Mechanical Power-Transmission Apparatus

Reset Form

Self-Inspection Checklist

Optional Information

Name of School:
Date of Inspection:
Career-Technical program/course/room:
Signature of inspector:

Guidelines:

This checklist covers regulations issued by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) under the general industry standard 29 CFR 1910.219. The regulations cited apply only to private employers and their employees, unless adopted by a State agency and applied to other groups such as public employees. A yes answer to a question indicates that this portion of the inspection complies with the OSHA or EPA standard, or with a nonregulatory recommendation. Definitions of terms in bold type are provided at the end of the checklist.

This checklist does not address power-transmission apparatus located in basements; guarding friction drives; and belt shifters, clutches, shippers, poles, perches, and fasteners. Consult 29 CFR 1910.219 for regulations dealing with these types of equipment.

Care of Equipment		
	1	Is all power-transmission equipment inspected every 60 days or less and kept in good working condition at all times? [29 CFR 1910.219(p)(1)]
	2	Are hangers inspected to make certain that all supporting bolts and screws are tight and that supports of hanger boxes are adjusted properly? [29 CFR 1910.219(p)(4)]
	3	Is machinery oiled wherever possible when not in motion? [29 CFR 1910.219(p)(7)]
	4	Do regular oilers wear tight-fitting clothing? [29 CFR 1910.219(p)(7)]

CDC NIOSH
U.S. Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

Safety Checklist Program for Schools
DHHS (NIOSH) Publication Number 2004-101
October 2003

Prime-Mover Guards		
	5	When exposed to contact, are flywheels guarded by an enclosure, guard rail, or toeboard? [29 CFR 1910.219(b)(1)]
	6	Are crank and connecting rods guarded when exposed to contact? [29 CFR 1910.219(b)(2)]
	7	Are tail rods or extension piston rods guarded? [29 CFR 1910.219(b)(3)]

Shafting		
	8	Is each continuous line of shafting secured against excessive end movement? [29 CFR 1910.219(c)(1)(i)]
	9	Are inclined and vertical shafts (particularly inclined idler shafts) securely held in position against end-wise thrust? [29 CFR 1910.219(c)(1)(ii)]
	10	For horizontal shafting 7 feet or less above the floor or working platform, are all exposed parts protected by (a) a stationary casing completely enclosing the shafting, or (b) a trough enclosing the sides and top, or sides and bottom of the shafting (as the location requires)? [29 CFR 1910.219(c)(2)(i)]
	11	Is shafting under bench machinery enclosed by (a) a stationary casing, or (b) a trough at sides and top, or sides and bottom (as location requires)? [29 CFR 1910.219(c)(2)(ii)] *Note: The sides of the trough shall come within at least 6 inches of the underside of the table, or within 6 inches of the floor if shafting is near the floor. In every case, the sides of the trough shall extend at least 2 inches beyond the shafting or protuberance.*
	12	Is vertical or inclined shafting that is 7 feet or less from the floor or working platform (except maintenance runways) enclosed with a stationary casing? [29 CFR 1910.219(c)(3)]
	13	Do projecting shaft ends have a smooth edge and end? [29 CFR 1910.219(c)(4)(i)]
	14	Are shaft ends that project more than 1/2 of the diameter of the shaft guarded by nonrotating caps or safety sleeves? [29 CFR 1910.219(c)(4)(i)]
	15	Are unused keyways filled up or covered? [29 CFR 1910.219(c)(4)(ii)]
	16	Is shafting kept in alignment and free from rust and excess oil or grease? [29 CFR 1910.219(p)(2)]

Pulleys		
	17	Are pulleys 7 feet or less from the floor guarded? [29 CFR 1910.219(d)(1)]
	18	Are pulleys with cracks or pieces broken out of the rims taken out of service? (shall not be used) [29 CFR 1910.219(d)(3)]
	19	Are pulleys kept in proper alignment to prevent belts from running off? [29 CFR 1910.219(p)(5)]

Belt, Rope, and Chain Drives		
	20	Are horizontal belts seven feet or less from the floor level guarded? [29 CFR 1910.219(e)(1)(i)]
	21	Are belts, lacings, and fasteners inspected and maintained in good repair? [29 CFR 1910.219(p)(6)(ii)]

Gears, Sprockets, and Chains		
	22	Are all gears fully guarded? [29 CFR 1910.219(f)(1)]
	23	Are all sprocket wheels and chains that are less than 7 feet above the floor or platform fully guarded? [29 CFR 1910.219(f)(3)]
	24	Are openings with hinged or sliding self-closing covers provided when frequent oiling must be done on gears, sprockets, and chains? [29 CFR 1910.219(f)(4)]

Keys, Setscrews, and Other Projections		
	25	Are all projecting keys, set-screws, and other projections in revolving parts guarded by metal covers or made flush? [29 CFR 1910.219(h)(1)]

Collars and Couplings		
	26	Are shaft couplings constructed so they do not present hazards from bolts, nuts, set-screws, or revolving surfaces? [29 CFR 1910.219(i)(2)] *Note: Bots, nuts, and setscrews are permitted if covered with safety sleeves.*

Bearings and Facilities for Oiling		
	27	Are all drip cups and pans securely fastened? [29 CFR 1910.219(j)]
	28	Are bearings kept in alignment and properly adjusted? [29 CFR 1910.219(p)(3)]

Guards		
	29	Are all metal guards free from burrs and sharp edges? [29 CFR 1910.219(m)(1)(ii)]
	30	Are all metal guards securely fastened to the floor or to frame of the machine? [29 CFR 1910.219(m)(1)(i)]
	31	Are all guards rigidly braced every 3 feet or fractional part of their height to a fixed part of machinery or building structure? [29 CFR 1910.219(o)(1)(i)(a)]

Definitions

Belts: include all power transmission belts, such as flat belts, round belts, V-bets, etc., unless otherwise specified.

Flywheels: include flywheels, balance wheels, and flywheel pulleys mounted and revolving on crankshaft of engine or other shafting.

Prime movers: include steam, gas, oil, and air engines; motors, steam, and hydraulic turbines; and other equipment used as a source of power.