

Job Hazard Analysis

JHA Name: Automotive Hoist



Assessment Date: 04-28-14

Revision Date: 04-06-17

Building or Location: North Mankato Campus

Department or Program: Auto Collision, Auto Mechanics

Description of Individual Tasks or Assignments: Lifting Vehicles to Perform Routine Maintenance, Service, Inspection, and/or Repair

Tools, Equipment, or Machinery Used when Performing Task: Automotive Hoist (i.e., 2 Post & 4 Post Models), and Lift Adapters

Hazard Type(s) Associated with Task or Assignment:		Check for Exposure:	Specific Hazard Exposure:	Check if Exposure Recommends or Requires a Style of PPE?
1	Impact <u>Example:</u> Person(s) can strike an object, or be struck by a moving or flying/falling object (e.g., fragments, chips, particles, sand, dirt/debris).	X	Potential exposure to flying or dislodged fragments, particles and debris generated from performing work underneath vehicle (e.g., injuries to eyes)	X
2	Penetration or Cut <u>Example:</u> Person(s) can strike an object, be struck by an object, or fall upon an object or tool that would cut or otherwise break the skin.	X	Potential exposure to cuts and abrasions from vehicle's components and parts while performing work underneath vehicle (e.g., hand and finger injuries)	X
3	Crush or Pinch <u>Example:</u> An object(s) or equipment/machine may crush or pinch a body or body part	X	Potential exposure to crushing and pinching hazard from dropping or falling vehicles (e.g., whole body injuries), potential exposure to spinning/moving parts (e.g., entanglement injuries)	X
4	Chemical or Harmful Dust <u>Example:</u> Exposure to chemicals (i.e., hazardous substances and harmful physical agents), infectious agents from spills, splashing, physical contact, and/ or exposure to dusts, vapors, fumes, or gases that could cause illness, irritation, burns, asphyxiation, breathing/vision difficulty, sensitization, infection, or other toxic health effects (i.e., acute or chronic). Note: "May also have or create ignition potential."			
5	Heat <u>Example:</u> Exposure to radiant heat sources, sparks, and splashes or spills of hot material			
6	Light (optical) Radiation <u>Example:</u> Exposure to strong light sources, glare, or intense light exposure which is a byproduct of a process. Note: "This category may also include hazards presented from lack of light (e.g., working in dark spaces/areas)."			
7	Electrical Contact <u>Example:</u> Exposure, contact, or proximity to live or potentially live electrical objects.			
8	Ergonomic/ Human Factors <u>Example:</u> Working in cramped spaces, repetitive movements, awkward postures, vibration, heavy lifting, etc... Note: "This category may also include unique hazards presented from tasks that require demanding or challenging degrees of mental and/or physical effort to be exerted by an individual. See <i>Physical Effort Definition/Examples</i> category for further explanation of physical effort."	X	Potential exposure to repetitive movements, lifting light to moderately heavy loads, and bending (e.g., Back and other Muscular Skeletal Disorders)	
9	Environmental <u>Example:</u> Exposure to noisy environments, hot or cold work environments, poor weather conditions, working at a height, and any other conditions in the workplace that could cause danger, discomfort, and/or negative health effects.	X	Potential exposure to working on slippery services (e.g., dripped or spilled oil from vehicle maintenance)	X

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Personal Protective Equipment Requirements:

Eyes & Face:	Safety Glasses with Side Shields or Goggles (Required when working under elevated vehicles)
Head & Ears:	
Whole Body:	
Feet:	Safety Shoes (Required whenever operating or working with automotive hoists), Boots/Footwear should provide adequate traction for walking/working on slippery surfaces (Required)
Hands:	Gloves (e.g., Mechanic or similar type) providing adequate hand protection must be selected/used depending on the hazard (Required)
Respiratory:	
Other:	"Note: Personnel must change from loose clothing, tie back long hair, and take off jewelry that could become entangled or snagged in moving parts"

Other Control Measures or Requirements (Engineering & Administrative Controls):

#3) Crush or Pinch: Automotive hoist operators are responsible for their hoist, the vehicle being lifted, and all personnel working around them. Hoist operators should warn surrounding personnel when raising and lowering hoists. Hoist operators are responsible for ensuring vehicles are appropriately balanced, and do not exceed the capacity of the hoist. Know vehicle manufacture's recommended lift points for the type of the hoist, and the vehicle's center of gravity (for 2 post hoists). On 4 post hoists chalk vehicle tires, or have hoist tire stoppers in place. Before lowering automotive hoists remove tools, toolboxes, cadies, clean up oil spills, etc.. under the hoist; then raise hoist off safety latches; disengage safety latches; and lower vehicle to floor. (Note: Items forgotten under the vehicle can cause the vehicle to shift and fall off the hoist.) **#8) Ergonomic Hazards:** Personnel should receive Ergonomics training (including warning signs and conditions of ergonomic/human factors hazards). When possible set up workstation or immediate job site to help minimize reaching, and/or sitting or working in awkward positions to prevent strains, soreness, and other discomfort. Tools and equipment should be selected in anticipation of the operator's need and physiological stature (e.g., ergonomic/human factors considerations). Select the appropriate tool (in the right size) for the task, and do not substitute one type of tool for another type (e.g., wrench for a hammer, screwdriver for a pry-bar, etc...). Have Supervisors and Safety Persons assist you in selecting ergonomic tools for your work tasks when movements are repetitive, forceful, or painful. Make sure your grip and footing are secure when using large tools to prevent strains. **Miscellaneous Considerations:** Prior to operating automotive hoists personnel must be trained by an authorized college trainer. Hoist operators must receive retraining every 3 years at minimum, or when conditions/equipment change, or findings indicated previous training is ineffective. Verify that automotive hoist has a valid inspection sticker posted confirming annual inspection. When driving vehicles onto an automotive hoist, have a spotter positioned in front, but to the side of the vehicle's path to prevent accidents. Prior to lifting, look inside vehicle for unexpected loads; never lift vehicles that contain heavy loads. When vehicle is properly positioned raise the vehicle. (Note: Lift controls are hold to run, meaning letting go of controls stops hoist operation). On 2 post automotive hoists verify lift pads line up with vehicle's specific undercarriage lift points, then raise vehicle 6-12" to verify lift pads are positioned properly. Before lifting vehicle to working height, give the vehicle's 4 corners a moderate "shake" to verify the vehicle is balanced (both front to back and side to side). Raise the hoist to the required working height above the safety latch, then lower hoist to rest on the (last highest) safety latch. Verify all hoist's safety latches are engaged. Never walk under the vehicle until you verify safety latches are engaged. Never lift vehicles higher than you actually need for the job. If automotive work requires heavy lifting, prying, pulling, or removing a large vehicle component, use floor rated jack stands. Never lift vehicles with passengers inside. Never let customers into the bay area. Never use homemade adaptors or bricks/wood blocks. Operators of tools, equipment, and machinery should read and follow all Manufactures' recommendations/requirements (e.g., inspections, servicing/maintenance, safe usage, etc...). Any tools, equipment, or machinery found damaged, defective, or otherwise unsafe should immediately be removed from service and not used until repaired or replaced. Personnel should always consult their Supervisors on the selection and use of PPE for the tasks being performed.

Physical Effort Definition/Examples

1.) Physical Mobility- Movement from place to place on the job, considering distance and speed **2.) Physical Agility-** ability to maneuver body while in place or in static position **3.) Physical Strength (Light to Moderate)-** Ability to handle routine office materials and tools **4.) Physical Strength (Moderate to Heavy)-** Ability to handle 50lbs+ objects, considering frequency **5.) Dexterity-** skill and ability in using hands, fingers, and feet **6.) Physical Balance-** ability to maintain balance and physical control **7.) Coordination-** harmonious functioning of body parts (e.g., eye/hand, hand/foot, etc...) **8.) Endurance-** ability to sustain a prolonged stressful effort or activity with limited opportunity to rest

Note: "This JHA provides only the minimum PPE/safety requirements necessary to safely complete the task or assignment, and the JHA only covers the hazards or exposures that are most likely to be encountered. Nothing within this JHA bars or restricts personnel from requesting higher degrees of PPE or control to mitigate workplace hazards. In addition, South Central College personnel (e.g., employees and students) are required to complete any applicable safety or on-the-job trainings required prior to performing their positions or participating in their programs of study. Finally, South Central College personnel should consult their supervisors/instructors, the college's written safety programs/policies, and/or the Security & Safety Director whenever they have questions or concerns."

Certification: This document certifies a hazard assessment was conducted meeting the provisions specified under 29 CFR 1910.132 (d) and South Central College's related safety programs and policies.

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Date: 04-06-17