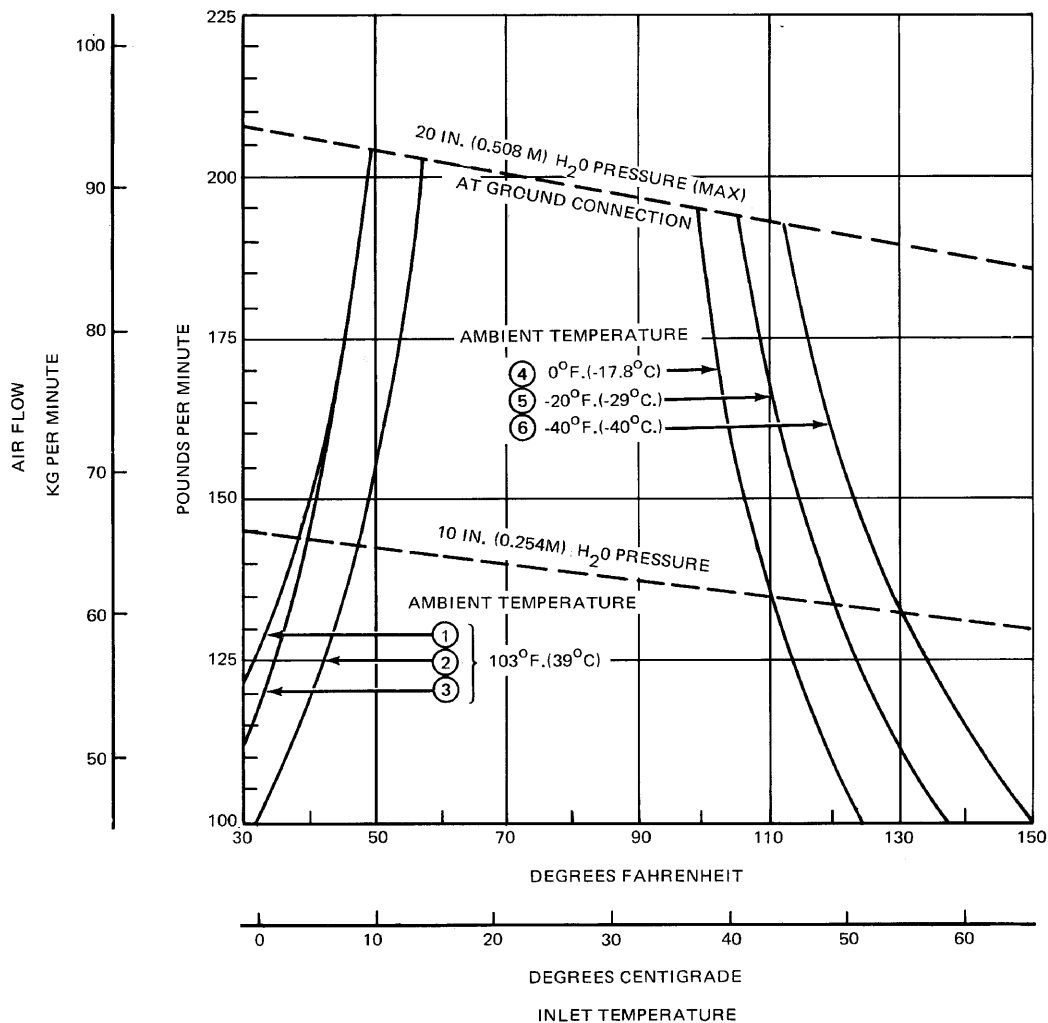
- CABIN INITIALLY AT 103°F (39°C)
- NO GALLEY AND ELECTRICAL HEAT LOAD
- NO OCCUPANTS
- ALL DOORS AND HATCHES CLOSED
- AMBIENT TEMPERATURE 103°F (39°C)
- SOLAR LOAD 6,500 BTU/HR (1640 KG CAL/HR)
- AIR TEMPERATURE AT GROUND CONNECTION 450°F (232°C)
- $W_{\text{cart}} = 1.14 \times W$

5.6 AIR CONDITIONING REQUIREMENTS—HEATING AND COOLING

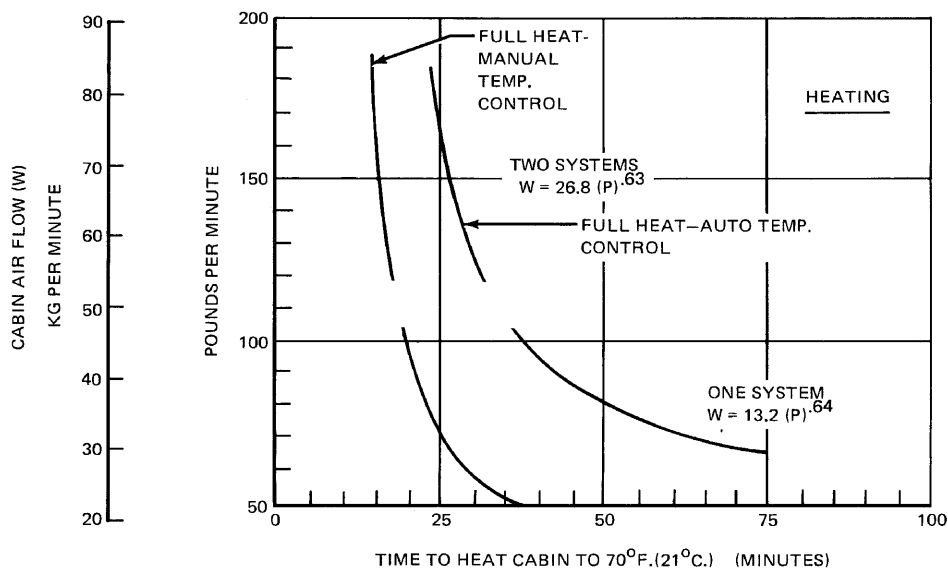
MODELS 727-100, -100C

CONDITIONS

- ALL DOORS AND HATCHES CLOSED
- ① • CABIN AT 75°F (23.9°C)
- 95 OCCUPANTS
- NO GALLEY LOAD
- SOLAR LOAD 6,500 BTU/HR (1,640 KG CAL/HR)
- ELECTRICAL LOAD 7,400 BTU/HR (1,865 KG CAL/HR)
- ② • CABIN AT 80°F (26.7°C)
- OTHER CONDITIONS SAME AS IN ①
- ③ • CABIN AT 70°F (21°C)
- 3 OCCUPANTS
- GALLEY LOAD 8,200 BTU/HR (2,070 KG CAL/HR)
- SOLAR LOAD—SAME AS IN ①
- ELECTRICAL LOAD—SAME AS IN ①
- ④⑤⑥ • CABIN AT 75°F (23.9°C)
- NO OCCUPANTS
- NO OTHER HEAT LOADS

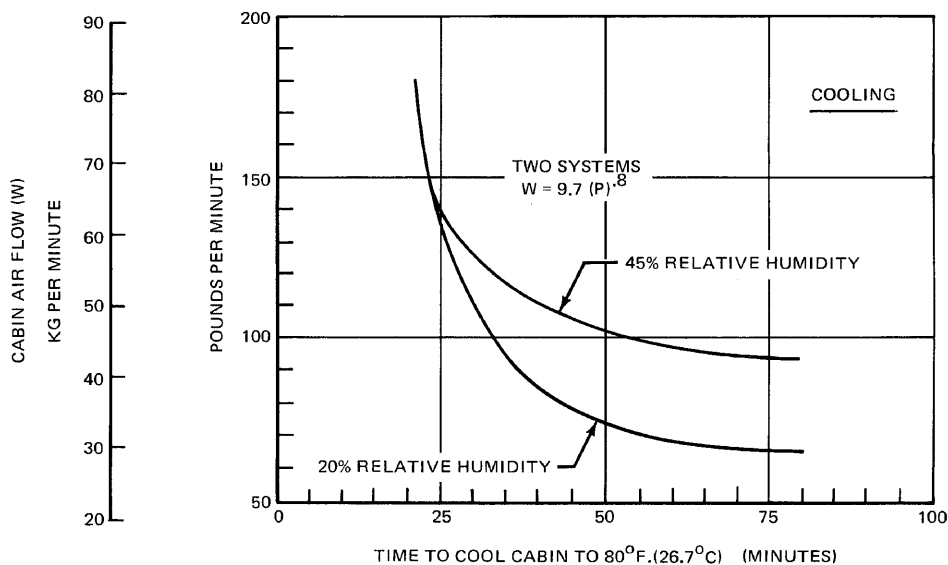


AIR CONDITIONING REQUIREMENTS—PRECONDITIONED AIRPLANE MODELS 727-100, -100C



CONDITIONS:

- CABIN INITIALLY AT 0°F (-17.8°C)
- NO OCCUPANTS OR OTHER HEAT LOADS, ALL DOORS AND HATCHES CLOSED
- AIR TEMPERATURE AT GROUND CONNECTION 300°F (149°C)
- $W_{cart} = 1.1 W$
- $P =$ PSIG AT GROUND CONNECTION



CONDITIONS:

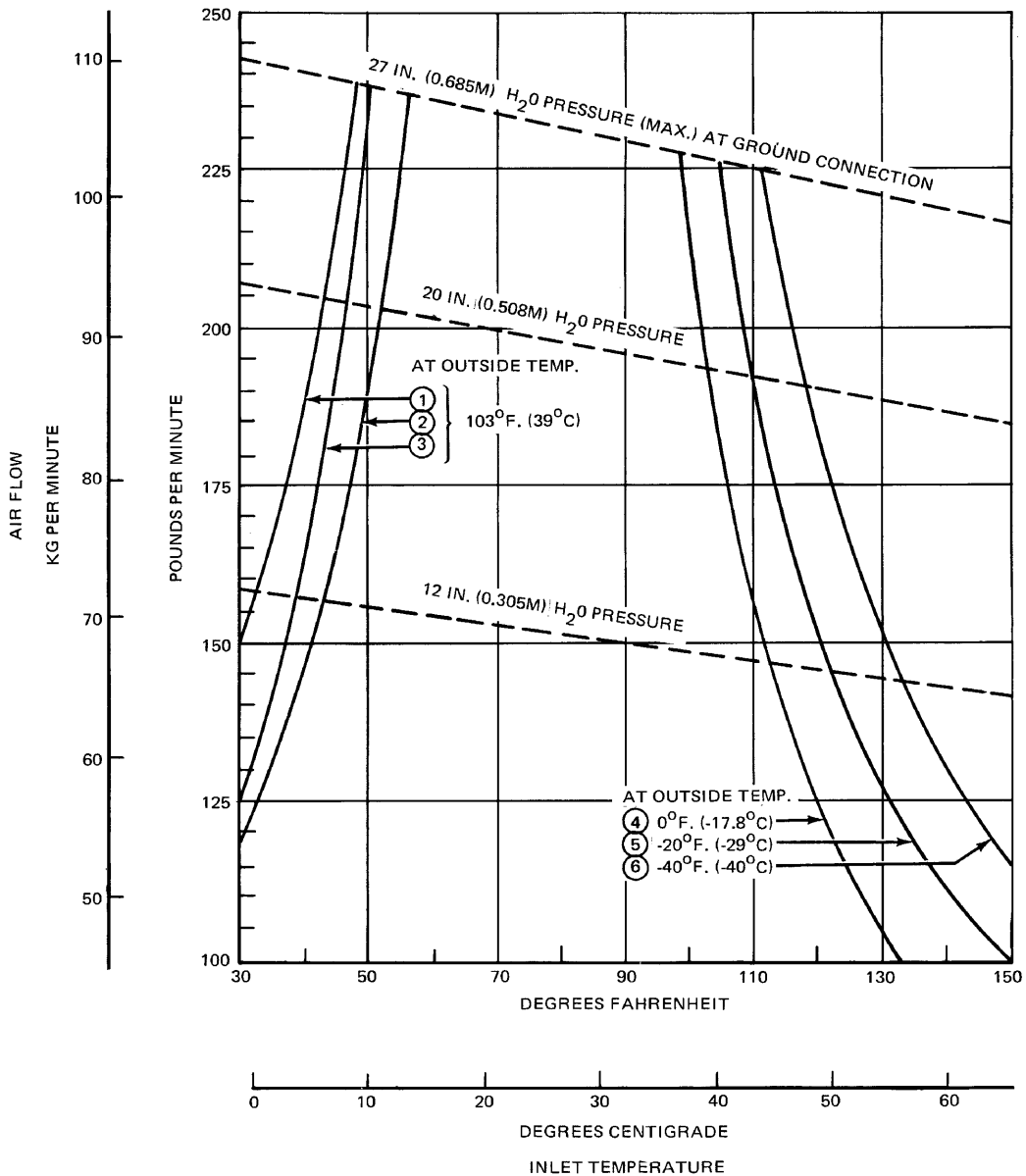
- CABIN INITIALLY AT 103°F (39°C)
- NO GALLEY AND ELECTRICAL HEAT LOAD
- NO OCCUPANTS
- ALL DOORS AND HATCHES CLOSED
- AMBIENT TEMPERATURE 103°F (39°C)
- SOLAR LOAD 7,730 BTU/HR (1,950 KG CAL/HR)
- AIR TEMPERATURE AT GROUND CONNECTION 450°F (232°C)
- $W_{cart} = 1.1 W$

AIR CONDITIONING REQUIREMENTS—HEATING AND COOLING

MODEL 727-200

CONDITIONS:

- ① • ALL DOORS AND HATCHES CLOSED
- CABIN AT 75°F (23.9°C)
- 134 OCCUPANTS
- NO GALLEY LOAD
- SOLAR LOAD 7,730 BTU/HR (1,950 KG CAL/HR)
- ELECTRICAL LOAD 8,800 BTU/HR (2,200 KG CAL/HR)
- ② • CABIN AT 80°F (26.7°C)
- OTHER CONDITIONS SAME AS IN ①
- ③ • CABIN AT 70°F (21.1°C)
- 3 OCCUPANTS
- GALLEY LOAD 8,200 BTU/HR (2,070 KG CAL/HR)
- SOLAR LOAD—SAME AS IN ①
- ELECTRICAL LOAD—SAME AS IN ①
- ④⑤⑥ • CABIN AT 75°F (23.9°C)
- NO OCCUPANTS
- NO OTHER HEAT LOADS



AIR CONDITIONING REQUIREMENTS—PRECONDITIONED AIRPLANE
MODEL 727-200

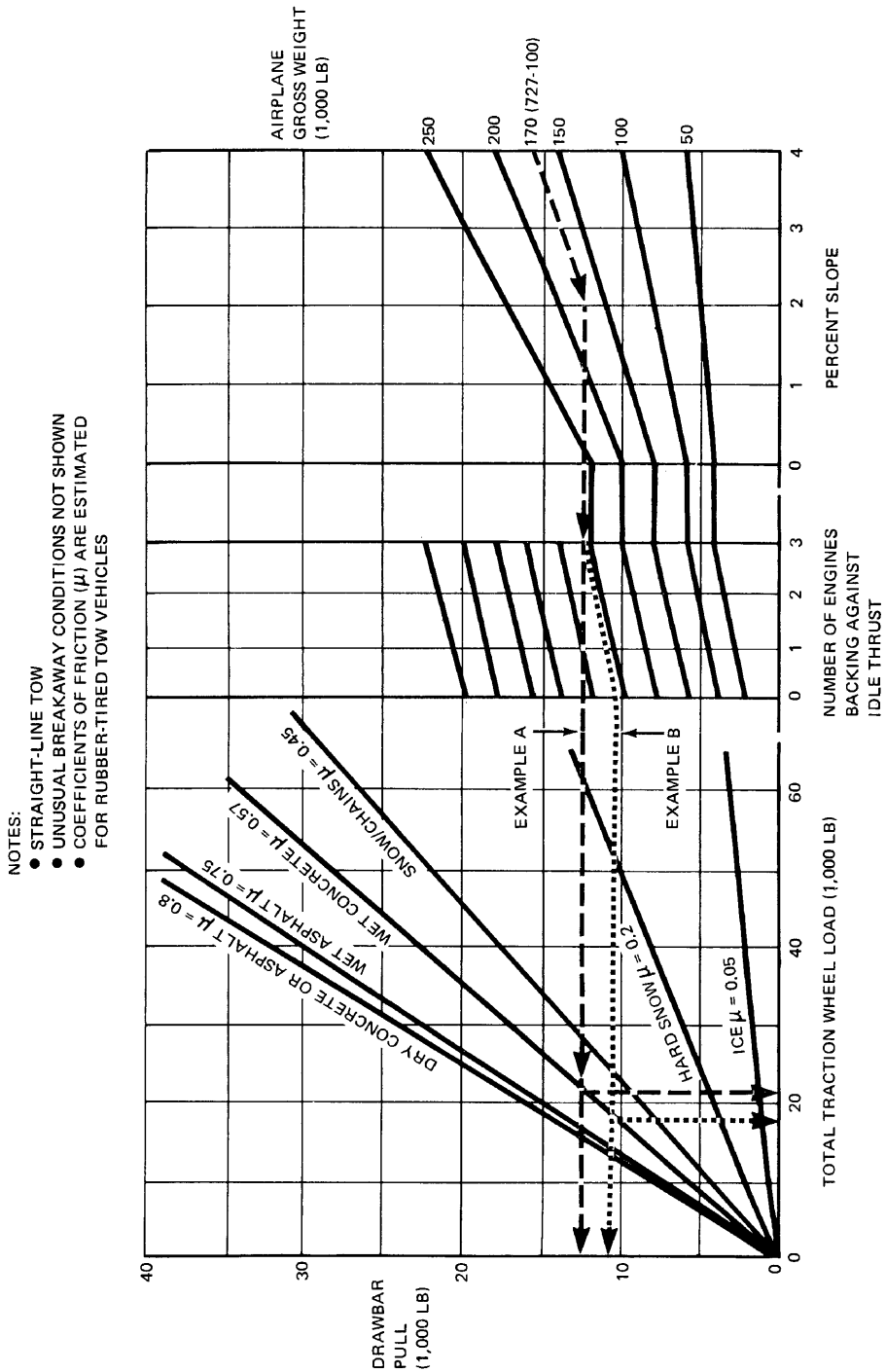
5.7 GROUND TOWING REQUIREMENTS

Ground towing requirements for various towing conditions are presented on the following pages.

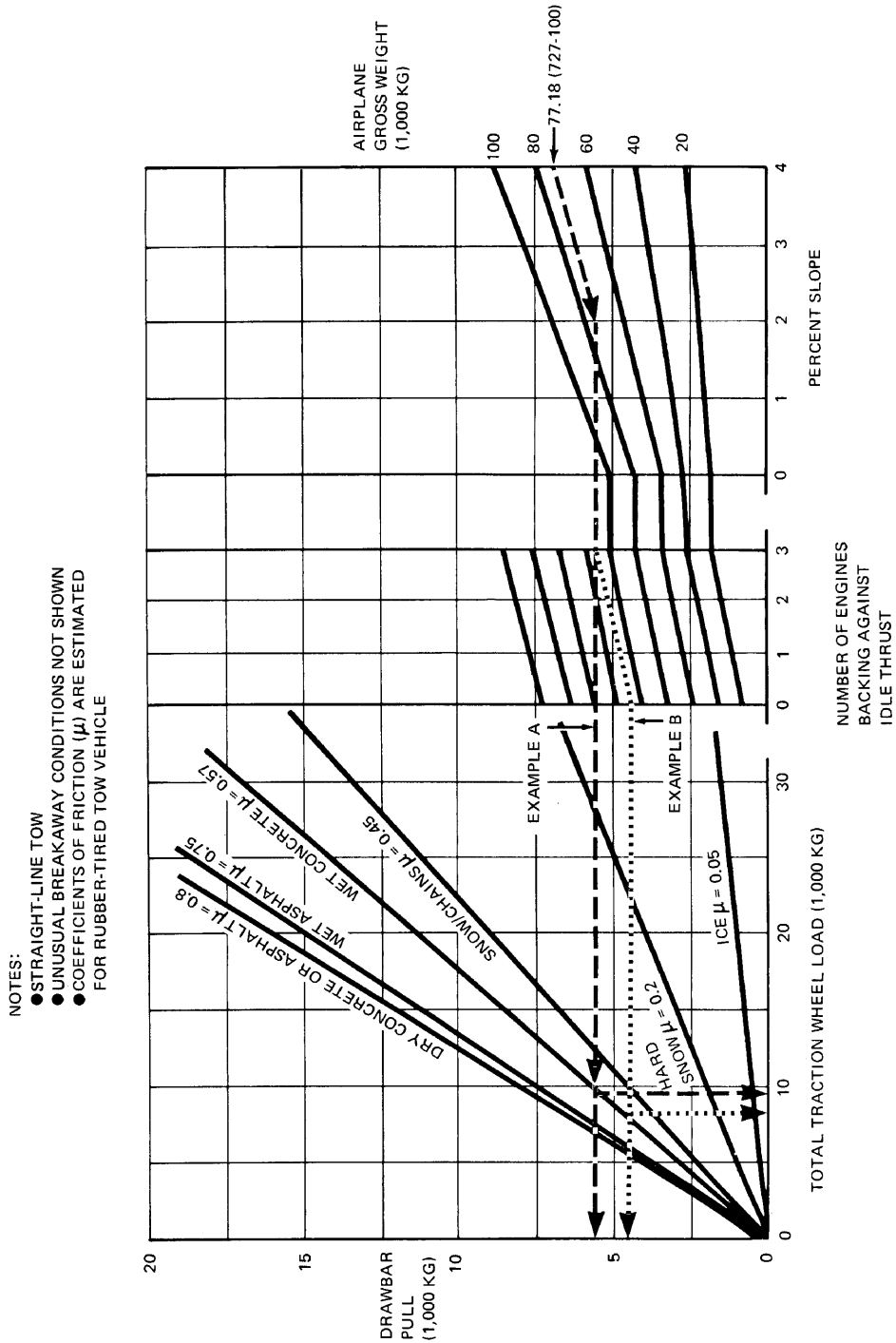
Drawbar pull and total traction wheel load may be determined by considering airplane weight, pavement slope, coefficient of friction, and engine idle thrust.

Example:

An example is included on each chart for the model 727-100 with a maximum taxi weight of 170,000 pounds (77,180 kilograms) and engines idling. When the pavement is assumed to be wet concrete with a 2-degree slope, the required total traction wheel load would be 21,400 pounds (9,716 kg) and the drawbar pull would be 12,200 pounds (5,539 kg) (Example A). When the airplane is backed without idle thrust, these numbers would change to 17,900 pounds (8,127 kg) and 10,200 pounds (4,631 kg), respectively (Example B).



GROUND TOWING REQUIREMENTS
MODELS 727-100, -100C, -200



GROUND TOWING REQUIREMENTS—METRIC
MODELS 727-100, -100C, -200