CHAPTER

09

TOWING AND TAXIING

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CHAPTER 09 - TOWING & TAXIING
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CHAPTER 09 - TOWING & TAXIING
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TOWING AND TAXIING - DESCRIPTION AND OPERATION

1. General

A. Towing and taxiing procedures for the P.180 are basically the same as those used for other airplanes equipped with a tricycle landing gear.

B. The airplane can be towed, or pushed backwards, using a tow bar attached to the nose wheel. The turning angle of the nose wheel with tow bar is 90°, either side of center. (Ref. to Fig. 1 for turning radii).

C. For taxi operations, directional control is accomplished by utilizing the nose wheel steering system. The maximum turning angle for the nose wheel steering system is 53° either side of center. (Ref. to Fig. 2 for turning radii).

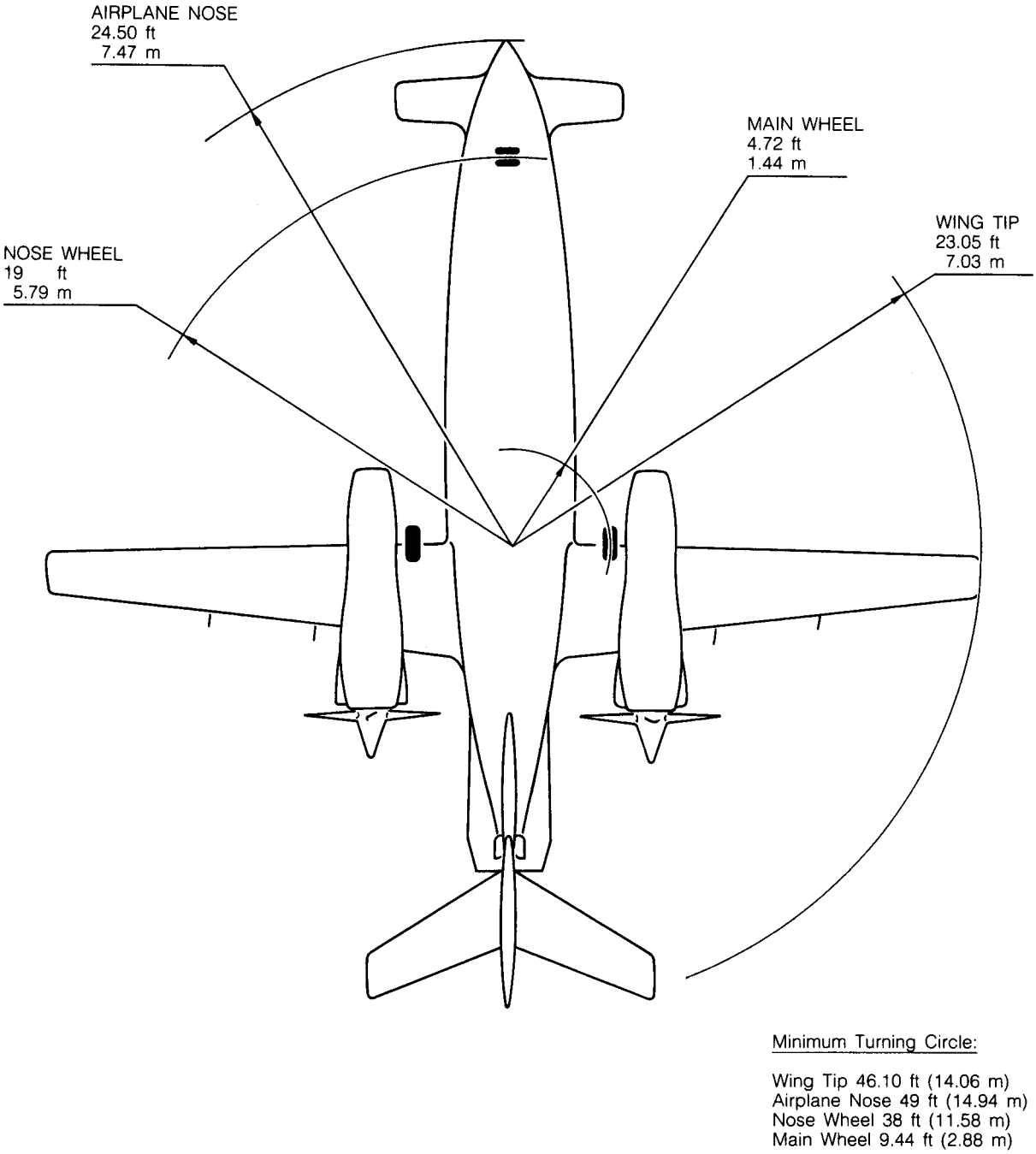

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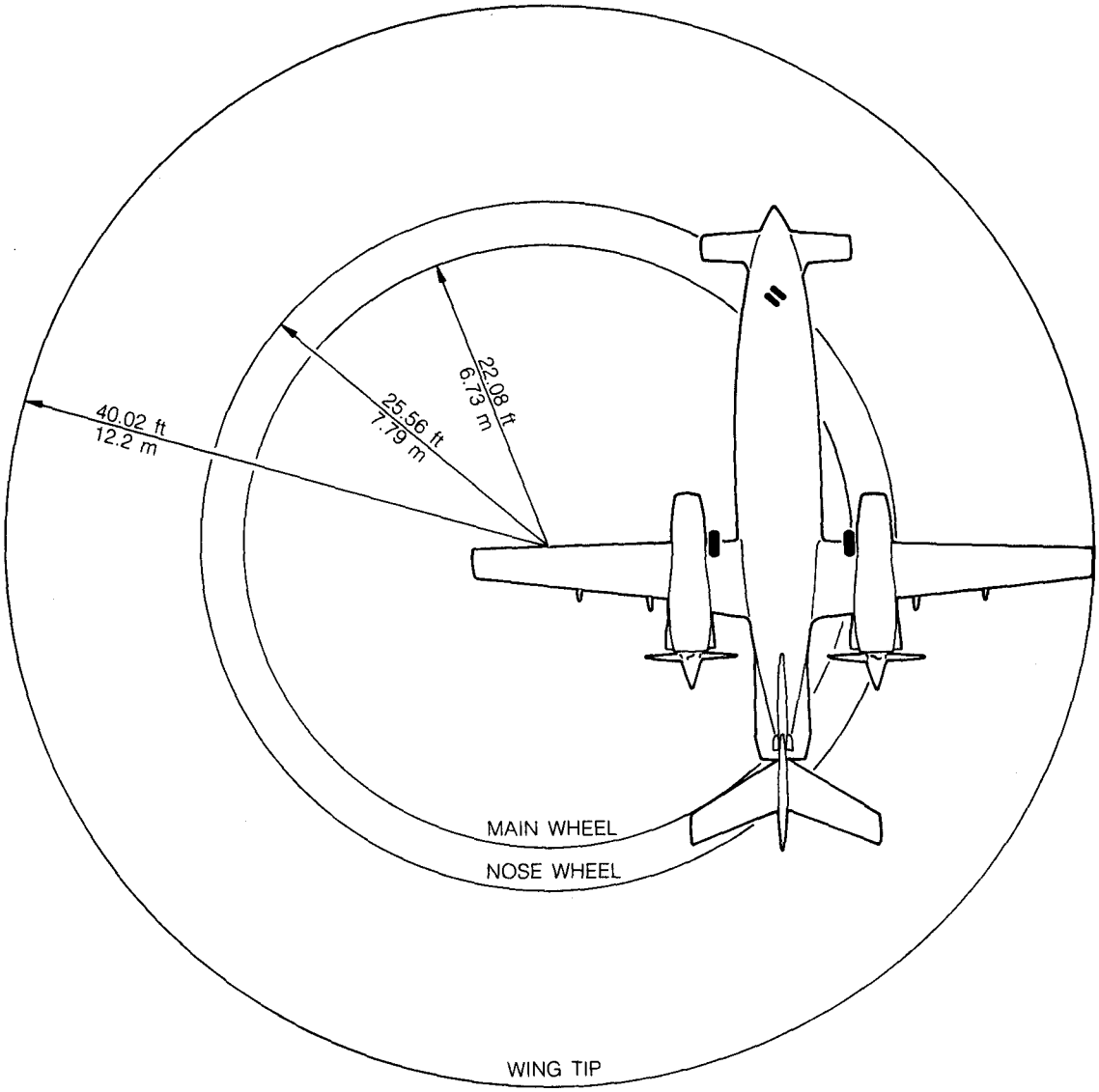
Fig. 1 - Minimum Turning Radii with Tow Bar



Minimum Turning Circle:

Wing Tip 80.04 ft (24.4 m)
Nose Wheel 51.12 ft (15.58 m)
Main Wheel 44.16 ft (13.46 m)

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Fig. 2 - Minimum Turning Radii with Nose Wheel Steering

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TOWING - MAINTENANCE PRACTICES

1. General

A. Towing of the airplane is normally accomplished by utilizing a tow bar connected to the nose wheel.

2. Tools and Equipment

NOMENCLATURE	PART NUMBER	MANUFACTURER
Towbar Assembly	01-1227-0000	Tronair

3. Procedure

A. Nose Gear Towing With Vehicle (Ref. to Fig. 201).

CAUTION: WHEN TOWING THE AIRPLANE WITH A TOWING VEHICLE, PERFORM ALL BRAKING WITH THE TOWING VEHICLE. BRAKE APPLICATION WHILE THE AIRPLANE IS BEING TOWED MAY CAUSE DAMAGE.

(1) Attach the tow bar to the nose wheel axle.
(2) Remove the steering disconnecting pin (Ref. to Fig. 202)
(3) Make sure that wheel chocks and the control gust lock are removed and that mooring cables (if used) are disconnected.
(4) Connect the tow bar to the towing vehicle.
(5) Release the airplane parking brake.
(6) In congested areas, station wing walkers to check clearance between airplane and adjacent equipment.
(7) Tow aircraft, making smooth starts and stops.
(8) When towing operation is completed, turn nose wheel to center, engage parking brake, install control gust locks, chock wheels and, if used, attach mooring cables.
(9) Insert the steering pin.
(10) Remove the tow bar from the airplane.

B. Main Gear Towing

CAUTION: IF THE AIRPLANE IS OFF THE RUNWAY AND HAS BECOME STUCK IN SOFT EARTH OR MUD, DO NOT ATTEMPT TO TOW THE AIRPLANE BY THE NOSE WHEEL. THE FOLLOWING PROCEDURE SHOULD BE USED AS A GENERAL GUIDE.

(1) Inspect areas of airplane structure as outlined in Chapter 05-50-00.

(2) Reduce the weight of the airplane as much is possible. For example, defuel the airplane.
(3) If landing gear is sunk deeply into the mud, a sloping path should be made to the main gear wheels.
(4) Place large planks in the path against the wheels to provide a makeshift ramp.
(5) Position large ropes or belt straps on the main gear strut as low as possible to the wheel axles.
(6) Connect towing chain or cables to the ropes or belts. The towing chains or cables should be of sufficient length to allow the towing vehicle to be at least 50 to 100 feet from airplane.
(7) Connect the towing bar to the nose wheel.
(8) Position one person at the towing bar to steer the airplane.

CAUTION: DO NOT LIFT OR PUSH ON CONTROL SURFACES OR THE PROPELLERS.

(9) Position three personnel, one at the tail cone of the airplane and one at each wing tip. These persons will help push, lift and guide the airplane onto the planks.
(10) Slowly increase tension on tow lines and with the aid of personnel, move the airplane onto the planks.
(11) Slowly move the airplane to the runway.

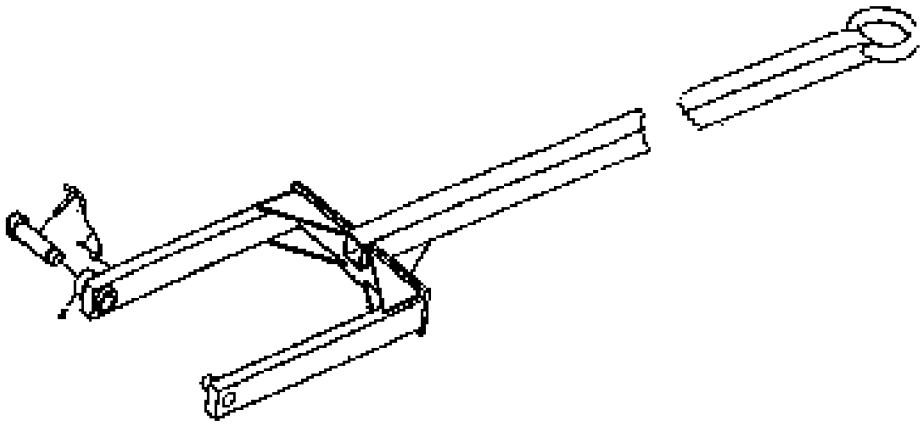

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Fig. 201 - Tow Bar Details

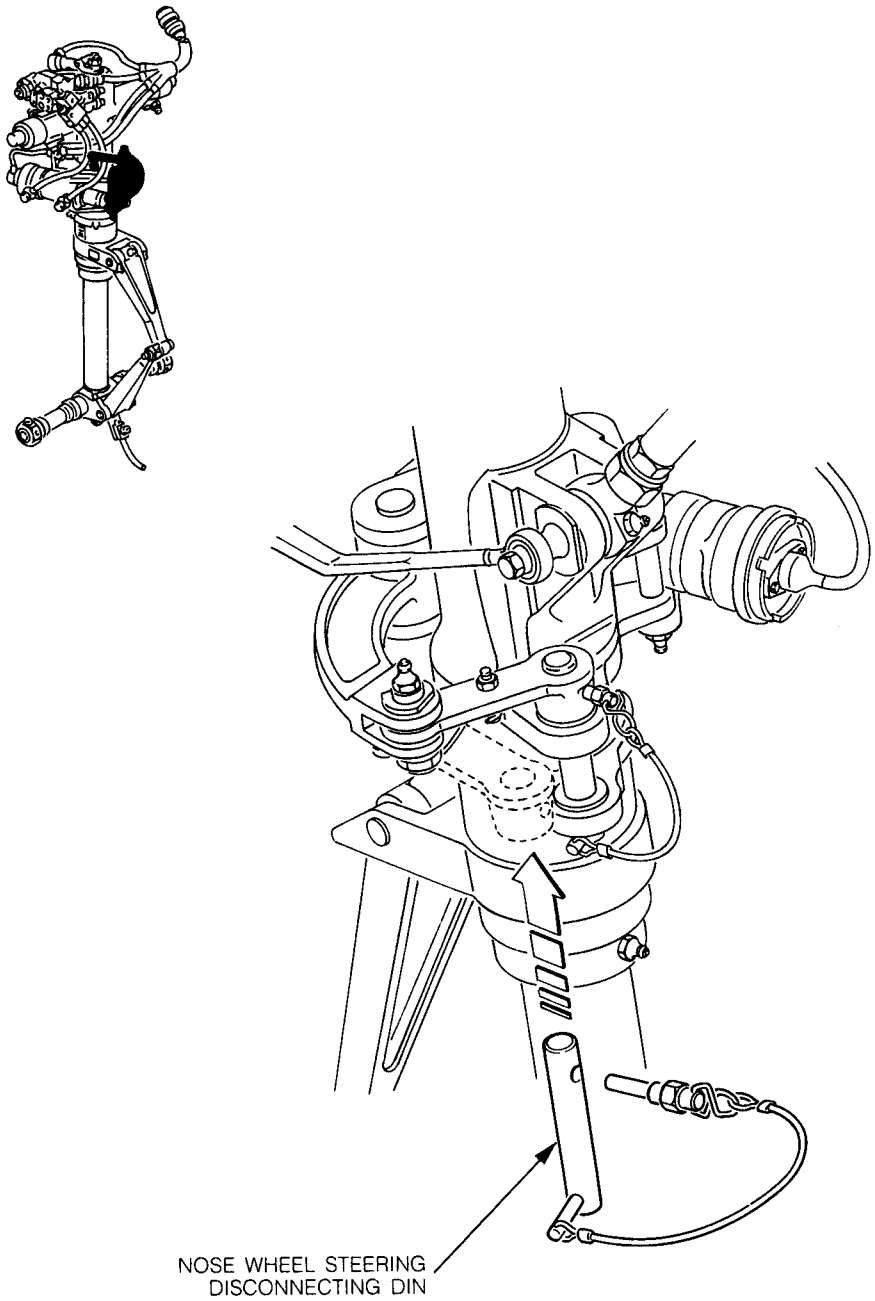

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Fig. 202 - Steering Disconnecting Pin Location

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TAXIING - MAINTENANCE PRACTICES

1. General

A. Taxiing procedures are generally the same as those used for other airplanes with tricycle landing gear.

B. Taxiing requires two persons, one to maneuver the airplane and one to assist and act as an observer.

2. Taxiing

A. Referenced Information

Maintenance Manual Chapter 71-00-00

B. Procedure

(1) Station two persons, one in flight compartment the other one on the ground.
(2) Clear the area of personnel and the equipment.
(3) Disconnect mooring cables (if used), remove wheel chocks, engine air intake and exhaust covers, and gust lock.

WARNING: MAKE SURE THAT THERE ARE NO PERSONNEL OR MATERIALS NEAR THE PROPELLERS AND TAXI AREA.

(4) Start the engines. Refer to 71-00-00 Page Block 501 for engine starting procedure.
(5) Release parking brake and start taxiing roll using only sufficient power to start roll.

CAUTION: DO NOT OPERATE THE ENGINE AT HIGH RPM WHEN RUNNING OR TAXIING OVER GROUND CONTAINING LOOSE STONES, GRAVEL OR ANY LOOSE MATERIAL THAT MAY CAUSE DAMAGE TO THE PROPELLER BLADES.

(6) Taxi forward a few meters and apply brakes to determine their effectiveness.
(7) After taxiing, set parking brake and shut the engines down. Refer to 71-00-00 for shutdown procedure.
(8) Connect mooring cables (if used), install wheel chocks, engine air intake and exhaust covers, and gust lock.

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