	NORTH CAROLINA DEPARTMENT OF LABOR	No. 55-1
	OSH DIVISION	Date: 10/2009
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Industry: Automotive Dealers and Gasoline Service Stations

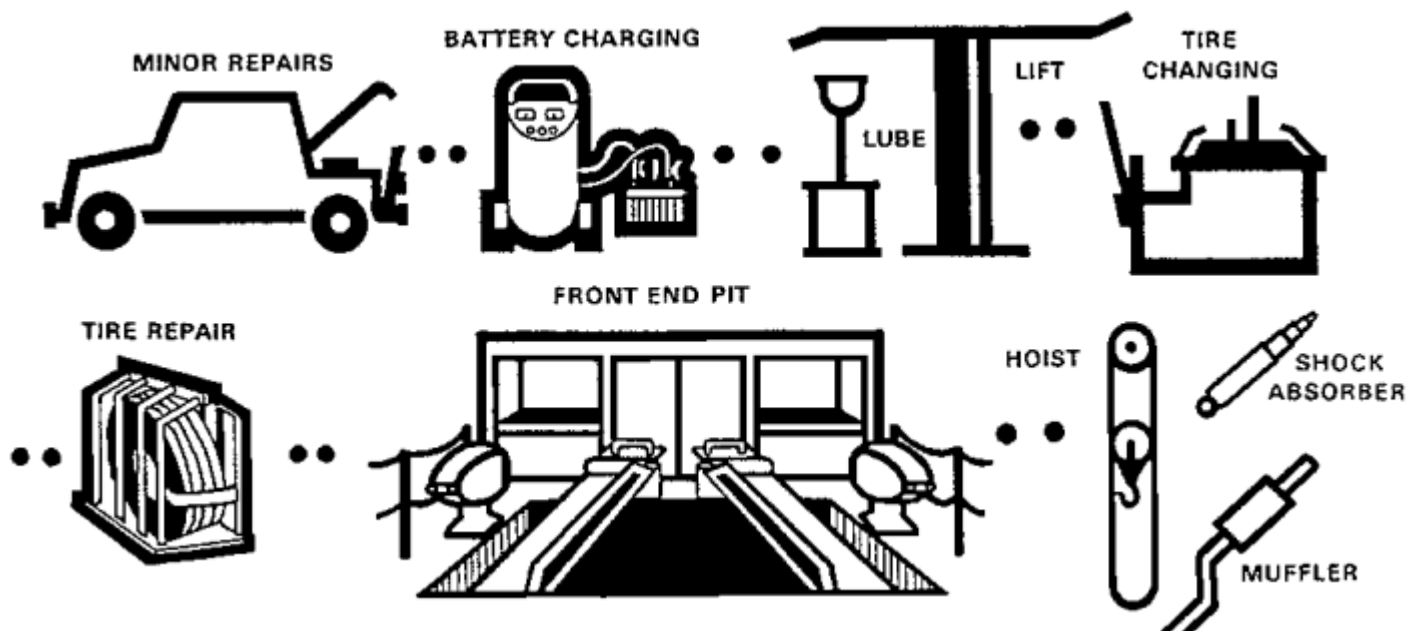
Sub-Group: Tires, Battery and Accessory Dealers

SIC: 5531

NAICS: 441310, 441320 and 452990

PROCESS DESCRIPTION: Tire, batteries and automobile accessories are sold from a variety of retail outlets. Sales usually include mounting of new tires on customers' rims and installation of batteries and accessories. To replace tires, the vehicle is placed on a lift or raised with the aid of a jack, wheels are removed, the old tire is taken off the rim and the new tire installed with a special pneumatic tire changing device. When the wheel is replaced on the car, the lugs are secured with either a hand or air wrench. This service may include balancing and front end alignment. Truck tire service requires additional operations such as the removal and replacement of lock rings and special lug devices along with the use of hoisting equipment. Equipment includes: display racks, hydraulic, pneumatic or electric jack, or hoists, hydraulic or pneumatic tire changing machines, manual tire changing standards, air compressors, hoses, couplings, pressure gauges, balancing machines, front end alignment pit and equipment, various hand irons, tools and power hand tools. Heavy truck tire services would involve use of heavier hand tools, restraining cages, chains, slings, carriages, power hoists and fork lift truck. Batteries must have acid electrolyte added before installing. Dealers usually furnish recharge services, where batteries are hooked up to a charging unit for a specified time. Accessories such as mufflers, shock absorbers and numerous other items (depending on size of dealer) are installed on vehicles, usually by hand or power tools and lift or jack.

PROCESS FLOW:



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Hazards Analysis


Major Hazards			Other Hazards		
Location	Item	Hazard	Location	Item	Hazard
Shop area	Lifting and installing tires, batteries and accessories	Sprains, strains, hernia, cuts, abrasions, pinching or possible amputations, foreign objects in eye.	Pit	Hazardous location	Unapproved Electrical equipment, chemical exposure.
	Tire inflation	Explosion, facial injuries			
Throughout	Housekeeping	Slips, trips or falls			
Battery charging area	Hydrogen gas	Explosion and burns			
Battery storage area	Acid electrolyte	Burns to skin and eyes, skin irritant			
Throughout	Electrical hand tools and other electrical equipment	Shock or electrocution			

Key OSHNC Standards

Reference	29 CFR 1910 — General Industry Standards
ANSI B30.6	Overhead Underhung Hoists
Subpart D	Walking and working surfaces
Subpart E	Means of egress
Subpart I	Personal protective equipment
Subpart S	Electrical
1910.101	Compressed gases
1910.106	Flammable and combustible liquid handling and storage
1910.147	Control of Hazardous Energy – (Lock-out/Tag-Out)
1910.151	Eyewash and emergency showers
1910.169	Compressed air receivers
1910.176	Handling Materials
1910.219	Machine Guarding

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1910.252	Welding		
1910.1000	Air contaminants		
1910.1200	Hazard communication		
Inspection Analysis			
<p>Due to the diversity of tire, battery and accessory dealers, the inspection could begin at virtually any point. It should be conducted in an orderly manner without any unnecessary backtracking. The inspection must cover walking-working surfaces, the stacking of tires, batteries and accessories, and barriers or railings around open pits. "No Smoking" sign, suitable facilities for flushing eyes and body, and eye, face and hand protection must be provided in the battery charging and handling area. V-belts must be guarded on air compressors. Tools used for mounting tires and installing batteries and accessories must be in good working condition. These must be grounded when electrically operated with all wiring and cases in good condition. Eye protection must be provided for and used by employees working under vehicles.</p>			
<p>Other Pertinent Comments: Hand tools and working surfaces are the principal causes of accidents for tire, battery and accessory dealers. Working surfaces must be kept clean. Hand tools must be kept in good working condition. Training must be provided in the operation of powered tools.</p>			