

# ASSEMBLY INSTRUCTIONS

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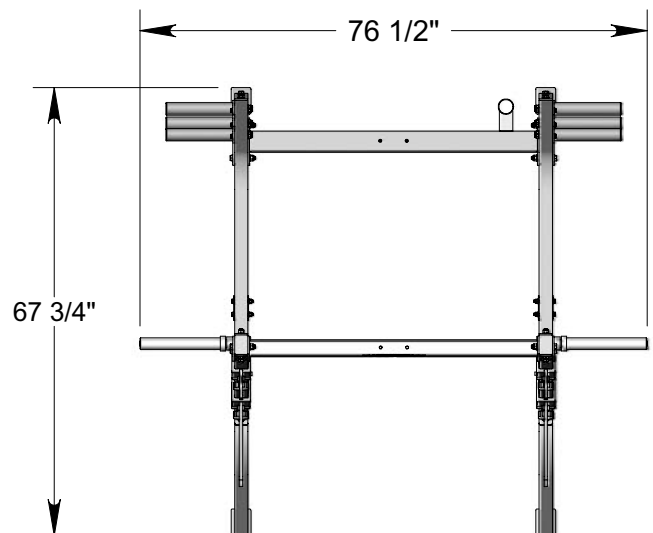


Revision Date 04-03-03

## Smith-Half Cage Series

Includes Assembly for:

- TBU-335**  
Base Unit
- THC-43C**  
Half Cage Conversion Kit
- TSM-45L**  
Smith Linear Bearing Press Kit



L 67 3/4" W 76 1/2" H 82"

America's Premium Exercise Equipment



## About the Smith-Half Cage Series

Congratulations on your new purchase of the Smith-Half Cage Series. This gym is capable of a variety of different exercises, as well-as, smooth and user-friendly adjustment features. In addition, this gym has been designed to meet the needs and performance requirements for a suitable home exercise machine. We hope you are completely satisfied with this product and wish you many years of enjoyment.

## Tuff Stuff Equipment

This Tuffstuff product has been built to precise quality standards and has been carefully packaged to ensure that damage will not occur during shipment. The Home Lifetime Warranty and signature indicating final inspection has been conducted by our line foreman, is an expression of our confidence in the completeness, the materials, and workmanship of this product.

## Warranty

SEE A COPY OF WARRANTY ON BACK PAGE.

## Registration Card

To avoid unnecessary delays in warranty service and to insure that a permanent record of your purchase is on file with our factory, be sure to complete the warranty registration card and send it to Task Industries today.

## Specifications

	TBU-335	THC-43C	TSM-45L
1. Maximum Wt. Capacity	N/A	400 Lbs.	300 Lbs.
2. Total Machine Weight	220 Lbs.	40 Lbs.	80 Lbs.
3. Footprint (LWH)	- See Front Cover		

## Prior to the Assembly of the Smith-Half Series

1. We advise you to consult your local Tuff Stuff retailer if you should have a question or problem regarding the proper assembly of this unit.
2. Consider the complete surface area of the Smith-Half Cage Series. Use the overhead view located on the front page for designing your layout before assembling. Once the Smith-Half Cage Series has been fully assembled it will be heavy and difficult to move, therefore you should assemble the unit in the area where it is to be used upon completion.
3. It is recommended that another person assist you with the assembly of this unit.
4. Neatly organize and identify all parts according to the Parts List and the Exploded View Diagrams on pages 7 - 9.

## Tool Requirements

1. One 3/4" combination wrench
2. One 9/16" combination wrench
3. One ratchet
4. One 3/4" socket
5. One 9/16" socket
6. One rubber mallet
7. Windex or household glass cleaner
8. One can silicone spray/ teflon spray lubricant
9. Measuring tape
10. Utility knife

## About the Icons

The icons displayed in this Assembly Instructions are used to facilitate the correct assembly and safe use of this Product, as well-as to prevent injury to yourself or anyone else.



**Note** provides information necessary to properly complete a procedure or information which will make the procedure easier to understand.



**Caution** indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



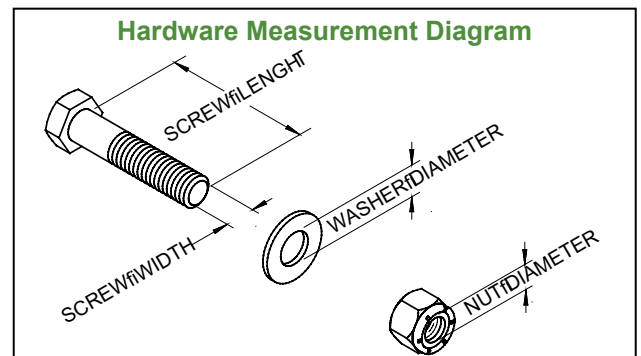
**Loosely Fasten** provides a instruction to loosely fasten (ex: *hand tighten*) a hardware assembly only. This instruction is intended for the alignment of hardware components during the assembly process.



**Fully Fasten** provides a instruction to fully fasten (ex: *completely tighten*) a hardware assembly.

## Assembly Notes

1. Read and follow each step of this Assembly Instruction Manual in sequence. Do not skip ahead, as it will result in an improper assembly or in having to disassemble parts later.
2. During the assembly of this unit you will be instructed to leave some Hex Head Cap Screws loosely fastened. Naturally, they will be fully fastened later in the assembly process. This is done to prevent any difficulty with alignment of some parts during this assembly.



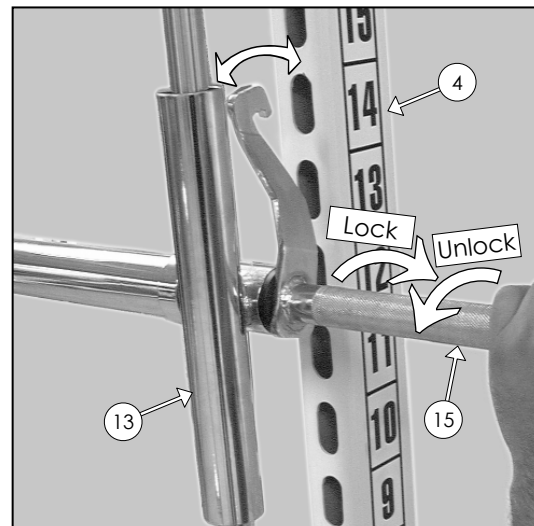
**Note:** Due to continuing product improvements, specifications and designs are subject to change without notice.

## Safety Precautions

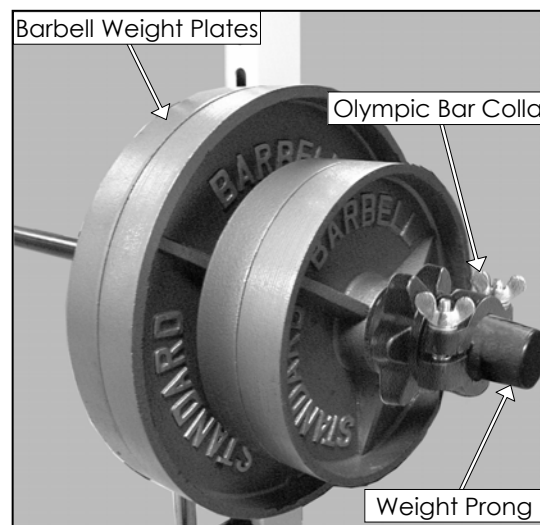
### Safety First

Regardless of how enthusiastic you may be about getting on your equipment and exercising, take the time to ensure that your safety is not jeopardized. A moment's lack of attention can result in an accident, as can failure to observe certain simple safety precautions.

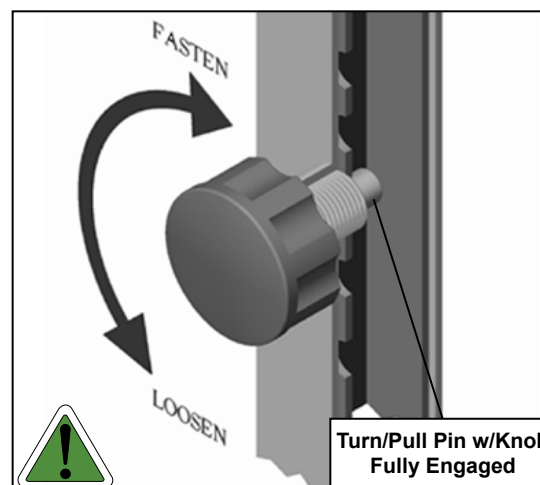
1. Read, study and understand the Assembly Instructions and all the warning labels on this product. Furthermore, it is recommended to familiarize yourself and others with the proper operation and workout recommendations for this Tuff Stuff product prior to use. Some of this information can be obtained in this Assembly Instructions, as-well-as from your local Tuff Stuff Retailer.
2. It is imperative that you retain this Assembly Instructions and be sure all warning labels are legible and intact. Replacement of the Assembly Instructions and labels are available from your local Tuff Stuff Retailer.
3. Consult with your physician before beginning any exercise program.
4. Use proper discretion when children are present.
5. Keep hands, limbs, loose clothing and long hair well out of the way of moving parts.
6. Do not attempt to lift more weight than you can control safely.
7. Inspect the Smith-Half Cage for any sign of wear on parts, hardware becoming loose or cracks on welds. If a Problem is found **do not use or allow the machine to be used** until defective part is repaired or replaced.
8. The **Press Bar (#15)** has a swivel locking mechanism that allows you to safely lock out the **Press Bar (#15)** at virtually any setting. See **Fig. A**.
9. The **Safety Spotter Hooks (#11, #12)** prevent the bar from being lowered below desired point and avoid getting crushed under the **Press Bar (#15)** if the weight is too heavy to control. Use the Decal-numbers 1-20 (#64) on the **Front Uprights (#4)** to ensure that the **Safety Spotter Hooks (#11,#12)** are set to an equal adjustment setting (same height).
10. Before you add weight plates to the **Press Bar (#15)**, you should first set-up the **Safety Spotter Hooks (#11,#12)** for the desired exercise. It is recommended that you test the desired setting **without** weight plates on the **Press Bar (#15)** to make sure the **Safety Spotter Hooks (#11,#12)** are on the appropriate exercise setting.
11. If you are adding or storing weight plates on the **Olympic Adapters (#7)** or the **Press Bar (#15)**, do not over-load them. Allow enough space to put a weight collar into place. See **Fig. B**
12. Do not drop heavy weight on the **Safety Spotter Brackets (#10)**, as it can result in damage to the equipment.
13. Pay special attention to the Turn/ Pull Pins w/Knob (#138) located on the **Bar Holders (#18)** and the **Bar Safety Spotters (#17)**. Be sure they are fully engaged into the selectorized holes of the **Front Uprights (#4)**. Refer to **Fig. C** for further illustration.



**Fig. A** Illustration above depicts the **Press Bar (#15)** locking mechanism.

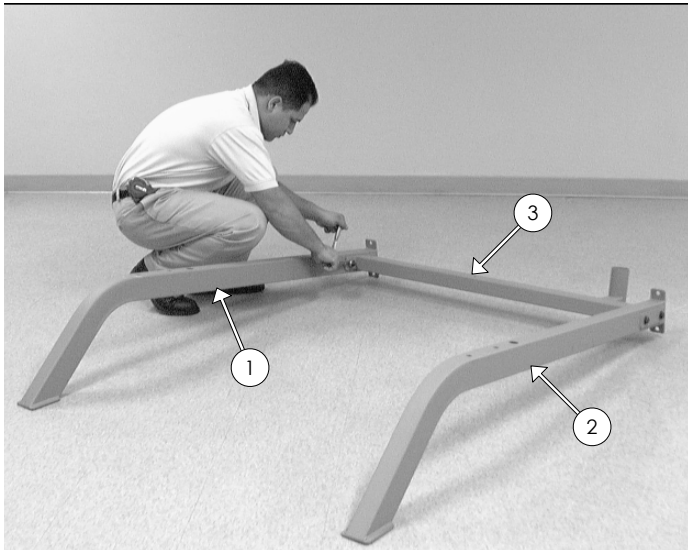


**Fig. B** **Caution:** Use collars to prevent the weight plates from falling off the **Olympic Adapters (#7)** on the **Press Bar (#15)**.



**Fig. C** **Caution:** Check that all **Turn/Pull Pin w/Knob (#138)** to be fully engaged into the selectorized holes of the **Front Uprights (#4)**.

TBU-335

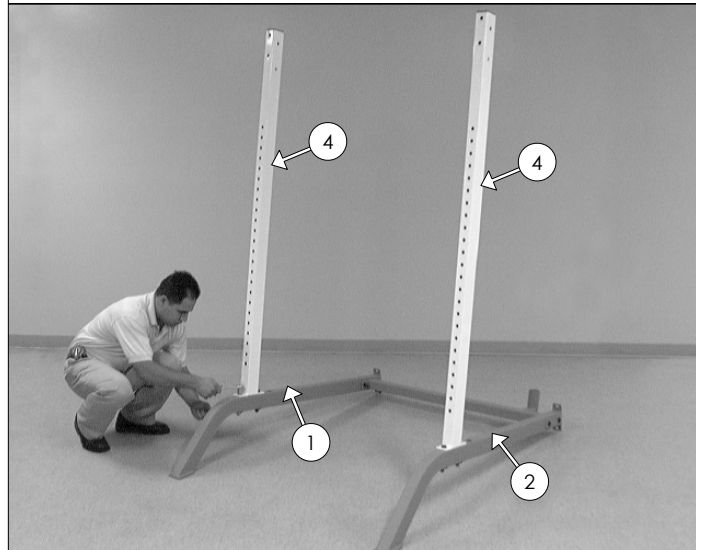


**FIG. 1** Locate the two **Bottom Frames (#1, #2)** and the **Bottom Cross Brace (#3)** and attach them, in the position as shown above, using four Hex Head Cap Screws 1/2-13 X 3 1/2 (#77), four Flat Washers SAE 1/2" (#70), and two Nylon Insert Lock Nuts 1/2-13 (#101).



**Caution:** It is strongly recommended to use another person in assisting with the following assembly.

TBU-335

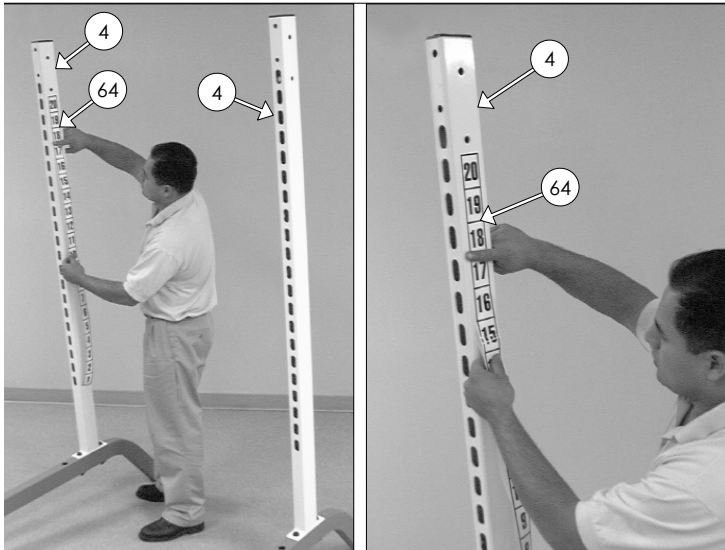


**FIG. 2** Attach the two **Front Uprights (#4)** to the two **Bottom Frames (#1, #2)**, in the position as shown above, and secure them into place using four Hex Head Cap Screws 1/2-13 X 4 1/4 (#78), four Flat Washers SAE 1/2" (#70), four Flat Washers 1/2 X 1 3/4 (#68), and four Nylon Insert Lock Nuts 1/2-13 (#101).



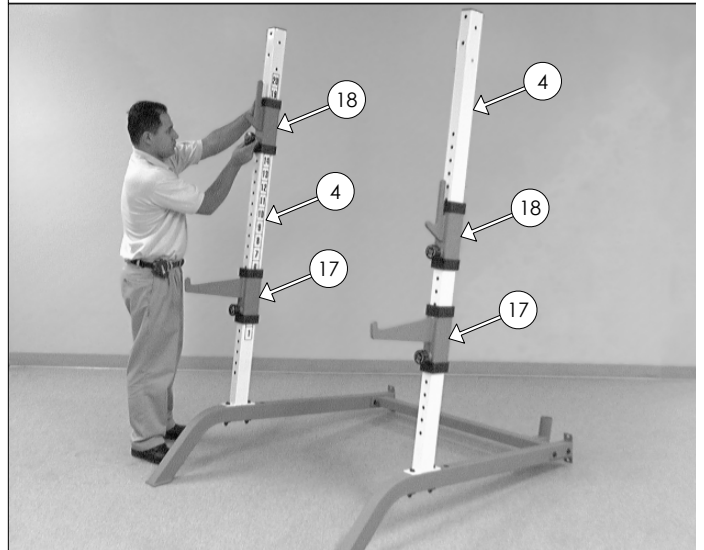
**Note:** Make sure to assemble the **Front Uprights (#4)** with the oval hole pattern towards to the back of the Unit.

TBU-335



**FIG. 3** Next, attach the Decal Numbers 1-20 (#64) to both **Front Uprights (#4)**. Center the number 20 with the second adjustment hole of the **Front Upright (#4)**. A great way to make sure you don't trap any air bubbles under the decal is by using the wedge method. Press the side of your index finger against the decal and as you slide your finger down, with the other hand, slowly remove the rest of the backing off the decal.

THC-43C



**FIG. 4** Next, slide the **Bar Safety Spotters (#17)** onto the **Front Uprights (#4)**. Then, slide the **Bar Holders (#18)** onto the **Front Uprights (#4)** as shown above.



TSM-45L

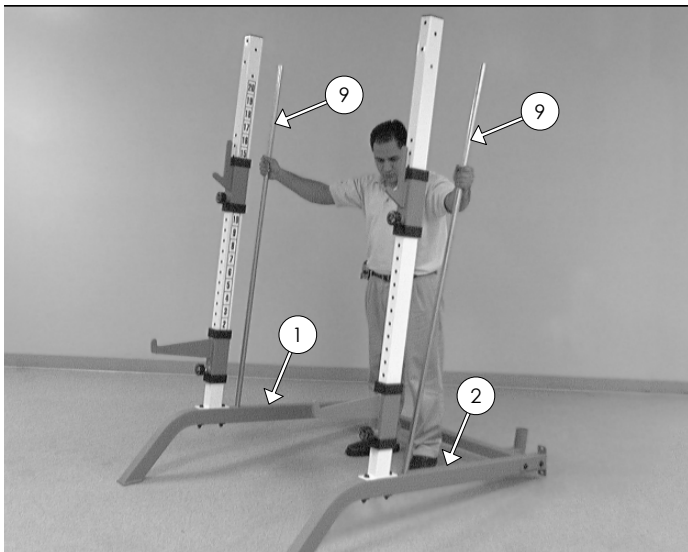


FIG. 5 Insert the **Linear Shafts 1 X 70 (#9)** into the receptacles of the **Bottom Frames (#1, #2)**.

TSM-45L

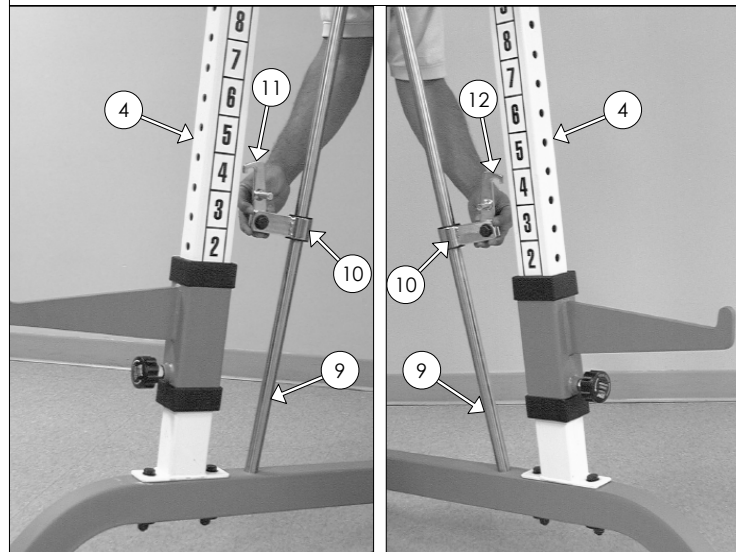


FIG. 6 Insert the assembled **Safety Spotter Brackets (#10)** onto the **Linear Shafts (#9)**.



**Caution:** It is strongly recommended to use another person assisting with the following assembly.

TSM-45L

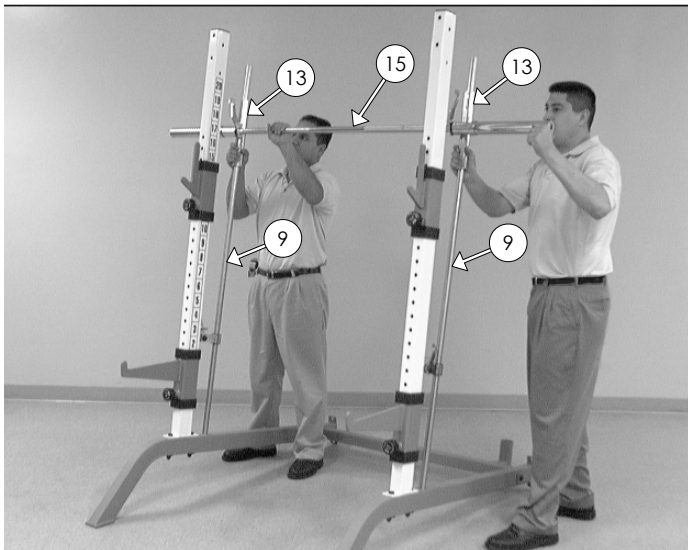


FIG. 7 Align the **Chrome Press Bar Housings (#13)** with the **Linear Shafts (#9)** and carefully begin sliding the assembled Press Bar down onto the **Linear Shafts (#9)**.

TSM-45L

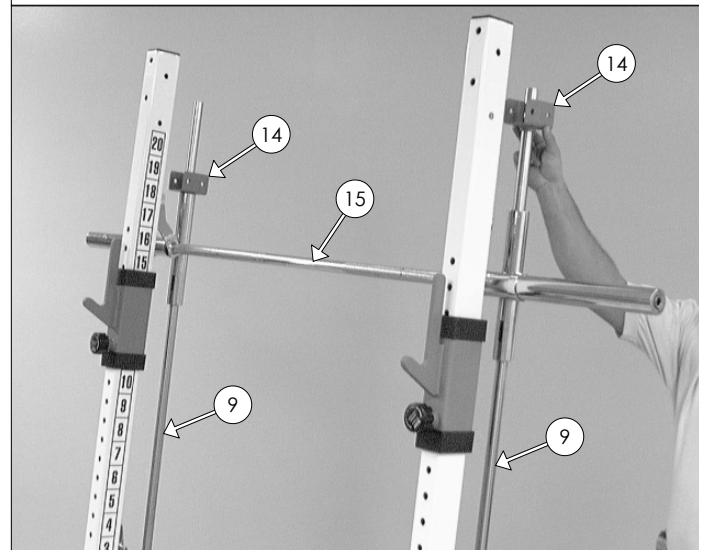
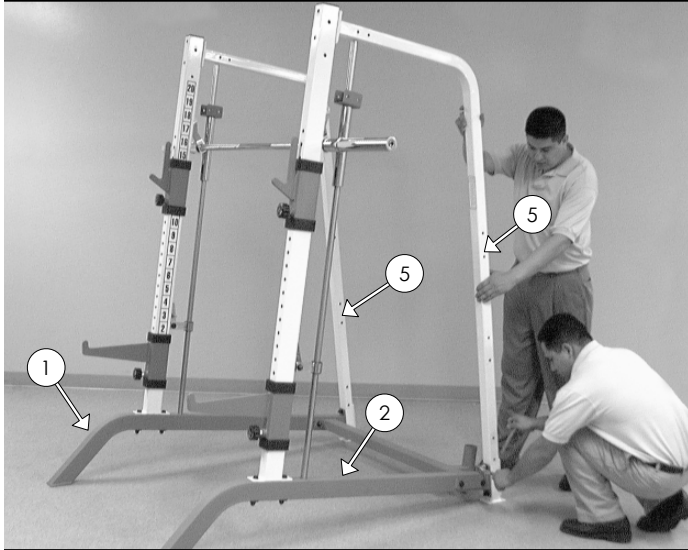


FIG. 8 Next, insert the **Shaft Retainers (#14)**, in the position as shown above, to the **Linear Shafts (#9)**.




**Caution:** It is strongly recommended to use another person assisting with the following assembly.

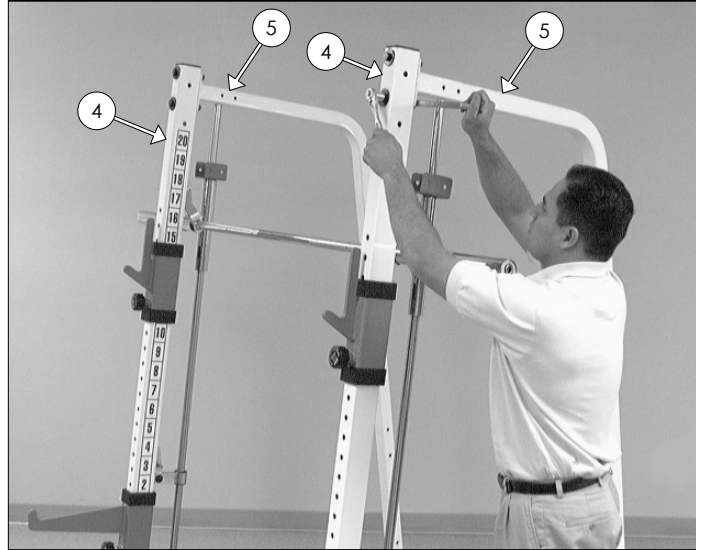
TBU-335



**FIG. 9** Affix the two **Rear Side Supports (#5)** to the two **Bottom Frames (#1, #2)** using four Hex Head Cap Screws 1/2-13 X 3 1/2 (#77), eight Flat Washers SAE 1/2" (#70), and four Nylon Insert Lock Luts 1/2-13 (#101).

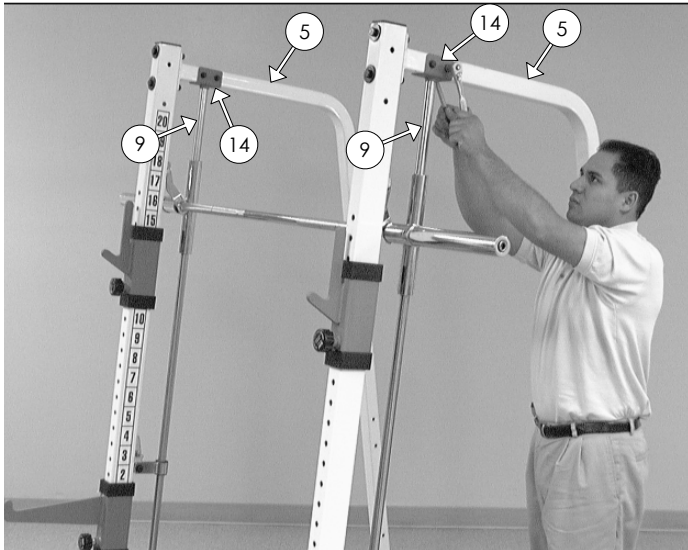
 **Loosely Fasten:** Do not completely fasten this hardware assembly at this time, as it will be completely fastened later in the assembly process.

TBU-335



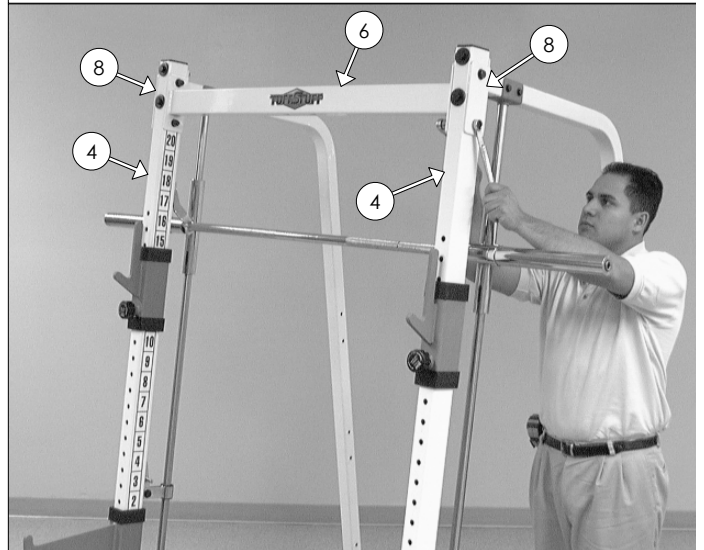
**FIG. 10** Next, affix the two **Rear Side Supports (#5)** to the two **Front Uprights (#4)** using four Hex Head Cap Screws 1/2-13 X 4 1/4 (#78), four Flat Washers 1/2 X 1 3/4 (#68), four Flat Washers SAE 1/2" (#70), and four Nylon Insert Lock Nuts 1/2-13 (#101).

TSM-45L



**FIG. 11** Secure the two **Shaft Retainers (#14)** along with the two **Linear Shafts 1 X 70 (#9)** to the **Rear Side Frames (#5)** using four Hex Head Cap Screws 3/8-16 X 3 (#85), eight Flat Washers SAE 1/2" (#71), and four Nylon Insert Lock Nuts 3/8-16 (#99).

TBU-335



**FIG. 12** Attach the **Top Cross Brace (#6)** to the top of both **Front Uprights (#4)** using two **Reinforcement Plates 3 X 7 (#8)**, four Hex Head Cap Screws 1/2-13 X 3 1/2 (#77), eight Flat Washers SAE 1/2" (#70), and four Nylon Insert Lock Nuts 1/2-13 (#101).


 **Fully Fasten:** Proceed to align and fully fasten this hardware assembly and all of the previous assemblies that were loosely fastened.

FIG. 3

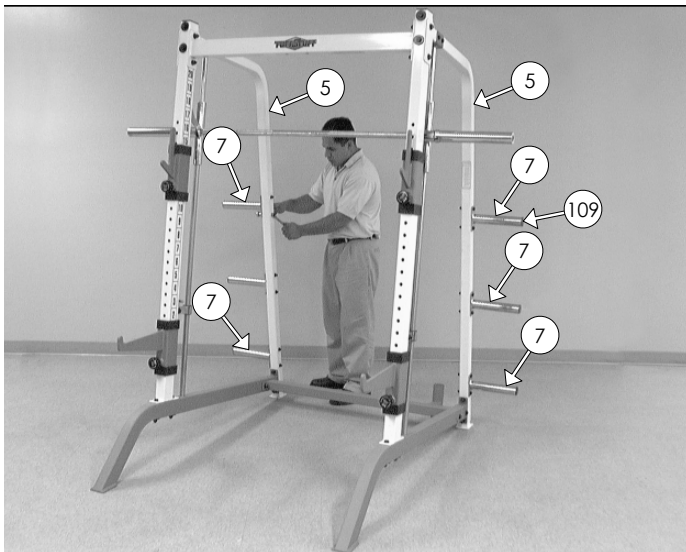


FIG. 13 Using a rubber mallet, insert one Plastic Insert Cap 1 7/8" i.d. (#109) into the tube-end of each one of the **Olympic Adapters w/Plate (#7)**. Next, attach the six **Olympic Adaptors w/Plate (#7)** to the two **Rear Side Frames (#5)** using twelve Hex Head Cap Screws 1/8-16 X 3 (#85), twenty-four Flat Washers SAE 3/8" (#71), and twelve Nylon Insert Lock Nuts 3/8-16 (#99).



FIG. 14 Picture of the assembled **TBU-335 Base Unit** with the **THC-43C Half Cage Conversion Kit**.



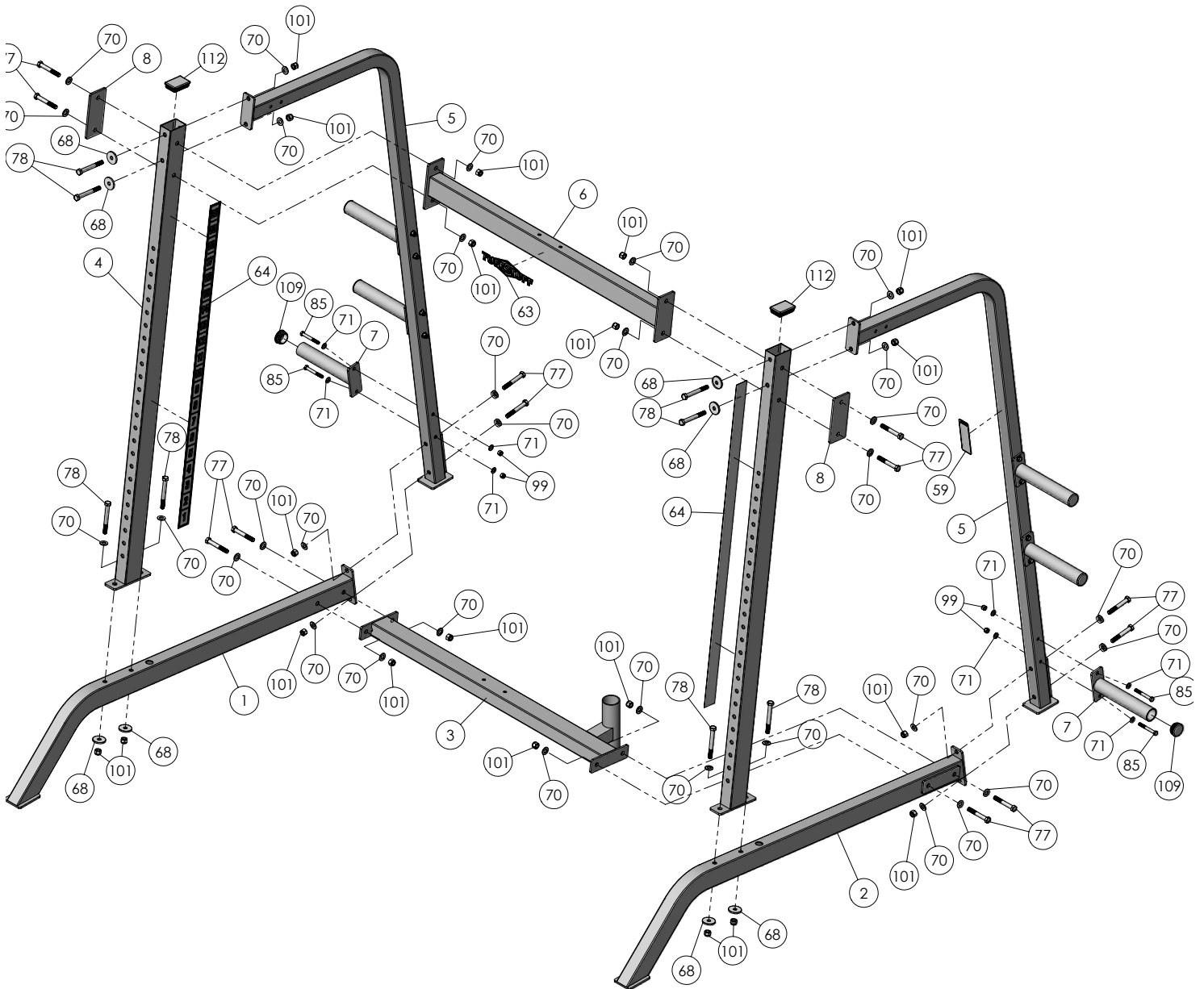
FIG. 15 Picture of the assembled **TBU-335 Base Unit** with the **TSM-45L Smith Linear Bearing Press System Kit**.



FIG. 16 Picture of the assembled **TBU-335 Base Unit** with the **THC-43C Half Cage Conversion Kit** and the **TSM-45L Smith Linear Bearing Press System Kit**.



# TBU-335 Exploded View Diagram



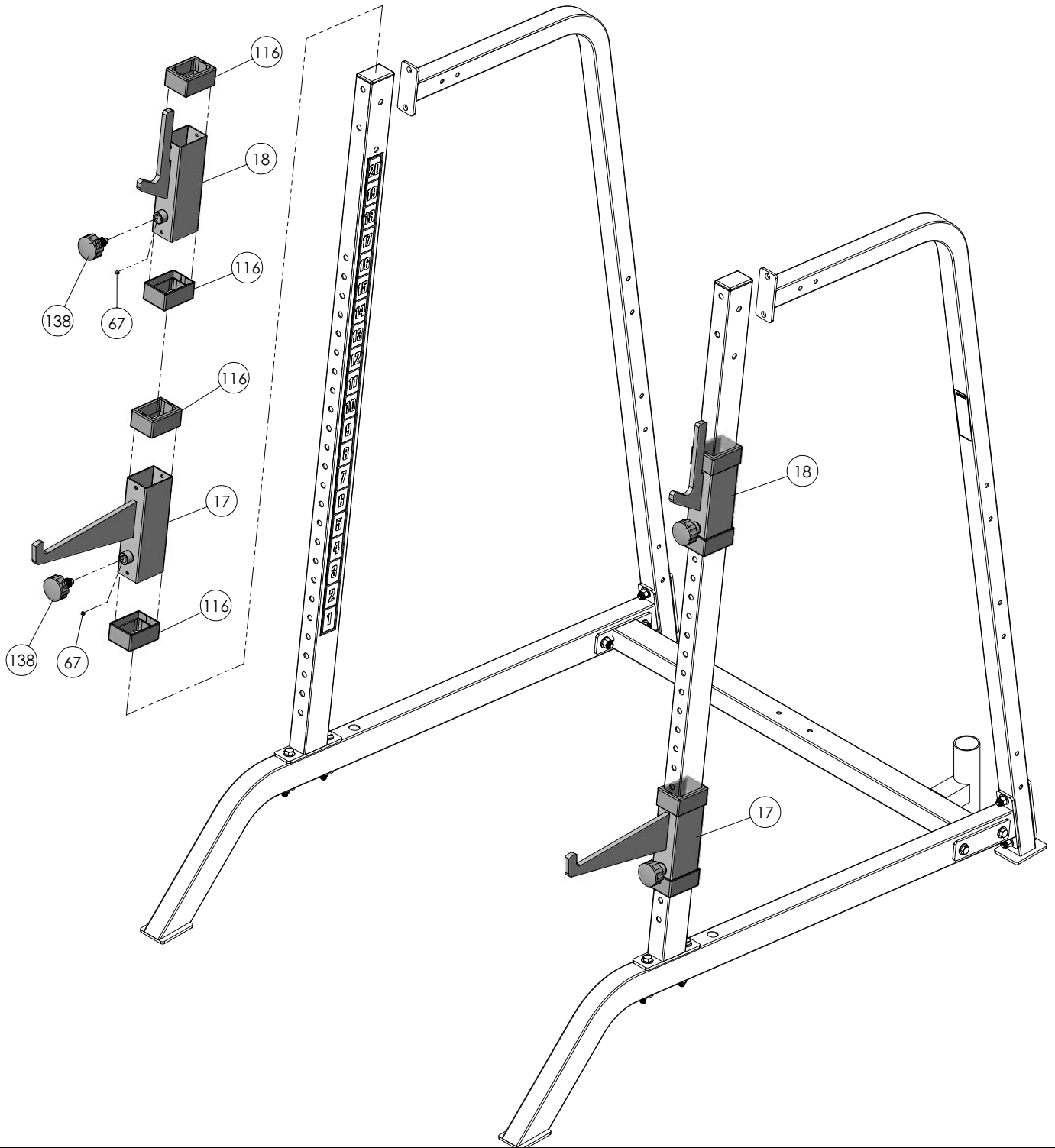
**COLOR CHART**  
**GRAY= SUB-ASSEMBLY PARTS**  
**BLACK= HARDWARE**

## TBU-335 Parts List

tem	Description	Part No.	Qty	Item	Description	Part No.	Qty
1	<b>RIGHT SIDE BOTTOM FRAME</b>	<b>UP2205</b>	<b>1</b>	68	FLAT WASHER 1/2 X 1 3/4	BNH0241	8
2	<b>LEFT SIDE BOTTOM FRAME</b>	<b>UP2206</b>	<b>1</b>	70	FLAT WASHER SAE 1/2"	BNH0238	32
3	<b>BOTTOM CROSS BRACE</b>	<b>UP2203</b>	<b>1</b>	71	FLAT WASHER SAE 3/8"	BNH0239	24
4	<b>FRONT UPRIGHT</b>	<b>UP2207</b>	<b>2</b>	77	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 3 1/2	BNH0263	12
5	<b>REAR SIDE SUPPORT</b>	<b>UP2204</b>	<b>2</b>	78	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 4 1/4	BNH0291	8
6	<b>TOP CROSS BRACE</b>	<b>UP0519</b>	<b>1</b>	85	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 3	BNH0282	12
7	<b>OLYMPIC ADAPTER W/PLATE</b>	<b>UP2202</b>	<b>6</b>	99	NYLON INSERT LOCK NUT 3/8-16	BNH0214	12
8	<b>REINFORCEMENT PLATE 3 X 7</b>	<b>UP0543</b>	<b>2</b>	101	NYLON INSERT LOCK NUT 1/2-13	BNH0212	20
59	DECAL-CAUTION 1 3/4 X 5 1/2	BNH0126	1	109	PLASTIC INSERT CAP 1 7/8" RD.	BNH0003	6
63	DECAL-LARGE TUFFSTUFF LOGO	BNH0360	1	112	PLASTIC INSERT CAP 2 X 3	BNH0052	2
64	DECAL-NUMBERS 1-20 (TEFLON)	BNH1304	2				



# THC-43C Exploded View Diagram

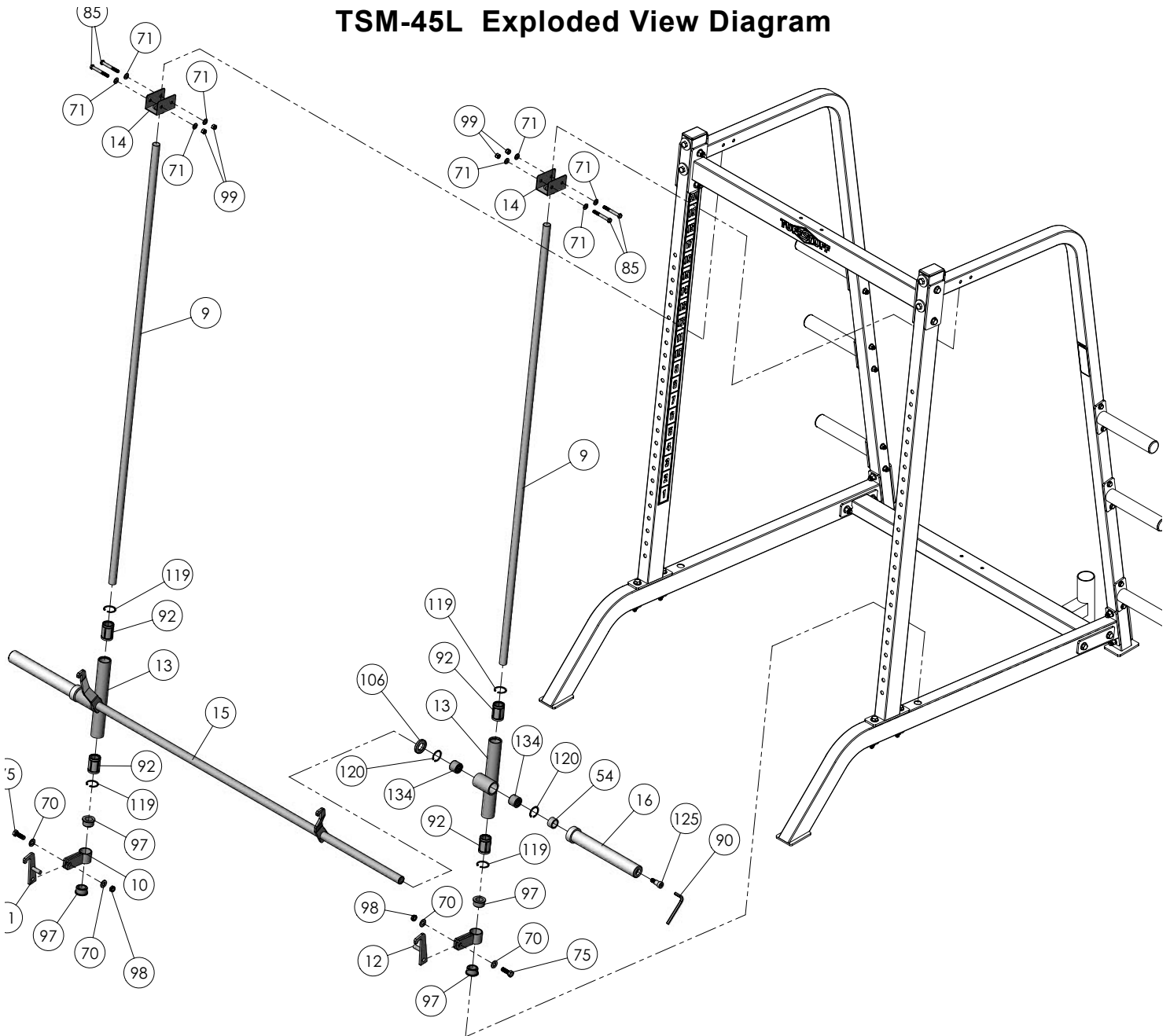


**COLOR CHART**  
**GRAY= SUB-ASSEMBLY PARTS**  
**BLACK= HARDWARE**

## THC-43C Parts List

Item	Description	Part No.	Qty	Item	Description	Part No.	Qty
17	<b>BAR SAFETY SPOTTER</b>	<b>UP0520</b>	2	116	PLASTIC TUBE GUIDE W/LIP 2 1/2 X 3 1/2	BNH0057	8
18	<b>BAR HOLDER</b>	<b>UP0521</b>	2	138	TURN/PULL PIN W/KNOB AND LOCK	BNH0989	4
67	FLAT PHILLIPS MACHINE SCREW 8-32 X 1/4	BNH0408	4				

# TSM-45L Exploded View Diagram



**COLOR CHART**  
 GRAY= SUB-ASSEMBLY PARTS  
 BLACK= HARDWARE

## TSM-45L Parts List

Item	Description	Part No.	Qty	Item	Description	Part No.	Qty
9	LINEAR SHAFT 1 X 70	UP0553	2	85	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 3	BNH0282	4
10	SAFETY SPOTTER BRACKET	UP0523	2	90	HEX KEY M14	BNH1303	1
11	SAFETY HOOK RT	UP0524	1	92	LINEAR BEARING	BNH0770	4
12	SAFETY HOOK LT	UP0525	1	97	NYLON BUSHING 1 X 1 1/2	BNH0531	4
13	CHROME PRESS BAR HOUSING	UP0680	2	98	NYLON INSERT JAM LOCK NUT 1/2-13	BNH0366	2
14	SHAFT RETAINER	UP0528	2	99	NYLON INSERT LOCK NUT 3/8-16	BNH0214	4
15	CHROME PRESS BAR W/HOOKS	UP0678	1	106	NYLON WASHER 1 1/8 X 2 X 1/4	BNH0388	2
16	CHROME OLYMPIC ADAPTER	UP0679	2	119	INTERNAL RETAINING RING 1 9/16"	BNH0095	4
54	BRONZE BUSHING 1 1/8 X 1 11/32 X 3/4	BNH0735	2	120	INTERNAL RETAINING RING 1 7/16"	BNH1308	4
70	FLAT WASHER SAE 1/2"	BNH0238	4	125	SHOULDER BOLT 14 mm X 14 mm THREAD 1/2-13	BNH0426	2
71	FLAT WASHER SAE 3/8"	BNH0239	8	134	STEEL NEEDLE-ROLLER BEARING (HMK-2830)	BNH1307	4
75	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 1 1/2	BNH0727	2				

# Maintenance



## Maintenance Information

1. Lubrication of all moving parts is essential to the longevity and optimal performance of your Smith-Half Cage Series. Initial lubrication of some parts of your gym has been done at the factory, but the Linear Shafts must be lubricated at the time of assembly. We recommend a light layer of teflon grease.  
**Note:** *Do not use oil based lubricants as they will attract dust, dirt and grime, and will eventually gum up and erode bushings and sealed bearings.*
2. Periodically check all moving parts for signs of wear or damage. If there is a problem or replacement part is necessary, STOP USING THE EQUIPMENT and immediately contact your local Tuff Stuff retailer or call our Customer Service Department. Replace parts using only genuine Tuff Stuff parts.
3. The unit should be wipe down with a damp cloth and dried on a daily basis. The powder coat finish should be polished with a good car wax on a weekly basis. The chrome-plated surfaces should be polished with a commercial grade or automotive type chrome polish on a weekly basis.
4. Linear bearing systems are precision, high load components that require regular maintenance. The Linear Shafts must be wipe down weekly and lubricate with a light layer of teflon grease. Lack of care and maintenance will result in corrosion of the Linear Shaft causing the bearings to clogged and jammed.
5. When checking the bolts and nuts, be sure they are fully fastened. If there is a bolt or nut that continuously loosens obtain a replacement through your local Tuff Stuff retailer or call our Customer Service Department
6. Check welds to be free of cracks.
7. Failure to perform routine maintenance could result in personal injury and/or equipment damage.



**DO NOT DISCARD THIS MANUAL**



## HOME LIFETIME WARRANTY

TuffStuff products are warranted to the retail purchaser to be free from defects in materials and workmanship. TuffStuff exclusive Home Lifetime Warranty coverage extends for the life of the product while owned by the original retail purchaser, and used only in a home or residential setting unless otherwise noted in the owner's manual.

This warranty does not cover:

1. TuffStuff products sold for and used in a commercial or institutional setting.
2. Any damage, failure or loss caused by accident, misuse, neglect, abuse, improper assembly, improper maintenance, or failure to follow instructions or warnings in the owner's manual and warning labels posted on the machine.
3. Use of products in a manner for which they were not designed.
4. Original product that is altered, or the use of replacement parts and components of another manufacturer other than TuffStuff.

Limitations:

The foregoing shall constitute the sole remedy of the purchaser and the sole liability of TuffStuff with regard to warranty, whether express or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness. TuffStuff shall in no event be liable for incidental or consequential losses, damages or expenses in connection with exercise products. TuffStuff's liability hereunder is expressly limited to the repairs or replacements of warranted defective parts.

Procedures:

Warranty service will be performed at TuffStuff's facility in Pomona, California. TuffStuff will have the option of either repair or replacement at no charge for any defective product. Purchaser is responsible for installation of repaired or replaced parts and all transportation and insurance costs on returned or replaced equipment to and from TuffStuff's facility in Pomona.

This warranty gives you specific legal rights and you may also have other rights, which may vary from state to state. Effective July 1, 2004.

This warranty is the final, complete and exclusive agreement of the parties with respect to the quality or performance of the equipment and no action for breach of this written warranty or any implied warranty shall be commenced more than one (1) year after the accrual of the cause of action. No modification of this warranty or waiver of its terms shall be binding on either party unless approved in writing by an authorized representative of the party. Contact TuffStuff at 1325 E. Franklin Avenue, Pomona, California 91766, before returning any defective equipment.

**Note:** Retain your sales receipt and be sure to mail in the warranty registration card to insure that a permanent record of your purchase is on file with the factory and to avoid unnecessary delays in warranty service.

### **TASK INDUSTRIES, INC.**

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