What requirements apply to prime-mover guards?

"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.

(1) Unless guarded by location, flywheels must be guarded according to the following requirements:

(a) Guard enclosures are made of sheet, perforated, or expanded metal, or woven wire.

(b) Guard rails are between 15 and 20 inches from the rim. When a flywheel extends into a pit or is within 12 inches of the floor, a standard toeboard is provided.

(c) When the upper rim of a flywheel extends through a working floor, it is surrounded by a guardrail and toeboard.

(d) Exception: When a flywheel with a smooth rim 5 feet or less in diameter cannot be guarded by the above methods, you must guard by meeting the following requirements:

   On the exposed side, cover the flywheel spokes with a disk that makes a smooth surface and edge, and provides for inspection. You may leave an open space, less than 4 inches wide, between the outside edge of the disk and the rim of the wheel, to turn the wheel over. If you use a disk, keys or other projections left uncovered by the projections shall be cut off or covered.

   This exception does not apply to flywheels with solid web centers.

(e) At the flywheel of a gas or oil engine, you may provide an adjustable guard for starting the engine or for running adjustment. A slot opening for a jack bar is permitted.

(f) For flywheels above working areas, you must install guards that are strong enough to hold the weight of the flywheel if the shaft or wheel mounting fails.

(2) Cranks and connecting rods, when exposed to contact, must be guarded according to WAC 296-307-28046 and 296-307-28048, or by a guardrail according to WAC 296-307-28060.

(3) Tail rods or extension piston rods must be guarded according to WAC 296-307-28046 and 296-307-28048, or by a guardrail on the sides and end, with a clearance of between 15 and 20 inches when rod is fully extended.