

Interpretation: 6-1

Subject: ANSI B56.6-1978

Date Issued: August 2, 1985

Question (1): Is the chronology of the tests of Sections 710, 711, and 712 important?

Reply (1): The importance of the chronology of the tests depends upon the integrity of the individual design. However, normal practice is to conduct the overhead guard tests first. Paragraph 711B.1.b indicates that if the 100 lb cube drop test is conducted first, the same overhead guard may be used to conduct the impact drop test. Of course, the guard must pass each test condition requirement.

Question (2): Is it required that the same cab (operator guard) is used for all these tests described in Section 712?

Reply (2): No. One unit may be used for Test 711 and a second unit of the same design may be used for Test 712. A single cab or operator guard may be used for both tests provided that any deformation caused by the first test does not improve the unit's resistance to deformation in the second test.

The questions also reference Section 710 covering rollover protective structures. These structures are not required on rough terrain forklift trucks, thus there is no applicable test.

Interpretation: 6-2

Subject: ANSI B56.6-1978

Date Issued: November 20, 1986

Question: Is it allowable to level, or to work with, a machine raised on stabilizers? What capacity test criteria must be used to establish load rating charts with the use of stabilizers?

Reply: Stabilizers are to be used for additional stability only; they are not to be used for leveling or raising the front of the machine as stated in Section 506A. The lift height may not be increased by the use of stabilizers.

Dual capacity charts may be used if the charts are clearly marked to show capacity ratings with and without the use of stabilizers. The difference between the charts would be the requirements of tilting platform tests 1 and 3 of Section 705D. The capacity chart developed for use with stabilizers would be determined by capacities established as a result of tests 1 and 3 conducted with the use of stabilizers. Tests 2, 4, and 5 of that Section would be done without the use of stabilizers for both stabilized and unstabilized capacity charts as described in that Section.

The resulting capacity for a given lift height may be greater with the use of stabilizers than without.

Interpretation: 6-3

Subject: ANSI B56.6-1978

Date Issued: April 16, 1987

Question: Is the intent of the Standard to require a service brake system, a parking brake system, and an emergency stopping system?

Reply: The service brake and parking brake systems are both required systems which must meet the design criteria as detailed in Section 706A and B.

A separate emergency stopping system (see Section 706C) is not required if the parking brake system meets the following design criteria:

- (1) shares no components other than a common friction means (such as brake shoes and drums) with the service brake system;
- (2) is capable of developing 35% of the service brake system performance with no more than 200 lb of pedal effort or 120 lb of hand effort.

Interpretation: 6-4

Subject: ASME/ANSI B56.6-1987

Date Issued: April 5, 1989

Question: In the definition of "side mounted operator compartment," is the longitudinal line referred to drawn on the outside wall of the front and rear tires?

Reply: Yes, the longitudinal line referred to in the definition of "side mounted operator compartment" is a line connecting the outside walls of the front and rear tires when the tires are aimed forward, parallel to the longitudinal axis of the truck.

Interpretation: 6-5

Subject: ASME/ANSI B56.6-1987

Date Issued: January 5, 1990

Question: With regard to para. 8.6.8.8, Test 3 and para. 8.6.8.10, Test 5, what percentage of slope would be considered maximum for prudent operation of a truck which has passed the above listed tests?

Reply: Test 3 detailed in para. 8.6.8.8 for Lateral Stability — Stacking and Test 5 detailed in para. 8.6.8.10 for Lateral Stability — Stacking — Unloaded, are intended to simulate normal dynamic forces imposed on a forklift when stacking materials while operating on a flat, unimproved surface. These tests are not intended to determine stability on any given slope.

Test 5 was specifically developed to establish stability requirements for extendible reach type trucks. The requirements of Test 5 often represent the limiting stability condition for trucks of this type.

The significance of the 10% slope is that this angle allows the development of a static test which approximates normal dynamic conditions. It is important to have a static test so that the test environment can be rigidly controlled.

Since this Standard was developed to give performance criteria for normal operating conditions, it is the manufacturer's responsibility to create test procedures for operating conditions that are outside the scope of this Standard.

Interpretation: 6-6

Subject: ASME/ANSI B56.6-1987

Date Issued: June 29, 1990

Question (1): Why does the rough terrain forklift truck definition indicate that this Standard does not apply to loaders or dozers when their buckets or blades are replaced with forks, since these vehicles so modified would appear to be rough terrain forklifts?

Reply (1): Loaders and dozers are not considered to be rough terrain forklifts by this Standard since their primary function is not as a forklift, but rather as a loader or dozer. By replacing a loader bucket, or dozer blade with forks, the load capacity of the loader/dozer remains determined by the appropriate SAE capacity rating.

If the loader/dozer is modified to accept an upright, then the unit is considered to be a rough terrain forklift, subject to the requirements of ASME/ANSI B56.6, since the primary machine function becomes that of a rough terrain forklift.

The reason for this difference in classification is that while loader/dozer stability is not significantly altered by the addition of forks, the addition of an upright both adds weight and increases lift height capability, which does have a major effect on stability. Also, machines modified to accept uprights usually become dedicated to rough terrain forklift usage, and are not returned to service as loaders or dozers after this alteration has been made.

Question (2): Why has 120 ft/min been selected as the maximum lowering rate in the case of failure of the load supporting circuits?

Reply (2): The intent of para. 8.24, Emergency Lowering of Load, is to prevent an uncontrolled free fall condition of the load in the event of a failure of a load supporting circuit.

The lowering speed of 120 ft/min was chosen as a speed that is fast enough to accommodate fast lift cycle times required on some applications, yet slow enough to deter damage to material or personnel. The wide variety of rough terrain forklift applications precludes setting a lowering speed for each foreseeable application, consequently the 120 ft/min speed was chosen as a speed that is satisfactory for most applications.

Interpretation: 6-7

Subject: ASME/ANSI B56.6-1987

Date Issued: June 9, 1991

Question: With regard to paras. 5.15 and 6.2.10, does an operator have to be at the control panel at all times when elevating personnel or when personnel are in the basket?

Reply: Subparagraph 5.15.1(r) states: "A trained operator shall be in position to control the rough terrain forklift truck or available to operate controls. When the operator is not in the operating position, the truck wheels should be blocked (does not apply to high-lift order picker trucks)."

Paragraph 6.2.10 states: "A rough terrain forklift truck is attended when the operator is less than 25 ft (7.6 m) from the truck, which remains in his view."

The word "available" in subparagraph 5.15.1(r) is interpreted as being interchangeable with "attended" in para. 6.2.10.

An operator can leave the control console provided:

- (1) the truck wheels are blocked;
- (2) the operator is less than 25 ft (7.6 m) from the rough terrain forklift, which must remain in his view.

Interpretation: 6-8

Subject: ASME/ANSI B56.6-1987

Date Issued: March 6, 1992

Question: With regard to para. 8.7.8, what is the definition of *energy* as used in this context?

Reply: Paragraph 8.7.8 states that "A service braking system using stored energy shall be equipped with a warning device which actuates before stored energy drops below 50% of the manufacturer's specified maximum operating energy level."

Stored energy is intended to be the *potential* energy of the brake system. For example, in a hydraulic brake system using a gas charged accumulator precharged to 750 psi for a system operating pressure of 1500 psi, the warning device could be required to actuate at 1246 psi operating pressure (assuming an isothermal ideal gas process and depending on the size of the accumulator).

The warning device must actuate before the brake system pressure drops to 50% of the operating pressure since the potential energy stored in the accumulator(s) would be completely exhausted at this level.

This stored energy requirement does result in a narrow operating range for the brake system and this concern will be addressed at the next meeting of the B56.6 Subcommittee.

Interpretation: 6-9

Subject: ASME/ANSI B56.6-1987

Date Issued: June 1, 1992

Question: With regard to para. 8.17.1, is it intended that the applied load remain perpendicular to the truck, or to the operator compartment, when conducting the operator compartment bending test?

Reply: The initial direction of loading shall be applied perpendicular to the longitudinal member and toward the longitudinal centerline of the truck. As loading continues, the operator compartment deformations may cause the direction of loading to change; this is permissible. This area of the standard is currently being reviewed for possible clarification.

Interpretation: 6-10

Subject: ASME/ANSI B56.6-1987

Date Issued: December 17, 1992

Question (1): Has the committee addressed the subject of one side egress on this class of forklifts?

Reply (1): One side egress has not been addressed by the committee. This topic will be added to the agenda for the next B56.6 Subcommittee meeting.

Question (2): Is the committee now reviewing the blindness to the rear of many rough terrain forklifts?

Reply (2): Rear visibility is being addressed in the subcommittee. There is a new standard ASME B56.11.6, Evaluation of Visibility from Powered Industrial Trucks, that has recently been published. This standard describes front, side and rear visibility requirements. Incorporation of the new ASME B56.11.6 Standard into ASME B56.6, Safety Standard for Rough Terrain Forklift Trucks, will also be an agenda item for the next meeting of the B56.6 Subcommittee.

Interpretation: 6-11

Subject: ASME/ANSI B56.6-1987 (including Addenda)

Date Issued: January 27, 1993

Question (1): With regard to para. 8.25.1(b), when determining the maximum platform floor dimensions, did the B56 Committee consider larger work platforms designed by qualified persons such as original equipment manufacturers or professional engineers to ensure stability and find these an unacceptable alternative and if so, for what reasons?

Reply (1): The B56.6 Subcommittee has carefully considered platform floor dimensions for work platforms designed by qualified persons including platforms designed by the original equipment manufacturers as defined in Section 8 of Part III of this standard. The Subcommittee has determined that under no conditions should the maximum platform width exceed 10 inches wider than the width of the tires, nor should the maximum front to back dimension be greater than two times the load center distance as indicated on the forklift nameplate.

The reason for this restriction is based on the fact that rough terrain forklifts typically have lift heights exceeding 30 feet and are designed to operate on unimproved surfaces. These floor dimensions were developed to limit the effect on truck stability of personnel moving, or equipment being moved, around on the elevated platform.

Question (2): With regard to para. 8.25.1(g), is the intent of this paragraph to require provision to shut off power to the rough terrain forklift truck when controls are not supplied for use on the elevating platform as well as when they are supplied and if not, for what reasons?

Reply (2): If the controls are not elevatable with the lifting carriage or forks, there is no requirement to have means whereby personnel on the elevating platform can shut off power to the truck. The truck must not be modified to provide such means without the involvement of the manufacturer per paragraph 5.2.1.

When motion controls are not provided on the platform, the responsibility lies with the forklift operator to determine when it is necessary to shut off power to the truck and do so when required. Both operator and platform personnel responsibilities are detailed in Part II, Section 5.15 of the standard.

Control responsibility must not be divided between the forklift operator and the personnel on the platform. This is to eliminate confusion regarding control of the forklift functions if there is an emergency (i.e., the forklift operator may determine that the motion controls must be actuated to avoid some danger, and be unable to do so if the platform personnel have shut off the engine).

Interpretation: 6-12

Subject: ASME B56.6-1992, Paras. 8.5.5 and 8.6.8.7

Date Issued: March 29, 1995

Question (1): Does para. 8.5.5 require two separate load capacity charts for a transportable, vertical mast, reach-type rough terrain forklift equipped with stabilizers that includes ratings for when the stabilizers are extended and retracted?

Reply (1): Yes. Paragraph 8.5.5 requires that information be provided for load capacity both with and without the stabilizers in position. This information may be as a conventional load rating chart, or may be as a warning label on the truck that states that there is no load capacity with the stabilizers retracted. In addition, para. 8.6.8.9(e) requires that Test 3 be completed.

Question (2): Paragraph 8.6.8.7 outlines the procedure for conducting stability Test 1 for a rough terrain forklift equipped with stabilizers. Is stability testing required without engaging stabilizers if the forklift operating instructions clearly indicate that the load should not be extended or raised without engaging the stabilizers?

Reply (2): Paragraphs 8.6.8.7 and 8.6.8.9(e) require that Tests 1 and 3 be completed both with and without stabilizers for all types of rough terrain forklifts.

Interpretation: 6-13

Subject: ASME B56.6a-1994

Date Issued: January 18, 1996

Question (1): What is the mast tilt angle when conducting Test 1 for a vertical mast forklift with scissor-type fork extension?

Reply (1): Test 1 is to be conducted with the mast vertical. Corrections to vertical may be made to compensate for flexing of the mast assembly by using the plumb line method or the transit method as outlined in para. 8.6.8.7(a)(2)(a).

Question (2): Is a vertical mast forklift with a scissor-type longitudinal extension of the forks considered a vertical mast or variable reach forklift for the stability test?

Reply (2): This type of forklift is considered a vertical mast forklift for the stability test requirements.

Interpretation: 6-14

Subject: ASME B56.6-1992, Para. 5.15.1(c); Elevating Personnel

Date Issued: April 12, 1996

Question: Regarding the subject paragraph, and in specific the sentence "Be certain that the lifting carriage and forks are secured to prevent them from pivoting upward," please provide an interpretation of hazards involved and an explanation as to under which circumstances this sentence is applied.

Reply: The statement "Be certain that the lifting carriage and forks are secured to prevent them from pivoting upward" is intended to provide a stable work platform mounting.

Rough terrain forklifts commonly use shaft or pin-type forks that are unrestrained from pivoting about the fork mounting shaft. If the work platform or the fork tips encounter an obstruction while the work platform is being lowered, a platform mounted to shaft forks could rotate about the fork pin and cause injury to the personnel on the platform.

This statement is provided to require that the forks be restrained in a manner that will not allow the forks to rotate about the fork pins. Hook-type forks meet this criterion by design and are not a cause for concern for this condition.

The lifting carriage is included in this statement for the same reason. The carriage must be prevented hydraulically or mechanically from inadvertently rotating backward with a work platform installed. It would be very unusual for current production forklifts to have a carriage that would not be restrained from freely rotating under any condition.



J5692B

Interpretation: 6-15

Subject: ASME B56.6-1992; Para. 5.16.1

Date Issued: October 4, 1996

Question: Do the qualifications of para. 5.16.1 of ASME B56.6-1992 require the forklift operator to provide proof of a physical by a qualified physician such as the physical required by the U.S. Department of Transportation for a commercial driver's license?

Reply: No. The requirement in para. 5.16.1 of ASME B56.6 for operators as to visual, auditory, physical, and mental ability is not intended to require proof by a qualified physician. The responsibility lies with the user to determine that the forklift operator is qualified to operate a rough terrain forklift. The user may elect to require a physical to determine this qualification, but is not required to do so.

Interpretation: 6-16

Subject: ASME B56.6b-1998

Date Issued: September 7, 2000

Question (1): Does para. 8.24.1(b), as referred to by para. 5.15.1(a) of ASME B56.6b-1998, allow the employer to section off a portion of the platform in which the dimension width is greater than the overall width of the truck plus 10 in. on either side, by utilizing a chain guardrail to prohibit employee access to these areas?

Reply (1): No. There is no provision in this Standard to allow the employer to limit employee access to a portion of the work platform. Truck stability would be affected by the weight of additional materials that could be placed in this area of the platform as well as by the weight of an employee. The maximum platform width is the distance measured over the load bearing tires plus 20 in.

Question (2): If the rough terrain forklift truck has outriggers that extend past the width of the truck tires, is the 10 in. measurement still taken from the tires or is the measurement taken from outside of the outriggers?

Reply (2): Yes. The measurement is taken from the tires. This is required because the personnel platform could be raised with the outriggers retracted or deployed.

Interpretation: 6-17

Subject: ASME B56.6b-1998

Date Issued: October 20, 2000

Question: Does para. 8.24.1(l) of ASME B56.6b-1998 permit personnel to conduct work without being secured by a body belt and lanyard when elevated by a rough terrain forklift if a properly designed platform is secured and equipped with a guardrail system of appropriate measurement and erection?

Reply: Yes. ASME B56.6b-1998 does not require a body belt and lanyard unless a guardrail or similar structure is not provided on the work platform.

Interpretation: 6-18

Subject: ASME B56.6-1992
Platform of Elevating Personnel

Date Issued: November 27, 2002

Question:

Regarding Section 8.24.1(l), is the only reason for an overhead attachment point for freedom of movement and how should this attachment be accomplished? If the platform is not equipped with overhead protection, how can this attachment point be accomplished? Are retractable lanyards acceptable?

Answer:

Section 8.24 (l) states, "A body belt and lanyard is to have an attachment point provided overhead for freedom of movement, and its length is to limit free-fall to 5 ft (1500 mm) measured from the point of attachment to the operator." Freedom of movement is the only reason stated in the standard. The standard does not provide instruction as to how this is to be accomplished, either with or without overhead protection.

Retractable lanyards are acceptable if they limit free fall to 5 ft (1500 mm) from point of platform attachment to the operator.

Interpretation: 6-19

Subject: ASME B56.6-1992
Modification, Nameplates, Markings, and Capacity

Date Issued: November 27, 2002

Question:

Section 5.2.2 covers front end attachments, but does not specify "slip-on" attachments. Is the intent of B56.6 to require informational nameplates and documented operator training for these types of attachments?

Answer:

B56.6 does not make a distinction between fixed attachments and "slip-on" attachments. All attachments must have nameplates and capacity charts. The operator is to be trained in the control and function of the equipment, and to have an understanding of the information included on the nameplate data.

Interpretation: 6-20

Subject: ASME B56.6-1992
Attachments

Date Issued: November 27, 2002

Question (1):

What is an attachment?

Answer (1):

An attachment is a device other than conventional forks or load backrest extension, mounted permanently or removable on the elevating mechanism of a truck for handling the load.

Question (2):

If a customer is using multiple attachments, how is the truck to be marked?

Answer (2):

If a truck is originally supplied with an attachment, the truck nameplate is to include the approximate weight of the truck and attachment combination and the capacity of the truck and attachment combination as described in section 8.5.6.

Question (3):

How is safe operation defined and who determines if it is safe or not?

Answer (3):

Safe operation is not defined within this standard. Many factors that are outside the scope of this standard must be considered to operate a rough terrain forklift safely. Section 6.1.1 states that safe operation is the responsibility of the operator.

Question (4):

Do we have to retest our truck on the test platform per ASME B56.6 for each new attachment?

Answer (4):

No, capacity may be determined from calculated stability values in place of tilting platform tests as described in section 8.6.3(b). All attachments must have a capacity chart that is based on stability derived from one of these two methods.

Question (5):

Do you have any examples of decals that have been changed?

Answer (5):

No, specific decals are the responsibility of each manufacturer and outside the scope of this standard.