laterally centered. The using organization shall see that nameplates and caution and instruction markings are in place and legible.

6.3.5 Maintain Tags

The forklift truck manufacturer's capacity, operating, and maintenance instruction plates, tags, or decals shall be maintained in legible condition.

6.4 ATTACHMENTS, MODIFICATIONS, AND FREE RIGGING FROM TINES

6.4.1 Attachments

a. Attachments almost always affect rated capacity of the truck. When a forklift truck is equipped with an attachment, the rated capacity of the truck-attachment combination shall be established by the truck manufacturer. Capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.

CAUTION: Use of after-market attachments requires written approval from the truck manufacturer.

b. The rated capacity of an attachment-truck combination shall not be exceeded.

c. Attachments shall be maintained and lubricated based upon the recommendations of the manufacturer or a qualified person.

d. Attachments shall be inspected no less than annually. The inspection should be documented and should include the following:

- Hooks included as part of attachments shall be inspected as specified for hooks on cranes and hoists (see Chapter 5.0, "Hooks").
- Load-bearing components shall be examined for deformation and load-bearing welds shall be visually examined for cracks.

e. Load capacity of an attachment shall be verified by the manufacturer or by a load test at 100 percent capacity. The load test shall be performed on site. Load tests are not routinely required because a catalog cut, user's manual, decals on attachment, or other manufacturer's data serves as capacity verification.

6.4.2 Modifications

Modifications or additions which affect capacity or safe operation shall not be performed by the customer or user without the manufacturers' prior written approval. Employers must seek written approval from powered industrial truck manufacturers when modifications and additions affect the capacity and safe operation of powered industrial trucks. When approval has been granted, the capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly. However, if no response or a negative response is received from the manufacturer, OSHA will accept a written approval of the modification/addition from a qualified Registered Professional Engineer. A qualified Registered Professional Engineer must perform a safety analysis and address any safety or structural issues contained in the manufacturer's negative response prior to granting approval. When approval has been granted, machine data plates must be changed accordingly. See OSHA's Letter of Interpretation at: www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&P_ID=22800

6.4.3 Free Rigging From Tines

Free rigging is the direct attachment to or placement of rigging equipment (slings, shackles, rings, etc.) onto the tines of a powered industrial truck for a below-the-tines lift. This type of lift does not use an approved lifting attachment, and could affect the capacity and safe operation of a powered industrial truck. 29 CFR 1910.178 (o)(1) requires that "Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered". Free rigging from the tines shall be treated as a modification and would only be allowed if approved as identified in section 6.4.2, "Modifications." See OSHA's Letter of Interpretation at: www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&P_ID=22800

6.5 OVERHEAD GUARDS

High-lift rider trucks, order-picker trucks and rough-terrain forklift trucks shall be equipped with an overhead guard that is manufactured in accordance with ASME B56.1, "Safety Standard for Low and High Lift Trucks," unless an exception is approved in writing by the responsible industrial safety organization. Rough-terrain forklift trucks shall be fitted with an overhead guard manufactured in accordance with ASME B56.6, "Safety Standard for Rough Terrain Forklift Trucks."

6.6 WARNING DEVICES

a. Every power-propelled truck shall be equipped with an operator-controlled horn, whistle, gong, or other sound-producing device. For manually propelled trucks, the using organization shall determine if operating conditions require the truck to be equipped with sound-producing or visual warning devices and be responsible for providing and maintaining them.

b. The using organization shall determine if operating conditions require the truck to be equipped with additional sound-producing or visual devices (such as lights or blinkers), and shall be responsible for providing and maintaining such devices. Backup or motion alarms that sound continuously may be warranted in special cases but generally are less effective than operator-controlled devices.

6.7 FIRE HAZARD AREAS

Powered forklift trucks for operation in fire hazard areas shall be of the type that is recommended in NFPA 505, *Powered Industrial Trucks, Type Designation and Areas of Use*. (See Attachment 6-7, "Forklift Trucks in Hazardous (Explosive) Atmospheres.")

6.8 WORK ATMOSPHERE

The operation of forklift trucks affects the concentrations of carbon monoxide and oxygen at indoor work locations. The atmosphere in the work locations must meet the requirements of 29 CFR 1910, "Occupational Safety and Health Standards for General Industry." Contact your industrial safety representative if guidance is needed or if questions arise (see Attachment 6-7, "Forklift Trucks in Hazardous (Explosive) Atmospheres").

6.9 OPERATOR CARE OF THE TRUCK

6.9.1 Frequent (Pre-use) Inspection

6.9.1.1 Frequent Inspection Instructions. Frequent inspection instructions that list inspection steps shall be readily available to the operator. It is recommended that the instructions be attached to the equipment. Standard instructions will be suitable for most forklift trucks; however, operating conditions may require additional instructions.