



Sheppard® M-Series-Style Integral Power Steering Gear

Setting Procedure for Manual Plungers

Follow this simple manual plunger(s) setting procedure immediately after installing your steering gear to ensure maximum turning capability and reduced pressure in full right and left turns.

- Read and follow the General Safety Guidelines on the back of this document.
- Follow the vehicle manufacturer's installation and service information.
- Ensure the axle stops and all steering linkage are set according to the vehicle manufacturer's specifications and that the pitman arm is correctly aligned on the output shaft. To achieve proper alignment, torque the pitman arm retainer to 225 ft-lbs for the M80 Series model gear; to 350 ft-lbs for the M100 model; and to 550 ft-lbs for the M110 model steering gear.
- With the wheels chocked, the vehicle loaded and engine idling, locate the plunger and determine which plunger is used to adjust right and left turns based on the direction of the pitman arm travel.
- Turn the steering wheel to a full left turn and check the clearance. If the clearance is not 1/8", adjust the manual plunger. Begin the adjustment by returning the steer tires to a straight position. Using a screwdriver, adjust the plunger in or out depending on which direction of turn you are adjusting. Never adjust the plunger with pressure on the steering wheel as seal damage will occur.
- To set the opposite manual plunger, follow the same procedure while turning the steering wheel in the other direction. You have now positioned the manual plungers to trip and reduce pressure correctly.

For additional information or questions about this procedure, please contact the Bendix Tech Team at 1-800-AIR-BRAKE (1-800-247-2725, option 2) before or during any repairs. Representatives are available to assist you Monday - Thursday 8:00 a.m. - 6:00 p.m. ET and 8:00 a.m. - 5:00 p.m. on Friday, or email the Bendix Tech Team at: techteam@bendix.com.

GENERAL SAFETY GUIDELINES



WARNING! PLEASE READ AND FOLLOW THESE INSTRUCTIONS



TO AVOID PERSONAL INJURY OR DEATH:

When working on or around a vehicle, the following guidelines should be observed **AT ALL TIMES**:

- ▲ Park the vehicle on a level surface, apply the parking brakes and always block the wheels. Always wear personal protection equipment.
- ▲ Stop the engine and remove the ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and the ignition key should be removed. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated or electrically-charged components.
- ▲ Do not attempt to install, remove, disassemble or assemble a component until you have read, and thoroughly understand, the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
- ▲ If the work is being performed on the vehicle's air brake system, or any auxiliary pressurized air systems, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle. If the vehicle is equipped with a Bendix® AD-IS® air dryer system, a Bendix® DRM™ dryer reservoir module, or a Bendix® AD-9si® air dryer, be sure to drain the purge reservoir.
- ▲ Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
- ▲ Never exceed manufacturer's recommended pressures.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.
- ▲ Never connect or disconnect a hose or line containing pressure; it may whip and/or cause hazardous airborne dust and dirt particles. Wear eye protection. Slowly open connections with care, and verify that no pressure is present. Never remove a component or plug unless you are certain all system pressure has been depleted.
- ▲ Use only genuine Bendix® brand replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, wiring, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
- ▲ Components with stripped threads or damaged parts should be replaced rather than repaired. Do not attempt repairs requiring machining or welding unless specifically stated and approved by the vehicle and component manufacturer.
- ▲ Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
- ▲ For vehicles with Automatic Traction Control (ATC), the ATC function must be disabled (ATC indicator lamp should be ON) prior to performing any vehicle maintenance where one or more wheels on a drive axle are lifted off the ground and moving.
- ▲ The power **MUST** be temporarily disconnected from the radar sensor whenever any tests USING A DYNAMOMETER are conducted on a vehicle equipped with a Bendix® Wingman® system.



CAUTION

These instructions are provided to help you repair commercial vehicles more efficiently. This document should not replace your Service manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, adhering to the safety instructions directed by the vehicle and component manufacturer. You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.

