**Interpretation: 1-1**

Subject: ASME B30.1-1992, Jacks

Date Issued: October 3, 1997

Question (1): Are trip-lowered, railway track jacks covered by the B30.1 volume?

Reply (1): No. Within Section I, Scope, the B30 Standard specifically excludes track jacks. Additionally, within the B30.1 volume, Section 1-0.1, Scope, jacks which allow loads to be trip lowered are excluded.

Question (2): If the answer to Question (1) is no, what are the technical reasons why the volume cannot be revised to address track jacks?

Reply (2): The B30.1 volume is a general industry safety standard that is not intended to govern special use products such as (railway) track jacks.

The types of jacks addressed within ASME B30.1 are defined within Section 1-0.2, Definitions:

"‘jack: a portable hand- or power-operated mechanism with a base and load point designed for controlled linear movement.’"

The key words are “controlled” and “linear.” Railway track jacks are purposely designed to have a trip-lowering feature which permits sudden load release. Therefore, the technical justification for its exclusion are: (1) sudden uncontrolled lowering movement of the load upon release; and (2) application of the track jack to be used in situations where load travel is not linear all the time.

Should you require technical guidance on track jacks, please contact the Federal Railroad Administration.

Address follows:

Mr. Doug Taylor  
Director of Operating Practices Division  
Office of Safety  
Federal Railway Administration (RRS-11)  
400 7th Street SW  
Washington, DC 20590

**Interpretation: 1-2**

Subject: ASME B30.1-1992, Jacks

Date Issued: March 13, 1998

Question (1): If we use a restrictive theory to calculate jacks, does para. 1-1.1.3(b) require us to use the same safety factor or a less restrictive one?

Reply (1): Paragraph 1-1.1.3(b)(1) states:

"The computed stress in the structural components of the jack shall not exceed 50% of the yield strength of the material at the appropriate rated load for the components. Any degradation of physical properties caused by welding handles or eyes to stressed hydraulic ram cylinders shall be taken into account in determining the yield strength."

The first sentence of para. 1-1.1.3(b)(1) requires a minimum safety factor of 2:1 based on yield strength of the material.

Question (2): Does ASME B30.1-1992 require any particular theory to calculate the computed stress?

Reply (2): No.
**Interpretation: 1-3**

Subject: ASME B30.1-1992, Jacks
Date Issued: September 29, 1998

Question: Will a hydraulic jack qualify per the static load test requirement in para. 1-1.1.3(a)(1)(b) if it is necessary to adjust a relief valve in the extended port of the jack's double acting cylinder above the normal setting in order to develop 150% of rated pressure?

Reply: Yes. As stated within Section 1-0.1, Scope, the B30.1 volume is for "general purpose portable jacks" only and is not intended to determine for the manufacturer what safety components, circuit components, or industrial standards are applicable in the system design.
**Interpretation: 1-4**

Subject: ASME B30.1-1992, Jacks
Date Issued: September 20, 1999

**Question (1):** What is meant by the term "auto service"?
**Reply (1):** The "auto service" does not appear in the scope of the B30.1 volume.

**Question (2):** Does the scope of B30.1 include jacks used in the support of vehicles for tire changing?
**Reply (2):** No.