



M-215-2-14

Serial Numbers K6780, K6878, K6883 & Up

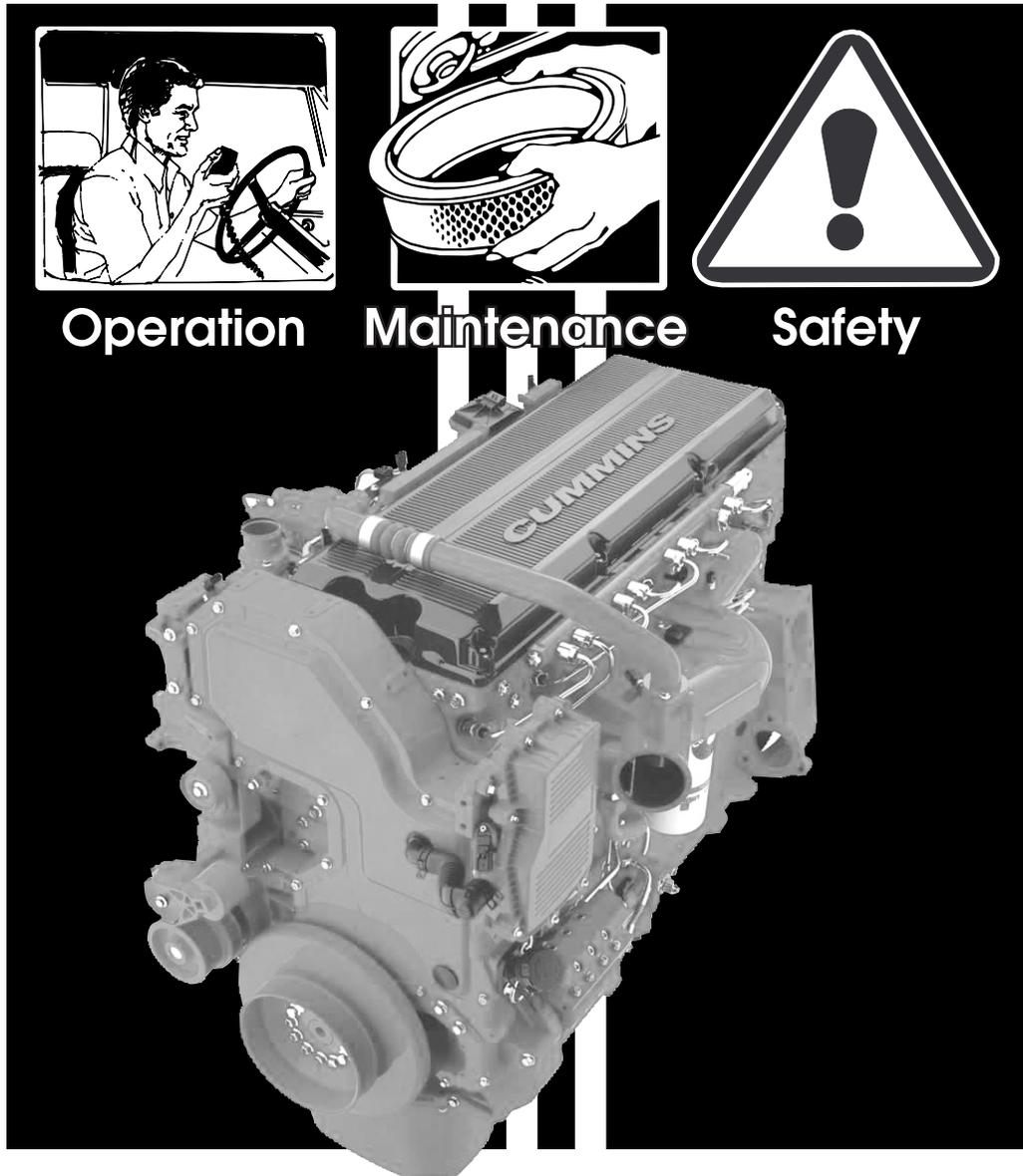
Supplement to :

M-213-12 (Fixed Width Spread Hopper)

&

M-215-12R (Variable Width Spread Hopper)

Re-generation procedures for Chip-Spreaders with Cummins Tier IV engines



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Safety Precautions, Hazard Seriousness Level

You will find safety information boxes throughout this manual. These boxes contain information alerting you to situations or actions to avoid.

Signal words (DANGER, WARNING and CAUTION) are used to identify levels of hazard seriousness. Their selection is based on the likely consequence of human interaction with a hazard. Definitions of hazard levels are as follows.

 **DANGER** - Immediate hazards which will result in severe personal injury or death.

 **WARNING** - Hazards or unsafe practices which could result in severe personal injury or death.

 **CAUTION** - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

CALIFORNIA

Proposition 65 WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Please note this warning and remember -
Always start and operate the engine in a well ventilated area;
If in an enclosed area, vent the exhaust to the outside;
Do not modify or tamper with the exhaust system.

WARNING

Do not use this machine for any operation which is not described in this manual.

If you have any questions about operation of this machine, contact the Etnyre Service Department at
1-800-995-2116 or 1-815-732-2116.

Operations that are not approved could cause serious injury or death.

WARNING

FLUROELASTOMER HANDLING

Some O-rings and seals used in this vehicle are made from fluoroelastomers. When used under design conditions, fluoroelastomers do not require special handling. However, when fluoroelastomers are heated to temperatures beyond their design temperature (around 600° Fahrenheit), decomposition may occur with the formation of hydrofluoric acid. Hydrofluoric acid can be extremely corrosive to human tissue if not handled properly.

A degraded seal may appear as a charred or black sticky mass, Do not touch either the seal or the surrounding equipment without wearing neoprene or PVC gloves if degradation is suspected. Wash parts and equipment with 10% lime water (calcium hydroxide solution) to neutralize any hydrofluoric acid.

If contact with the skin occurs, wash the affected areas immediately with water. Then rub a 2.5 calcium gluconate gel into the skin until there is no further irritation, while seeking prompt medical attention.

Note to Physicians: For advice or treatment of HF burns, call the DuPont Medical Emergency number, 1-800-441-3637

INTRODUCTION

Cummins Tier IV engines have a re-generation feature. There are two types of re-generation events. The first is called “Active SCR/Exhaust System Cleaning”. This event happens automatically while the machine is in operation, and there is nothing that the operator needs to do. It is transparent and may not even be noticed while it is active.

The second type of event is a Manual or “Non Mission” Regeneration, and does require the operator to take action. This should happen very infrequently (a month or more in between). When this type of regeneration is required, the Engine Warning light will come on, and the Murphy Power View display will show an icon meaning a regeneraton is needed.

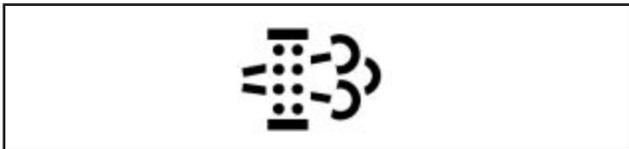


Figure 1. “Regeneration Needed” Icon

PROCEDURES

Active SCR/Exhaust System Cleaning

For active SCR/exhaust system cleaning to occur, the ECM **must** determine that the after-treatment timer or duty cycle-based algorithms have reached a specified limit. Once this limit is reached, the engine will alter its operation in order to create exhaust temperatures high enough to actively regenerate the aftertreatment system.

As mentioned, Active SCR/exhaust system cleaning is largely transparent to the equipment operator. The equipment operator may notice an increase in turbocharger noise during an active SCR/exhaust system cleaning event, and may notice that the high exhaust temperature lamp is illuminated.

Manual “Non Mission” Regeneration

When the “Regeneration Needed” icon is displayed (Figure 1), the operator can either inhibit/delay the regeneration until a later time, or initiate the manual regeneration. Both of these commands are done using the Murphy Power View.

CAUTION

Select an appropriate location to park the equipment.

Choose a surface that will not burn or melt under high exhaust temperatures (such as clean concrete or gravel, not grass or asphalt).

Make sure there are no items within 2 ft [0.6m] of the exhaust outlet.

WARNING

Items that can burn, melt, or explode must be kept at least 5 ft [1.5 m] from the exhaust outlet (such as gasoline, paper, plastics, fabrics, compressed gas containers, hydraulic lines).

Manul “Non-Mission” Regeneration (cont)

WARNING

Make sure that there are no gases or vapors nearby that could burn, explode, or contribute to a fire (such as LP gas, gasoline vapors, oxygen, nitrous oxide).

CAUTION

Park the vehicle securely.
Place the hydraulic drive in neutral. Set wheel chocks at the front and rear of at least one tire.
Set up a safe exhaust area. If bystanders might enter the area, set up barriers to keep people at least 5 ft [1.5 m] from the exhaust outlet during the manual (non-mission) SCR/exhaust system cleaning.

WARNING

When indoors, attach an exhaust discharge pipe rated for at least 1500°F [816°C].
Keep a fire extinguisher nearby.
Check the exhaust system surfaces. Confirm that nothing is on or near the exhaust system surfaces (such as tools, rags, grease, or debris).

OPERATION

Procedure

- 1.) Confirm that the brake pedal is released.
- 2.) Make sure the vehicle speed is 0 mph.

3.) Initiate the manual (non-mission) SCR/Exhaust System cleaning by toggling the equipment mounted manual (non-mission) SCR system cleaning switch or by using INSITE™ electronic service tool.

4.) Once the manual (non-mission) SCR/exhaust system cleaning is initiated, the engine speed may increase, the turbocharger noise will increase, the high exhaust system temperature lamp may illuminate, and the SCR system cleaning lamp will blink.

5.) When the engine ECM detects that the cleaning has been completed, the engine will automatically return to normal idle speed, if increased.

CAUTION

Monitor the vehicle and surrounding area during the stationary (parked) SCR/exhaust system cleaning. If any unsafe condition occurs, shut off the engine immediately.