AUTOMOTIVE TRANSMISSION

REPAIR

NAICS Code

811113 Automotive Transmission Repair

Section 9

 SAFETY RULES, POLICIES, AND PROCEDURES

The safety rules contained on these pages have been prepared to protect you in your daily work. Employees are to follow these rules carefully, review them often and use good common sense in conducting assigned duties.

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ALL EMPLOYEES

General Safety Rules

 1. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.

 2. Straighten or remove rugs and mats that do not lie flat on the floor.

 3. Use a ladder or step stool to retrieve or store items that are located above your head.

 4. Use the handle when closing doors, drawers, and files.

 5. Obey all posted safety and danger signs.

 6. Use caution signs/cones to barricade slippery areas such as freshly mopped floors.

 7. Do not run-on stairs or take more than one step at a time.

 8. Do not block your view by carrying large or bulky items; use a dolly or hand truck or get assistance from a fellow employee.

 9. Do not jump from ramps, platforms, ladders, or step stools.

 10. Do not tilt the chair you are sitting in on its back two legs.

 11. Use handrails when ascending or descending stairs or ramps.

 12. Walk around wet, icy, slick, or oily areas if possible.

 13. If required to cross a slippery surface, walk slow and flat-footed. Hold onto a handrail or solid object, if present, to maintain balance.

 14. Use provided aisles, walkways, or sidewalks. Do not take shortcuts.

 15. Clean shoes of ice, water, mud, grease, or other substances that could cause a slip or fall.

 16. Pull merchandise carts through areas of restricted visibility.

 17. Use a flashlight, turn on lights or take time for eyes to adjust when entering dark room or dim surroundings.

 18. Open one file cabinet drawer at a time.

 19. Clean up spills or leaks immediately by using oil dry materials, sand, paper towels, cloth materials or mop and bucket.

 20. Use a cord cover or tape the cord down when running electrical or other cords across aisles, between desks or across entrances or exits.

Electrical Safety

 1. Do not use appliances with extension or power cords that have the ground prong removed or broken off.

 2. Do not connect multiple electrical devices into a single outlet.

 3. Turn off electrical tools and disconnect the power source from the outlet before attempting repairs or service work. Tag the tool "Out of Service."

Lifting Procedures

 1. Plan the move before lifting; remove obstructions from your chosen pathway.

 2. Evaluate the weight of the load before lifting by pushing the load along its resting surface.

 3. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts or get assistance from a co-worker.

 4. If assistance is required to perform a lift, coordinate, and communicate your movements with those of your co-worker.

 5. Position your feet 6 to 12 inches apart with one foot slightly in front of the other.

 6. Face the load.

 7. Bend at the knees, not at the back.

 8. Keep your back straight.

 9. Get a firm grip on the object with your hands and fingers. Use handles when present.

 10. Never lift anything if your hands are greasy or wet.

 11. Wear protective gloves when lifting objects with sharp corners or jagged edges.

 12. Hold objects as close to your body as possible.

 13. Perform lifting movements smoothly and gradually; do not jerk the load.

 14. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.

 15. Set down objects in the same manner as you picked them up, except in reverse.

 16. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.

 17. Slide materials to the end of the tailgate before attempting to lift them off a pick-up truck. Do not lift over the walls or tailgate of the truck bed.

 18. When practical, push objects into position for lifting, do not pull.

AUTO REPAIR TECHNICIAN

Shop Safety

 1. Use the hydraulic jack when lowering a transmission from a vehicle. If you do not have a hydraulic jack, get a co-worker to help you lower the transmission.

 2. The following procedures will be used for vehicles that have the full frame and transmission removed:

 a) Do not work alone.

 b) Place hydraulic jacks under both sides of the frame.

 c) Place a hydraulic jack under the transmission

 d) Once the hydraulic jacks are in place, lower the frame slowly.

 e) Once the frame is lowered, lower the transmission.

 f) Do not stand under the transmission or frame while they are being lowered.

 3. Pick up hot automotive parts using protective gloves, heat resistant pads or dry rags.

 4. Place the hot automotive parts in a metal container that is labeled "Hot Metal Parts Only."

 5. Engage the parking brake and use the wheel blocks to chock the vehicle before starting the engine of the vehicle.

 6. Wear a protective apron, gloves and safety goggles when charging a battery.

 7. Wear your leather gloves and respiratory protective device when removing clutches from vehicles.

 8. Do not use compressed air to clean a transmission. Wash all disassembled transmission parts in a parts washer.

 9. Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.

 10. When grinding on a drive shaft, place the shaft in a vise grip to hold the shaft in place. If a vise grip is not available, get a co-worker to help you keep the shaft in place.

 11. Do not point a compressed air hose at bystanders or use it to clean your clothing.

Welding/Cutting/Burning

 1. Open doors, windows and turn on local exhaust fans to reduce air contaminants when welding indoors, or weld outdoors.

 2. Do not perform "hot work," such as welding, metal grinding or other spark producing operations, within 50 feet of containers labeled "Flammable" or "Combustible."

 3. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.

 4. Do not stand in water or on wet surfaces when welding.

 5. Secure all cylinders not in use with safety chains.

 6. Place valve protection caps on gas cylinders that are in storage or not in use.

 7. Do not hoist or transport cylinders by means of magnets or choker slings. Do not drop cylinders or use cylinders as rollers.

 8. Use the red hose for gas fuel and the green hose for oxygen.

 9. "Blow Out" hoses before attaching the torch.

 10. Use only an open ended or adjustable wrench when connecting or disconnecting regulators and fittings.

 11. Do not force connections that do not fit easily.

 12. Do not use oil, grease and other lubricants on oxygen fittings, hoses, regulators, etc.

 13. Prior to lighting the torch, evaluate the fittings on the regulator for leaks by applying a liquid soap solution on them. If the soap solution bubbles, do not use the torch.

 14. Stand to the side of the regulator when opening the valve.

 15. Ignite torches with friction lighters only. Do not use a cigarette lighter.

 16. Do not operate a torch directly over gas or oxygen hoses.

 17. Do not use a torch as a hammer or a pry bar.

 18. Close the valve by turning the handle of the regulator clockwise when changing torches. Do not crimp the hose to shut off the torch.

 19. Bleed oxygen and fuel lines at the end of the work shift.

Electrically Powered Tools

 1. Do not use power equipment or tools on which you have not been trained.

 2. Keep power cords away from path of drills, vacuum cleaners, floor polishers, saws, and grinders.

 3. Do not carry plugged in equipment or tools with your finger on the switch.

 4. Do not carry equipment or tools by the cord.

 5. Disconnect the tool from the outlet by pulling on the plug, not the cord.

 6. Turn the tool off before plugging or unplugging it.

 7. Do not leave tools that are "On" unattended.

 8. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.

 9. Do not drive over, drag, step on or place objects on a cord.

Vehicle Safety

 1. Do not ride in the bed of pick-up trucks.

 2. Turn headlights on when driving inside the shop area.

 3. Do not drive over 5 miles per hour in the shop area.

 4. Shut all doors and fasten your seat belt before moving the vehicle.

 5. Always obey all traffic patterns and signs.

 6. Maintain a 3-point contact using both hands and one foot or both feet and one hand when climbing into and out of a vehicle.

 7. Drive up the slope or down the slope not across the slope.

 8. Before leaving the vehicle, engage the parking brakes and chock the wheels.

 9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Ladders and Step Ladders

 1. Read and follow the manufacturer's instructions label affixed to the ladder if you are unsure how to use the ladder.

 2. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber foot pads or other visible damage.

 3. Keep ladder rungs clean and free of grease. Remove buildup of material such as mud.

 4. Allow only one person on the ladder at a time.

 5. Face the ladder when climbing up or down.

 6. Maintain a three-point contact by always keeping both hands and one foot or both feet and one hand on the ladder when climbing up or down.

 7. Do not stand on the top two rungs of any stepladder.

 8. Do not stand on a ladder that wobbles, or that leans to the left or right.

 9. Secure the ladder in place by having another employee hold it or lash it to the structure.

 10. Do not place ladders on boxes, loose bricks, concrete blocks, or other unstable bases.

 11. Use a rope or other device to hoist toolboxes or other materials to the work area.

 12. Do not climb above the third rung from the top of an extension or straight ladder.

 13. Do not use portable straight metal ladders without rubber anti-skid pads on the feet of the ladder.

 14. Descend ladders one step at a time.

 15. Do not place a ladder on top of plastic or visqueen used as a drop cloth.

Hand Tool Safety

 1. Carry all sharp tools in a sheath or holster.

 2. Tag worn, damaged or defective tools "Out of Service" and do not use them.

 3. Do not use a tool if its handle has splinters, burrs, or cracks, or if the head of the tool is loose.

 4. Do not use impact tools such as hammers, chisels, punches, or steel stakes that have mushroomed heads.

 5. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

 6. Do not chop at heights above your head when working with a hand axe.

 7. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, aviation snips, scrapers, chisels, or files in your pocket unless the tool or pocket is sheathed.

 8. Do not perform "make-shift" repairs to tools.

 9. Transport hand tools only in toolboxes or tool belts.

 10. Wear safety glasses, goggles or face shields when operating chippers, grinders, or sanders.

Grinders

 1. Do not use grinding wheels that have chips, cracks, or grooves.

 2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."

 3. Do not try to stop the wheel with your hand, even if you are wearing gloves.

 4. Do not use grinder if it is not firmly anchored to the workbench.

 5. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage; tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.

 6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.

 7. Do not grind on the side of an abrasive wheel labeled "Type 1."

 8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

 9. Wear safety goggles or face shield when operating a grinder.

Automotive Lifts

 1. Remove all tools, cords, hoses, trash, and any other debris from the lift area and wipe up all grease and oil spills before driving a car or truck into your service bay.

 2. Position the lift arms, adapters and supports to the center of the lift out of the way of the car's tires before driving the vehicle into the service bay.

 3. Do not stand in front of a vehicle being driven into the service bay.

 4. Do not use any lift that has cracked contact pads, cracked lift arms or any other visible damage.

 5. Do not use wood or concrete blocks as a substitute for an extender.

 6. Use wheel blocks to chock the wheels of any vehicle on a runway lift while the vehicle is on the lift.

 7. Do not leave the controls unattended while the lift is in motion.

 8. Do not block or "tie open" the lift's control while the lift is in motion.

 9. Do not use the engine or transmission supports or stands as a substitute for jack stands.

 10. If the vehicle begins to slip off the lift, run in the opposite direction of the fall, but not toward a wall or work bench that might trap you between the object and the vehicle.

 11. Before you lower the vehicle, remove tool trays, jack, engine and transmission stands, and any other obstructions from under the vehicle.

 12. Before removing the vehicle from your service bay, position lift arms and supports to the center of the lift away from the wheels of the vehicles.

 13. Do not "tie down" or override the air or control valves of the lift.

 14. Do not raise vehicle with anyone inside it.

 15. When raising a vehicle, use the following procedure:

 a) Use the lift to raise the vehicle about one foot off the ground and moderately push the rear

 or front bumper of the vehicle to ensure that the vehicle frame is stably mounted on the

 support contact pads of the lift.

 b) If the frame of the vehicle is not firmly touching a support contact pad or slipping

 immediately lower the vehicle and start over.

 c) Once the vehicle is secure on the lift, lift the vehicle to the desired work height and

 visually check those contact points for misalignment before going under the vehicle.

 As you raise the vehicle, you will hear a "clicking" noise which indicates that the lift's locking device is engaging. If you do not hear the "clicking" noise, stop the lift, fully lower the vehicle, and use another lift. Place an "Out of Service" tag on the control switch of the damaged lift and do not use it.

 16. If you will be working under a lift that will be positioned at a point below where the lift's locking device engages, place four jack stands under the vehicle's frame or suspension for additional support before working under the vehicle.

 17. Wear safety goggles when working underneath vehicles.

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