Revised 2022.1 4.22.2022

HARD

The nations #1 manufacturer of hospital cribs

STANDARD CRIB- MANUAL HI-LO

SERVICE MANUAL

MODELS 1813, 1831, 1842, 1852 & 1873

MADE IN USA FDA ISO 13485:2016 CERTIFIED SGS

HARD

1-800-873-4273 ~ parts@hardmfg.com

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GENERAL INFORMATION

♦ HARD Manufacturing cribs and youth beds are intended for use by patients up to 150lbs. It is strongly recommended to discourage parents or caregivers from getting into the crib or bed with the patient as it may cause premature wear or damage to various components.

♦ The expected service life of all cribs and beds made by Hard Manufacturing is 9 years when preventative maintenance guidelines are followed.

♦ HARD Manufacturing recommends the preventative maintenance checklist found at the end of this manual be performed at least once per year on each crib or bed in your facility. Cribs not meeting the criteria listed on the preventative maintenance checklist should be removed from service until they can be repaired as per the recommended guidelines.

♦ HARD Manufacturing will support parts on our cribs and beds for up to 12 years from the date of manufacture as long as we still make the part or can obtain it from our vendors.

♦ Cleaning instructions for all HARD Manufacturing cribs and beds can be found at the end of this manual. ***Failure to follow the proper cleaning instructions can result in premature rust and corrosion of the parts on your cribs.***

To request a quote on replacement parts- please have either the serial # from the silver sticker located on the mattress platform, or the crib or bed model # and date of manufacture from the sticker on the bottom left side of the foot end available. Contact info is as follows:

Parts Manager
800-873-4273 x216
parts@hardmfg.com

Please email or fax all parts orders to 716-896-2579 or parts@hardmfg.com. If you do not receive an order confirmation within one (1) business day, please resend the order until a confirmation is received.

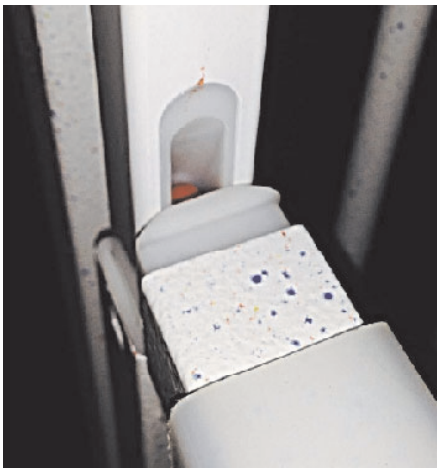
Confidential document- for customer/end user only.

SIDE RAIL OPERATION & SAFETY

Crib rails are raised and lowered with a Johns Hopkins Handle.

The side rail or end rails have “trigger” mechanisms that must lock into place to hold up the rail safely. The red tips of the triggers must be securely seated in the notches of the slide rods on both ends, and you should barely be able to see the red tip if at all. Grasp the rail and tug to be certain the rail is in place firmly and properly.

To prolong the life of the trigger assembly in the side rail, continue to squeeze the trigger mechansim as you lower the rail to the desired height and not release until that time. Letting the red tips of the trigger mechanism drag up and down the slide rods by releasing the trigger mechanism too early will cause the trigger assembly to wear prematurely and break.



If the trigger mechanism for the side rail fails to lock into place properly, remove the crib from service until the mechanism can be replaced.*

CRANK HANDLE USAGE

THE HEAD CRANK HANDLE

The head crank handle is located on the far left of the foot end of the crib.
The head crank handle should be tucked in when not in use to help prevent damage from it hitting or getting caught on other objects when the crib is being moved.

To use the head crank handle, pull it out from its tucked position and turn clockwise to elevate the head section of the crib.

The head section on the crib will articulate to approximately 30 degrees, or **14-15 turns** of the crank handle.

NOTE: The head section of the crib will not articulate higher than the stated 30 degrees. The crank handle will continue to turn after 14-15 revolutions, however it will become noticeably more difficult. Continued cranking will not raise the head of the crib any further, it will only put stress on the crank handle components and eventually cause them to break.

THE FOOT CRANK HANDLE

The foot crank handle is located on the far right of the foot end of the crib. The foot crank handle should be tucked in when not in use to help prevent damage from it hitting or getting caught on other objects when the crib is being moved.

To use the foot crank handle, pull it out from its tucked position and turn clockwise to elevate the foot/knee section of the crib.

The foot section on Standard Cribs will articulate to approximately 15 degrees, or **7 turns** of the crank handle.

NOTE: The foot section of the crib will not articulate higher than the stated 15 degrees. The crank handle will continue to turn after 7 revolutions, however it will become noticeably more difficult. Continued cranking will not raise the foot/knee section of the crib any further, it will only put stress on the crank handle components and eventually cause them to break.

THE HI-LO CRANK HANDLE

Applies only to models: 813, 831, 842, 852, & 873

The Hi-Lo crank handle is located in the middle position of the foot end of the crib. The Hi-Lo crank handle should be tucked in when not in use to help prevent damage from it hitting or getting caught on other objects when the crib is being moved.

To use the Hi-Lo crank handle, pull it out from its tucked position and turn clockwise to elevate the mattress platform assembly of the crib. ****NOTE: The head and foot crank handles MUST be in the tucked position prior to utilizing the Hi-Lo feature to raise the crib. If the handles are not tucked, they can become caught on the lower portion of the Mattress Platform Assembly and cause a large amount of costly damage to that component.****

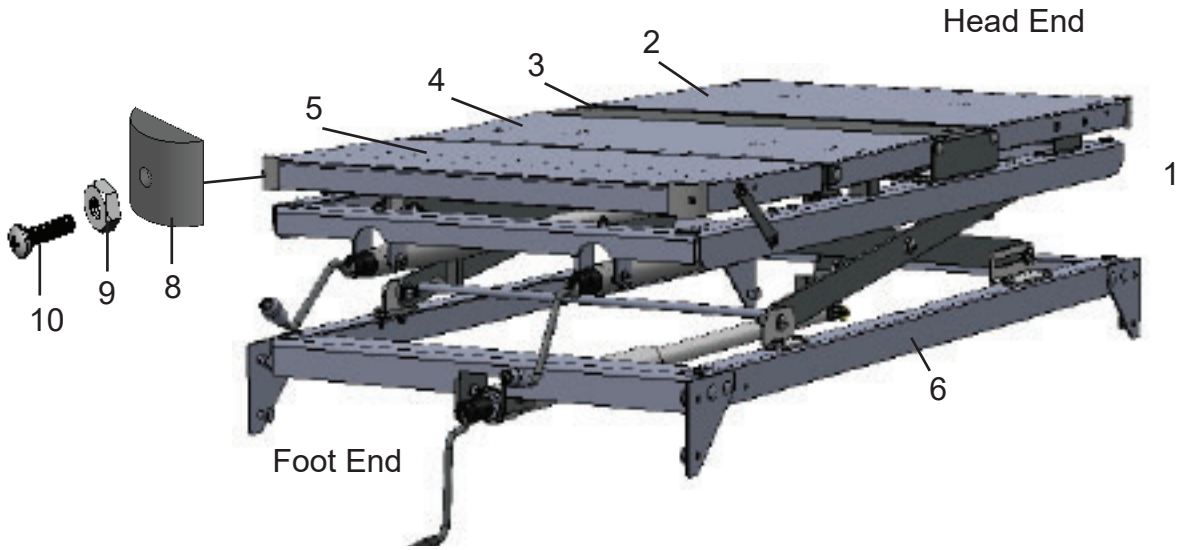
The Hi-Lo feature on Hard Manufacturing cribs will allow the height of the mattress platform to be raised approximtely 10" with approx **19 turns** of the crank handle to help prevent caregiver fatigue.

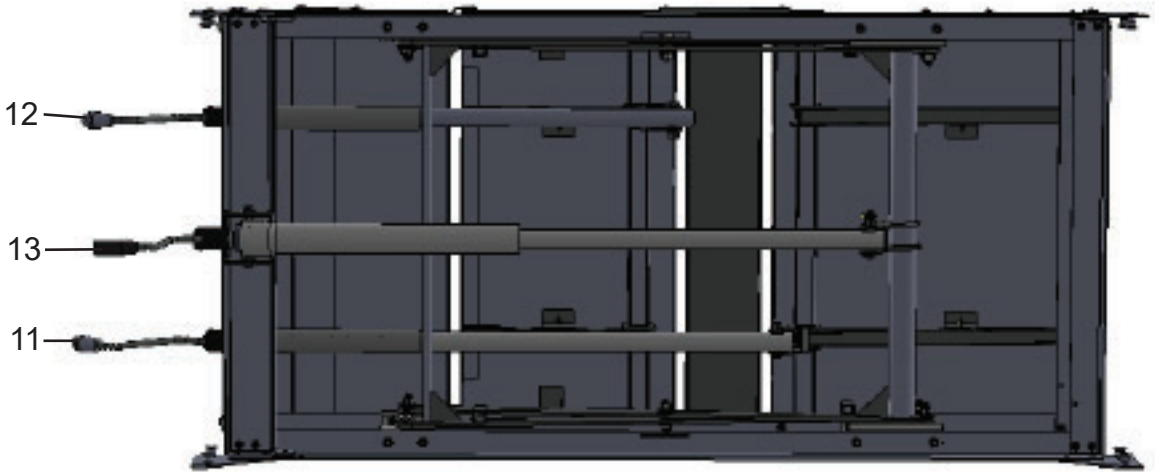
PLEASE NOTE THE MATTRESS PLATFORM SHOULD BE IN THE LOWEST POSITION TO PERFORM CPR.

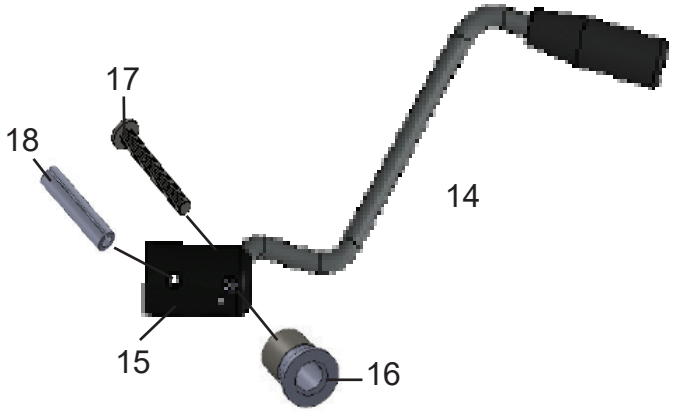
NOTE: The Mattress Platform Assembly will not raise higher than the stated 10". The crank handle will continue to turn after 19 revolutions, however it will become noticeably more difficult. Continued cranking will only put stress on the crank handle components and eventually cause them to break.

The patient should never be left unattended when the mattress platform is in the highest position.

MATTRESS PLATFORM DIAGRAM & PARTS LIST







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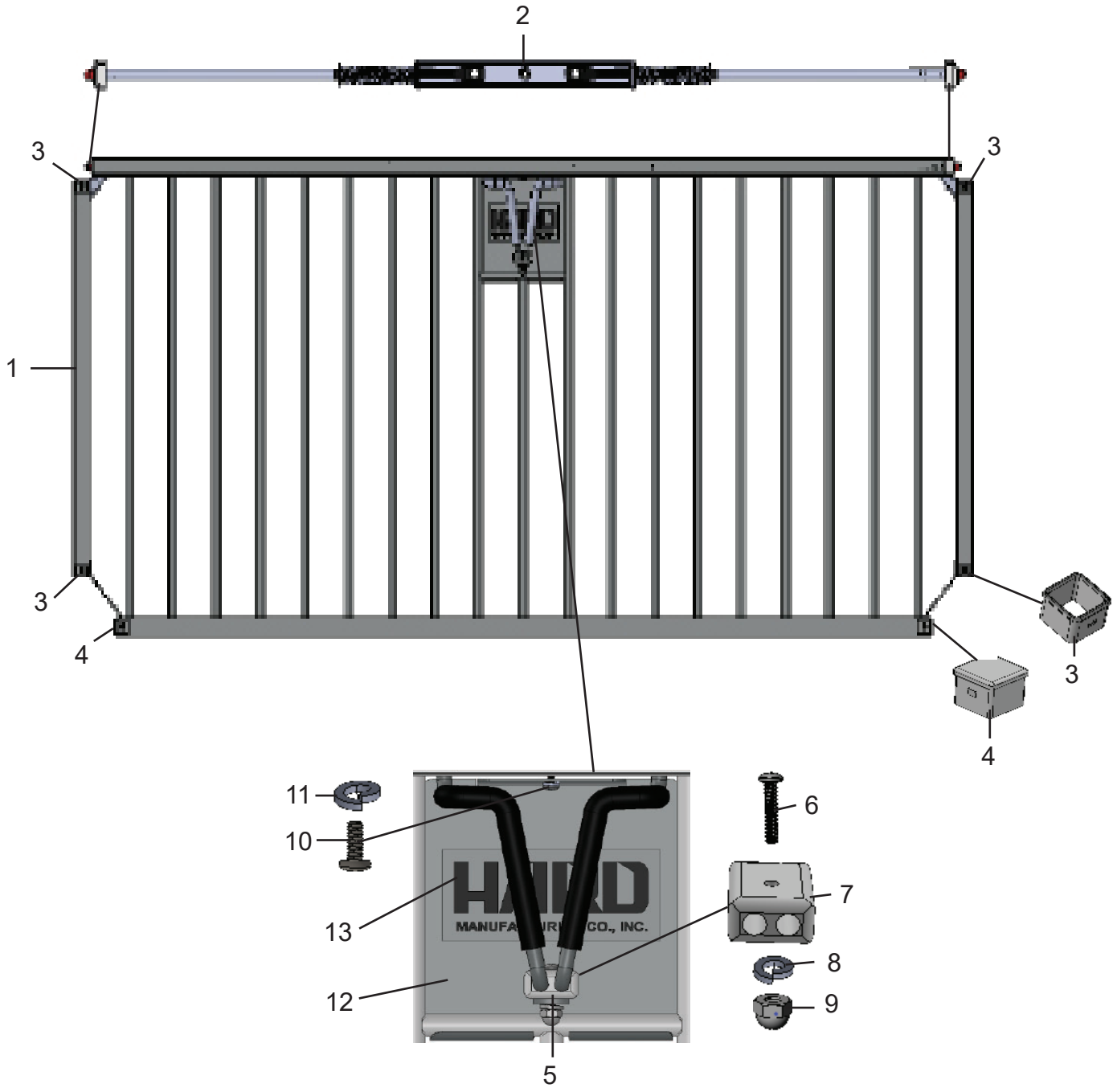
#	Part Description	Part #	Notes
1	Mattress Platform Assembly- 1813	91160	Complete mattress platform
	Mattress Platform Assembly- 1831	91599	
	Mattress Platform Assembly- 1842	91594	
	Mattress Platform Assembly- 1852	91608	
	Mattress Platform Assembly- 1873	91603	

Parts list continues on the next page....

MATTRESS PLATFORM PARTS LIST CONTINUED

#	Part Description	Part #	Notes
2	Head Pan Assembly- 1813	N/A	
	Head Pan Assembly- 1831	89715	
	Head Pan Assembly- 1842	89715	
	Head Pan Assembly- 1852	89705	
	Head Pan Assembly- 1873	89712	
3	Center Seat Pan- 1842	12335	Smaller models 1913 & 1931 do not have a center seat pan.
	Center Seat Pan- 1852	12334	
	Center Seat Pan- 1873	12334	
4	Thigh Pan Assembly- 1813	N/A	
	Thigh Pan Assembly- 1831	89717	
	Thigh Pan Assembly- 1842	89717	
	Thigh Pan Assembly- 1852	89706	
	Thigh Pan Assembly- 1873	89706	
5	Foot Pan Assembly- 1813	N/A	
	Foot Pan Assembly- 1831	89716	
	Foot Pan Assembly- 1842	89716	
	Foot Pan Assembly- 1852	89707	
	Foot Pan Assembly- 1873	89713	
6	Bottom Frame Assembly- 1813	81571	
	Bottom Frame Assembly- 1831	89744	
	Bottom Frame Assembly- 1842	89677	
	Bottom Frame Assembly- 1852	89738	
	Bottom Frame Assembly- 1873	89742	
7	Tilt Indicator	63237	
8	Corner Cover	11558	
9	Hex Nut 10-32	63402	For Corner Covers
10	Screw 10-32x3/4”	62048	
11	Head Elevating Assembly- 1813	81390	Includes crank handle
	Head Elevating Assembly- 1831	81395	
	Head Elevating Assembly- 1842 & 1852	81096	
	Head Elevating Assembly- 1873	81133	
12	Foot Elevating Assembly- 1813	N/A	
	Foot Elevating Assembly- 1831	89854	
	Foot Elevating Assembly- 1842 & 1852	89886	
	Foot Elevating Assembly- 1873	89848	
13	Hi-Lo Elevating Assembly- 1813	89774	
	Hi-Lo Elevating Assembly- 1831	89458	
	Hi-Lo Elevating Assembly- 1842 & 1852	89458	
	Hi-Lo Elevating Assembly- 1873	89459	
14	Crank Handle Assembly	86633	Complete assembly for head or foot- includes #14-17
15	Black Knob for Crank Handle	22208	Crank handle components available in hardware bag 72116
16	Brass Insert	60359	
17	Screw 8-32x1-1/4”	63885	
18	Spring Pin 1/4x1-1/8”	60323	

SIDE RAIL ASSEMBLY DIAGRAM



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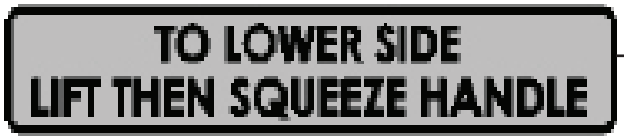

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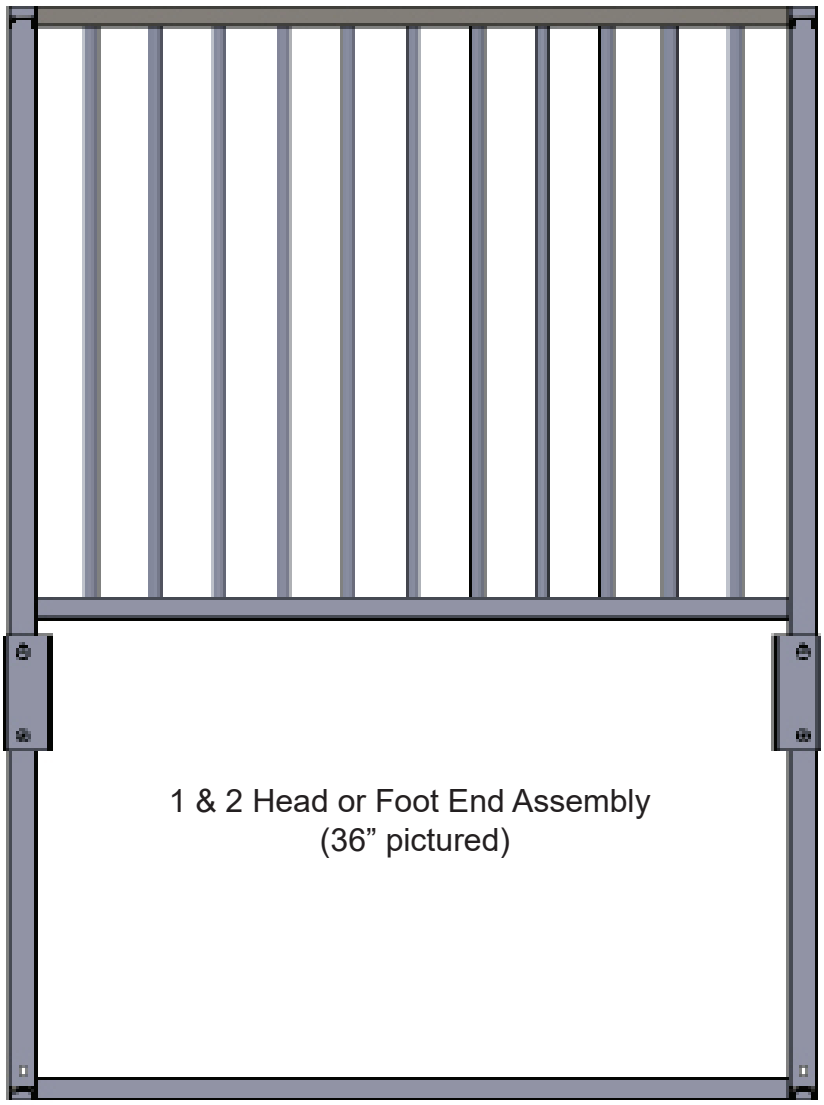
SIDE RAIL ASSEMBLY PARTS LIST

#	Part Description	Part #	Notes
1	Side Trim Assembly- 1813	90535	Complete Side Rail Assembly
	Side Trim Assembly- 1831	90536	
	Side Trim Assembly- 1842 & 1852	90711	
	Side Trim Assembly- 1873	90712	
2	Side Trigger Assembly- 1813	89140	One trigger per rail
	Side Trigger Assembly- 1831	89115	
	Side Trigger Assembly- 1842 & 1852	89117	
	Side Trigger Assembly- 1873	89119	
	Teething Bars- 1813 (Not shown)	*1913 TB	Set of 4- Protective covering for the tops of the rails.
	Teething Bars- 1831 (Not shown)	*1931 TB	
	Teething Bars- 1842 (Not shown)	*1942 TB	
	Teething Bars- 1852 (Not shown)	*1952 TB	
	Teething Bars- 1873 (Not shown)	*1973 TB	
3	Glide Slide Bushing	11571	Nylon bushing with cutout
4	Bushing	11518	Solid nylon bushing
5	Johns Hopkins Handle Assembly	72115	Complete Handle Assembly (Does not include Shield Plate)
6	Screw 10-32x1 RH PH MS	63375	Components at the bottom of the Johns Hopkins Handle
7	Retainer Block	11525	
8	Split Lockwasher	63453	
9	Acorn Nut C/P 10-32	63411	
10	Screw	60148	Top of Shield Plate
11	Split Washer	63457	
12	Shield Plate Assembly	81216	Plate behind JH Handle (Does not include handle)
13	HARD Sticker	62177	Sticker behind JH Handle Assembly
14	“To Lower Side Lift Then Squeeze” Sticker	63651	Placed behind JH Handle on the Shield Plate
15	“To Raise Side Use Two Hands” Sticker	63650	Placed on either end of the side rail
16	“When Child is Left Unattended”… Sticker	62184	Placed above JH handle in middle of the rail

HEAD & FOOT END ASSEMBLY DIAGRAM & PARTS LIST



1 & 2 Head or Foot End Assembly
(36” pictured)

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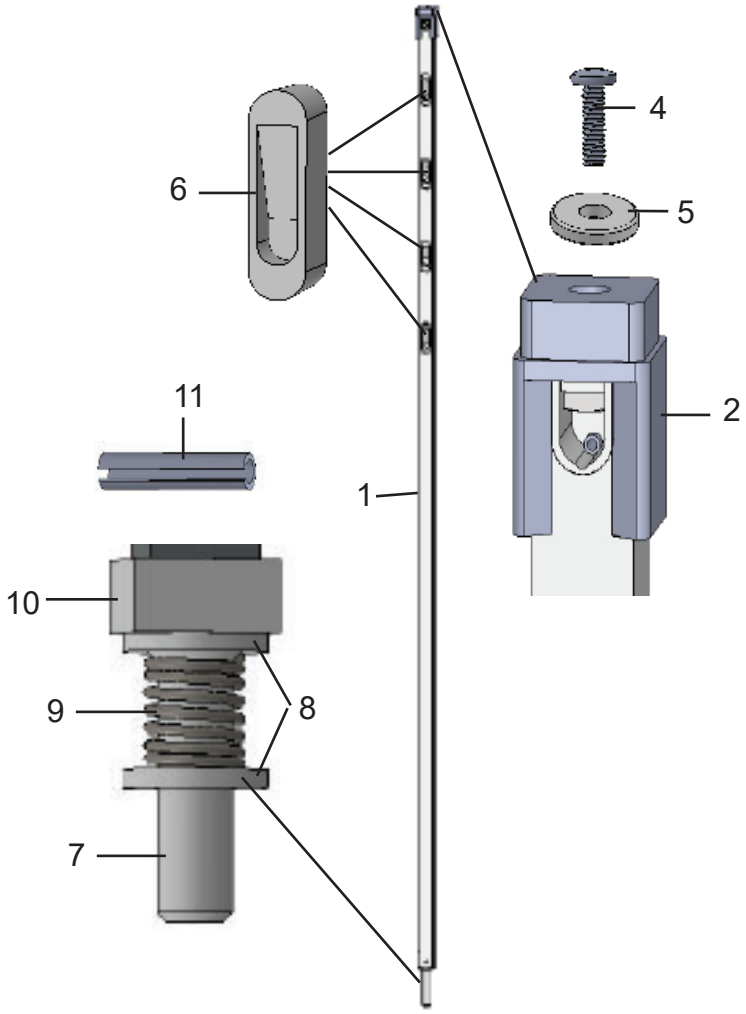
#	Part Description	Part #	Notes
1	Head Assembly- 30” wide crib	90278	
	Head Assembly- 36” wide crib	90280	
2	Foot Assembly- 30” wide crib	90581	
	Foot Assembly- 36” wide crib	90582	
	Teething Bars- 1813	*1913 TB	Set of 4- not shown. Protective snap-on covering for the tops of the rails
	Teething Bars- 1831	*1931 TB	
	Teething Bars- 1842	*1942 TB	
	Teething Bars- 1852	*1952 TB	
	Teething Bars- 1873	*1973 TB	
4	Crib Eye Cover	11529	Protective black plastic cover for the 4 corners of the crib.

Note- If your crib was made prior to 2015, the Head and Foot assemblies listed above do not apply. Please contact us for the correct part numbers.

SLIDE ROD DIAGRAM & PARTS LIST



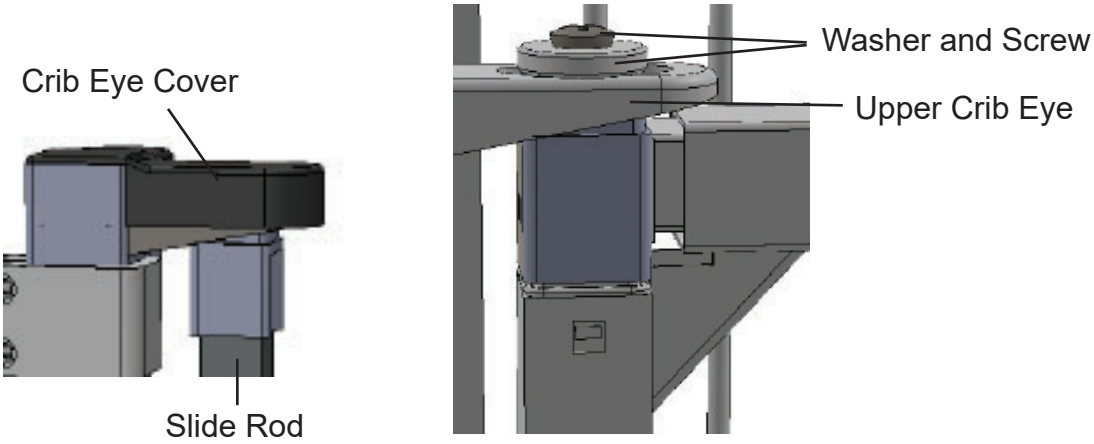
#	Part Description	Part #	Notes
1	Slide Rod	89197	Complete slide rod assembly as shown
2	Slide Rod Cup	N/A	Not sold separately. If this part breaks, please order a new slide rod. Part is riveted on.
3	Rivet- not shown	N/A	
4	Screw	63392	For top of slide rod
5	Nylon Washer	11531	
6	Slide Rod Inserts	11567	
7	Slide Rod Adaptor	11576	Parts also available in hardware bag 72078. Parts for one slide rod.
8	Plastic Washer 1”x.545”x1/8”	11545	
9	Bumper Spring- 60” sides	63403	
10	Plastic Spacer- 60” sides	11750	
11	1/8” Spring Pin- to fasten slide rod adaptor	63834	
12	Bumper Spring- 30” or 36” gate	63845	Parts also available in hardware bag 72080 including #7-9. Parts for one slide rod.
13	Plastic Spacer- 30” or 36” gate	11593	

SLIDE ROD OR SIDE RAIL/END RAIL REPLACEMENT

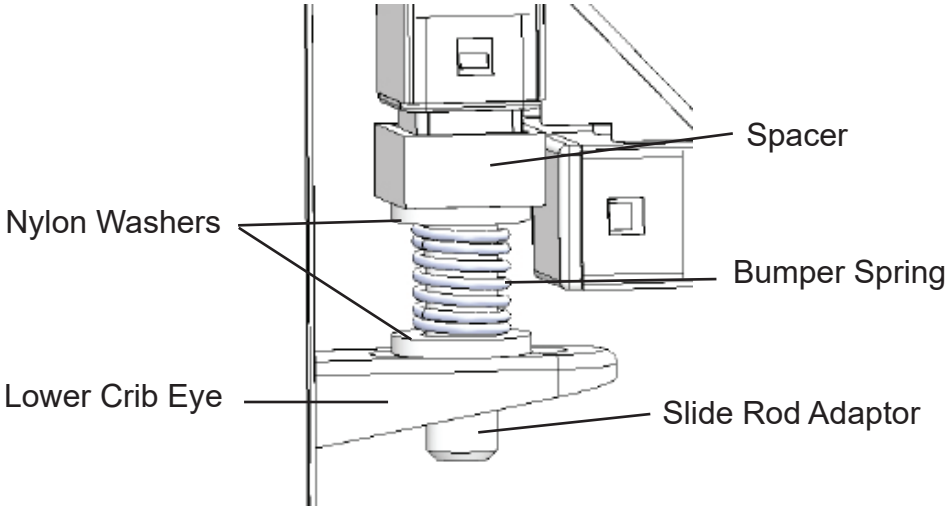
To disassemble the crib and replace a side rail, end rail or a slide rod:

****We recommend this be done with 2 people****

1. At the top of one of the Slide Rods, first lift the portion of the black plastic crib eye cover that is over the Upper Crib Eye to expose the screw and washer underneath, then loosen and remove the screw and washer. Repeat at the opposite side of the rail.



2. Push down on both slide rods until they are clear of the upper crib eye, then lean the entire side assembly outwards. Lift the assembly up and off of the lower crib eyes being careful not to lose any of the small parts at the bottom of the slide rods as the spring, washers and spacer will fall off.



3. Lastly, squeeze the Johns Hopkins handle or the Fingertip Release mechanisms on the rail to disengage the trigger mechanisms while lifting the slide rod(s) up and out of the rail.

Disassembly is now complete.

SLIDE ROD OR SIDE RAIL/END RAIL REPLACEMENT CONT.

To reassemble the crib or bed with the new rail or slide rod:

1. Take the rail making sure the Johns Hopkins handle or the Fingertip Release mechanisms are facing outwards and at the top of the rail. Insert the slide rod(s) down into each end of the side rail. Again be sure that one person is squeezing the Johns Hopkins handle or the Fingertip Release mechanism of the new rail to disengage the trigger mechanisms as you do this. Raise the rail up until it is at the highest position and then release the Johns Hopkins handle or Fingertip Release to lock the rail in place.

2. At the bottom of both of the slide rods, put the spacer back on first, then a washer, the bumper spring, and the other washer as shown on the previous page. While holding those parts in place, lift the side assembly up and position it on the lower crib eye.

3. Lean the side assembly in towards the crib and then press down at both ends to get the assembly under upper crib eyes and then release. Reinstall the hardware back on the top of the slide rods. Do not overtighten the screw.

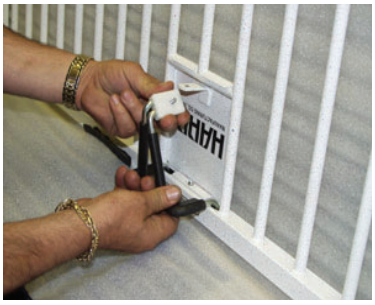
Reassembly is now complete.

Please be sure all hardware is securely fastened prior to putting the crib or bed back in service.

TRIGGER ASSEMBLY FOR SIDE RAILS OR JOHNS HOPKINS HANDLE REPLACEMENT

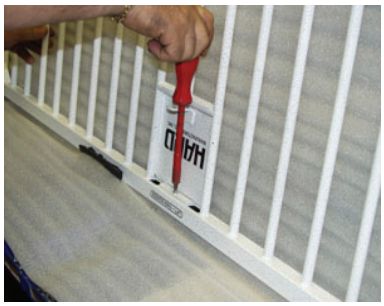
It is necessary to remove the rail from the crib prior to the steps listed below. Please follow the instructions on the prior pages to remove the rail and the slide rods prior to beginning the repair. Reference the page for Side Rail Assembly Diagram if needed to identify parts.

1. Turn rail upside down and remove acorn nut and lock washer from the retainer block.

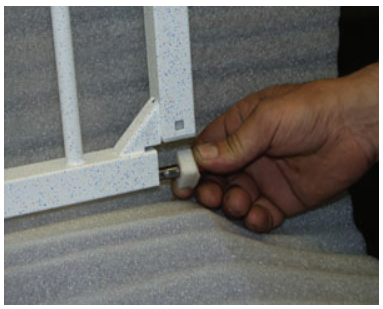


2. Push retainer block down and twist to one side as shown to disengage the screw from the metal bracket on the shield plate.

3. Lift to remove handles from the trigger bracket inside the rail tube. ***If only the Johns Hopkins Handle assembly is being replaced, skip to Step #9 next.***

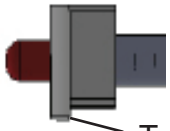


4. Remove screw holding the shield plate and center trigger bracket. Remove the shield plate.



5. Remove the entire trigger assembly by pulling it out one side of the rail. *If you are unfamiliar with changing a trigger on one of our cribs or beds, note how the components lock together for reassembly.*

SIDE TRIGGER ASSEMBLY OR JOHNS HOPKINS HANDLE REPLACEMENT CONTINUED



Opposite end in upright position

6. Slide one half of the trigger assembly barrel 3/4 of the way into the rail making sure the red tip goes in first. The white plastic bushing attached to the red trigger tip has a tab on one edge, be sure it faces downwards as shown. The opposite end of the trigger should be in the upright position as shown to the left.

7. Take the black plastic center trigger bracket, and hook it onto the trigger barrel making sure the tabs on the bracket face downwards. Push the completed portion into the rail tube leaving half the bracket exposed for the other trigger barrel. With the red trigger tip now facing the opposite direction, hook the second trigger barrel into the bracket again making sure the tab on the white bushing at the tip is facing downwards. Push the completed assembly fully into the side rail.

Insert trigger barrels in bracket holes

Tabs facing downwards

8. Prior to putting the shield plate back on, be sure the holes in the black bracket for the triggers line up with the openings in the side rail as well as the hole for the screw. Reinstall the shield plate, and insert the screw to fasten the shield plate and bracket.

9. The trigger barrels are spring loaded, so to line up the hole in the trigger barrel with the hole in the bracket and opening in the rail, push in on the white plastic bushing on the end of the trigger until the holes line up on one side, then insert one half of the handle. Repeat on the other side and insert the second half of the handle.

10. To insert screw in the retaining block through the metal bracket in the shield plate, twist the retaining block and screw up into the hole from an angle and secure with lock washer and acorn nut.

Reassembly is now complete.

CRANK HANDLE USAGE

THE HEAD CRANK HANDLE

The head crank handle is located on the far left of the foot end of the crib.
The head crank handle should be tucked in when not in use to help prevent damage from it hitting or getting caught on other objects when the crib is being moved.

To use the head crank handle, pull it out from its tucked position and turn clockwise to elevate the head section of the crib.

The head section on the crib models noted above will articulate to approximately 30 degrees, or **14-15 turns** of the crank handle.

NOTE: The head section of the crib will not articulate higher than the stated 30 degrees. The crank handle will continue to turn after 14-15 revolutions, however it will become noticeably more difficult. Continued cranking will not raise the head of the crib any further, it will only put stress on the crank handle components and eventually cause them to break.

THE FOOT CRANK HANDLE

The foot crank handle is located on the far right of the foot end of the crib. The foot crank handle should be tucked in when not in use to help prevent damage from it hitting or getting caught on other objects when the crib is being moved.

To use the foot crank handle, pull it out from its tucked position and turn clockwise to elevate the foot/knee section of the crib.

The foot section on the Springfield Cribs will articulate to approximately 15 degrees, or **7 turns** of the crank handle.

NOTE: The foot section of the crib will not articulate higher than the stated 15 degrees. The crank handle will continue to turn after 7 revolutions, however it will become noticeably more difficult. Continued cranking will not raise the foot/knee section of the crib any further, it will only put stress on the crank handle components and eventually cause them to break.

THE HI-LO CRANK HANDLE

Applies only to models: 1813, 1831, 1842, 1852, 1873, 813, 831, 842, 852 & 873

The Hi-Lo crank handle is located in the middle position of the foot end of the crib. The Hi-Lo crank handle should be tucked in when not in use to help prevent damage from it hitting or getting caught on other objects when the crib is being moved.

To use the Hi-Lo crank handle, pull it out from its tucked position and turn clockwise to elevate the mattress platform assembly of the crib. ****NOTE: The head and foot crank handles MUST be in the tucked position prior to utilizing the Hi-Lo feature to raise the bed. If the handles are not tucked, they can become caught on the lower portion of the Mattress Platform Assembly and cause a large amount of costly damage to that component.****

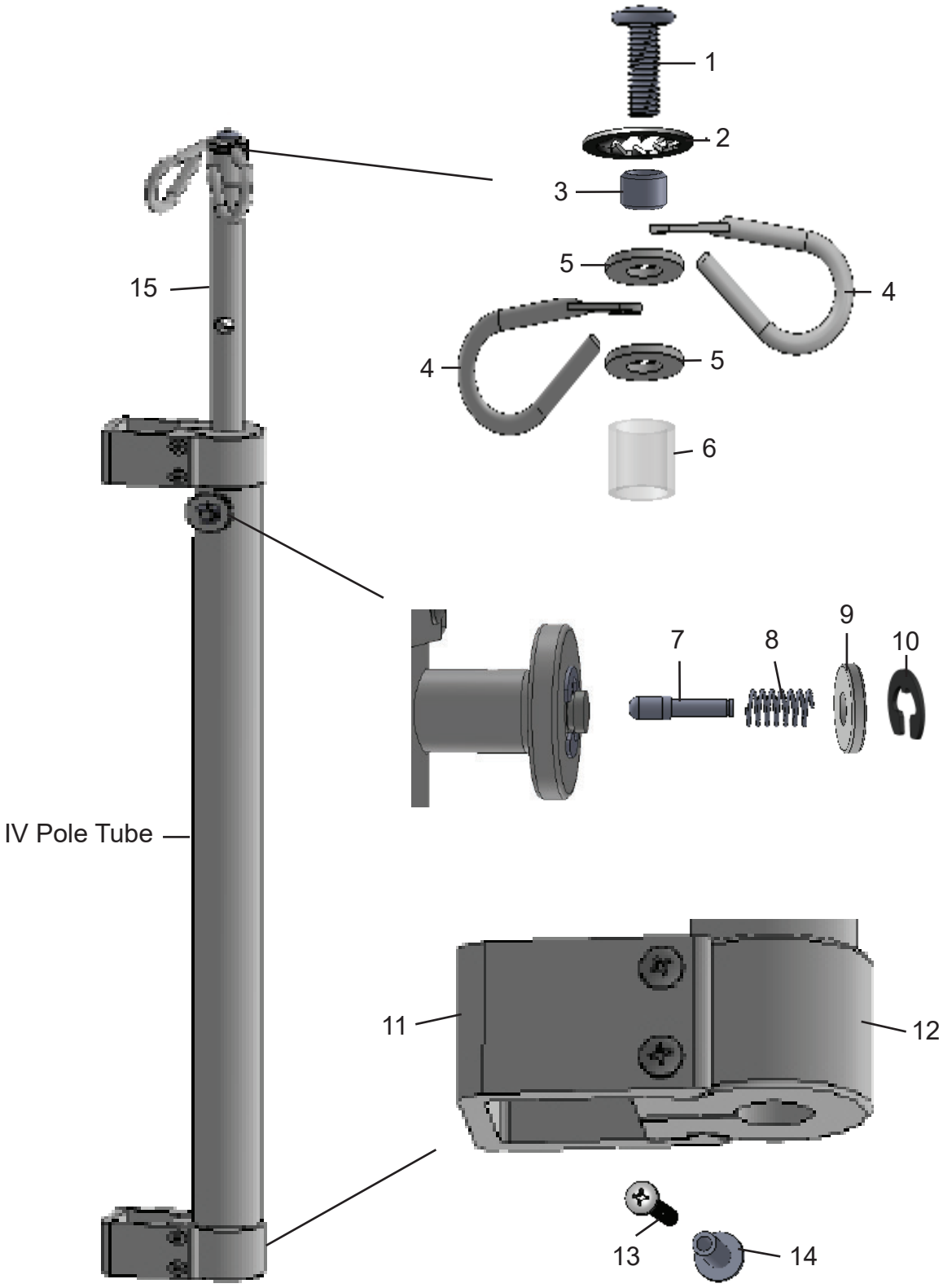
The Hi-Lo feature on the Springfield Cribs will allow the height of the mattress platform to be raised approximtely 10” to help prevent caregiver fatigue.

Unlike the head and foot/knee sections on the cribs, there is no indicator to signal when you are approaching the maximum height of the Hi-Lo system. The 10” maximum is reached with **19 turns** of the Hi-Lo crank handle.

NOTE: The Mattress Platform Assembly will not raise higher than the stated 10”. The crank handle will continue to turn after 19 revolutions, however it will become noticeably more difficult. Continued cranking will only put stress on the crank handle components and eventually cause them to break.

The patient should never be left unattended when the mattress platform is in the highest position.

*1904 IV POLE COMPONENT DIAGRAMS



*Corresponding parts list is on the following page.

*1904 IV POLE PARTS LIST

#	Part Description	Qty.	Part #	Notes
	***1904 IV Pole**	**1**	***1904**	**Complete IV Pole Assembly**
1	Screw	1	63392	
2	Lock Washer	1	63458	
3	Spacer	1	11628	
4	Hook	2	11627	Specify color when ordering
5	Washer	2	11555	
6	Plastic Spacer	1	62083	
7	Release Pin	1	11852	
8	Compression Spring	1	63006	
9	Plastic Washer	1	11531	Used as release knob
10	Retaining Ring	1	63034	
11	Plastic Bracket	2	11553	Available also as a set in hardware bag 72079
12	Plastic Connector	2	11552	
13	Screw	4	62047	
14	Connector Nut	4	60319	
15	Inside Tube ass'y	1	81550	Inside tube- no hardware included
	Plug	1	63452	Not shown
	Stop Ring	1	81080	Not shown-internal component
	Hardware Bag	**1**	**72081**	**Includes everything listed above excluding #15**

The *1904 IV Pole is a standard feature on all of HARD Manufacturing cribs that do not have a safety top.

ASSEMBLY INSTRUCTIONS

1. Remove all parts from packaging.

2. Place plastic brackets (11) on the inside of the desired crib corner post and press end of brackets outward around the post.

3. Place a plastic connector (12) around the IV pole tube at the top just above the release pin (7), and another at the bottom of the IV pole tube.

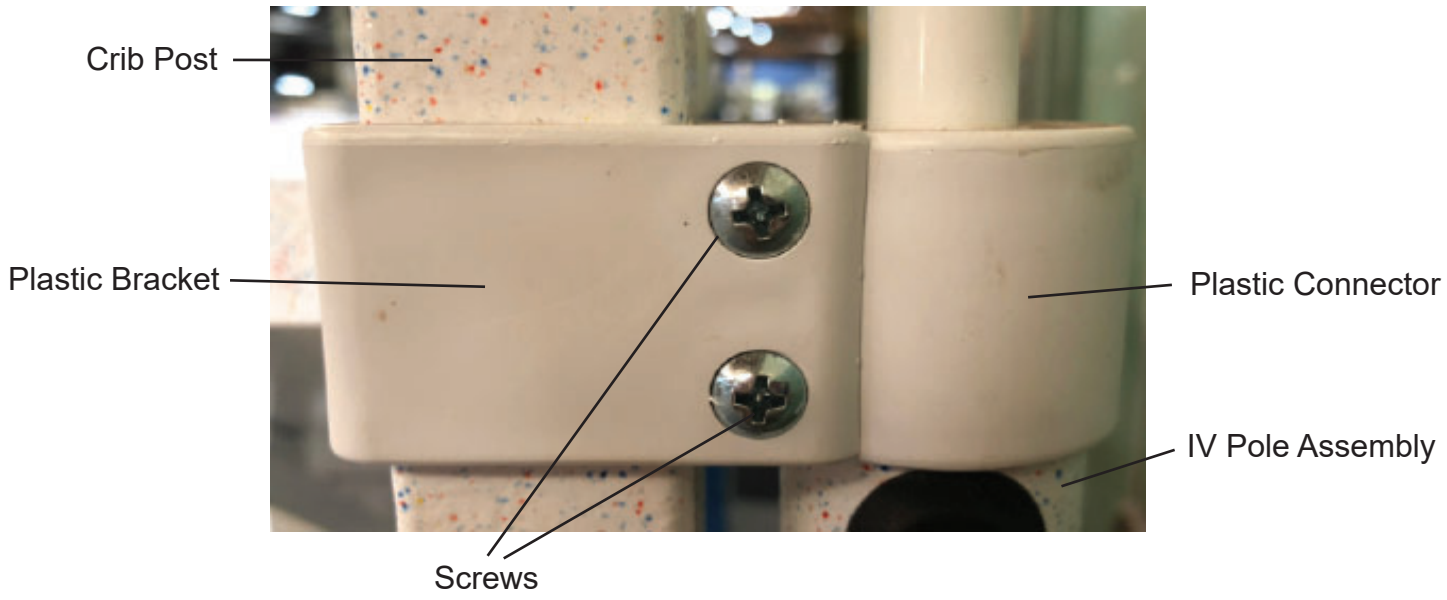
4. Holding the IV pole assembly with the release pin (7) facing outwards away from the crib, turn the plastic connectors (12) to face the open ends of the plastic brackets (11), then press plastic connectors into the plastic brackets until they lock together.

5. Align the holes in the bracket and connector, then tap in the two connector nuts (14) into the holes in both the top and bottom brackets/connectors.

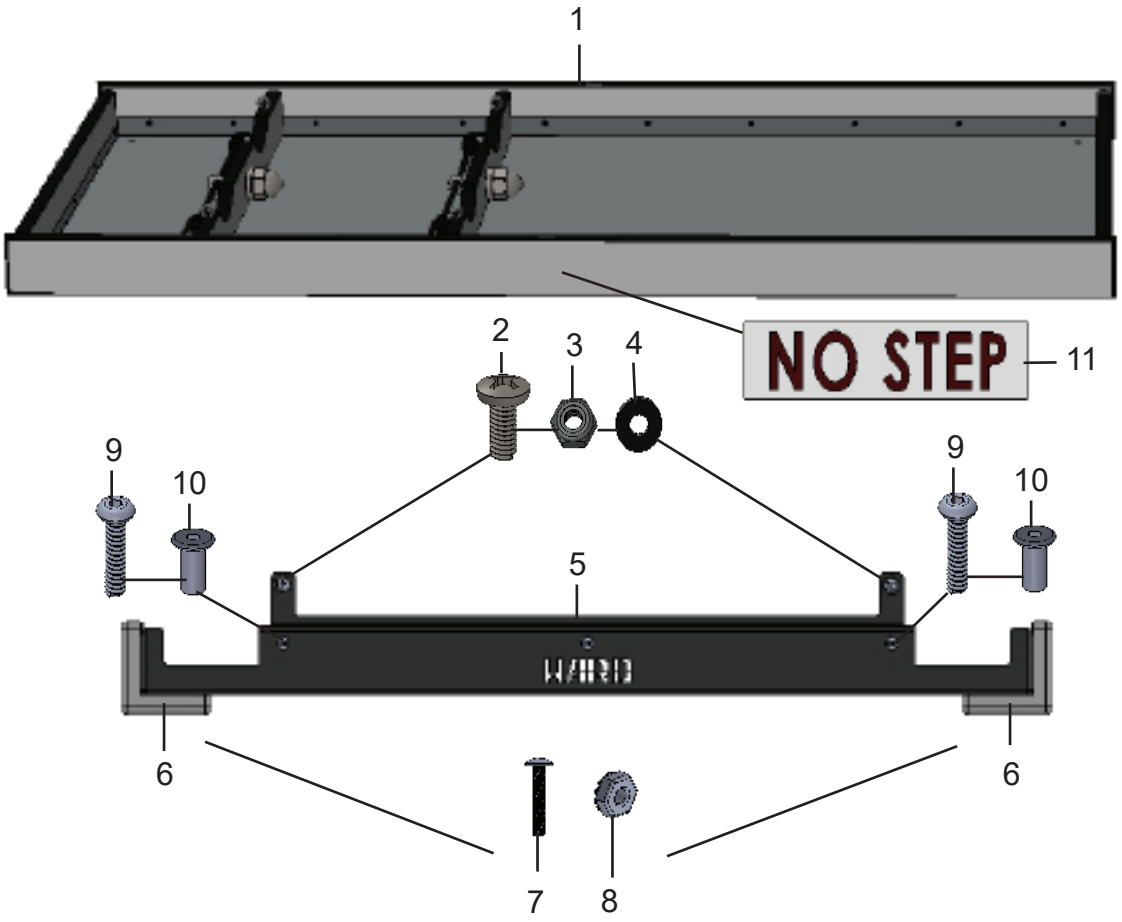
6. Insert the two screws (13) into the two connector nuts in the top bracket/connector and begin to fasten but do not completely tighten them at this time. Repeat with the bottom bracket and then go back and finish tightening the parts at the top.

Do not overtighten the bracket/connector or the plastic may break prematurely as a result.

7. Assembly is complete. Check the inside tube assembly to be sure it raises and lowers freely when release pin (7) is pulled back and should lock in several positions when released.



SHELF & BUMPERS DIAGRAM & PARTS LIST



#	Part Description	Part #	Qty	Notes
1	Under Crib Shelf with O2 cut outs- 1813	88162	1	Complete shelf with hardware. Does not include bumpers or hardware for bumpers.
	Under Crib Shelf with O2 cut outs- 1831	88163	1	
	Under Crib Shelf with O2 cut outs- 1842	88164	1	
	Under Crib Shelf with O2 cut outs- 1852	88165	1	
	Under Crib Shelf with O2 cut outs- 1873	88166	1	
2	Screw 1/4-20x5/8	63392	4	Used to attach shelf to bumper
3	Jam Nylon Locknut 1/4-20	63413	4	
4	Washer 1/4	63443	4	
5	Bumper Assembly- 1813, 1831 & 1842	84128	2	Assembly includes #6, 7 & 8 only with bumper plate
	Bumper Assembly- 1852 & 1873	84126	2	
6	Grey Corner Bumpers	63896	4	
7	Screw 8-32x7/8	60129	8	For grey corner bumper
8	K-Nut 8-32	60139	8	
9	Button Socket Cap Screw 1/4-20x7/8	60242	6	Used to attach bumper to the crib
10	Connector Nut 1/4-20	60245	6	
11	“NO STEP” Sticker	62180	2	Position: middle of both of the long sides of the shelf

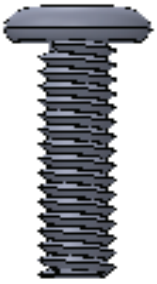
REPLACING OR INSTALLING AN UNDER CRIB SHELF OR BUMPER SYSTEM

HARDWARE IDENTIFICATION

Note: If the crib or bed does not have a bumper system, the under crib shelf will attach in a different manner. Please contact us for instructions in that situation.

Suggested Tools:

1. 5/32” Allen Wrench
2. 3/16” Allen Wrench
3. #2 Phillips Screwdriver
4. 7/16 Wrench



#60242 x 6

1/4 - 20 x 7/8 button socket cap screw

#60245 x 6

1/4 - 20 connector nut

#63413 x 4

Jam Nylon Locknut

#63443 x 4

Washer 1/4

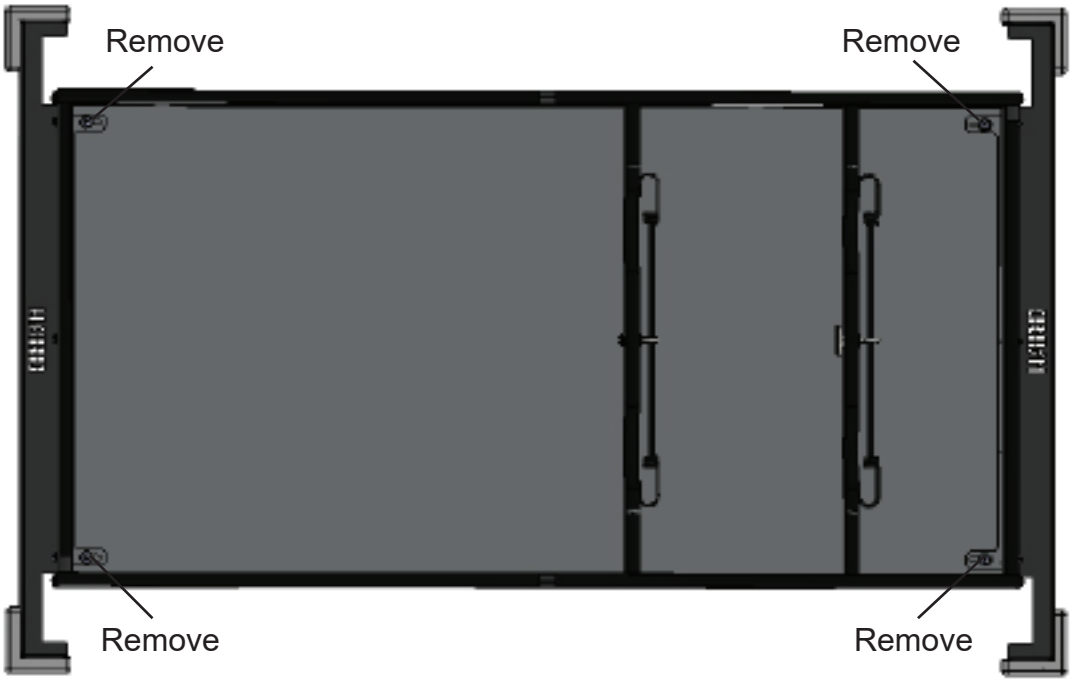
#63392 x 4

Screw 1/4-20x5/8

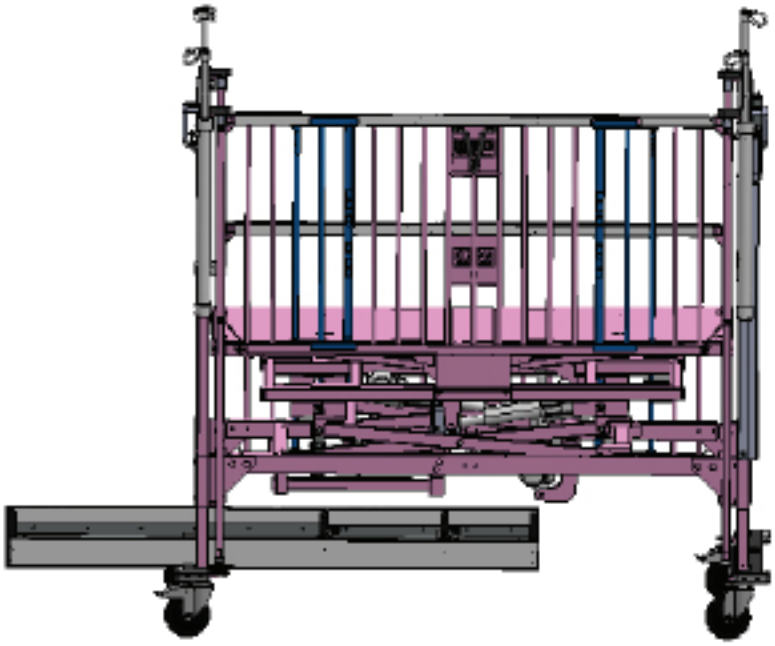
Bumper Assembly- Part numbers vary based on crib size. Consult parts list for the correct part#.

REPLACING OR INSTALLING AN UNDER CRIB SHELF OR BUMPER SYSTEM

1. To begin removal of a damaged shelf or bumpers, first remove the 4 screws #63392, 4 locknuts 63413 and washers 63443 located in the 4 corners of the shelf as shown.



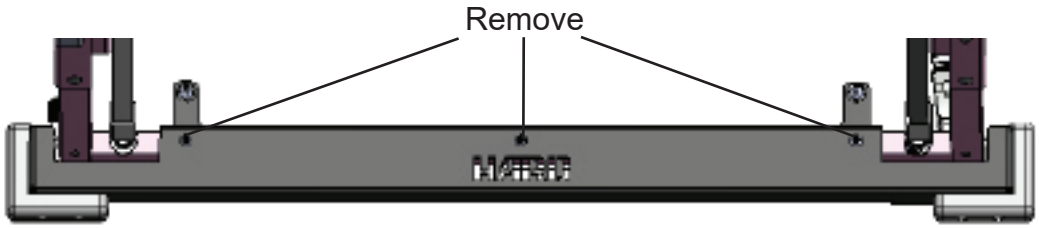
2. Slide the shelf out of the crib through one of the ends as shown.



REPLACING OR INSTALLING AN UNDER CRIB SHELF OR BUMPER SYSTEM

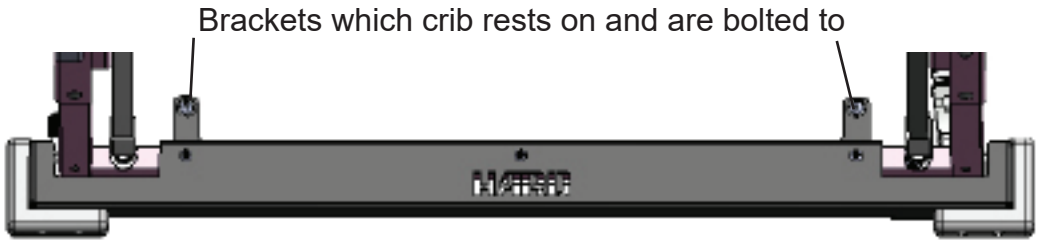
If only the shelf is being replaced, simply slide the new shelf through one of the crib ends. Line up the holes in the 4 corners of the shelf with the holes in the brackets on the bumper plates as shown below, and reinstall the 4 screws #63392, the 4 locknuts #63413 and the 4 washers #63443 and re-assembly will be complete.

3. To remove a damaged bumper, remove the 3 cap screws 60242 and 3 connector nuts 60245 as shown, then remove the damaged bumper. Disassembly is complete.



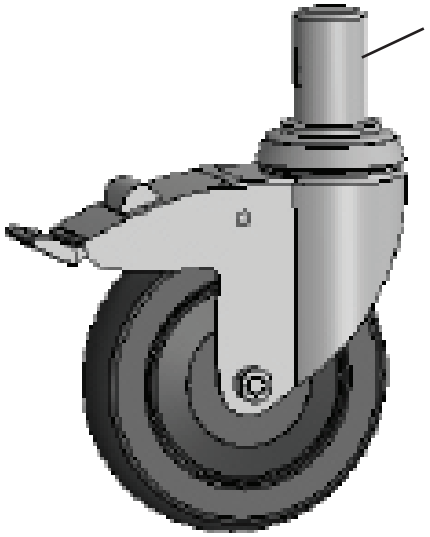
4. Install the new bumper plate(s) by aligning the holes in the plate with the holes in the crib cross bar, and install 3 cap screws 60242 and the 3 connector nuts 60245 in each bumper plate.

5. If a new shelf is being installed as well, there will be brackets on which the shelf rests on and is bolted to as shown below. Slide the shelf through one of the ends of the crib as shown in Step #2. Align the holes in the shelf with the holes in the bumper plate bracets and install the 4 screws #63392 from the top, and the 4 locknuts #63413 and 4 washers #63443 from the bottom.



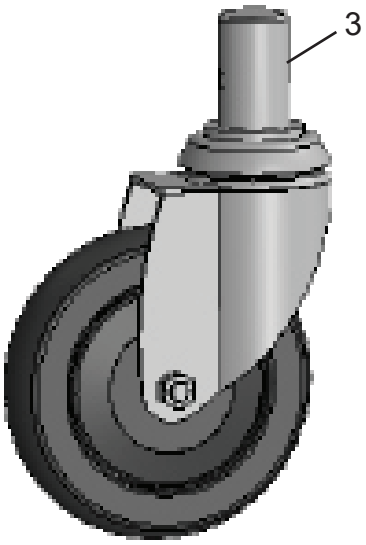
Assembly is complete.

CASTERS & MISC



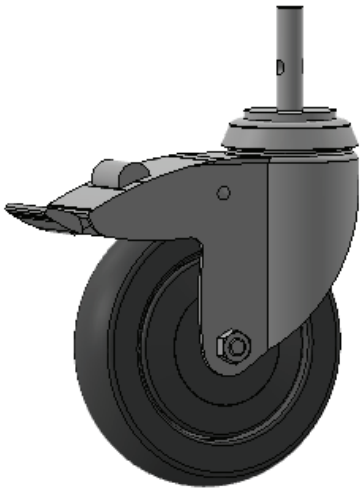
Heavy duty casters
*BC-65 with large bolt in stem.

On cribs and beds made 2015 to present.



#	Part Description	Part #	Notes
	5” Heavy Duty Casters- 2015 to present	*BC-65	Full set with hardware- 1 Steer, 2 Brake, 1 Swivel & Hardware
1	Steer Caster	72100	Located at head end right side
2	Brake Caster	72101	Located at head end left side and foot end right side
3	Swivel Caster	72102	Located at foot end left side
4	Bolt- 8-8x10mm	61007	2 per caster
	5” Casters- Full set includes: 1 Steer, 2 Brake, 1 Swivel & 3 Caster Sockets	*BC-40	See Below. This set of casters is on all hospital cribs manufactured prior to 2015.
	Steer Caster	72103	
	Brake Caster	72104	
	Swivel Caster	72105	
	Caster Socket	60606	
	Bright White Touch Up Paint- 1/4 pint	00564	Enamel based paint
	Antique White Touch Up Paint- 1/4 pint	00562	

Position of the casters is determined by standing at the foot end of the crib.



Old style brake caster 72104 with narrow stem used with a black plastic caster socket.

On cribs and beds made prior to 2015.

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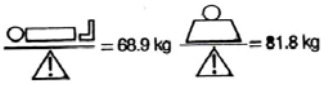
CAUTION SHEET

All bolts and other fasteners must be securely tightened and maintained when crib is put into service.

Before each usage or assembly, inspect crib for damaged hardware, loose joints, missing parts or sharp edges.

Symbology Definitions / Technical Labels

The following designations of symbols which are found on various labels on the bed and discussed in the Manual.

 Consult Accompanying Documents	 Alternating Current, Single Phase
 Attention, Consult Accompanying Documents	 Type B Applied Part
 Warning Dangerous: Voltage	 Protective Earth (Ground)
 Atmospheric Pressure Limits	 Humidity Limits
 Temperature Transportation Conditions	 Weight Limits

Technical parameters of these beds place them in the following categories:

a) Class 1 equipment
b) Type B equipment
c) IPX4 ingress of water (ordinary equipment)
d) Equipment not suitable for use in the presence of fammable anaesthetic mixture with air or oxygen or nitrous oxide
e) Mode of operations continuous with intermittent loading

To avoid overheating the motor after raising and lowering the bed three full times in successions, HARD Manufacturing Company requires a fifteen minute break before repeating the same

The nations #1 manufacturer of hospital cribs

CLEANING INSTRUCTIONS FOR HARD MANUFACTURING CRIBS, BEDS & MATTRESSES

CRIBS OR BEDS

♦ HARD Manufacturing recommends the cribs and beds be washed by hand with a non-abrasive cleaner of your facility's choice and then thoroughly dried with a soft cloth or towel. Our equipment should never be placed in a machine for cleaning or subject to steam guns or pressure washers of any kind. Do not allow the crib or bed to air dry as pools of water left on the mattress pan surface or near bolt holes may eventually lead to premature corrosion.

♦ We suggest the use of a cleaner such as one that contains Quaternary Ammonium Chloride (Quats). Quats will both clean the crib or bed as well as disinfect it without oxidizing the epoxy coating.

♦ Any type of cleaner containing ammonia, alcohol, bleach or any other chemical that is abrasive should never be used on our cribs or beds for any reason.

MATTRESSES

♦ For mattresses, HARD Manufacturing recommends they be wiped down with a cleaner/disinfectant of the facility's choice. Our mattresses should not be subjected to any type of power washing. Bleach should never be used on our mattress as it may discolor the fabric.

♦ Mattresses should never be put back on the crib if the cover is not thoroughly dry. Failure to do so may cause premature corrosion on the pan mattress surface.

♦ Mattresses should always be allowed to dry in a flat position, never in an upright position. Failure to keep the mattress flat during the drying process could lead to the foam inside the cover to shift, creating permanent damage/lumps in the mattress.

VINYL CURTAINS

♦ Vinyl curtains and the vinyl top/ceiling covers on Springfield Cribs, Critical Care II Cribs and Monroe Beds can be cleaned with a non-caustic, non-alkaline emulsified detergent to remove oil, dirt, grease, etc. The detergent should be sprayed on or applied with a rag and immediately wiped off. Be sure to dilute the detergent as per the manufacturer's instructions prior to use.

Please note failure to follow the recommended cleaning guidelines stated by HARD Manufacturing can cause permanent damage to the crib/bed and/or mattress which will not be covered under warranty.

MADE IN USA FDA ISO 13485:2016 CERTIFIED SGS

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PREVENTATIVE MAINTENANCE GUIDE FOR MANUAL HOSPITAL CRIBS

The intent of this document is to provide health care facility engineers, maintenance personnel and other health care professionals involved in the operation and maintenance of manual cribs made by Hard Manufacturing the comprehensive information needed to achieve their expected 9 year service life.

We recommend the preventative maintenance checklist provided be performed once per year per crib at minimum.

If a crib is damaged in any way that poses a safety issue to either the patient or staff utilizing it, we recommend that it be removed from service and subjected to a complete preventative maintenance inspection. A checklist of suggested items can be found below and the following pages.

1.0 General Operation

CAUTION

1.1 Please refer to the caution pages earlier in this manual for information on the safe operation of one of our electric cribs.

1.2 If a crib is damaged in any way that poses a safety issue to either the patient or staff utilizing it, we recommend that it be removed from service and subjected to a complete preventive maintenance inspection. A checklist of suggested items to review is on the following pages of this document.

1.3 General overall cleaning with mild non-abrasive detergent should be applied at least once (1) per year or at the discretion of your facility. See more detailed cleaning instructions on a separate page of this manual.

2.0 Crib Safety Audit

2.1 Filler Bar Spacing – Examine the spacing between bars of all cribs in service. If a crib has railing spaces that exceed 2-3/8”, remove it from service.

2.2 Entrapment in cribs – Examine the spaces between the mattress support and head, foot and side rails, with the mattress both flat and in a raised position. If the opening exceeds 4”, remove the crib from service.

2.3 Mattress Fit – Inspect your crib mattresses to determine whether they are of adequate size. The mattress should fit snug within the rails and there should not be any sizeable gaps between the mattress and the rails.

2.4 Crib Weld Assembies– Thoroughly inspect head and foot ends, side rails, the mattress platform and any other metal components of the crib frame for bent components, cracks or breaks. Remove from service immediately if any of this type of damage is found.

PREVENTATIVE MAINTENANCE GUIDE FOR MANUAL HOSPITAL CRIBS

HARD Serial # of Inspected Unit:_____Facility Serial # of Inspected Unit_____

3.0 Physical Inspection of Crib Components

YES NO **Side Rails, End Assemblies & Slide Rods**

____ ____ 3.1 Do Any of the rails on the crib have bent filler bars, or damaged or broken welds?

____ ____ 3.2 On both the head and foot ends, check the weld assemblies paying special attention to the upper and lower crib eyes. Are the welds free of damage or breaks?

____ ____ 3.3 Do all trigger assemblies firmly latch in place to secure the rails, and retract & release properly when the Johns Hopkins handle is utilized?

____ ____ 3.4 Does the Johns Hopkins handle operate properly on all rails?

____ ____ 3.5 Raise and lower the side rails and end rails to verify they operate in a smooth motion.

____ ____ 3.6 Are the bushings present in the rail openings at the top and bottom? These are the plastic bushings that help the rail glide up and down on the slide rods.

____ ____ 3.7 Are the components at the top and bottom of the slide rods intact and free of damage?

____ ____ 3.9 Are the protective teething bar covers present on the top of the side rails?

____ ____ 3.10 If the crib has Portland or Dialysis Gates in the side rails, do the trigger assemblies retract and release? Do the gates remain securely closed when tugged on?

Mattress & Mattress Platform Assembly

____ ____ 3.11 Do any of the components of the scissor lift or remainder of the mattress platform have any breaks in the welds or any bent or damaged parts?

____ ____ 3.12 Are the mattress pans showing any signs of rust? If so, refer to the cleaning instructions on the prior pages of this manual. Replacement of those rusted components will be necessary.

____ ____ 3.13 Are all nuts and bolts on the mattress platform securely fastened? *Note- nuts and bolts at the center of the scissor brackets and at the ends of the motors should not be over-tightened or it may impede the smooth movement of the crib functions.*

____ ____ 3.14 Do the crank handles on the foot end all work properly to raise the head, foot & Hi-Lo System on the bed smoothly? Are the components of the crank handles present and intact/unbroken?

____ ____ 3.15 Is the mattress cover completely intact with no tears in the fabric or the trim?

Continued on next page...

3.0 Physical Inspection of Crib Components, Continued

YES NO IV Pole(s)

____ ____ 3.16 Are the brackets and connectors present and free of damage on all IV poles?

____ ____ 3.17 At the top of the IV pole, are all the components present, free of damage and securely fastened?

____ ____ 3.18 On the upper portion of the IV pole, are the components present that are used as the release knob?

____ ____ 3.19 Raise and lower the IV pole to be sure it operates in a smooth, east manner and locks in place properly when raised.

Casters, Under Crib Shelf and Bumper System

____ ____ 3.20 Is the crib able to be moved easily/do the wheels roll smoothly.

____ ____ 3.21 Do the casters show any sign of being bent or not in proper alignment?

____ ____ 3.22 Do the wheels have any flat spots indicating they may have been pushed with brakes on?

____ ____ 3.23 If the crib has heavy duty casters, are the bolts present in all 4 casters and securely fastened? If the crib has the black plastic caster sockets, do they appear to be intact/unbroken?

____ ____ 3.24 Do the locking mechanisms on the steer and brake casters function properly?

____ ____ 3.25 Check the under crib shelf thoroughly. Is it free from any cracks or other damage?

____ ____ 3.26 Is the under crib shelf securely fastened to the bumper system?

____ ____ 3.27 Inspect the bumpers on both ends of the crib. Are the grey corner bumpers present? Are the other portions of the bumpers free of breaks, bends or other damage?

____ ____ 3.28 Are the bumpers both securely fastened to the ends of the crib?

Inspection completed by _____ Date of Inspection_____

The nations #1 manufacturer of hospital cribs

Domestic Hospital Warranty

Five (5) year warranty

HARD Manufacturing will replace at no cost to the purchaser any non-expendable component such as the head and foot end assemblies, side assemblies, mattress platform or any electrical component with the exception of battery backup units, found to have a defect in materials or workmanship within five (5) years from the date of purchase at our discretion.

One (1) year warranty

HARD Manufacturing will replace at no cost to the purchaser any expendable component such as, but not limited to, mattresses, trigger assemblies, slide rods or slide rod components, crank handles, Johns Hopkins handles, battery backup units, vinyl curtains, curtain rods, or IV components found to have a defect in materials or workmanship within one (1) year from the date of purchase at our discretion.

Terms and Conditions of the Warranty Period

The warranty covers normal use of our cribs or youth beds. It does not cover damage or defects that occur due to any of the following:

1. Abuse, misuse, mishandling and excessive wear by staff, patients or parents/caregivers.
2. Modifications of the equipment including the electrical equipment. The covers should never be removed on the motors, transformers, control boxes, scale or staff controls. Doing any type of modification to our cribs or youth beds will void the warranty.

Replacement of any part under warranty is contingent upon the following:

1. The customer is to provide the serial number of the crib or bed as well as the serial number of the defective or damaged part(s) if one exists. If the part is a mattress, the customer must supply the serial number of the mattress as well as photos of both tags on the mattress.
2. The customer is to provide photos of the defective or damaged part.
3. The customer must, if requested by HARD Manufacturing, return the defective or damaged item for inspection prepaid within 30 days of reporting the issue.

Return Policy

Acceptance of returns on all new and unused equipment and parts is at the discretion of HARD Manufacturing. The purchaser will be responsible for a restocking fee and the freight costs associated with returning the equipment or item.

Maintenance

Placing cribs and youth beds in cart washers and/or the use of steam spray guns for disinfecting is not recommended. Use a non-abrasive cleaning solution such as a mild detergent and thoroughly dry all components of crib or bed prior to replacing the mattress on the unit. Solvents containing alcohol, ammonia or other abrasives should be avoided. Failure to follow the suggested cleaning/drying instructions could lead to premature corrosion and require replacement of the mattress.

Expected Service Life of HARD Manufacturing Cribs or Beds is 9 years.

MADE IN USA FDA ISO 13485:2016 CERTIFIED SGS

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