## Transmission and Hydraulic Components

*Motorhomes have a hydraulic pump and reservoir that provides hydraulic power to run a combination of components. The pump can be mounted on the engine, or directly onto the transmission. In some instances the hydraulic pump provides hydraulics to the hydraulic fans and power steering. On selected models two separate pumps are used.*

*If the transmission temperature gauge at the dash is not working, inspect the single 14-gauge blue wire at the transmission temperature sending unit, which is located at the back of the transmission tail housing. That wire runs to the front of the RV. Alternatively, check for a bad ground at the gauge cluster.*

*Over time hydraulic components have evolved into more sophisticated systems with increased pressure necessitating tighter clearance in the valves and other moving parts of the hydraulic system. Surfaces can be damaged when abrasive particles enter these small spaces. Increased clearance will reduce the effectiveness of the system. For this reason, clean transmission fluid is essential to ensure continued operation and reliability of the system.*

*Filters in the transmission prevent contaminates from entering the system. Proper operation of the transmission relies upon strict adherence to the recommended maintenance schedule. Some transmissions require two separate filters designated the main filter and the lube filter. Change the main filter at the first 5,000 miles. Lubrication of gaskets during filter change may be necessary depending on the individual transmission. Refer to your Allison operations manual for detailed instructions on lubing filter gaskets.*

*What is the difference between TranSynd and Dexron III? TranSynd is synthetic oil, clear in color. Dexron III is regular transmission oil that is red in color. After extensive testing, TranSynd has proven to improve shifting quality and cooler characteristics, thereby extending the life of the RV transmission. TranSynd costs more than Dexron III. Do not mix Dexron III with TranSynd. When changing brands of transmission fluid within the system, keep in mind that change intervals will also be different.*

*Check fluid levels when the RV is on level ground and the engine is running at operating temperature. Fluid changes can be affected by traveling in extreme heat, or while towing large loads up steep grades. All oils break down over time, however, excess heat will accelerate the break down and cause the oil to discolor and burn. When traveling in mountainous regions, through hot climates, or while pulling large loads, increase frequency of transmission fluid and filters.*

*Relying on the use of oil analysis to extend oil changes may not be cost effective when taking into consideration the cost of having the oil tested, length of time to receive results, and overall reliability. Designed for use in the transport trucking industry, oil analysis is often needless expense for the RV'er that diligently follows maintenance schedules. For further information on customizing your individual filter and fluid change schedules, contact a certified Allison technician.*

*Use caution when adding fluid to the hydraulic reservoir. Employing a contaminated funnel to add the fluid can cause problems. Lint detaching from shop rags can cause the hydraulic pistons to stick in the open position and create a loss of pressure.*

*Too much fluid can cause the lubricant to bubble and overheat. Instead of lubricating the transmission components, fluid gets thrown around and causes the transmission to fill with oily air pockets. Too little fluid can cause erratic shifting from not having enough oil to do the job. Carefully monitor fluid levels using the transmission dipstick, or on some model coaches, through the transmission shifter at the dash. Inspect the ground around the vehicle for signs of oil leaks.*

*In the event that the system experiences a failed hose to the hydraulic fans or power steering while you are away from home, seek assistance from a service source knowledgeable in hydraulics. A new hose will need to be flushed prior to installation. Fluid added to the hydraulic tank must be clear of contamination.*

*Look at hose fittings along the hose run and at hydraulic components to find leaks. Some older hoses are prone to harden and crack along the hose itself. If a hose has hardened and is leaking at a fitting, the hose may have to be completely replaced. This may require running a new hose the full distance from the rear of the coach where the pump resides to the front where the power steering unit is located.*