**Fuel Transport (2023)\***

**Checklist #20**

**\*This checklist is intended to be utilized for BLM fire vehicles that are transporting less than 1,001 pounds of total hazmat and do not have any container (e.g., external fuel tank) greater than 119 gallons.**

| **Location:** |  |
| --- | --- |
| **Date:**  MM/DD/YY |  |
| **Respondent:**  First, Last |  |
| **Reviewed by:**  First, Last |  |

| **REMARKS** |
| --- |
| **This checklist is intended to be utilized for BLM fire vehicles that are transporting less than 1,001 pounds of total hazmat and do not have any container (e.g., external fuel tank) greater than 119 gallons.**  A commercial driver’s license (CDL) with a hazardous materials endorsement and other requirements are required if transporting more than 1,001 pounds of total hazmat, regardless of size, or any tank larger than 119 gallons. For more information, see [*NWCG Standards for Transporting Fuel*](https://www.nwcg.gov/sites/default/files/publications/pms442.pdf) *(PMS 442)*, p. 4, and <https://www.fs.usda.gov/t-d/fueltran/training/index.html>. |

**For the National Preparedness Review, you will need to have the following items available for review:**

| **CHECKLIST ITEM #** | **CHECKLIST REFERENCES** |
| --- | --- |
| All | [*NWCG Standards for Transporting Fuel* (*PMS 442*)](https://www.nwcg.gov/sites/default/files/publications/pms442.pdf) |

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 1 | Total **pounds** of all hazardous material being transported on vehicle (includes fusees, safety transport cans, jerricans, firing equipment (flares, bombs, grenades), drip torches, aluminum fuel bottles, Dolmar™ containers, and all weight of fuel. **(Insert pounds in remarks.)** |  |  |
| 2 | Total **gallons** of all hazardous material being transported (includes jerricans, drip torches and fuel tank). **(Insert gallons in remarks.)** |  |  |
| 3 | Current *Emergency Response Guidebook (ERG)* is required when transporting gasoline, mixed gas, and drip torch fuel when either:   * A container’s capacity is more than eight gallons. * More than 440 pounds of all hazardous materials, such as fuel, fusees, or propane, are being carried.   *[NWCG Standards for Transporting Fuel (PMS 442), pp. 23, 25]* |  |  |
| 4 | Shipping papers and *ERG* required in a vehicle if:   * A container’s capacity is more than eight gallons. * More than 440 pounds of all hazardous materials, such as fuel, fusees, or propane, are being carried.   Shipping papers and the *ERG* are not required when transporting diesel in tanks smaller than 119 gallons.  **See *NWCG Standards for Transporting Fuel*,****appendix A for shipping paper examples.**  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 23-25, appendix A]* |  |  |
|  | 1. UN Identification Number  * For gasoline and mixed gas, the identification number is *UN1203.* * For drip torch fuel, the identification number is *UN1993.* * For diesel, the identification number is *UN1202*. |  |  |
|  | 1. Proper Shipping Name  * For gasoline and mixed gas, the proper shipping name is *GASOLINE.* * For drip torch fuel, the proper shipping name is *FLAMMABLE LIQUIDS NOS (DIESEL GASOLINE MIXTURE).* |  |  |
|  | 1. Hazard Class or Division Number  * For gasoline, mixed gas, drip torch fuel, and diesel, the hazard class is 3. |  |  |
|  | 1. Packing Group Number (designated by Roman numerals)  * For gasoline, mixed gas, and drip torch fuel, the packing group number is *II.* * For diesel, the packing group number is *III.* |  |  |
|  | 1. Total Quantity of Fuel  * Type of fuel being carried must be expressed in gallons or liters. |  |  |
|  | 1. Number and Types of Containers, such as 14 jerricans, (including descriptions)  * The container specification number may also be identified (e.g., 14 UN 3A1 jerricans). * A separate description must be included for each type of container being transported. |  |  |
|  | 1. Emergency response telephone number and contact name. |  |  |
|  | 1. Location of Shipping Papers and *ERG*  * Within the driver’s immediate reach when the driver is restrained by the seatbelt * Readily visible to a person entering the driver’s compartment, such as in plain sight on the seat or in a holder mounted to the inside of the driver’s side door |  |  |

**FIRE EXTINGUISHERS**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 5 | Hazardous materials being transported is less than 1,001 pounds or the tank capacity is 119 gallons or less.  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 27-28]* |  |  |
|  | 1. A minimum of one 5-B:C or two 4-B:C must be carried on the transport vehicle. |  |  |
|  | 1. Are visibly inspected monthly and typically documented on a tag secured to the fire extinguisher. |  |  |
|  | 1. Have documented annual inspection by certified personnel. Typically, documentation of inspection is on a tag or sticker secured to the fire extinguisher. |  |  |

**TRAINING**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 6 | Training is required for all employees who transport, prepare for transport, load, and unload, or are responsible for the safety of hazardous materials that are being transported, such as gasoline, mixed gas, drip torch fuel, and diesel. The type of training required depends on the amount of hazardous materials being transported.  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 28-30]* |  |  |
| 7 | Fuel is being transported in containers 8 gallons or smaller and total hazmat weight of 440 pounds or less in a single vehicle:  <https://www.fs.usda.gov/t-d/fueltran/training/index.html> |  |  |
|  | 1. Vehicle operator(s) has completed *OSHA Hazard Communication* training (3-year currency). |  |  |
|  | 1. Vehicle operator(s) has completed *Materials of Trade* training (3-year currency). |  |  |
|  | 1. Vehicle operator(s) has completed *HAZMAT - First Responder Awareness* *Level* training upon initial employment and annually thereafter.   *[RB Ch 2]* |  |  |
|  | 1. Vehicle operator(s) training records include:  * Employee’s name * Date of most recent training * Description, copy, or location of materials used during training * Name and address of trainer * Certificate of training |  |  |
| 8 | Fuel is transported in any container larger than 8 gallons\* or total hazmat weight of more than 440 pounds in a single vehicle (but less than 1,001 pounds).  \*Except straight (pure) diesel. Only *OSHA Hazard Communication* and *Materials of Trade* training is required when transporting diesel in containers up to 119 gallons.  <https://www.fs.usda.gov/t-d/fueltran/training/index.html> |  |  |
|  | 1. Vehicle operator(s) has completed *OSHA Hazard Communication* training (3-year currency). |  |  |
|  | 1. Vehicle operator(s) has completed *Materials of Trade* training (3-year currency). |  |  |
|  | 1. Vehicle operator(s) has completed *General Awareness, Function—Specific, Safety, and Security Awareness* training (3-year currency). |  |  |
|  | 1. Vehicle operator(s) has completed *HAZMAT First Responder Awareness* *Level* training upon initial employment and annually thereafter.   *[RB Ch 2]* |  |  |
|  | 1. Vehicle operator training records include:  * Employee’s name * Date of most recent training * Description, copy, or location of materials used during training * Name and address of trainer * Certificate of training |  |  |

**DRIP TORCHES**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 9 | Drip Torches  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 31-35]* |  |  |
|  | 1. Meet Forest Service specification 5100-614   *[RB Ch 14]* |  |  |
|  | 1. Are painted red in color with breather valve large enough to operate with a gloved hand |  |  |
|  | 1. Meet DOT requirements UN 3B1,  UN 1B1, UN 3A1 and others |  |  |
|  | 1. Have diamond-shaped *FLAMMABLE LIQUID* label or *DRIP TORCH FUEL* tag   Flammable liquid (3) placard  drip torch tag |  |  |
|  | 1. Drip torches should be transported full of fuel. |  |  |
|  | 1. Drip torch parts are not interchanged between DOT approved and DOT not approved. |  |  |
|  | 1. All drip torches are properly closed, in serviceable condition and secured for transport. |  |  |
|  | Drip Torch Crate, Rack, or Box (if greater than 440 total pounds of hazmat including weight of containers) |  |  |
|  | 1. Crate, rack, or box has diamond-shaped *FLAMMABLE LIQUID* label.   Flammable Liquid (3) placard |  |  |
|  | 1. Crate, rack, or box is marked *FLAMMABLE LIQUIDS NOS (DIESEL GASOLINE MIXTURE) UN1993* and DRIP TORCH FUEL. |  |  |
|  | * Markings are at least 1/2" high by 3/16" wide |  |  |
|  | * Be permanent |  |  |
|  | * Markings contrast sharply with background color of crate, rack or box. |  |  |
|  | * Markings are far enough away from other markings to avoid confusion. |  |  |
|  | * Not be obscured by any labels or attachments |  |  |
|  | * Be far enough away from other markings or labels to prevent confusion |  |  |
|  | * If a closed box is used to secure drip torches, the box shall be clearly marked with orientation arrows showing up. |  |  |

**SAFETY TRANSPORT CANS AND METAL AND PLASTIC JERRICANS**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 10 | All safety transport cans and jerricans are UN 3A1- or UN 3H1-compliant and meet DOT specifications. The jerrican is military style, metal safety can style or other metal jerrican with self-closing venting lid.  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 36-42]* |  |  |
|  | 1. All safety transport and jerricans are red in color with a yellow band or markings are painted in yellow. |  |  |
|  | 1. All safety transport cans and jerricans have diamond-shaped *FLAMMABLE LIQUID* label.   Flammable liquid (3) placard |  |  |
|  | 1. All safety transport cans and jerricans have the following markings:  * Gasoline or mixed gas: *GASOLINE UN 1203* label or tag   Flammable liquid (3) - Gasoline UN1203unleaded gasoline tag   * Drip torch fuel: label or tag with *FLAMMABLE LIUIDS NOS (DEISEL GASOLINE MIXTURE) UN1993*. The container may also be marked with the words “Drip Torch Fuel” to help employees identify contents.   Flammable liquid (3) - Gasoline UN1203 drip torch tag   * Diesel: *DIESEL* with markings 1/4" high by 1/8" wide. |  |  |
|  | 1. All safety transport cans and jerricans are closed properly, in serviceable condition and secured for transport. |  |  |
|  | 1. Aluminum fuel bottles (Mountain Safety Research™ is the only known bottle to meet requirements) are red, marked *FUEL BOTTLE*, not damaged, do not leak, and secured so they don’t fall over or move during transport. If transported in a closed box, the box shall be clearly marked with orientation arrows pointing up and marked *GASOLINE*.   *[NWCG Standards for Transporting Fuel (PMS 442), pp. 54-56]* |  |  |
|  | 1. Two-compartment fuel and oil containers (e.g., Dolmar™): If *UL* or *CSA* molded into container, can store in inside storage areas while containing mixed gas. If *ASTM F852* without *CSA* molded into container, must be stored empty unless conditions in the *Plastic Fuel Containers* section of the *NWCG Standards for Transporting Fuel* are met*. GASOLINE* must be molded intocontainer. Ensure containers are secured, transported upright, and in serviceable condition. If transported in a closed box, the box shall be clearly marked with orientation arrows pointing up with applicable markings, such as *GASOLINE UN1203*.   *[NWCG Standards for Transporting Fuel (PMS 442), pp. 48-51]* |  |  |

**TRUCK BED MOUNTED FUEL TANK – GASOLINE or MIXED GAS, and DRIP TORCH FUEL**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 11 | Tank Specifications: DOT–SP 11911, DOT–SP 14227, UN 31A, MC 306, DOT 406, and others (see 49 CFR 173.242) with a capacity of less than 119 gallons. At least three manufacturers, Transfer Flow®, Custom Metalcraft®, and Aluminum Tank Industries, manufacture DOT-specification tanks less than 119 gallons.  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 65-75]* |  |  |
|  | Manufacturer  **(Insert information in remarks.)** |  |  |
|  | Date of manufacture  **(Insert information in remarks.)** |  |  |
|  | 1. Gallons GASOLINE   **(Insert information in remarks.)** |  |  |
|  | 1. Gallons MIXED GAS   **(Insert information in remarks.)** |  |  |
|  | 1. Gallons DRIP TORCH FUEL   **(Insert information in remarks.)** |  |  |
|  | TOTAL GALLONS (a. + b. + c.)  **(Insert information in remarks.)** |  |  |
| 12 | GASOLINE or MIXED GAS (119 gallons or less)  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 65-71]* |  |  |
|  | 1. Tank Label and Markings |  |  |
|  | * Tank has diamond-shaped *FLAMMABLE LIQUID* label.   Flammable liquid (3) placard |  |  |
|  | * Tank is marked *GASOLINE UN1203.*   Flammable liquid (3) - Gasoline UN1203 |  |  |
|  | * Markings must be permanent. |  |  |
|  | * Markings contrast sharply with background color of tank. |  |  |
|  | * Markings must not be obscure by any labels or attachments. |  |  |
|  | * Markings are far enough away from other markings or labels to prevent confusion. |  |  |
|  | * Markings have letters a minimum of 1" high by 3/16" wide. |  |  |
|  | * Markings are applied to tank where easily visible. |  |  |
|  | 1. Inspection Criteria   Small tanks, such as the IBCs sold by Transfer Flow®, Custom Metalcraft®, and Aluminum Tank Industries, must be inspected by an individual with the knowledge and ability to perform inspections and tests. This individual must be trained in the use of testing equipment. The use of a DOT-registered cargo tank inspector is recommended. For a list of registered cargo tank inspectors, contact the DOT Federal Motor Carrier Safety Administration. <https://www.fmcsa.dot.gov/contact-us>  For inspection criteria for DOT-406 and MC-306 tanks, refer to *NWCG Standards for Transporting Fuel (PMS 442), p. 69.* |  |  |
|  | * A “leak-proofness test” and external visual inspection shall be conducted every 2½ years. |  |  |
|  | * An internal visual inspection shall be conducted every 5 years. |  |  |
|  | * Records must be kept of tank inspections. These records must include: * Tank’s design type and specification * Inspection date * Name and address of the inspection facilities * Name of the inspector * Inspection and test results |  |  |
|  | * Keep the records in a secure location at the unit responsible for the tank if the tank is in service. |  |  |
|  | * Tanks must be marked on a metal corrosion-resistant plate with the following information: * Rated capacity in liters * Date of last leak-proofness test, if applicable (month and year) * Date of last inspection (month and year) |  |  |
|  | 1. Tank Securement |  |  |
|  | * Tanks 119 gallons or smaller must be mounted as close to the front of the bed as possible. |  |  |
|  | * Mount the tank in accordance with manufacturer’s instructions. Do not exceed the vehicle gross vehicle weight rating (GVWR) with a full tank. |  |  |
|  | * Loose items in the vehicle shall be removed or secured so they cannot damage the tank during transport. |  |  |
|  | * All valves must be closed. |  |  |
|  | * If the tank is to be transported with an electric or manual pump installed, no part of the pump or its piping shall extend above the vehicle’s cab or beyond the vehicle’s body. |  |  |
|  | 1. Pump Requirements |  |  |
|  | * The pump shall be UL- or FM-approved for dispensing flammable liquids. |  |  |
|  | * The pump hose shall be UL- or FM-approved for transferring flammable liquids and shall have an internal bonding wire or a conductive cover. The entire hose assembly, including the ends of the hose, shall be electrically conductive. |  |  |
|  | * A hose swivel should be installed where the hose connects to the nozzle to prevent kinking and to maintain the integrity of the internal bonding wire. |  |  |
|  | 1. Fire Extinguishers |  |  |
|  | * At least one 5–B:C or two 4–B:C |  |  |

**DRIP TORCH MIX (119 Gallons or Less):**

**[NWCG Standards for Transporting Fuel (PMS 442), pp. 65-71]**

|  |  |  |  |
| --- | --- | --- | --- |
| 13 | 1. Tank Label and Markings |  |  |
|  | * Tank has diamond-shaped *FLAMMABLE LIQUID* label.   Flammable liquid (3)  placard |  |  |
|  | * Tank is marked *FLAMMABLE LIQUIDS NOS (DIESEL GASOLINE MIXTURE) UN1993.*   Flammable liquid (3) - Gasoline UN1203 |  |  |
|  | * Markings must be permanent. |  |  |

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
|  | * Markings contrast sharply with background color of tank. |  |  |
|  | * Markings must not be obscure by any labels or attachments. |  |  |
|  | * Markings are far enough away from other markings or labels to prevent confusion. |  |  |
|  | * Markings have letters a minimum of 1" high by 3/16" wide. |  |  |
|  | * Markings are applied to tank where easily visible. |  |  |
|  | 1. Inspection Criteria   Small tanks, such as the IBCs sold by Transfer Flow®, Custom Metalcraft®, and Aluminum Tank Industries, must be inspected by an individual with the knowledge and ability to perform inspections and tests. This individual must be trained in the use of testing equipment. The use of a DOT-registered cargo tank inspector is recommended. For a list of registered cargo tank inspectors, contact the DOT Federal Motor Carrier Safety Administration. <https://www.fmcsa.dot.gov/contact-us>  For inspection criteria for DOT-406 and MC-306 tanks, refer to *NWCG Standards for Transporting Fuel (PMS 442),* p. 69. |  |  |
|  | * A “leak-proofness test” and external visual inspection shall be conducted every 2½ years. |  |  |
|  | * An internal visual inspection shall be conducted every 5 years. |  |  |
|  | * Records must be kept of tank inspections. These records must include: * Tank’s design type and specification * Inspection date * Name and address of the inspection facilities * Name of the inspector * Inspection and test results |  |  |
|  | * Keep the records in a secure location at the unit responsible for the tank if the tank is in service. |  |  |
|  | * Tanks must be marked on a metal corrosion-resistant plate with the following information: * Rated capacity in liters * Date of last leakproofness test, if applicable (month and year) * Date of last inspection (month and year) |  |  |
|  | 1. Tank Securement |  |  |
|  | * Tanks 119 gallons or smaller must be mounted as close to the front of the bed as possible. |  |  |
|  | * Mount the tank in accordance with manufacturer’s instructions. Do not exceed the vehicle gross vehicle weight rating (GVWR) with a full tank. |  |  |
|  | * Loose items in the vehicle shall be removed or secured so they cannot damage the tank during transport. |  |  |
|  | * All valves must be closed. |  |  |
|  | * If the tank is to be transported with an electric or manual pump installed, no part of the pump or its piping shall extend above the vehicle’s cab or beyond the vehicle’s body. |  |  |
|  | 1. Pump Requirements |  |  |
|  | * The pump shall be UL- or FM-approved for dispensing flammable liquids. |  |  |
|  | * The pump hose shall be UL- or FM-approved for transferring flammable liquids and shall have an internal bonding wire or a conductive cover. The entire hose assembly, including the ends of the hose, shall be electrically conductive. |  |  |
|  | * A hose swivel should be installed where the hose connects to the nozzle to prevent kinking and to maintain the integrity of the internal bonding wire. |  |  |
|  | 1. Fire Extinguishers |  |  |
|  | * At least one 5–B:C or two 4–B:C |  |  |

**TRUCK BED MOUNTED FUEL TANK – DIESEL**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 14 | Diesel may be transported in tanks that do not meet DOT specifications. These tanks are readily available at farm and ranch supply stores. **Do not transport drip torch fuel, gasoline, or mixed gas in these tanks**. *[NWCG Standards for Transporting Fuel (PMS 442), pp. 71-75]* |  |  |
|  | 1. Tank Label and Markings |  |  |
|  | * Tank has diamond-shaped *FLAMMABLE LIQUID* label.   Flammable liquid (3) placard |  |  |
|  | * Tank is marked *DIESEL.* |  |  |
|  | * Markings must be permanent. |  |  |
|  | * Markings contrast sharply with background color of tank. |  |  |
|  | * Markings must not be obscure by any labels or attachments. |  |  |
|  | * Markings are far enough away from other markings or labels to prevent confusion. |  |  |
|  | * Markings have letters a minimum of 1" high by 3/16" wide. |  |  |
|  | * Markings are applied to tank where easily visible. |  |  |
|  | 1. Inspection Criteria |  |  |
|  | * Visually inspect the outside of the tank before each use to ensure there is no leakage. |  |  |
|  | 1. Tank Securement |  |  |
|  | * Tanks 119 gallons or smaller must be mounted as close to the front of the bed as possible. |  |  |
|  | * Mount the tank in accordance with manufacturer’s instructions. Do not exceed the vehicle gross vehicle weight rating (GVWR) with a full tank. |  |  |
|  | * Loose items in the vehicle shall be removed or secured so they cannot damage the tank during transport. |  |  |
|  | * All valves must be closed. |  |  |
|  | * If the tank is to be transported with an electric or manual pump installed, no part of the pump or its piping shall extend above the vehicle’s cab or beyond the vehicle’s body. |  |  |
|  | 1. Pump Requirements |  |  |
|  | * The pump shall be UL- or FM-approved for dispensing flammable liquids. |  |  |
|  | * The pump hose shall be UL- or FM-approved for transferring flammable liquids and shall have an internal bonding wire or a conductive cover. The entire hose assembly, including the ends of the hose, shall be electrically conductive. |  |  |
|  | * A hose swivel should be installed where the hose connects to the nozzle to prevent kinking and to maintain the integrity of the internal bonding wire. |  |  |
|  | 1. Fire Extinguishers |  |  |
|  | * At least one 5–B:C or two 4–B:C |  |  |

**FUEL TRAILERS – GASOLINE or MIXED GAS, and DRIP TORCH FUEL**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 15 | Tank Specifications: DOT–SP 11911, DOT–SP 14227, UN 31A, MC 306, DOT 406, and others (see 49 CFR 173.242) with a capacity of less than 119 gallons. At least three manufacturers, Transfer Flow®, Custom Metalcraft®, and Aluminum Tank Industries, manufacture DOT-specification tanks less than 119 gallons.  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 65-75]* |  |  |
|  | Manufacturer  **(Insert information in remarks.)** |  |  |
|  | Date of manufacture  **(Insert information in remarks.)** |  |  |
|  | 1. Gallons GASOLINE   **(Insert information in remarks.)** |  |  |
|  | 1. Gallons MIXED GAS   **(Insert information in remarks.)** |  |  |
|  | 1. Gallons DRIP TORCH FUEL   **(Insert information in remarks.)** |  |  |
|  | TOTAL GALLONS (a. + b. + c.)  **(Insert information in remarks.)** |  |  |
| 16 | GASOLINE or MIXED GAS (119 Gallons or Less):  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 65-71]* |  |  |
|  | 1. Tank Label and Markings |  |  |
|  | * Tank has diamond-shaped *FLAMMABLE LIQUID* label.   Flammable liquid (3) placard |  |  |
|  | * Tank is marked *GASOLINE UN1203.*   Flammable liquid (3) - Gasoline UN1203 |  |  |
|  | * Markings must be permanent. |  |  |
|  | * Markings contrast sharply with background color of tank. |  |  |
|  | * Markings must not be obscure by any labels or attachments. |  |  |
|  | * Markings are far enough away from other markings or labels to prevent confusion. |  |  |
|  | * Markings have letters a minimum of 1" high by 3/16" wide. |  |  |
|  | * Markings are applied to tank where easily visible. |  |  |
|  | 1. Inspection Criteria   Small tanks, such as the IBCs sold by Transfer Flow®, Custom Metalcraft®, and Aluminum Tank Industries, must be inspected by an individual with the knowledge and ability to perform inspections and tests. This individual must be trained in the use of testing equipment. The use of a DOT-registered cargo tank inspector is recommended. For a list of registered cargo tank inspectors, contact the DOT Federal Motor Carrier Safety Administration. <https://www.fmcsa.dot.gov/contact-us>  For inspection criteria for DOT-406 and MC-306 tanks, refer to *NWCG Standards for Transporting Fuel (PMS 442), p. 69.* |  |  |
|  | * A “leak-proofness test” and external visual inspection shall be conducted every 2½ years. |  |  |
|  | * An internal visual inspection shall be conducted every 5 years. |  |  |
|  | * Records must be kept of tank inspections. These records must include: * Tank’s design type and specification * Inspection date * Name and address of the inspection facilities * Name of the inspector * Inspection and test results |  |  |
|  | * Keep the records in a secure location at the unit responsible for the tank as long as the tank is in service. |  |  |
|  | * Tanks must be marked on a metal corrosion-resistant plate with the following information: * Rated capacity in liters * Date of last leak-proofness test, if applicable (month and year) * Date of last inspection (month and year) |  |  |
|  | 1. Tank Mounting |  |  |
|  | * Tanks shall be bolted to metal cross bracing on the trailer—not to expanded metal mesh or wooden decking. |  |  |
|  | 1. Pump Requirements |  |  |
|  | * The pump shall be removed before the tank is transported on public roads unless the pump does not protrude above the top of the tank. Transfer Flow® tanks that have a recessed housing for the pump are designed to meet this requirement. On those tanks, the pump does not have to be removed for transport if all of the following requirements are met: * The assembly is purchased as a single unit. * The tank only has approved gas caps manufactured by Transfer Flow®. * The tank is tested every 2.5 years with the pump attached. * The discharge hose is emptied of all fuel before transport. * The pump's electrical power is disconnected during transportation. * It is not necessary to remove a pump when repositioning the trailer at a burn site. |  |  |
|  | 1. Trailer Brakes |  |  |
|  | * Trailers with a gross trailer weight rating of 1,500 pounds or more may need to be equipped with trailer brakes that can stop and hold the trailer. The trailer brakes must be designed so the operator can activate them independently of the vehicle’s foot brakes. This requirement is based on the trailer’s capacity, not on the load the trailer will be carrying. See agency policy for more details. |  |  |
|  | 1. Trailer Inspections |  |  |
|  | * The trailer shall be inspected before each use. A more thorough inspection should be performed annually. For sample trailer inspection checklists, see NWCG’s Ground Ignition Subcommittee website (<https://www.nwcg.gov/committees/ground-ignition-subcommittee>). |  |  |
|  | 1. Fire Extinguishers |  |  |
|  | * At least one 5–B:C or two 4–B:C must be carried on the towing unit, |  |  |
| 17 | DRIP TORCH MIX (119 Gallons or Less):  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 65-71]* |  |  |
|  | 1. Tank Label and Markings |  |  |
|  | * Tank has diamond-shaped *FLAMMABLE LIQUID* label.   Flammable HAZMAT placard |  |  |
|  | * Tank is marked *FLAMMABLE LIQUIDS NOS (DIESEL GASOLINE MIXTURE) UN1993.*   Flammable liquids NOS (Diesel gasoline mixture) UN1993 placard |  |  |
|  | * Markings must be permanent. |  |  |
|  | * Markings contrast sharply with background color of tank. |  |  |
|  | * Markings must not be obscure by any labels or attachments. |  |  |
|  | * Markings are far enough away from other markings or labels to prevent confusion. |  |  |
|  | * Markings have letters a minimum of 1" high by 3/16" wide. |  |  |
|  | * Markings are applied to tank where easily visible. |  |  |
|  | 1. Inspection Criteria   Small tanks, such as the IBCs sold by Transfer Flow®, Custom Metalcraft®, and Aluminum Tank Industries, must be inspected by an individual with the knowledge and ability to perform inspections and tests. This individual must be trained in the use of testing equipment. The use of a DOT-registered cargo tank inspector is recommended. For a list of registered cargo tank inspectors, contact the DOT Federal Motor Carrier Safety Administration. (<https://www.fmcsa.dot.gov/contact-us>)  For inspection criteria for DOT-406 and MC-306 tanks, refer to *NWCG Standards for Transporting Fuel (PMS 442),* p. 69. |  |  |
|  | * A “leak-proofness test” and external visual inspection shall be conducted every 2½ years. |  |  |
|  | * An internal visual inspection shall be conducted every 5 years. |  |  |
|  | * Records must be kept of tank inspections. These records must include: * Tank’s design type and specification * Inspection date * Name and address of the inspection facilities * Name of the inspector * Inspection and test results |  |  |
|  | * Keep the records in a secure location at the unit responsible for the tank if the tank is in service. |  |  |
|  | * Tanks must be marked on a metal corrosion-resistant plate with the following information: * Rated capacity in liters * Date of last leakproofness test, if applicable (month and year) * Date of last inspection (month and year) |  |  |
|  | 1. Tank Mounting |  |  |
|  | * Tanks shall be bolted to metal cross bracing on the trailer—not to expanded metal mesh or wooden decking. |  |  |
|  | 1. Pump Requirements |  |  |
|  | * The pump shall be removed before the tank is transported on public roads unless the pump does not protrude above the top of the tank. Transfer Flow® tanks that have a recessed housing for the pump are designed to meet this requirement. On those tanks, the pump does not have to be removed for transport if all of the following requirements are met: * The assembly is purchased as a single unit. * The tank only has approved gas caps manufactured by Transfer Flow®. * The tank is tested every 2.5 years with the pump attached. * The discharge hose is emptied of all fuel before transport. * The pump's electrical power is disconnected during transportation. * It is not necessary to remove a pump when repositioning the trailer at a burn site. |  |  |
|  | 1. Trailer Brakes |  |  |
|  | * Trailers with a gross trailer weight rating of 1,500 pounds or more may need to be equipped with trailer brakes that can stop and hold the trailer. The trailer brakes must be designed so the operator can activate them independently of the vehicle’s foot brakes. This requirement is based on the trailer’s capacity, not on the load the trailer will be carrying. See agency policy for more details. |  |  |
|  | 1. Trailer Inspections |  |  |
|  | * The trailer shall be inspected before each use. A more thorough inspection should be performed annually. For sample trailer inspection checklists, see NWCG’s Ground Ignition Subcommittee website. (<https://www.nwcg.gov/committees/ground-ignition-subcommittee>) |  |  |
|  | 1. Fire Extinguishers |  |  |
|  | * At least one 5–B:C or two 4–B:C must be carried on the towing unit. |  |  |

**FUEL TRAILER – DIESEL**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 18 | Diesel may be transported in tanks that do not meet DOT specifications. These tanks are readily available at farm and ranch supply stores. Do not transport drip torch fuel, gasoline, or mixed gas in these tanks. *[NWCG Standards for Transporting Fuel (PMS 442), pp. 71-75]* |  |  |
|  | 1. Tank Label and Markings |  |  |
|  | * Tank has diamond-shaped *FLAMMABLE LIQUID* label.   Flammable liquid (3) placard |  |  |
|  | * Tank is marked *DIESEL.* |  |  |
|  | * Markings must be permanent. |  |  |
|  | * Markings contrast sharply with background color of tank. |  |  |
|  | * Markings must not be obscure by any labels or attachments. |  |  |
|  | * Markings are far enough away from other markings or labels to prevent confusion. |  |  |
|  | * Markings have letters a minimum of 1" high by 3/16" wide. |  |  |
|  | * Markings are applied to tank where easily visible. |  |  |
|  | 1. Inspection Criteria |  |  |
|  | * Visually inspect the outside of the tank before each use to ensure there is no leakage. |  |  |
|  | 1. Tank Mounting |  |  |
|  | * Tanks shall be bolted to metal cross bracing on the trailer—not to expanded metal mesh or wooden decking. |  |  |
|  | 1. Pump Requirements |  |  |
|  | * The pump shall be removed before the tank is transported on public roads unless the pump does not protrude above the top of the tank. Transfer Flow® tanks that have a recessed housing for the pump are designed to meet this requirement. On those tanks, the pump does not have to be removed for transport if all of the following requirements are met: * The assembly is purchased as a single unit. * The tank only has approved gas caps manufactured by Transfer Flow®. * The tank is tested every 2.5 years with the pump attached. * The discharge hose is emptied of all fuel before transport. * The pump's electrical power is disconnected during transportation. * It is not necessary to remove a pump when repositioning the trailer at a burn site. |  |  |
|  | 1. Trailer Brakes |  |  |
|  | * Trailers with a gross trailer weight rating of 1,500 pounds or more may need to be equipped with trailer brakes that can stop and hold the trailer. The trailer brakes must be designed so the operator can activate them independently of the vehicle’s foot brakes. This requirement is based on the trailer’s capacity, not on the load the trailer will be carrying. See agency policy for more details. |  |  |
|  | 1. Trailer Inspections |  |  |
|  | * The trailer shall be inspected before each use. A more thorough inspection should be performed annually. For sample trailer inspection checklists, see NWCG’s Ground Ignition Subcommittee website. (<https://www.nwcg.gov/committees/ground-ignition-subcommittee>) |  |  |
|  | 1. Fire Extinguishers |  |  |
|  | * At least one 5–B:C or two 4–B:C |  |  |

**FUEL IN CREW CARRIERS, HELITENDERS AND ENGINES**

***Key Code: E = Exceeds Standard, M = Meets Standard, NI = Needs Improvement, NR = Not Reviewed***

| **ITEM** | **DESCRIPTION** | **CODE**  **(E/M/NI/NR)** | **REMARKS** |
| --- | --- | --- | --- |
| 19 | Fuel and other hazardous materials shall not be transported in a crew carrier if other options are available.  *[NWCG Standards for Transporting Fuel (PMS 442), pp. 76-80]* |  |  |
|  | 1. Allowable Containers |  |  |
|  | * Metal or plastic jerricans and safety transport cans (UN 3A1, UN 3H1, or UN 1A1) |  |  |
|  | * Drip torches (UN 3B1, UN 1B1, and UN 3A1) |  |  |
|  | * Metal safety cans (UL- or FM-listed) |  |  |
|  | * Two-compartment fuel and oil containers (often called Dolmars, CSA, or UL listed) |  |  |
|  | * Aluminum fuel bottles (National Stock Number 7240–01–351–2133) |  |  |
|  | * Metal or plastic jerricans, safety transport cans, drip torches, and metal safety cans: * Diamond-shaped *FLAMMABLE LIQUID* label   Flammable liquid (3) placard |  |  |
|  | * Two-compartment fuel and oil containers and aluminum fuel bottles: * Not required |  |  |
|  | 1. Marking |  |  |
|  | * Metal or plastic jerricans, safety transport cans, and metal safety cans, gasoline, or mixed gas: *GASOLINE UN1203* |  |  |
|  | * Drip torch fuel: *FLAMMABLE LIQUIDS NOS (DIESEL GASOLINE MIXTURE) UN1993.* In addition, the container also may be marked with the words *DRIP TORCH FUEL* to help employees identify the contents.   Flammable liquids NOS (Diesel gasoline mixture) UN1993 placard |  |  |
|  | * Two-compartment fuel and oil containers: *GASOLINE* molded into the container (no additional markings required) |  |  |
|  | * Drip torches, aluminum fuel bottles, and plastic fuel bottles: None |  |  |
|  | * Markings must be permanent. |  |  |
|  | * Markings contrast sharply with container’s background color. |  |  |
|  | * Markings must not be obscure by any labels or attachments. |  |  |
|  | * Markings are far enough away from other markings or labels to prevent confusion. |  |  |
|  | * Markings must be at least 1/4" high by 1/8" wide. |  |  |
|  | * Markings are applied on container where easily visible. |  |  |
|  | 1. Inspection Criteria |  |  |
|  | **Drip torches:** Inspect each drip torch before transporting it full of fuel to make sure that the lock ring and plug gaskets are not cut, cracked, or weather checked, and that neither the body nor the cover of the torch has been damaged. Replace or repair drip torches that do not meet these criteria. |  |  |
|  | **Metal or plastic jerricans:** Lid gasket is not cut, cracked, or weather checked. Check the body of the can to make sure there is no damage that could allow the can to leak. Replace or repair cans that do not meet these criteria. |  |  |
|  | **Safety transport cans and safety cans:** All lid gaskets and pouring valve gaskets and seals are not cut, cracked, or weather checked. Verify that the safety can’s linkages operate without binding and that the lids are not deformed. Check the body of the can to make sure there is no damage that could allow the can to leak. Replace or repair cans that do not meet these criteria. |  |  |
|  | **Two-compartment fuel and oil containers:** Spout closure cap and spout O-rings are in place and in good condition, the vent cap is undamaged and closed, and that the container body has not been damaged. Replace or repair containers that do not meet these criteria. |  |  |
|  | **Aluminum fuel bottles:** Body, cap, and seal are not damaged and the bottle does not leak. Replace or repair bottles that do not meet these criteria. |  |  |
|  | 1. Capacity Requirements |  |  |
|  | * Containers are not larger than eight gallons. |  |  |
|  | * Containers are not filled more than 90 percent to allow fuel to expand and to reduce the possibility that the container might leak. |  |  |
|  | 1. Quantity Limitations |  |  |
|  | * Total weight of all hazardous materials being transported (including their containers) must be 440 pounds or less, and no fuel container should be larger than 8 gallons. |  |  |
|  | 1. Transporting Containers |  |  |
|  | * If a jerrican is equipped with a spill-proof spout, the spout must be replaced with a bung before the jerrican is transported. |  |  |
|  | * Closures are tight and do not leak. Do not transport leaking containers. |  |  |
|  | * Wipe any excess fuel from the outside of all containers. |  |  |
|  | * Containers should be secured so that they will not fall over or move while being transported. |  |  |
|  | * Loose articles in the fuel storage compartment are removed or secured so they cannot damage the containers while they are being transported. |  |  |
|  | * Drip torches should not be mounted on a vehicle’s bumper. |  |  |
|  | 1. Incompatible Items |  |  |
|  | * Fuel is transported in a separate compartment from other hazardous materials such as fusees, flares, and oxidizers. |  |  |
|  | * Fuel is not transported in the same vehicle with explosives, poisonous gases, or poisonous liquids. |  |  |
|  | 1. Fuel Storage Compartments |  |  |
|  | * Separated from the crew compartment by a fireproof boundary, such as a metal floor or walls. The fuel compartment and passenger compartment should not be connected by any openings. |  |  |
|  | * As far as possible from the crew compartment doors or exits |  |  |
|  | * As far as possible from the vehicle exhaust system |  |  |
|  | * Vented to allow fumes to escape. Expanded metal mesh in the sides or floor of the compartment, louvered doors, or a vent pipe may be used for venting. The compartment should not be vented near the exhaust system. |  |  |
|  | 1. Fuel Storage Compartment Labeling |  |  |
|  | * A diamond-shaped *FLAMMABLE LIQUID* label shall be applied to the outside of a storage compartment for flammable liquids.   Flammable liquids (3) placard |  |  |
|  | * Label shall be applied where it is visible and be maintained in good condition. |  |  |
|  | 1. Shipping Papers and ERG |  | None required; information only. |
|  | 1. Fire Extinguishers |  |  |
|  | * At least one 5–B:C or two 4–B:C |  |  |