

CHAPTER

10



MAINTENANCE MANUAL

CHAPTER 10
 PARKING AND MOORING
TABLE OF CONTENTS

<u>Subject</u>	<u>Subject No.</u>
PARKING	10-1-1
MOORING	10-2-1

ALPHABETICAL INDEX

<u>Subject</u>	<u>Subject No.</u>	<u>Page No.</u>
ENGINE OPERATING DANGER AREAS		
Description	10-1-1	204
JET BLAST - PARKING		
Description	10-1-1	203
MAIN LANDING GEAR GROUND LOCK		
Installation	10-1-1	206
NOSE LANDING GEAR GROUND LOCK		
Installation	10-1-1	208
MOORING		
Description	10-2-1	201
PARKING		
Description	10-1-1	201
TYPICAL RAMP PARKING		
Description	10-1-1	205



MAINTENANCE MANUAL

2. Equipment and Materials

- A. Down, Main Landing Gear Downlock Assembly - F71126-500
- B. Down, Nose Landing Gear Downlock Assembly - F70008-500
- C. Mat or suitable material for placing between tires and parking area if airplane is to be parked on ice or packed snow.
- D. Wheel chocks
- E. Plug Assembly - Turbocompressor Exhaust. JT3D engine - F70120
- F. Plug - Engine Exhaust, JT3D - F70122-1
- G. Cover - Fan Exhaust, JT3D - F70124-1 -2
- H. Plug - Inlet, JT3D - F70126
- I. Plug Assembly - Air Conditioning Ram Air Inlet - F70146-1,-2,-11,-12
- J. Plug Assembly - Turbocompressor Surge Bleed Outlet - F71246
- K. Plug Assembly - Air Inlet - F71452-5
- L. Plug Assembly - Anti-ice Duct Exhaust Outlet - F71397
- M. Plug Assembly - Generator and Heat Exchanger Exhaust- F71399
- N. Cover - Surge Bleed Port - JT3D with Louvered Port - F70296-1
- O. Cover - Surge Bleed Port - JT3D without Louvered Port - F71224
- P. Cover - Pitot Probe - PIN HTC 73-75 PPCW

3. Park Airplane

- A. Taxi or tow airplane into position designated for parking (Fig. 3). If airplane is towed into position, install main and nose gear downlock assemblies, before towing (Fig. 4 and 5). Terminate maneuver with airplane headed into prevailing wind.

CAUTION: DO NOT END TAXING OR TOWING MANEUVER WHILE IN A TURN. ALWAYS CENTER THE NOSE WHEEL BEFORE TERMINATING MANEUVER OTHERWISE THE MAIN GEAR OLEO MAY SPRING A SLIGHT LEAK DUE TO THE TRUCK HAVING TO SCRUB ROUND IN A TURN.

MAIN GEAR DOOR SHOULD BE CLOSED WHILE TOWING BECAUSE OF MARGINAL CLEARANCE BETWEEN LOWER EDGE OF DOOR AND GROUND LINE WITH DOOR OPEN.

NOTE: Installation of the nose gear lockpin is optional when the airplane is being towed with the gear hydraulic system pressurized.

- B. Install main gear downlock assemblies when airplane stops after taxiing. If airplane is to be jacked or maintenance accomplished install nose gear and main gear downlock assemblies.
- C. If very high winds are expected, refer to 10-2-1, Mooring, High Wind Conditions.
- D. Ground airplanes (Ref Chapter 13, Static Grounding).



MAINTENANCE MANUAL

PARKING

1. General

- A. The airplane is normally parked for short periods with chocks in front of and behind at least one tandem set of main gear wheels per truck, and the parking brake off. The parking brake is used to hold the airplane until chocks are in place. Openings in the airplane structure such as vents and scoops should be covered or plugged to keep out weather and foreign matter. Should very high winds be expected, refer to 10-2-1, Mooring, High Wind Conditions.
- B. The airplane must be statically grounded to a common approved identified ground immediately after parking (Ref Chapter 13, Static Grounding).
- C. A minimum distance of 15 feet should be maintained between airplanes when parked (Fig. 1) to give adequate turning clearances and protection from jet blast and temperature at idle and breakaway from standstill thrust (Fig. 2). Various thrust settings will be required for breakaway from standstill. These settings are governed by airplane position, type of area, surface condition etc. A high initial thrust setting to start airplane movement and then reduced to idle or slightly above to continue the maneuver.

WARNING: DO NOT CROSS ENGINE EXHAUST AREA DURING ENGINE RUN-UP OR TAXIING. AREAS IN FRONT OF FAN ENGINES MUST ESPECIALLY BE KEPT CLEAN TO PREVENT THE FAN SECTION FROM INGESTING AND EJECTING SMALL OBJECTS AT HIGH SPEEDS.

WARNING:

- APPROACHING TIRES WITH HOT BRAKES FROM FORE AND AFT ONLY.
- DO NOT USE WATER/LIQUID AS A COOLING AGENT TO DECREASE HOT BRAKE AND WHEEL TEMPERATURES UNLESS FIRE OCCURS. LIQUID APPLICATION CAN RESULT IN THERMAL SHOCK OF THE METALLIC COMPONENTS POTENTIALLY RESULTING IN METAL CRACKS OR FATIGUE. SUDDEN WHEEL FRACTURE CAN CAUSE HIGH-ENERGY RELEASE OF TIRE PRESSURE RESULTING IN INJURY TO PERSONNEL AND DAMAGE EQUIPMENT.

- D. If the airplane is parked for prolonged periods it must be moved at intervals of not more than 48 hours to prevent flat spots forming on tires. If the airplane cannot be moved, relieve the tire loading by jacking the airplane.

If parking area is covered by ice or packed snow, to prevent tire from becoming frozen to the ground place a mat or suitable material under and around the tires. If the tires are frozen to the ground they can be freed by the application of heat from a heater cart or by the application of salt. A heater cart can also be used to free frozen brakes.

Wheel covers should be used in severe weather conditions.

20-05-2003



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TO: FORCE COMMAND

MAINTENANCE MANUAL REVISION NOTICE

THIS REVISION NOTICE IS BEING SENT TO ALL OPERATORS WHOSE FLEET INCLUDES AIRPLANES WHICH WERE INITIALLY PURCHASED FROM THE BOEING COMPANY BY OTHER CARRIERS WHETHER OR NOT THEY HAVE PURCHASED REVISION SERVICE FOR THEIR AIRPLANES. IF YOU ARE RECEIVING ACTIVE REVISION SERVICE FROM BOEING FOR YOUR AIRPLANES NOT ORIGINALLY PURCHASED FROM BOEING, DISREGARD THIS NOTICE.

Information contained in this revision notice may affect airplanes which you now operate and which were initially purchased from the Boeing Company by other carriers. Boeing does not know the current configuration of these airplanes; consequently, this information must be analyzed by you to determine its applicability. If applicable, we request that you make notations, corrections, or references to the appropriate procedure(s) in your maintenance manual.

REVISION NOTICE 707-124

PARKING

Reason: Added WARNING for pitot probe and static port covers.

Effectivity: All 707 airplanes.

Add these steps to the pages affected in chapter 10, Parking:

General

Pitot Probe covers and static port covers are recommended when the airplane is parked for more than a standard turnaround.

Park Airplane

WARNING: PITOT PROBE COVERS AND STATIC PORT COVERS ARE RECOMMENDED WHEN THE AIRPLANE IS PARKED FOR MORE THAN A STANDARD TURNAROUND OR WHEN CONDITIONS SUCH AS INSECT ACTIVITY, DUST STORMS, OR VOLCANIC ASH MAY INCREASE THE RISK OF PITOT PROBE OR STATIC PORT CONTAMINATION. A PITOT PROBE OR STATIC PORT SYSTEM BLOCKED BY FOREIGN OBJECTS SUCH AS INSECTS MAY CAUSE LARGE ERRORS IN AIRSPEED-SENSING AND ALTITUDE-SENSING SIGNALS, WHICH MAY LEAD TO LOSS OF SAFE FLIGHT.

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Mar 30/03

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2003/03/20.18:00:00 UTC

Chapter 10
Page 1 of 1

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REVISION NOTICE N°. 707-116



MAINTENANCE MANUAL

- E. Plug Assembly - Turbocompressor Exhaust. JT3D engine - F70120
- F. Plug - Engine Exhaust, JT3D - F70122-1
- G. Cover - Fan Exhaust, JT3D - F70124-1 -2
- H. Plug - inlet, JT3D - F70126
- I. Plug Assembly - Air Conditioning Ram Air Inlet - F70146-1, -2, -11, -12
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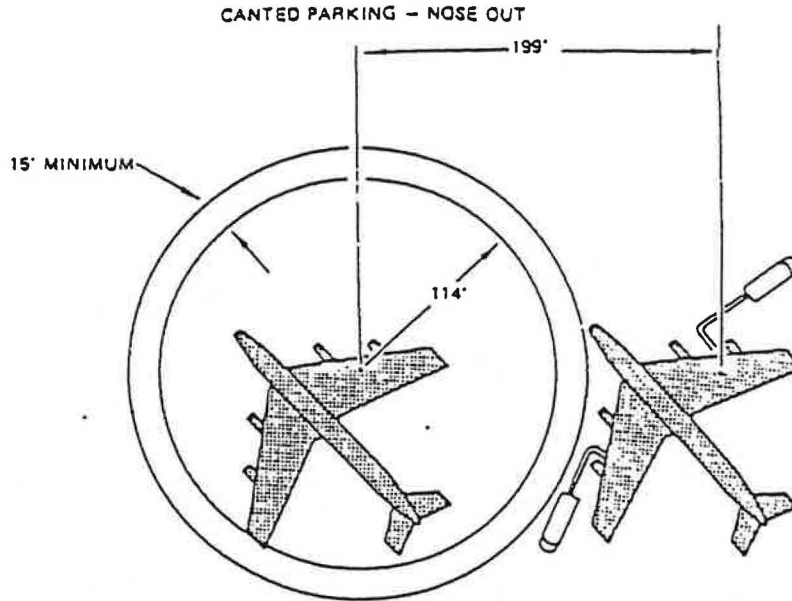
CAUTION: DO NOT END TAXING OR TOWING MANEUVER WHILE IN A TURN. ALWAYS CENTER THE NOSE WHEEL BEFORE TERMINATING MANEUVER OTHERWISE THE MAIN GEAR OLEO MAY SPRING A SLIGHT LEAK DUE TO THE TRUCK HAVING TO SCRUB ROUND IN A TURN.

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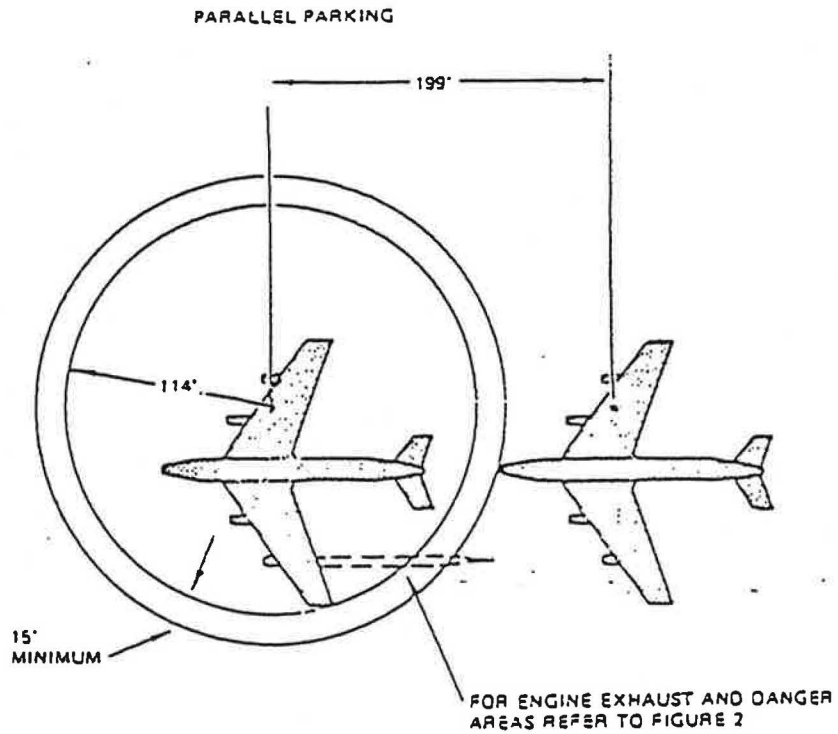
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- D. Ground airplanes Ref Chapter 13, Static Grounding)

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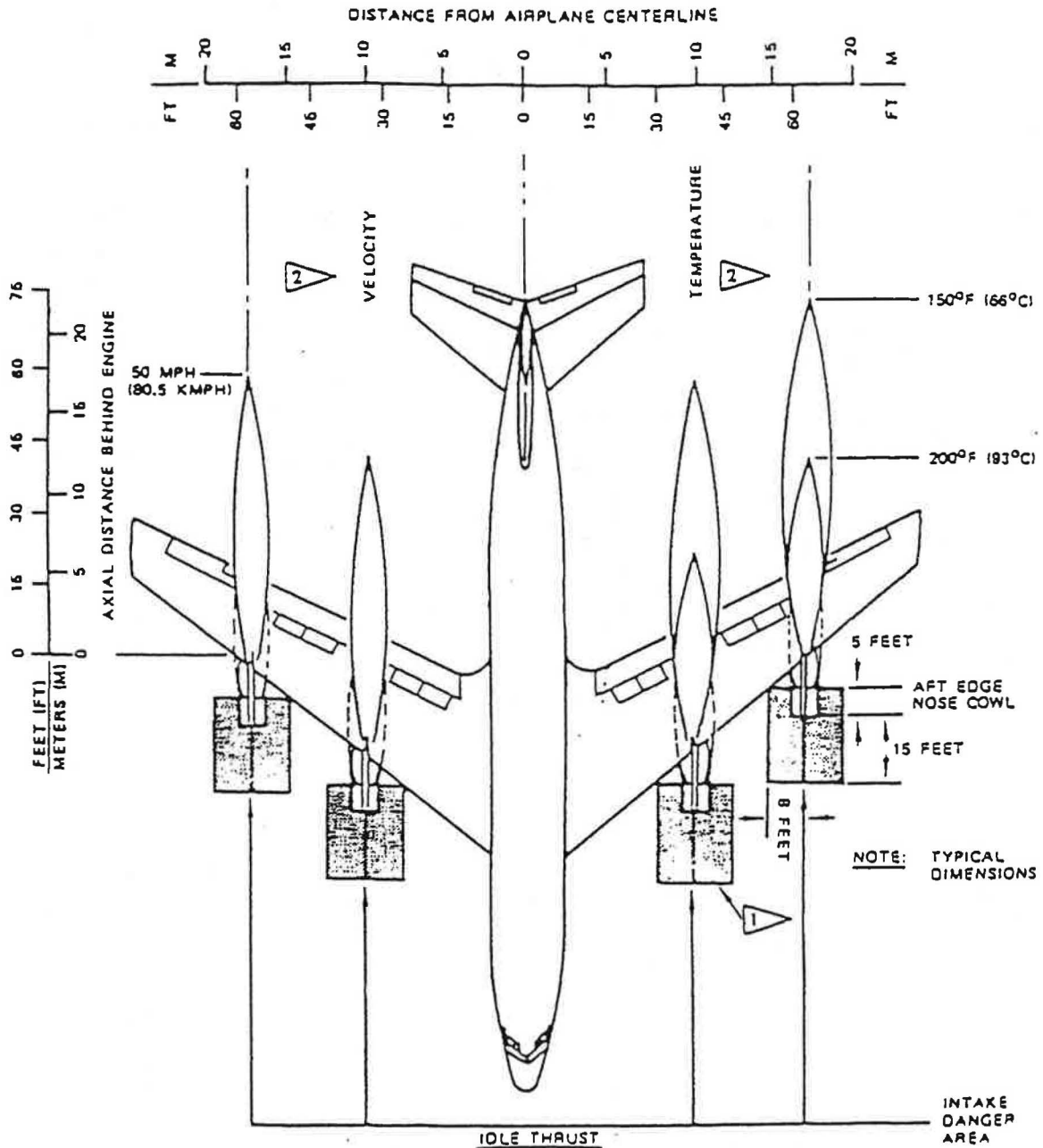


NOTE. ALL RADIUS DIMENSIONS SHOWN ARE FOR A THEORETICAL 60° TURN PLUS TWO FEET.



Jet Blast Data For Parking
 Figure 1

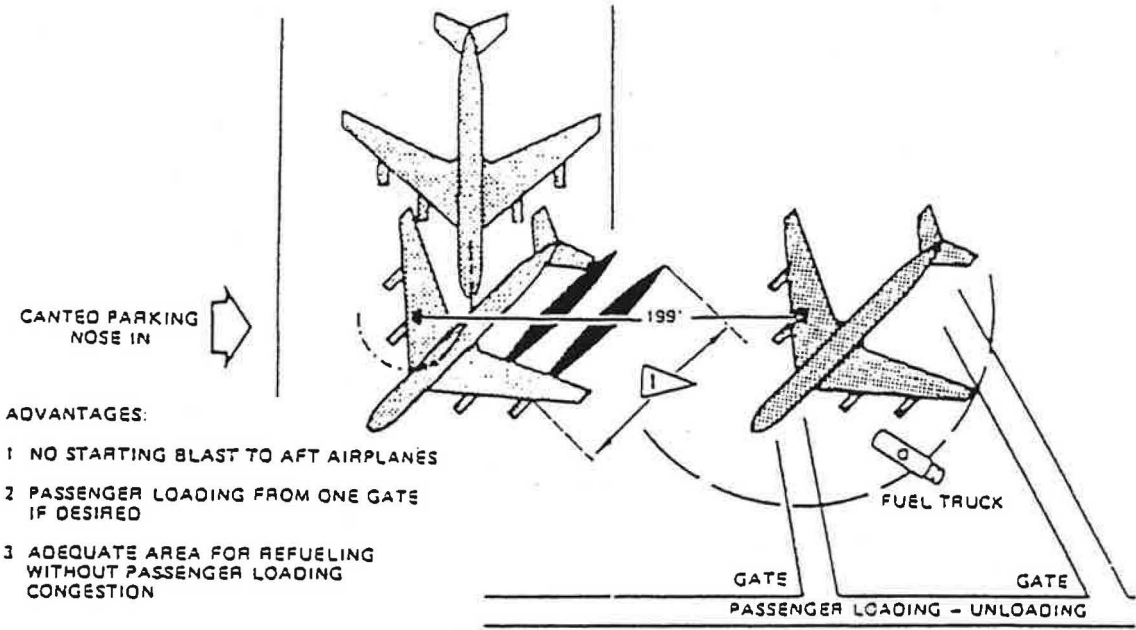
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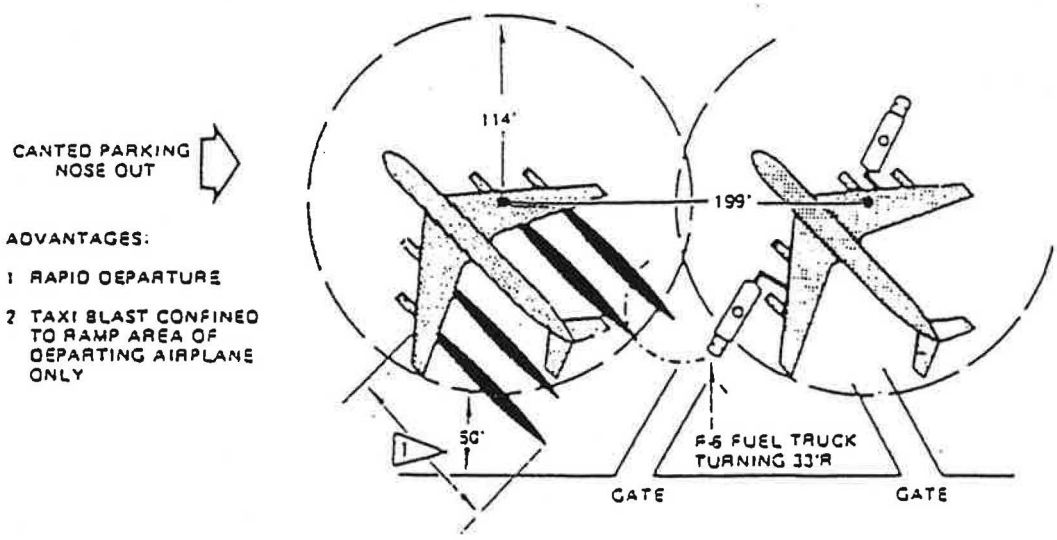
NOTE: CHART TO BE USED AS A REFERENCE ONLY. VELOCITY AND TEMPERATURE INFORMATION TAKEN AT SEA LEVEL ON A STANDARD DAY.

- 1 DURING ENGINE GROUND OPERATION, SHADED AREA SHALL BE KEPT ABSOLUTELY CLEAR
- 2 DURING GROUND ENGINE OPERATION AN AREA BETWEEN WING TIPS AND 500 FEET TO THE AFT OF THE ENGINES SHALL BE CONSIDERED A HAZARDOUS AREA

Engine Operating Danger Areas
Figure 2

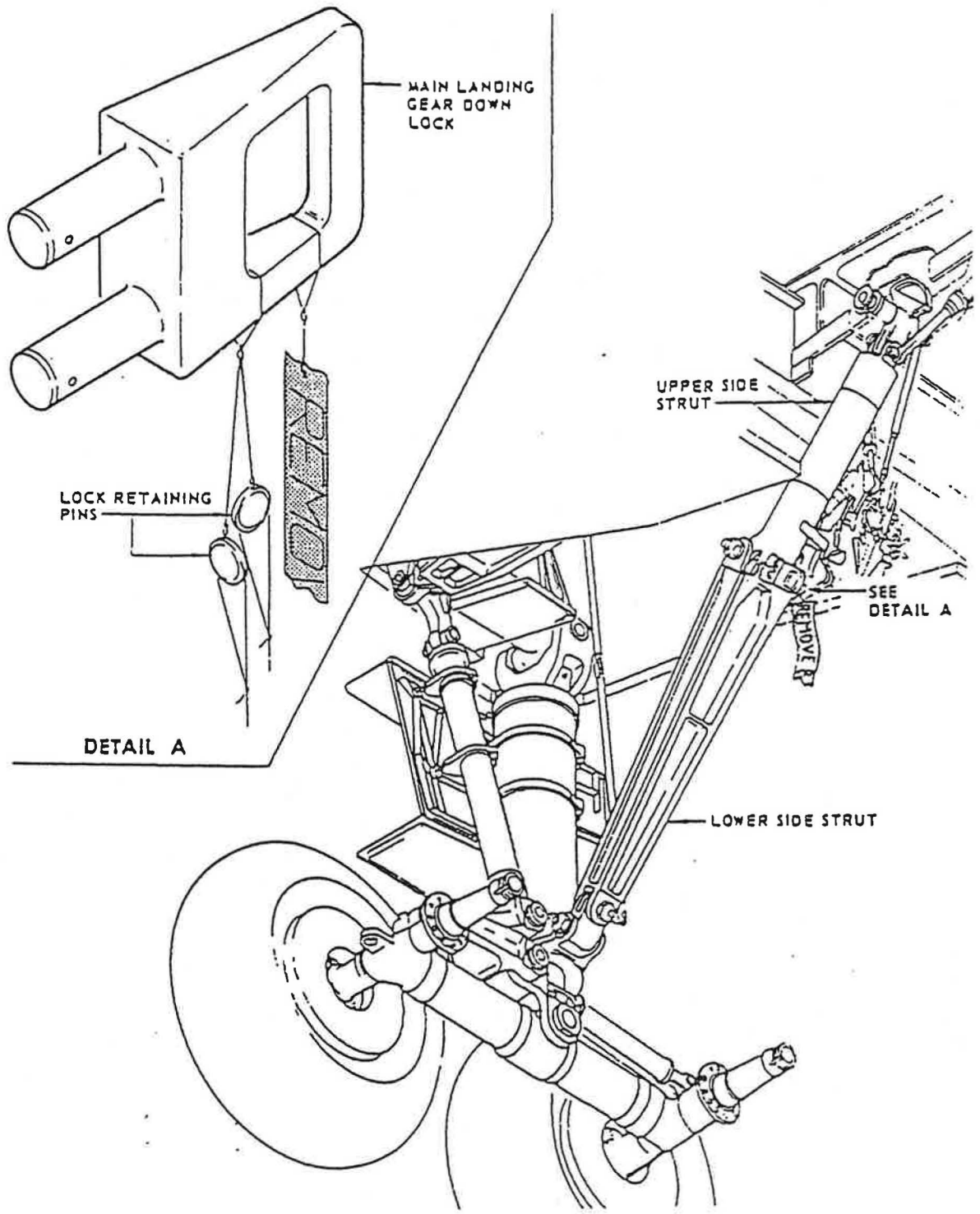


FOR ENGINE EXHAUST AND DANGER AREAS REFER TO FIGURE 202



Typical Ramp Parking
Figure 3

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Main Landing Gear Ground Lock Installation
Figure 4

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- E. If parking area is covered by ice or packed snow, place a mat or suitable material under the tires to prevent tires from freezing to the ground.
- F. Set parking brake by depressing brake pedals (toe of rudder pedals) and pulling up on parking brake handle located on control stand. Relieve pressure on brake pedals before letting go of parking brake handle.
- G. Place wheel chocks in front of and behind at least one tandem set of main gear wheels per truck.
- H. Release parking brakes by applying toe pressure on rudder pedals and then releasing toe pressure.

CAUTION: DO NOT LEAVE PARKING BRAKES ON ANY LONGER THAN NECESSARY WHEN BRAKES ARE HOT. BRAKES TEND TO STICK IF LEFT ON.

- I. Set stabilizer, aileron and rudder trim controls to "0".
- J. Raise flaps to the fully up position. This locks the outboard ailerons which, unlike the inboard ailerons, do not have snubbers to dampen their movement.

CAUTION: DO NOT RESTRAIN THE CONTROL COLUMN OR RUDDER PEDALS. DOING SO COULD RESULT IN CONTROL SYSTEM DAMAGE.

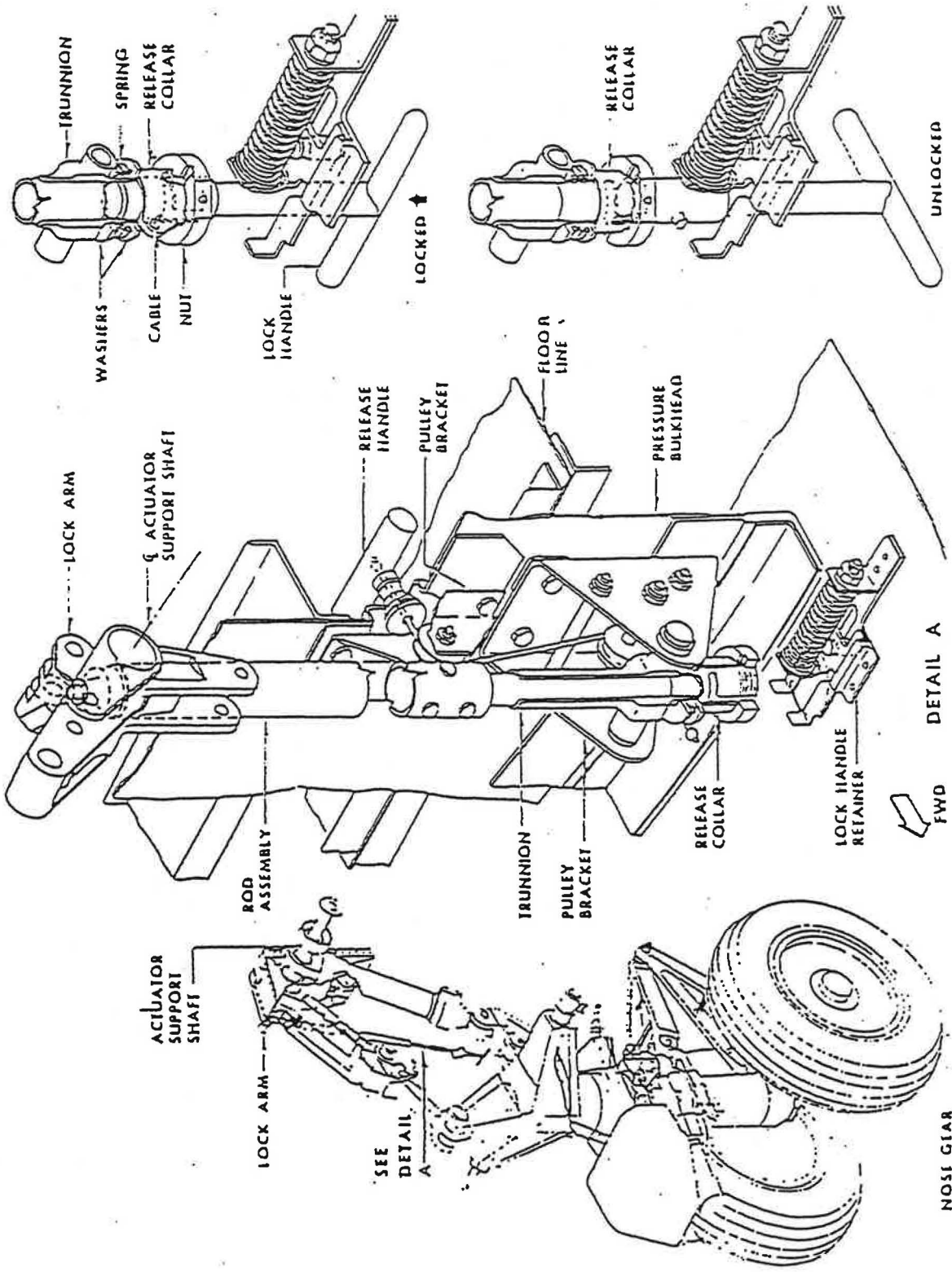
- K. Close all lavatory doors when airplane is parked to prevent the spreading of any possible fire.
- L. Install plugs and covers as required.
- M. Put the covers on the pitot probes.

CAUTION : MAKE SURE THE PITOT PROBE COVERS ARE IN GOOD WORKING CONDITION WITH NO EVIDENCE OF DAMAGE. ESPECIALLY FRAYING AROUND THE COVER OPENINGS. FRAYED FIBERS FROM THE COVER COMBINED WITH SUBSTANCES SUCH AS DIRT, GREASE AND FLUIDS CAN CAUSE OBSTRUCTION IN THE PROBE.

4. Prolonged Parking

- A. If the airplane is parked for prolonged periods, wheel bearing corrosion can be prevented by occasionally rotating the wheels three or four revolutions with the gear jacked or by towing the airplane. To prevent flat spots on tires when airplane is parked, tires must be rotated to a new position at intervals. The intervals will vary from 8 hours in cold weather to 48 hours in warm weather. If it is impractical to move the airplane, relieve tire loading by jacking the airplane.

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Nose Landing Gear Ground Lock Installation
 Figure 5

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- B. Tires (particularly those with synthetic cords) take on a cold set when permitted to stand in one position for a period of time. Although the flat spots do not damage the tires structurally, they may cause vibration on the airplane during the early part of a taxi roll. Flat spots on nose gear tires may cause the nose gear to shimmy. Tires can be reshaped by over-inflating the tires 25 to 50 percent (but not to exceed 225 psi) for about 30 minutes, then towing the airplane for a short distance.

CAUTION: DECREASE PRESSURE TO NORMAL AFTER THE TIRE ASSUMES ITS
 NORMAL SHAPE.

- C. When an airplane is to be parked for a prolonged period, there should be no restraints placed on the control column, the column wheel or on any control surfaces. All external power should be disconnected. The airplane center of gravity should be sufficiently forward to ensure stability. If below freezing temperatures are anticipated the lavatories and water tanks should be drained.

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