

# Tool Instruction Cleaning Management System (CMS)

4328213R1

Tool Number: 12-353-01A



0000293657

Figure 1. 12-353-01A Cleaning Management System (CMS).

## Purpose

The cleaning management system is designed to flush various vehicle components (such as heat exchangers and cooling system components) using cleaning solution and shop air.

1 Read all safety instructions in the "Safety Information" section of the appropriate Engine Service or Diagnostic Manual. Follow all warnings, cautions, and notes. ©2014 Navistar, Inc. All rights reserved. All marks are trademarks of their respective owners.

# Application(s)

General Purpose Component Washer

**GOVERNMENT REGULATION:** Engine fluids (oil, fuel, and coolant) may be a hazard to human health and the environment. Handle all fluids and other contaminated materials (such as filters or rags) in accordance with applicable regulations. Recycle or dispose of engine fluids, filters, and other contaminated materials according to applicable regulations.

**WARNING:** Read all safety instructions in the "Safety Information" section of the Engine Service Manual or Engine Diagnostic Manual to prevent personal injury or death.

WARNING: To prevent personal injury or death, do not let engine fluids stay on your skin. Clean skin and nails using hand cleaner and wash with soap and water. Wash or discard clothing and rags contaminated with engine fluids.

WARNING: Park vehicle on hard flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in either direction. Failure to comply may result in property damage, personal injury, and / or death.

**WARNING:** Always wear safe eye protection when performing vehicle maintenance. Failure to comply may result in personal injury and / or death.

WARNING: Always wear protective gloves when working with engine fluids. Failure to comply may result in personal injury and / or death.

WARNING: To prevent personal injury or death, allow engine to cool before draining coolant.

WARNING: To prevent personal injury or death, use this product in a well ventilated area and avoid inhaling mist or hot vapors.

# **Tool Contents**

Table 1

| Image      | Tool Number  | Qty | Description                   |
|------------|--------------|-----|-------------------------------|
| 0000293672 | 12-353-01A   | 1   | Cleaning Management<br>System |
| 0000293673 | 12-353-01-01 | 1   | Timer                         |
| 0000293666 | 12-353-01-02 | 1   | Flow from Pump Hose           |
| 0000293664 | 12-353-01-03 | 1   | Flow Return Hose              |
| 0000293663 | 12-353-01-06 | 2   | Cam Lock Cap                  |

# Tool Contents (cont.)

# Table 1. (cont.)

| Image      | Tool Number                   | Qty    | Description                  |
|------------|-------------------------------|--------|------------------------------|
| 000293668  | 12-353-01-07<br>12-353-01-07A | 1<br>1 | Air Blower<br>Air Blower Kit |
| 0000160075 | 4328213R1                     | 1      | Tool Instruction             |

## Instructions

#### SETUP AND PREPARATION

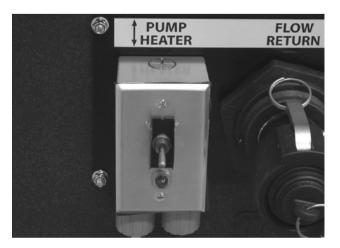
1. Make sure system reservoir is clean and inspect filter sock. Refer to appropriate service manual, service bulletin, or equivalent, replace filter sock if directed.



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Figure 2. Reservoir Measurement Marks.

 Fill the CMS tank with appropriate mixture of solution. Refer to appropriate service manual, service bulletin, or equivalent regarding detailed solution measurements necessary for the component being cleaned. Reference marks are present on cleaning management system reservoir to assist with accurate measurement (Figure 2).



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Figure 3. System Element / Pump Heater Switch.

3. Turn switch downward to HEATER position (Figure 3) prior to disassembling truck.

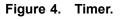
## Instructions (cont.)

- 4. Follow appropriate service manual, service bulletin, or equivalent for procedures to connect adapters to appropriate components.
- 5. Connect fluid hoses to cleaning management system and appropriate cleaning adapter.



## **CLEANING PROCEDURE**





- 1. Set and start the timer (Figure 4). Follow appropriate service manual, service bulletin, or equivalent for detailed instruction.
- 2. Turn on cleaning management system pump.
- 3. Disconnect and reverse cleaning adapter hoses.
- 4. Repeat Steps 1 2.

## PURGING FLUIDS / REMOVING EQUIPMENT

NOTE: To prevent unintended discharge of fluid, make sure cam lock cap is properly installed.

# NOTE: Depending on the component being cleaned, it may be necessary to protect vehicle interior from spray.

- 1. Install a cam lock cap, or cap off open port of component.
- 2. Attach air blower to FLOW FROM PUMP hose. Place drain hose from component into drain or suitable container and open drain valve.
- 3. Run air blower until water coming out of drain hose is in a dripping state (approximately 2 3 minutes).
- 4. Reverse cam lock cap and FLOW FROM PUMP hose and repeat Step 3.
- 5. Drain FLOW FROM PUMP HOSE, FLOW RETURN HOSE and reservoir. Allow components to dry completely.
- 6. Store system components in reservoir for next use.

# Instructions (cont.) ACCESSORIES

For a complete list of available accessories, please refer to the Navistar Service Tool Catalog.

## **Contact Information**

If you would like to order additional tools or need replacement parts, please refer to the Navistar Service Tool Catalog. If you have questions, concerns, or feedback, please contact Navistar Service Tool Support Center:

- Submit a Service Tool iKNow case file
- Phone: 800-365-0088 (Toll-Free)