



Safety Component Package Permissibility Checklist

Note: This checklist is developed from the Jeffrey Safety Component System Permissibility Checklist, certification No. 31/D36-6, Drawing 532A329. Part 36 Machine Approval No. 31-87-0

If an MSHA Part 36 approval plate has been affixed to this machine, it must meet the requirements of Part 36, Title 30, Code of Federal Regulations. It is the responsibility of the user to ensure that this machine is maintained in permissible condition in accordance with this checklist.

The following tests and inspection procedures shall be conducted on the surface or in mine ventilation intake air only.

Intake System (Engine Combustion Air)

- (Weekly) 1. No gasket between flame arrestor and housing. Maximum clearance 0.004”.
- (Weekly) 2. No gasket between flame arrestor housing and intake manifold. Maximum clearance .004”.
- 3. Remove the intake flame arrestor. The arrestor core is clean and has no apparent damage. A .018“ wire gauge cannot pass through the core.
- (Weekly) 4. Flame arrestor installed and properly secured.
- (Weekly) 5. Copper gaskets are installed between the intake manifold and the engine, as well as between the alternate cover and the engine. All manifold bolts must be in place and secured with lock-washers.
- (Weekly) 6. Restriction indicator on air cleaner is not showing RED. (Indicator trips red at 15” of water.)

(Weekly) -Designates those inspection checks that must be performed during the weekly maintenance examination in accordance with 30 CFR, section 75.1914

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Exhaust System

- (Weekly) 1. Check the scrubber tank is in good condition with no open holes due to corrosion and all drain plugs are in place, and soap add port is capped.
- (Weekly) 2. There is a copper gasket between the scrubber and the exhaust manifold.
- (Weekly) 3. There is a copper gasket between the engine and the exhaust manifold.
- (Weekly) 4. The exhaust pipe and the exhaust manifold have no holes and have no plugs missing. The mounting bolts are in place and are tight.

Safety System

- (Weekly) 1. The engine will not start unless the transmission control is in the neutral position.
- (Weekly) 2. The engine will not start without holding in the override valve on the instrument panel.
- (Weekly) 3. Engine shuts down when stop valve located on instrument panel is held in.
- (Weekly) 4. The engine and safety components are kept reasonably clean.

Engine Shut-Down Test and Procedures

- (Weekly) 1. Emergency Air Intake Shutdown
 - a. Start engine and run at idle. Pull emergency engine shut-down "T" handle. Engine should stop immediately. Should engine continue to run, check for faulty shut-off valve or air leaks at all joints between shut-off valve and engine head. After test has been completed, manually reset air intake shut-off valve, located on left-hand side of engine.

(Weekly) -Designates those inspection checks that must be performed during the weekly maintenance examination in accordance with 30 CFR, section 75.1914

2. Safety System Engine Shut-Down

- a. Block radiator with cardboard or brattice cloth. Start engine and run at high idle until shut-down of engine occurs. Note engine temperature gauge on panel. Not to exceed 210 F gauge. Reset trip indicator on high temperature valve located at front left hand side of engine.
- b. Alternate Test - Remove the temperature valve and plug the hole in the water jacket. Place the probe in a water/anti-freeze mix and heat until engine shuts down. Check water/anti-freeze mix with a thermometer. Temperature must not exceed 210 F.

(Weekly) 3. Low Scrubber Water Shut-Down

- a. With supply water tank full and scrubber water at running level, close needle valve between low-air pressure regulator and water supply tank. Vent water tank by pushing red button on top of fill cap. Rotate cap counter-clockwise to first safety catch, thus allowing water tank to remain vented during test.
- b. With engine running, disconnect the air supply line at the upper tank vent valve. Loss of air should shut down the engine. After engine shuts down, reconnect the air line, reset the trip indicator, and restart the engine.
- c. Slowly drain the water from the scrubber through the drain valve in lower level tank until the engine shuts down. Immediately close the drain valve. Check the scrubber water level by removing first the top pipe plug on the rear of the lower tank (7" level) and if no water is visible, then reopen the valve (6" level). If no water flows from the bottom valve, the system is not functioning properly.

(Weekly) -Designates those inspection checks that must be performed during the weekly maintenance examination in accordance with **30 CFR**, section 75.1914

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4. High Exhaust Temperature Shut-Down

- a. The temperature sensor valve in the exhaust pipe must open and must shut down the engine before the temperature reaches 184 F. (The sensor valve must be preset to 162 F in order to accomplish this). To test the temperature sensor valve, unscrew the sensor valve from the exhaust pipe and install a pipe plug into the port from which the sensor was removed. Keep the air line connected to the sensor. Start the engine and immerse the sensor element end of the temperature sensor valve into heated water/antifreeze mix or pure antifreeze, depending on the altitude. The sensor must open and exhaust the safety system air pressure and shut down the engine before the maximum temperature listed above is reached.

(Weekly) -Designates those inspection checks that must be performed during the weekly maintenance examination in accordance with 30 CFR, section 75.1914

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