Auto Transmission Repair Work Meeting Kit

WHAT'S AT STAKE

INTRODUCTION

Auto transmission repair can range from simple adjustments to parts replacements and complete overhauls. Work safely during auto transmission repair by following safe work practices.

WHAT'S THE DANGER

WHEN TO CONSIDER A TRANSMISSION REPAIR

A car's transmission consists of an incredible amount of parts. Each component of the transmission is important. However, each component of a car's transmission can wear or take damage independently of every other part of the transmission. A transmission repair will replace only the parts needed to get your transmission back up and running.

Often, repairs work best when the problem is a surface level issue. If a technician or mechanic has to disassemble the transmission and all its subassemblies, the process can take more time and cost more as well. When the technician has to dig deep into the transmission to find the problem, **a transmission rebuild can become a better option.**

HOW TO PROTECT YOURSELF

AUTO REPAIR SAFETY PRECAUTIONS FOR TRANSMISSIONS

Working on or around vehicles can be dangerous if you fail to take basic safety precautions. Fortunately, the most common injuries are not serious or life threatening, but fatal accidents do occur. Working underneath a raised vehicle that is not properly

secured presents the greatest risk for serious injury or death.

- A transmission jack should be used when removing and installing an automatic transmission. A floor jack will work also, but you must be very careful as the transmission can easily fall off a regular floor jack.
- Transmissions and transaxles are both heavy and cumbersome. Do not attempt to remove a transmission without a helper.
- Regardless of the type of jack you use to lower and raise the transmission, do your best to position the jack so the weight of the transmission is evenly distributed on the jack. With two people, hold the transmission on the jack while lowering or raising the jack.
- If using a hydraulic floor jack for lowering/raising the transmission, be sure the jack extends high enough to reach the transmission once the vehicle is raised. If necessary, place a wooden block on the jack (between the jack and transmission) to increase the lift. When doing this, please note that the wooden block can cause the transmission to become less stable so proceed with extra caution.
- When lowering and raising the transmission/transaxle, keep the rear of the transmission slightly lower than the front so that the torque converter does not slide forward and fall out. The torque converter is heavy – if it falls, you could be injured.
- Be keenly aware of where you place your hands and fingers when removing and installing an automatic transmission. One slip-up can seriously injure your hand or finger(s).
- Before removing a cross member, an engine mount or transmission mount, or in some cases the sub-frame in order to remove the transmission, you must secure the engine and transmission from falling by the use of a jack from underneath the vehicle or an engine hoist from the top.
- When disconnecting oil cooler lines wear eye protection and do not position yourself directly beneath where the line is being disconnected, as fluid will drain from the line even though you've already drained fluid from the oil pan.

GENERAL REPAIR SAFETY PROTOCOL

- **Wear personal protective equipment during your repair work.** Safety glasses prevent flying debris from damaging your eye. Side shields or goggles prevent splashes when you are working with fluids. Wear chemical resistant gloves to protect your hands and skin. Consider mechanics gloves for certain tasks to give you a better grip and prevent cuts and scrapes. Use kneepads to protect your knees when you kneel on the shop floor.
- **Long sleeves and long pants can protect your skin from hot surfaces, chemicals, and abrasions.**

Ensure that they are not too loose so that they do not get caught in moving parts. Remove your jewelry when you work on a car and tie back your hair if it is long.

Read the safety data sheet (SDS) for the chemicals you work with so you can understand their hazardous ingredients and characteristics. You need to know how to handle chemicals properly and what to do if there is an accidental exposure or spill.

- **Keep your mind on your task; do not get distracted.** Disconnect the battery and/or take the keys out of the vehicle so it does not start up accidentally. Know where your hands are at all times. Use the proper tool for the job. Use tool extenders to give you more accessibility. Don’t use excessive force on your tools. Pull on tools rather than push on them to prevent injuries.
- **Use good body mechanics when you are working on vehicles.** Work with your back straight and your arms and legs close to your body. Avoid stretching and reaching. Lift properly by keeping your back straight and using your legs for power. Where possible, use mechanical lifts or a partner to assist you.
- **Protect yourself from fires and explosions.** Do not smoke during auto repair work. Maintain good housekeeping of papers and solvents. Keep a fire extinguisher handy.

FINAL WORD

A car´s transmission consists of a huge amount of parts. Auto transmission repair ranges from simple adjustments to parts replacement and complete overhands. By following safe work practices during auto transmission work safety is secured for mechanics and good service for consumers is provided.