

New York State

Office of Mental Retardation
and Developmental Disabilities

2002 Update
to the
B E D S A F E T Y
Checklist and User's Guide

October 2002

George E. Pataki
Governor

Thomas A. Maul
Commissioner

Bed Safety Checklist (Updated 10/2002)

Individual: _____

Address: _____

For both standard twin and hospital beds:

1. Yes ___ No ___ A risk assessment has been completed for the person, and a determination made that bed rails are required for safety.
2. Yes ___ No ___ With the mattress pushed against one side rail, the space between the mattress and the other side rail is minimal, if any. ["Minimal space" is when you feel resistance on both sides of your **OPEN** hand when you place it between the mattress and the side rail.]
3. Yes ___ No ___ The mattress is in good, firm condition, and can support a person's weight without excessive compression on the sides. [This should be determined with individual or person of equivalent size in the bed.]
4. Yes ___ No ___ Bed sheets are a proper fit. ["Proper fit" means that the mattress is not compressed when the sheets are used on the mattress.]
5. Yes ___ No ___ NA ___ If needed, cross bars and side rails are appropriate for use with the person's bed. ["Appropriate for use" means the cross bars and side rails are compatible with the bed as defined by manufacturer's instructions.]
6. Yes ___ No ___ The bed rails, including cross bars, locking mechanism and side rails, are not damaged or broken.
7. Yes ___ No ___ NA ___ All four pull pins or other securing mechanism actually lock and hold the side rails in the up position.
8. Yes ___ No ___ NA ___ The side rails are located appropriately to prevent entrapment points at the headboard/footboard ends of the bed. ["Appropriately" means that with the bed flat, the side rails should be less than or equal to 2 1/3 inches, or greater than or equal to 10 inches from the headboard/footboard.
9. Yes ___ No ___ NA ___ Both cross bars are adjusted for a tight fit and all push buttons are locked into the adjustment holes.
10. Yes ___ No ___ NA ___ The bottom bar of the side rail overlaps the side of the mattress.
11. Yes ___ No ___ There are no gaps covered or filled by any devices, such as pads, pillows or bolsters.
12. Yes ___ No ___ NA ___ If bed-rail covers/side-rail pads are used to protect a person from impact injuries, there are **NO** tears, rips, loose straps, etc. They are also securely attached to the side rail.
13. Yes ___ No ___ Spacing between the bars (inter-bar) is appropriate to the size of the person to prevent injury or entrapment. ["Appropriate spacing" for a child or small adult will be less than for an adult of "normal size." If a person is 35 inches or less in height, the space between the side rails must be 2 1/3 inches or less.]
14. Yes ___ No ___ The side rails are high enough to prevent the person from rolling out of bed, particularly when the specialty mattress and/or alternate positioning wedges are used.

For standard twin beds:

15. Yes ___ No ___ The bed frame, mattress and box spring are the same width.
16. Yes ___ No ___ NA ___ When a headboard is used, it overlaps the mattress by at least 2 ½ inches.
17. Yes ___ No ___ NA ___ When a footboard is used, the space between the mattress and footboard is minimal. ["Minimal space" is when you feel resistance on both sides of your open hand when you place it between the mattress and foot board with mattress pushed against the headboard.]

For hospital beds:

18. Yes ___ No ___ The mattress is at least the same length and width as the bed deck.
19. Yes ___ No ___ With the bed flat and the mattress pushed against the headboard, there is a maximum of a 3" gap between the mattress and the footboard. [This space is allowed to allow for adjustment of mattress position.]
20. Yes ___ No ___ With the head of the bed raised, the triangular space between the bottom side rail and the mattress is not large enough to entrap a person.
21. Yes ___ No ___ NA ___ If split side rails are used, with the bed flat, the rails are either less than 2 inches apart or more than 10 inches apart.

(Note: There is a wide variation in the operation of hospital beds. The following checkpoints may not be appropriate for the specific type of hospital bed being reviewed. In these instances, refer to manufacturer instructions.)

22. Yes ___ No ___ NA ___ Each cross bar is attached to either both sides of the frame or to both sides of the bed deck.
23. Yes ___ No ___ NA ___ Both side rails telescope smoothly when the head or foot of the bed is raised or lowered.

24. Provide detailed comments for any NO response above:

Reviewer: _____

Date: _____

Bed Safety Checklist and User's Guide *(Updated 10/2002)*

For both standard twin and hospital beds:

1. Yes ___ No ___ A risk assessment has been completed for the person, and a determination made that bed rails are required for safety.

Once in place, an annual review is recommended to verify this check point.

The risk assessment is to be included in the person's record. Remember to consider the least restrictive bed set up for the person and eliminate side rails whenever possible. Many other alternatives to side rails are available, which have proven to be effective and safe. These options include but are not limited to low beds and special perimeter defined mattresses, and should be seen as viable options within the assessment process.

Remember: The safest bed rail is no bed rail when possible.

The risk assessment should be completed or reviewed by a health care professional in the following circumstances:

- If bed rails are considered for the person;
- When there is a change in the person's bed or bed rail set up; or
- When the person's medical, physical or behavioral needs change.

A risk assessment should focus on the person's current unique needs. As part of the assessment process, the following factors should be considered, to establish whether the person is actually at risk of injury while in bed:

- Physical mobility and/or transfer skills;
- Cognitive functioning and communication abilities;
- In bed behavior; and
- Medical conditions such as seizures, contractures, osteoporosis, physical anomalies, and/or medication.

The following is a risk assessment format that can be used or adapted to assess the factors noted above.

Risk Assessment Format

Name: _____ Address: _____
 Date Completed: _____ Person Completing the Form: _____

These are items to be considered when assessing a person's risk of injury while in bed, however, these questions are not all inclusive. Each individual should be reviewed for his or her unique needs:

		<u>Check</u>	
		Yes	No
1.	Is the person able to get out of bed? If yes, is the person at risk of falling without assistance?	_____ _____	_____ _____
2.	Does the person have the ability to move around in bed? Does he/she move around without assistance? Is he/she able to roll from back to stomach and vice versa? Is he/she able to climb over side rails? Would he/she attempt to climb over side rails?	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____
3.	Does the person have any of the following medical conditions: Does he/she have seizures? Does he/she have osteoporosis? Does he/she have physical anomalies or contractures? If yes, do any of the above affect the person's in-bed behavior?	_____ _____ _____ _____	_____ _____ _____ _____
4.	Is the person on any medication that could affect physical and/or cognitive functioning while in bed?	_____	_____
5.	Does the head of the bed need to be elevated? If yes, will the elevation increase the probability that the person may fall out of bed?	_____ _____	_____ _____
6.	Is the person able to communicate distress?	_____	_____
7.	What type of bed is being used? Hospital or Gatched bed Twin Waterbed Air mattress	_____ _____ _____ _____ _____	_____ _____ _____ _____ _____
8.	Options considered in addition to or in lieu of bed rails _____ _____ _____		

Recommendation: _____
 Review/Approved by: _____ Date: _____
 (Health Care Professional)

2. Yes ___ No ___ With the mattress pushed against one side rail, the space between the mattress and the other side rail is minimal, if any. ["Minimal space" is when you feel resistance on both sides of your OPEN hand when you place it between the mattress and the side rail.]

It is recommended that this check point be verified on a daily basis.

This check point tests for excessive lateral gap, i.e., the space between the mattress and side rail. This is the most significant element of bed safety, as it is the leading cause of bed rail entrapment deaths. There should also be NO significant lateral play in the side rails, i.e., when the side rail does not rigidly connect within the rail guide. Lateral play will contribute to an excessive lateral gap.

A NO answer to this check point could be caused by several different factors. For a standard twin bed, refer to check points #5, #9 and #15 to continue your investigation. For hospital beds, refer to check points #9, #18, #22, and #23.

Some cross bar attachments used on certain hospital beds automatically yield an unacceptably large gap between the side rail and the mattress. In these situations, either a wider mattress or a different set of cross bars is needed. It is important to check that the diameter of the side rail is compatible with the diameter of the rail guide.

Refer to Diagrams 1 and 2 [page 4]. Diagram 1 illustrates the proper alignment of mattress and side rail. Diagram 2 depicts the presence of excessive lateral play between the mattress and side rail.

3. Yes ___ No ___ The mattress is in good, firm condition, and can support a person's weight without excessive compression on the sides. [This should be determined with individual or person of equivalent size in the bed.]

Once in place, a review of this check point is recommended, at a minimum, on a monthly basis.

In order to maintain optimal mattress condition, consider using high-quality mattresses, hospital bed mattresses with foam notch cutouts, and/or mattresses with multi-density foam, when appropriate.

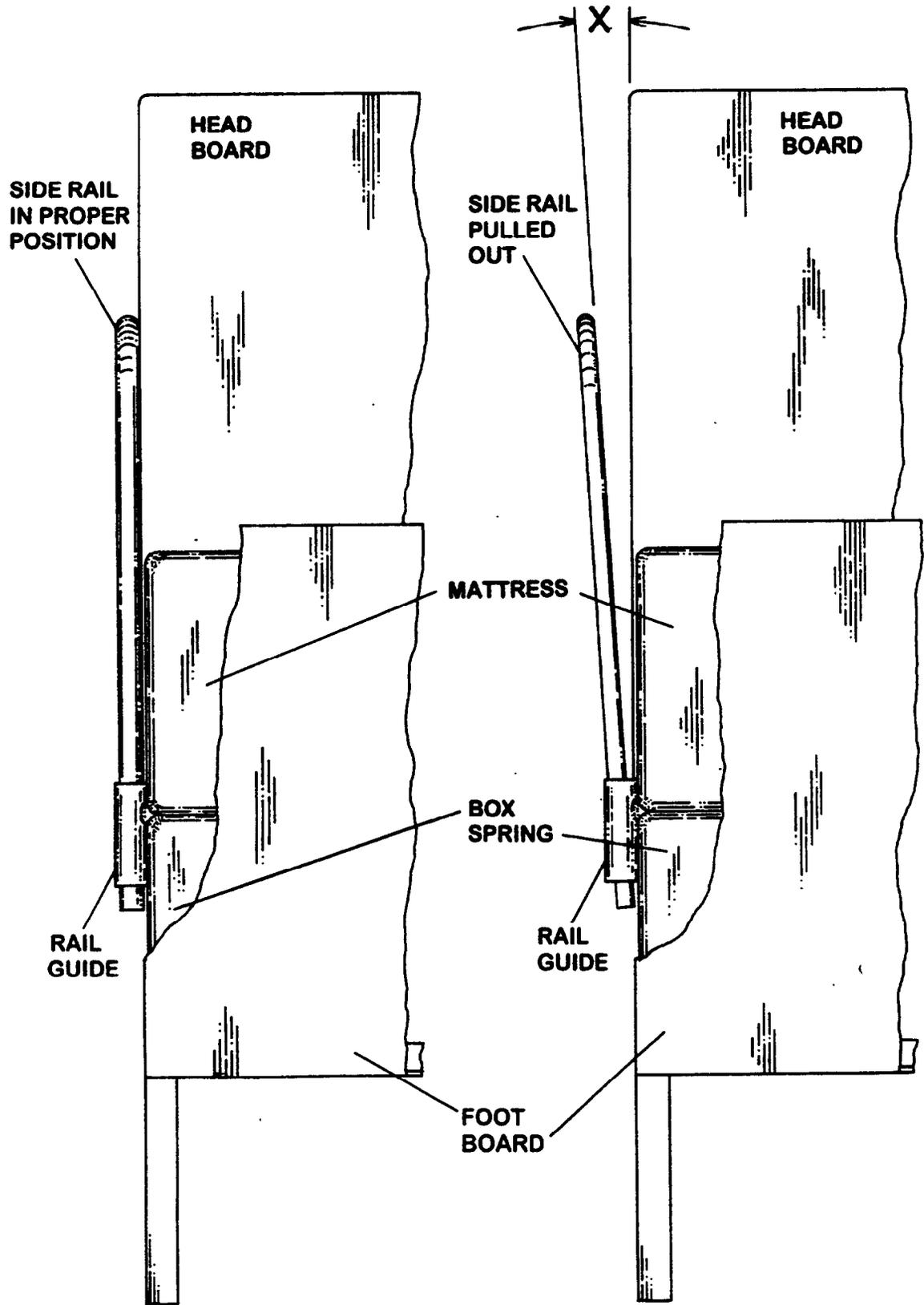
For hospital beds, particular attention should be given to the mattress area that folds when the head of the bed is raised. Also refer to check points #10 and #20.

Diagram 1.

The proper alignment of mattress & side rail

Diagram 2.

The presence of excessive lateral play between the mattress & side rail



4. Yes ___ No ___

Bed sheets are a proper fit. ["Proper fit" means that the mattress is not compressed when the sheets are used on the mattress.]

It is recommended that, at a minimum, this check point be verified whenever the sheets are changed.

For hospital beds, if a longer mattress is needed to satisfy check point #19, then extra long sheets should be considered. For enhanced perimeter mattresses, you may need to utilize extra-wide, extra-long bedding.

5. Yes ___ No ___ NA ___

If needed, cross bars and side rails are appropriate for use with the person's bed. ["Appropriate for use" means the cross bars and side rails are compatible with the bed as defined by manufacturer's instructions.]

Once in place, a review at least annually is recommended to verify this check point.

For standard twin beds, the cross bars must be adjustable. For hospital beds, the cross bars must have some mechanism for attaching both ends to the bed deck. Unless the side rails are a component of the hospital bed, the side rails must telescope.

Refer to Diagrams 3 and 4 [pages 6 and 7], which identify the component parts of the cross bar and side rail for a twin bed and hospital bed rail system. Diagram 3 depicts the side rail and cross bar for a twin bed; and Diagram 4 depicts the telescoping side rail and cross bar for a hospital bed.

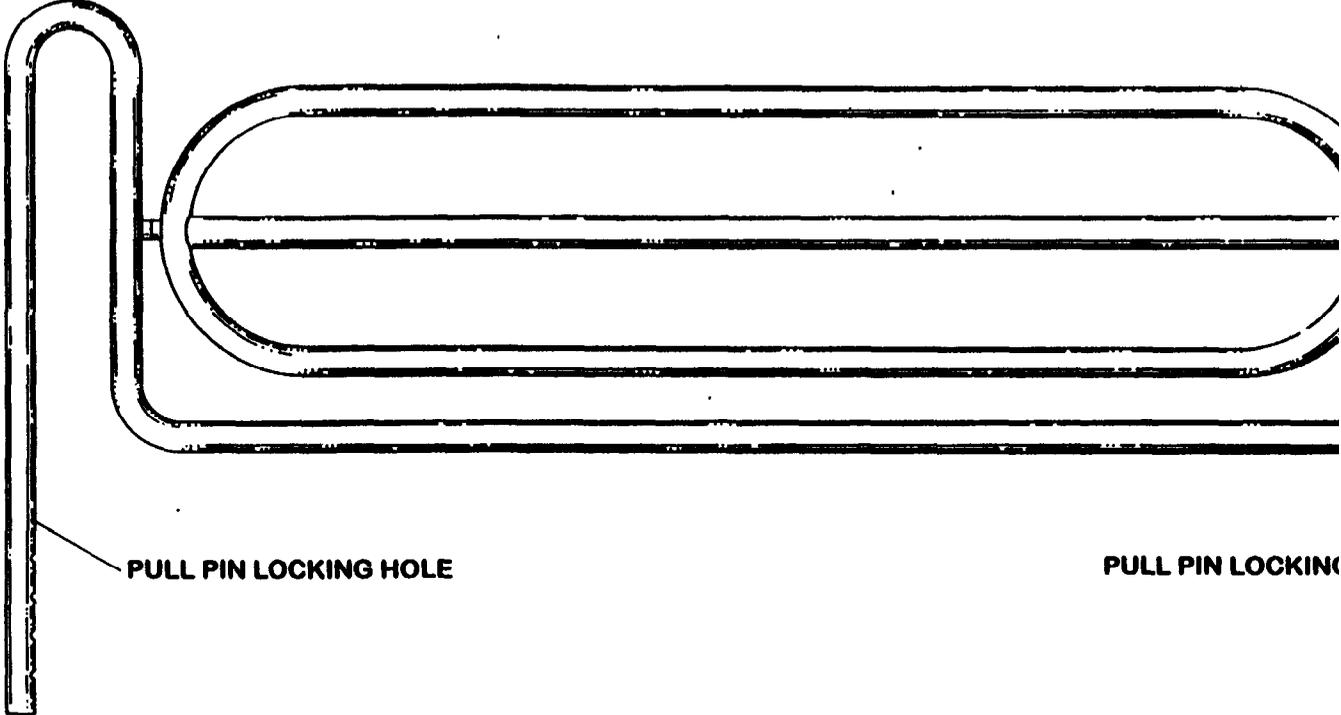
6. Yes ___ No ___

The bed rails, including cross bars, locking mechanism and side rails, are not damaged or broken.

It is recommended that this check point be verified on a daily basis.

Any broken or damaged pull pin, push button, side rail, or cross bar should be immediately replaced. Also refer to check points #7 and #9.

SIDE RAIL

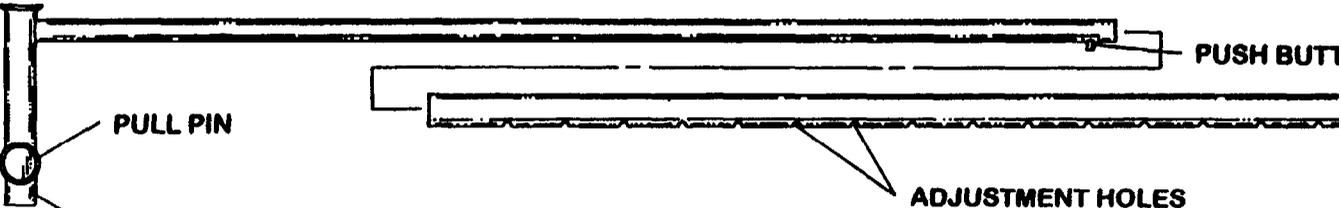


PULL PIN LOCKING HOLE

PULL PIN LOCKING

- 9 -

CROSS BAR



PULL PIN

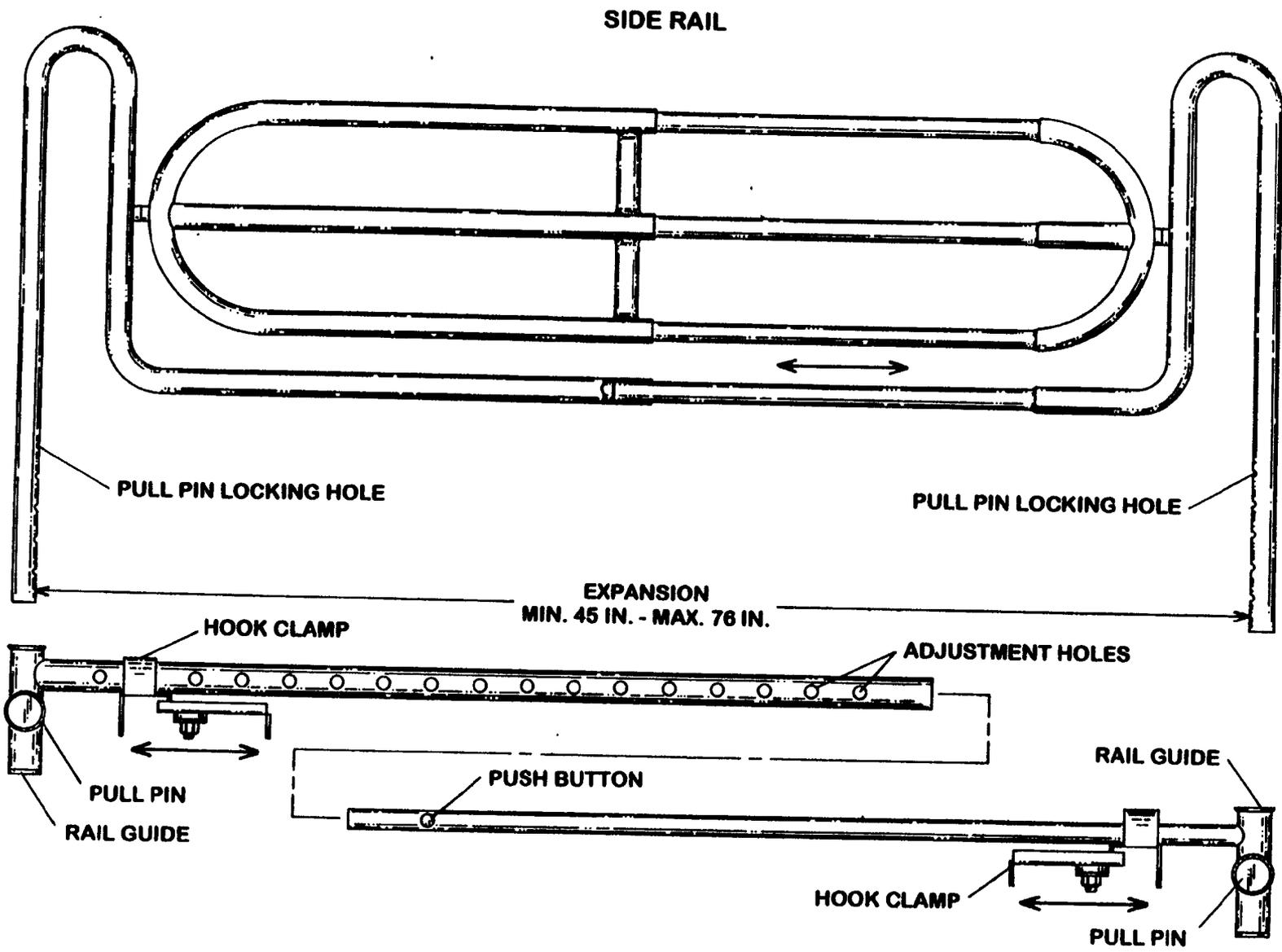
RAIL GUIDE

PUSH BUTT

ADJUSTMENT HOLES

PI

*Diagram 4.
The telescoping side rail & cross bar for a hospital bed*



7. Yes ___ No ___ NA ___ All four pull pins or other securing mechanism actually lock and hold the side rails in the up position.

It is recommended that this check point be verified on a daily basis.

Any side rails that are not able to be locked when in the up position should be immediately replaced.

8. Yes ___ No ___ NA ___ The side rails are located appropriately to prevent entrapment points at the headboard/footboard ends of the bed. [“Appropriately” means that with the bed flat, the side rails should be less than or equal to 2 1/3 inches, or greater than or equal to 10 inches from the headboard/footboard.

Once in place, a review of this check point is recommended on a daily basis.

The distance between the headboard and the side rail [as well as the footboard and side rail] should be either less than 2 1/3 inches, or greater than 10 inches. Any dimension that falls within this inner and outer limit has potential for entrapment. Check the placement of the side rails and, if needed, relocate them either closer or further from the headboard/footboard to eliminate potential entrapment points.

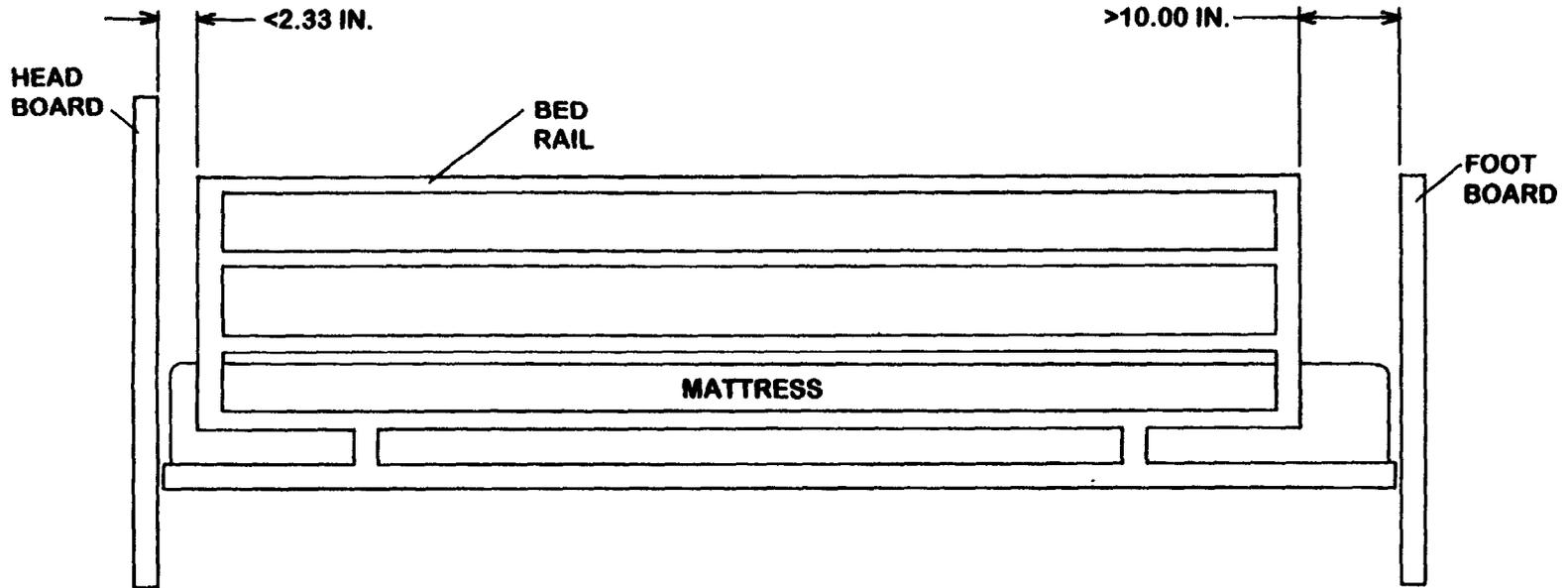
Diagram 5 [page 9] depicts one possible bed configuration to illustrate compliant placement of side rails to headboard/footboard. Other set ups are also acceptable in implementing this check point.

9. Yes ___ No ___ NA ___ Both cross bars are adjusted for a tight fit and all push buttons are locked into the adjustment holes.

It is recommended that this check point be verified on a daily basis.

It is necessary to replace any cross bar that cannot be locked together by using the adjustment hole.

*Diagram 5.
One possible bed configuration to illustrate compliant placement of side rails to
headboard/footboard*



EXAMPLE (ONLY) OF BED WITH FULL LENGTH RAILS

10. Yes ___ No ___ NA ___ The bottom bar of the side rail overlaps the side of the mattress.

Once in place, a review of this check point is recommended, at a minimum, on a monthly basis.

Additionally, when the person is in bed, if the top of the mattress goes below the bottom bar of the bed rail, this must be corrected immediately. Causal factors include firmness of mattress, direction of rail guides, and/or installation of cross bars.

For further clarification, refer to Diagram 6 [page 11], which is a close view of the bed and shows the correct alignment of the side rail for the bed.

11. Yes ___ No ___ There are no gaps covered or filled by any devices, such as pads, pillows or bolsters.

Once in place, a review of this check point is recommended, at a minimum, on a monthly basis.

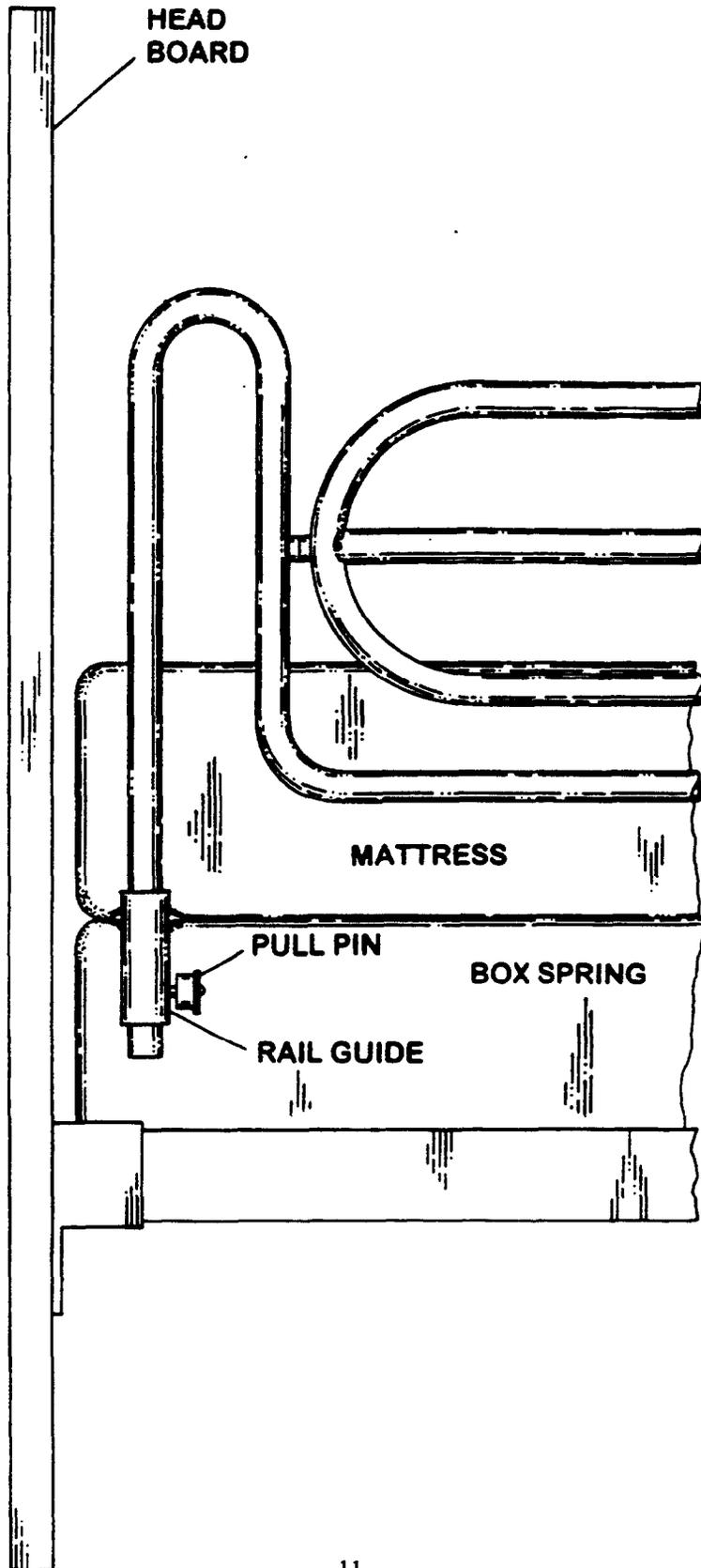
Proper fit should be established by using properly sized and compatible components. NEVER use soft good items, such as pads, mesh items, and bed stuffers, to fill lateral gaps and gaps under the bottom bar. While soft good products on the market may claim to remedy these entrapment points, structural gaps in beds must be addressed with proper sized components and/or permanently affixed accessories. Velcro and soft goods are not dependable due to wear and do not hold up to washing. Beware also of items that depend on staff adjustment and continuous monitoring to maintain proper fit.

12. Yes ___ No ___ NA ___ If bed-rail covers/side-rail pads are used to protect a person from impact injuries, there are NO tears, rips, loose straps, etc. They are also securely attached to the side rail.

Once in place, a review of this check point is recommended, at a minimum, on a monthly basis.

If bed rail covers/side rail pads are used, this fact should be included in the record, along with the rationale and intended purpose for the particular person. It is recommended that commercial grade bed rail covers/side rail pads be used. Commercial grade items are purchased from a durable medical equipment vendor. Padding should ONLY be used to protect a person from impact injury. Using pads, pillows or bolsters to fill in a gap is NEVER acceptable.

Diagram 6.
A close view of the bed, showing correct alignment of the side rail for the bed



13. Yes ___ No ___

Spacing between the bars (inter-bar) is appropriate to the size of the person to prevent injury or entrapment. [“Appropriate spacing” for a child or small adult will be less than for an adult of “normal size.” If a person is 35 inches or less in height, the space between the side rails must be 2 1/3 inches or less.]

Once in place, a review of this check point is recommended, at a minimum, on an annual basis.

Beware of older, 3-bar side rails that have three different potential entrapment areas. The first entrapment area is between the top and the middle bars. The other two entrapment areas are within the loops formed by the outside legs and the inside bars of these side rails.

Diagram 7 [page 13] illustrates the correct spacing for a child or small adult to comply with this checkpoint.

14. Yes ___ No ___

The side rails are high enough to prevent the person from rolling out of bed, particularly when the specialty mattress and/or alternate positioning wedges are used.

Once in place, a review of this check point is recommended, at a minimum, on a monthly basis.

In order to prevent falls from bed, the side rails must rise approximately eight inches above the top surface of the mattress. Beware of side rails on hospital beds that do NOT articulate when the head of the bed is raised. This common situation often results in accidents when people easily fall over the rails when the rails are no longer high enough to provide a barrier against falling.

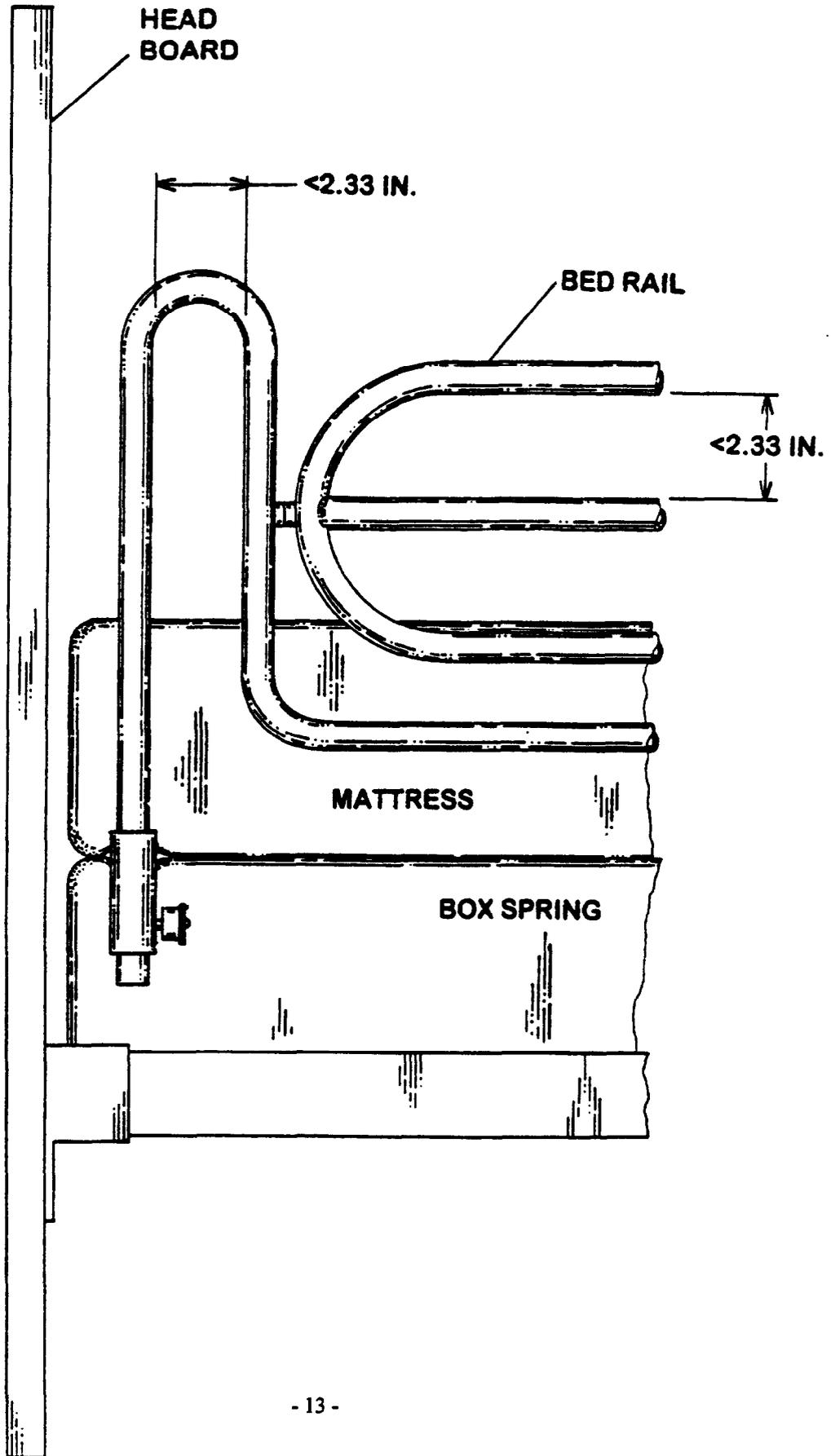
For standard twin beds:

15. Yes ___ No ___

The bed frame, mattress and box spring are the same width.

Once in place, a review of this check point is recommended, at a minimum, on an annual basis.

Diagram 7.
The correct spacing for a child or small adult to comply with check point 13



16. Yes ___ No ___ NA ___ When a headboard is used, it overlaps the mattress by at least 2 ½ inches.

Once in place, a review of this check point is recommended, at a minimum, on an annual basis.

There are a number of ways to develop the necessary overlap between the headboard and the mattress, as follows:

- **Consider new products that provide necessary overlap;**
- **Use plastic shield or some other rigid material to fill in the gap;**
- **Attach the headboard to the wall.**

For further clarification, refer to Diagram 8 [page 15], which illustrates a standard twin bed with its components in proper alignment.

17. Yes ___ No ___ NA ___ When a footboard is used, the space between the mattress and footboard is minimal. [“Minimal space” is when you feel resistance on both sides of your open hand when you place it between the mattress and foot board with the mattress pushed against the headboard.]

Once in place, a review of this check point is recommended, at a minimum, on an annual basis.

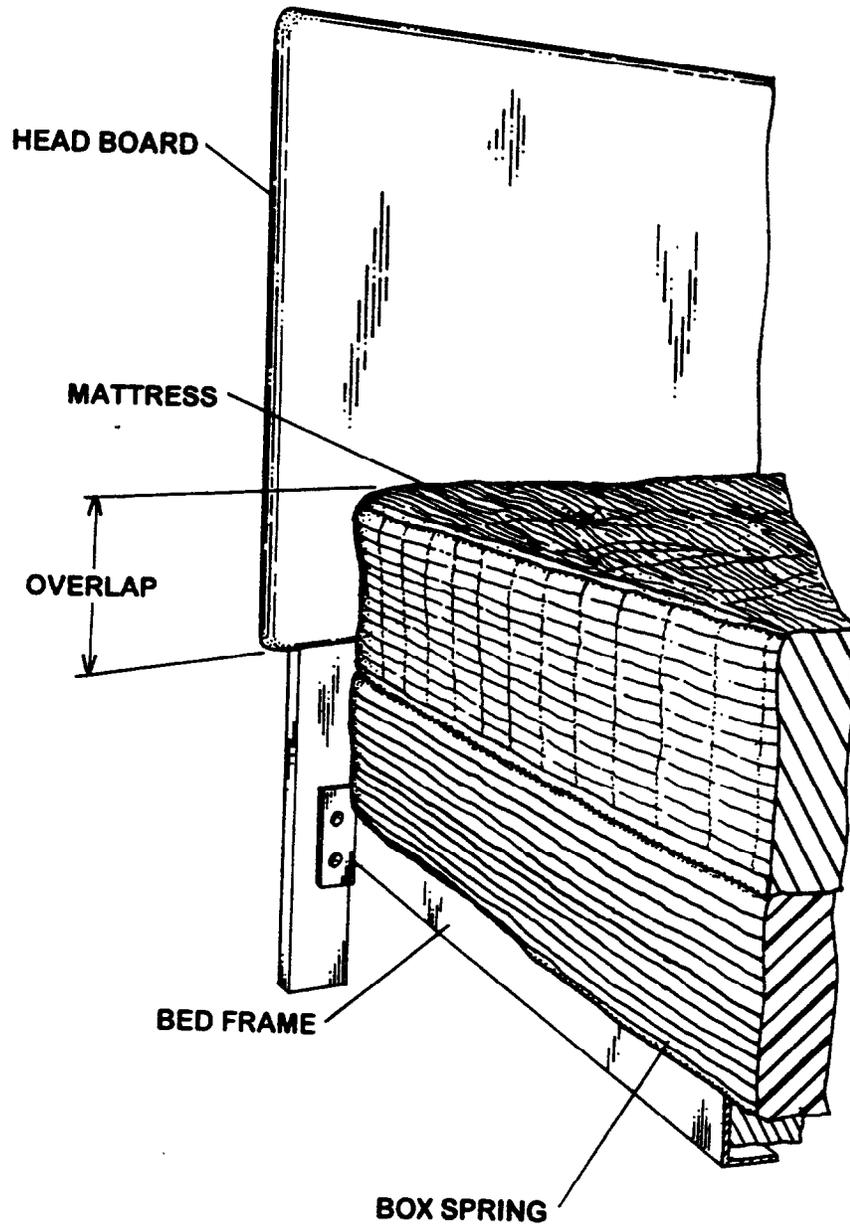
18. Yes ___ No ___ The mattress is at least the same length and width as the bed deck.

Once in place, a review of this check point is recommended, at a minimum, on an annual basis.

19. Yes ___ No ___ With the bed flat and the mattress pushed against the headboard, there is a maximum of a 3” gap between the mattress and the footboard. [This space is to allow for adjustment of mattress position.]

Once in place, a review of this check point is recommended, at a minimum, on an annual basis.

Diagram 8.
A standard twin bed with its components in proper alignment



20. Yes ___ No ___ With the head of the bed raised, the triangular space between the bottom side rail and the mattress is not large enough to entrap a person.

It is recommended that this check point be verified on a daily basis.

There are a number of ways to reduce and/or eliminate this triangular space, including but not limited to the following:

- **Have a custom plastic shield made to cover the space (With proper design, materials and installation, also addresses check points #10, #12, #13, #14 and #23);**
- **Raise the head of the bed no higher than is needed for either therapy or comfort;**
- **Lower the side rail at the head of the bed to an intermediate height, however, this increases the risk of falling over the top (Also refer to check point #14);**
- **Use of split rails (Also refer to check point #21);**
- **Use a set of half side rails; or**
- **Use a bed in which the head elevates independently from its side rails (Also refer to safety issues identified in check point #14).**

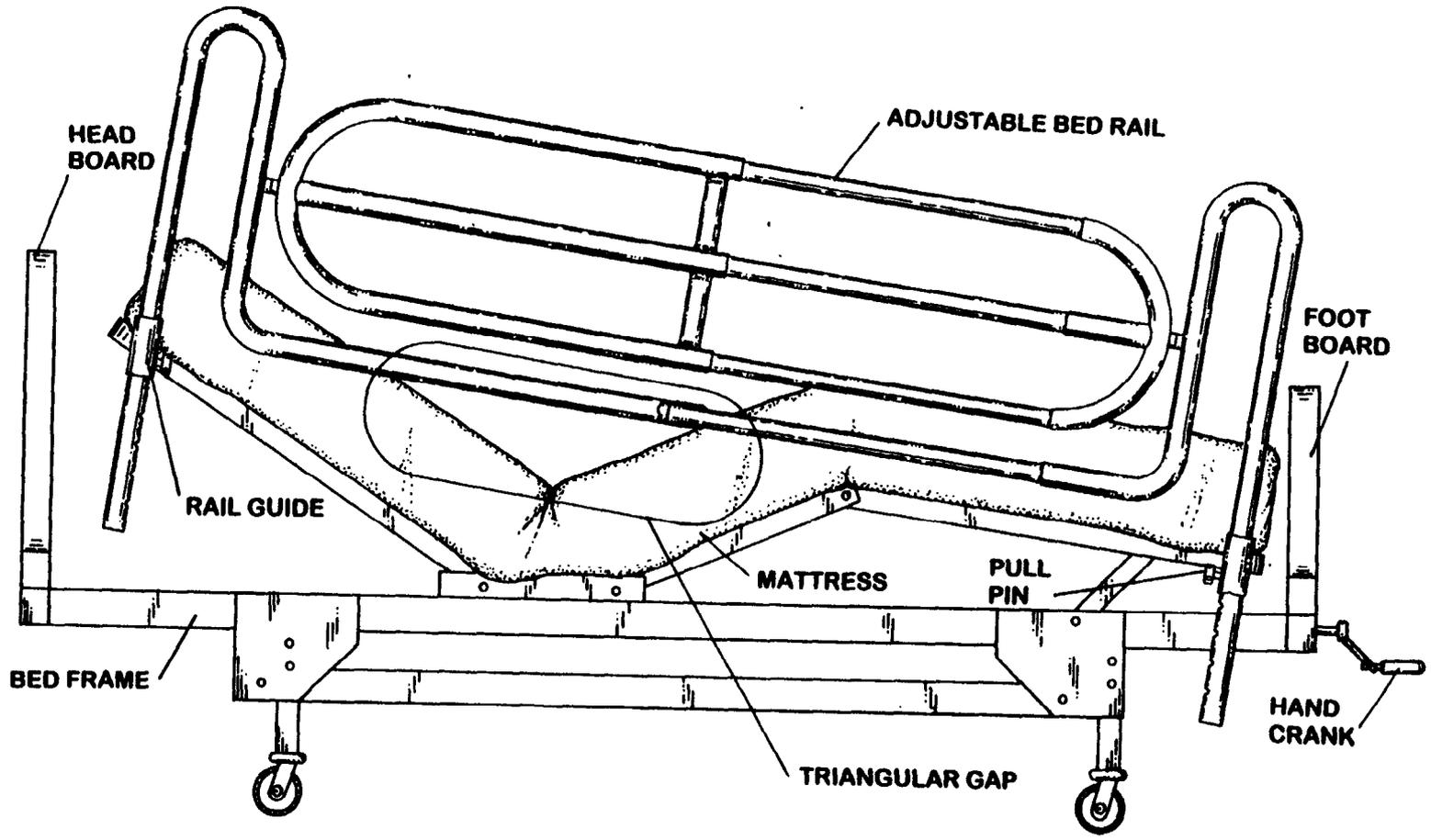
Diagram 9 [page 17] illustrates the triangular gap created when the head of the hospital bed is raised.

21. Yes ___ No ___ NA ___ If split side rails are used, with the bed flat, the rails are either less than 2 1/3 inches apart or more than 10 inches apart.

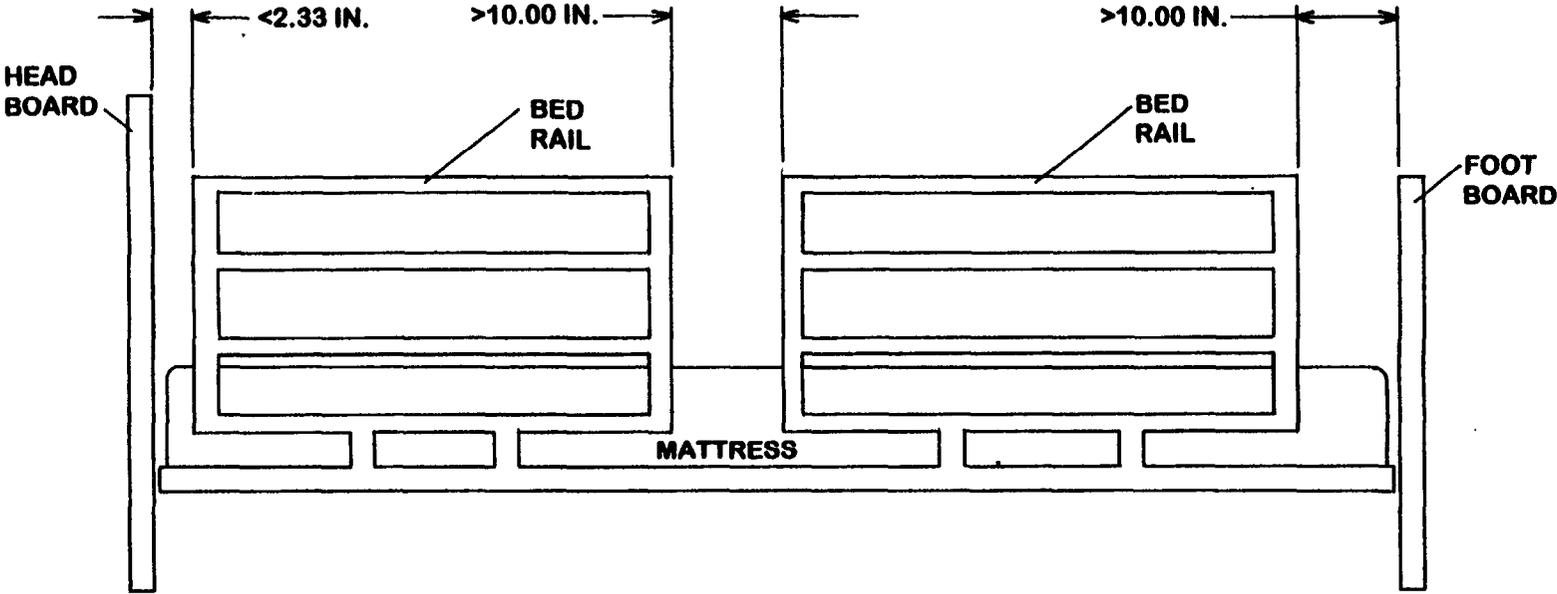
Once in place, a review of this check point is recommended, at a minimum, on an annual basis.

For further clarification, refer to Diagram 10 [page 18], which provides an example of a split rail with appropriate spacing (greater than 10 inches apart).

*Diagram 9.
The triangular gap created when the head of the hospital bed is raised*



*Diagram 10.
Example (only) of bed with split rail with appropriate spacing (greater than 10 inches
apart)*



EXAMPLE (ONLY) OF BED WITH SPLIT SIDE RAILS

(Note: There is a wide variation in the operation of hospital beds. The following check points may not be appropriate for the specific type of hospital bed being reviewed. In these instances, refer to manufacturer instructions.)

22. Yes ___ No ___ NA ___ Each cross bar is attached to either both sides of the frame or to both sides of the bed deck.

It is recommended that this check point be verified on a daily basis.

It is necessary to immediately replace any broken or nonfunctional attachment clamps or brackets. Also review check points #8 and #23. Without being attached to the frame, spring loaded cross bars will decompress and create a gap between the side rails and the mattress.

23. Yes ___ No ___ NA ___ Both side rails telescope smoothly when the head or foot of the bed is raised and lowered.

It is recommended that this check point be verified on a daily basis.

Failure to telescope will result in the attachment clamps breaking loose and/or damage to the bed. There are several factors that can cause the side rails from telescoping, as follows:

- **The cross bars are placed too close together and the side rails do not have the necessary length to contract;**
- **A rigid side-rail pad and/or blocker has been attached to the side rails in such a way that it prevents the side rails from telescoping;**
- **The bars of the side rails are bent; or**
- **The bars of the side rails are sticky and require some lubrication.**

For further clarification, refer to Diagram 4 [page 7], which illustrates a telescoping side rail for a hospital bed that expands from 45 to 76 inches.

24. Provide detailed comments for any NO response above:

If, in the course of completing the checklist, you discover a problem, do NOT assume someone else will fix it. If you think the problem is life threatening, do not leave until a SAFE bed system is identified for the person. Even if it is not life threatening, there must be a strategy to correct bed safety issues immediately.