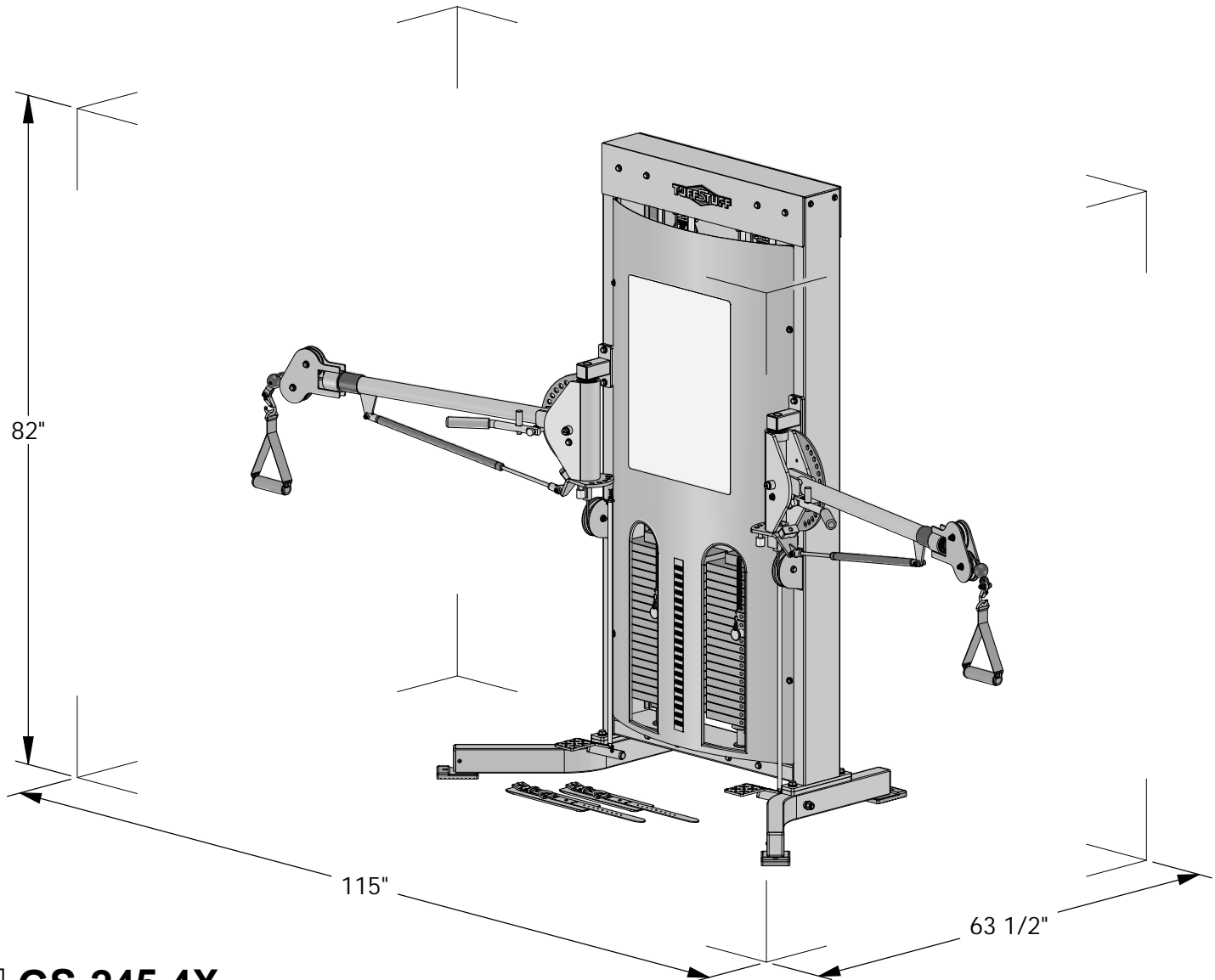


OWNER'S MANUAL



GS-245.4X

Custom Multi-Functional Trainer (4 x 1 Ratio)

PS-245.4X

Multi-Functional Trainer (4 x 1 Ratio)

PS-245.2X

Multi-Functional Trainer (2 x 1 Ratio)



TuffStuff Fitness Equipment, Inc.

1325 E. Franklin Avenue
Pomona, CA 91766, USA

Ph: 909-629-1600 Fax: 909-629-4967

E-mail: service@tuffstuff.net Net: www.tuffstuff.net

AMERICA'S PREMIER EXERCISE EQUIPMENT

Introduction

About the GS-245 / PS-245 Multi-Functional Trainer

Congratulations on your new purchase of the **Multi-Functional Trainer**. We hope you are completely satisfied with this product and wish you many years of enjoyment.

TuffStuff 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 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 TuffStuff Fitness Equipment today.

Specifications

	GS-245.4X	PS-245.2X / PS-245.4X
1. Maximum Wt. Capacity	600 lbs	400 lbs
2. Total Machine Weight	900 lbs	700 lbs
3. Footprint (LWH)	- See Front Cover.	

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



Maintenance

TuffStuff Basic Strength Equipment Safety and General Maintenance

All TUFFSTUFF strength equipment is designed and manufactured to offer maximum, long-life service with minimal maintenance. However, safety inspection and routine maintenance in your facility should be the utmost importance in your daily operation. Information presented in these pages will serve as a basic guideline to design your own inspection procedures.

Part One: General Inspection and Cleaning

Equipment should be wiped down with a damp cloth and dried on a daily basis. Sweat is corrosive and when left on the frame and components will eventually cause corrosion or rust. When performing these cleaning sessions, it is the perfect time to inspect the equipment and note any problems for the maintenance personnel to correct.

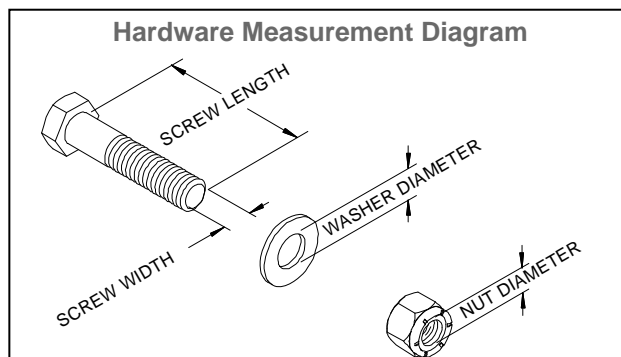
1. Check equipment if it is operating properly.
2. Check the cable for loose fittings or frayed cable and is seating properly on the pulleys and cams.
3. Make sure that the proper weight stack selector pin is with each machine and that the pin functions properly.
4. If something appears loose be sure to have it tightened immediately.
5. If a piece of equipment appears damaged or not operation properly, place the piece out-of-service immediately.

Prior to the Assembly of the Multi-Functional Trainer

We advise you to consult your local TuffStuff retailer if you should have a question or problem regarding the proper assembly of this unit.

Tool Requirements

1. One 7/8" combination wrench
2. One 3/4" combination wrench
3. One 9/16" combination wrench
4. One 1/2" combination wrench
5. One ratchet
6. One 3/4" socket
7. One 9/16" socket
8. One 7/16" socket
9. One rubber mallet
10. External retaining-ring pliers
11. Windex or household glass cleaner
12. Measuring tape
13. Utility knife



Part Two: Maintenance

In this paragraph, we will discuss the inspection of the cables, pulleys and their associated components. If there exists the potential for injury to occur on a machine, it will most likely lie in the cable system. It is important to inspect the cables frequently and let it be known to all users that it is their responsibility to report any worn-out cable to prevent a sudden failure that can result in an injury. Cables are moving parts, meaning cable-wear will occur regardless of the type or size used. In the advent of the 3/16" mill-spec cable this wear takes longer to become apparent and this is why frequent inspections are so important.

1. Check the cable termination at the weight stack. To perform any cable tension adjustment, loosen the hex jam nut and thread the hex tap bolt in or out to give cable the proper tension. Re-tightened the hex jam nut when adjustment is complete and make sure the hex tap bolt is threaded 1/2" into the socket of the selector bar top plate.
2. Check the end fitting for any signs of fraying in this area. Inspect the bolt and nut and/or screw holding the fitting and be sure that it is tight.
3. Check the cables as it passes over all pulley wheels. Visually inspect the cables and pulleys. A cable that is wearing will exhibit a ballooned surface that passes over the pulley. This is an early warning sign to replace the cable.

Part Three: Lubrication

TuffStuff uses only the highest quality bearings and linear motion components that are virtually trouble-free but requires the regular preventive maintenance to insure long-lasting performance.

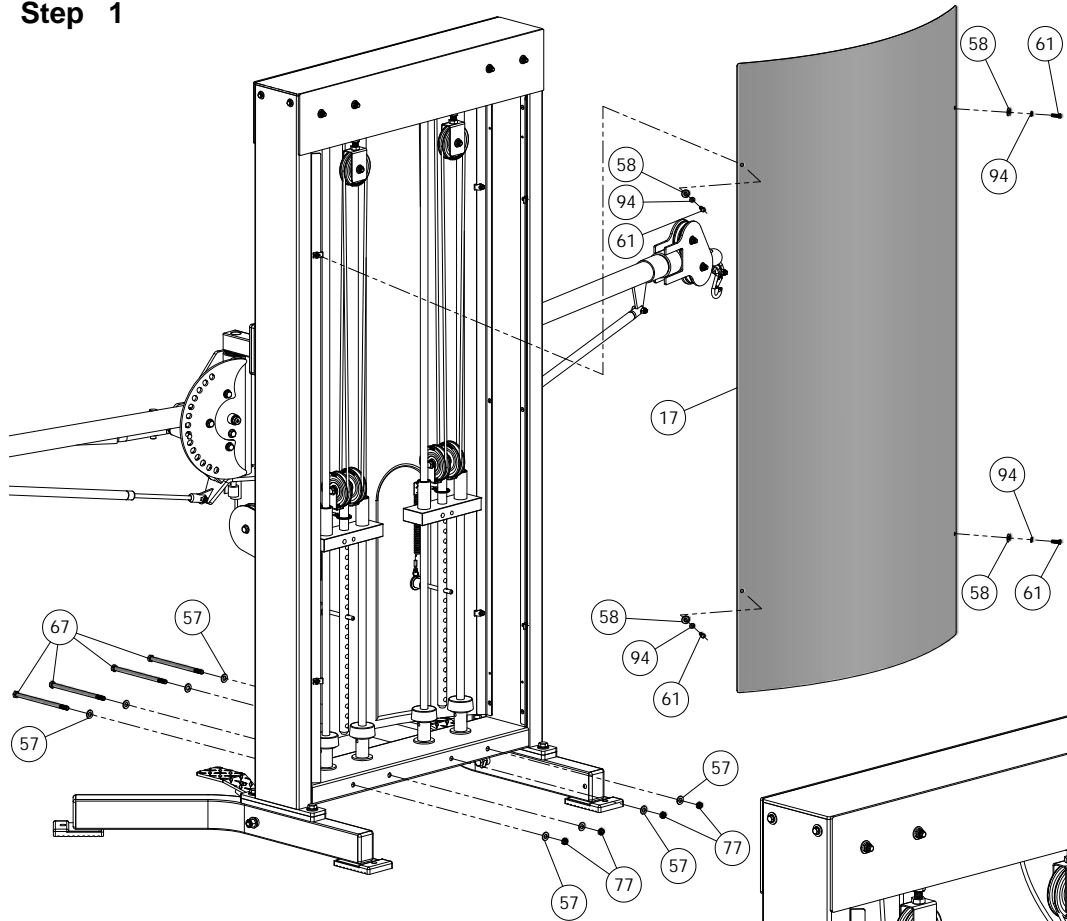
1. Bronze and nylon bushings, we recommend on a monthly basis to spray a teflon-base lubricant (silicone-free) directly onto the shaft as it passes through these bushings. Spray a small amount onto the shaft and rotate it through its complete movement and wipe off any excess.
2. Weight stack guide rods and bushings, again use teflon spray lubricant and this time spray onto a rag and wipe the guide rods down with this rag on a weekly basis. Do not use WD-40 or other lubricants as they attract dirt and will create a mess between the weight plates and bushings.
3. Sealed bearings pivot points, as the name implies are protected from the outside environment and require no lubrication. During the machine wipe down, wipe the external bearing surfaces with the damp rag and dried to prevent the build up of dust and sweat.

If you religiously perform the maintenance procedures, you will increase the life of the machine and ultimately lower your maintenance costs with fewer replaced components and downtime.

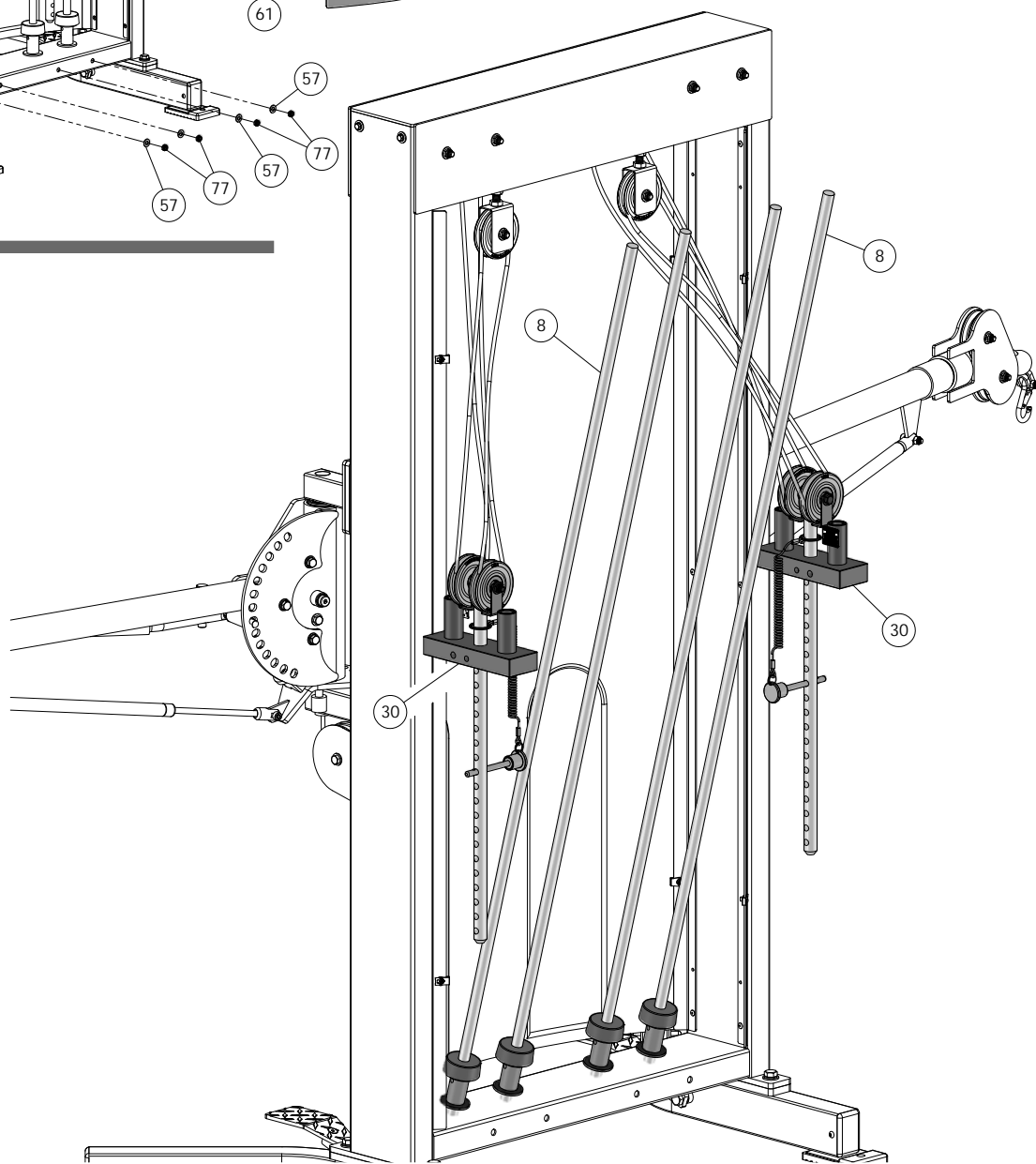
Any doubts, equipment with mechanical problems should be placed "Out-of-Service" until all problems are corrected. If replacement parts are required or maintenance questions, please contact TuffStuff Service Department:

Phone: 909-629-1600 Fax: 909-629-4967 e-mail: service@tuffstuff.net

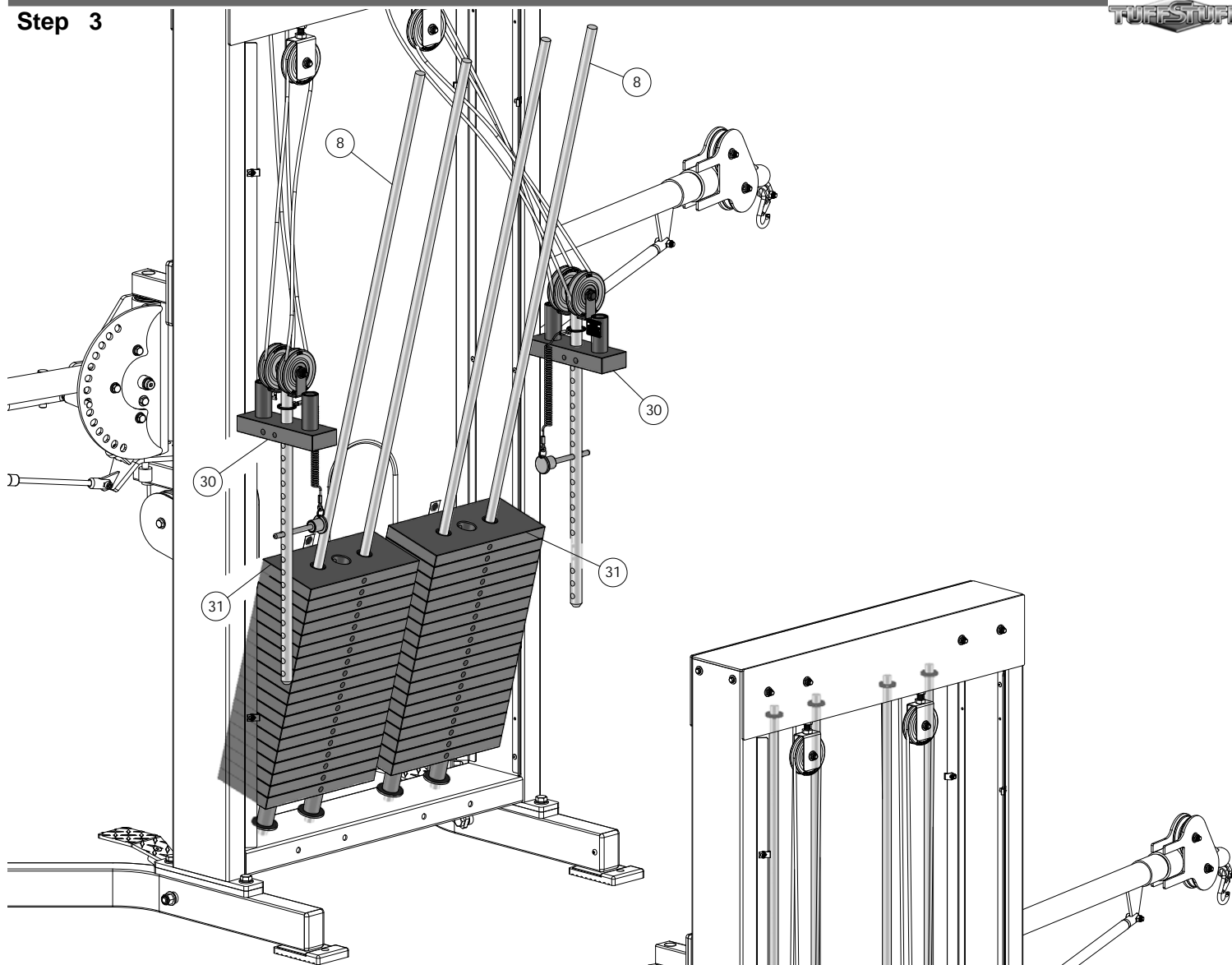
Step 1



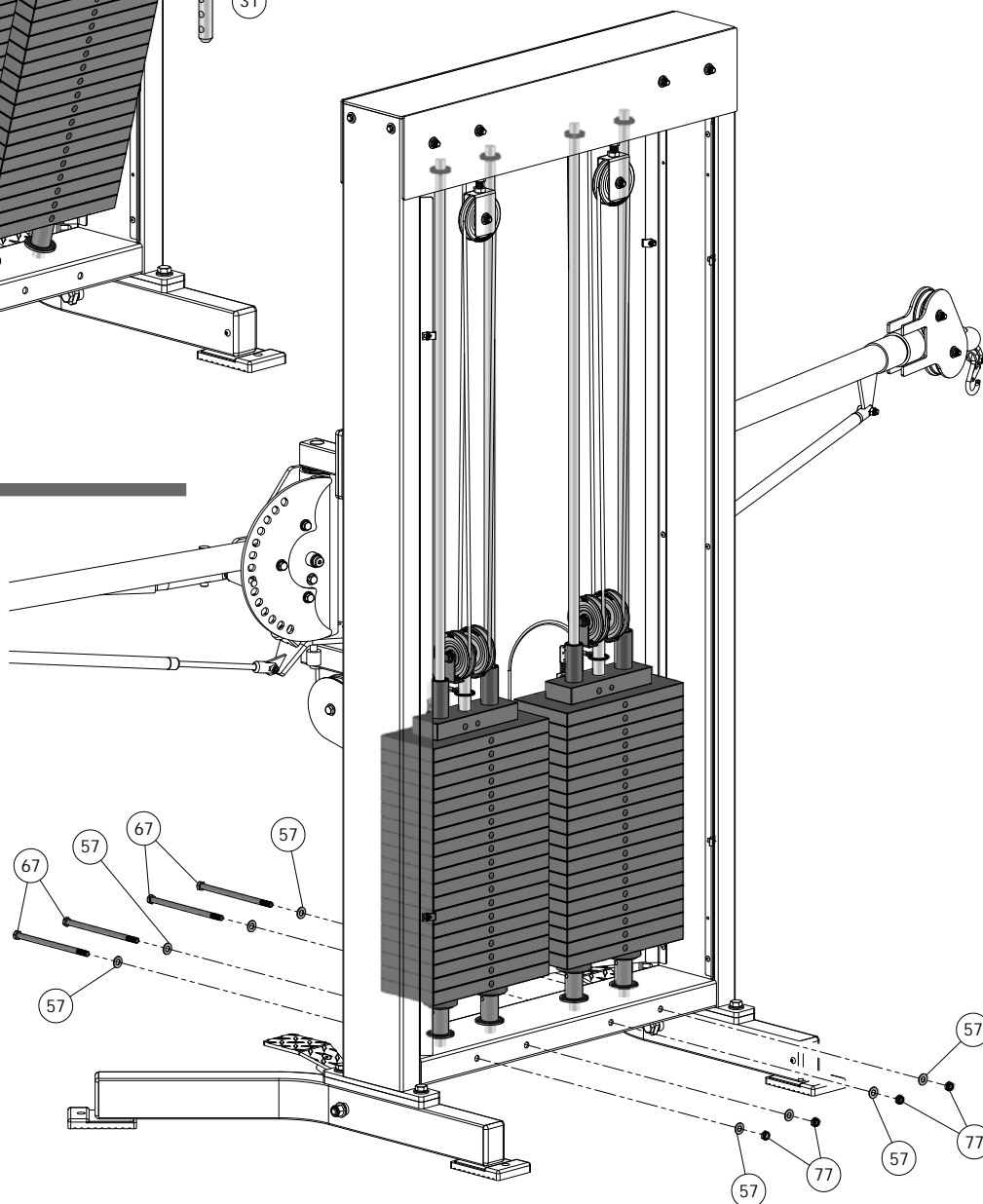
Step 2

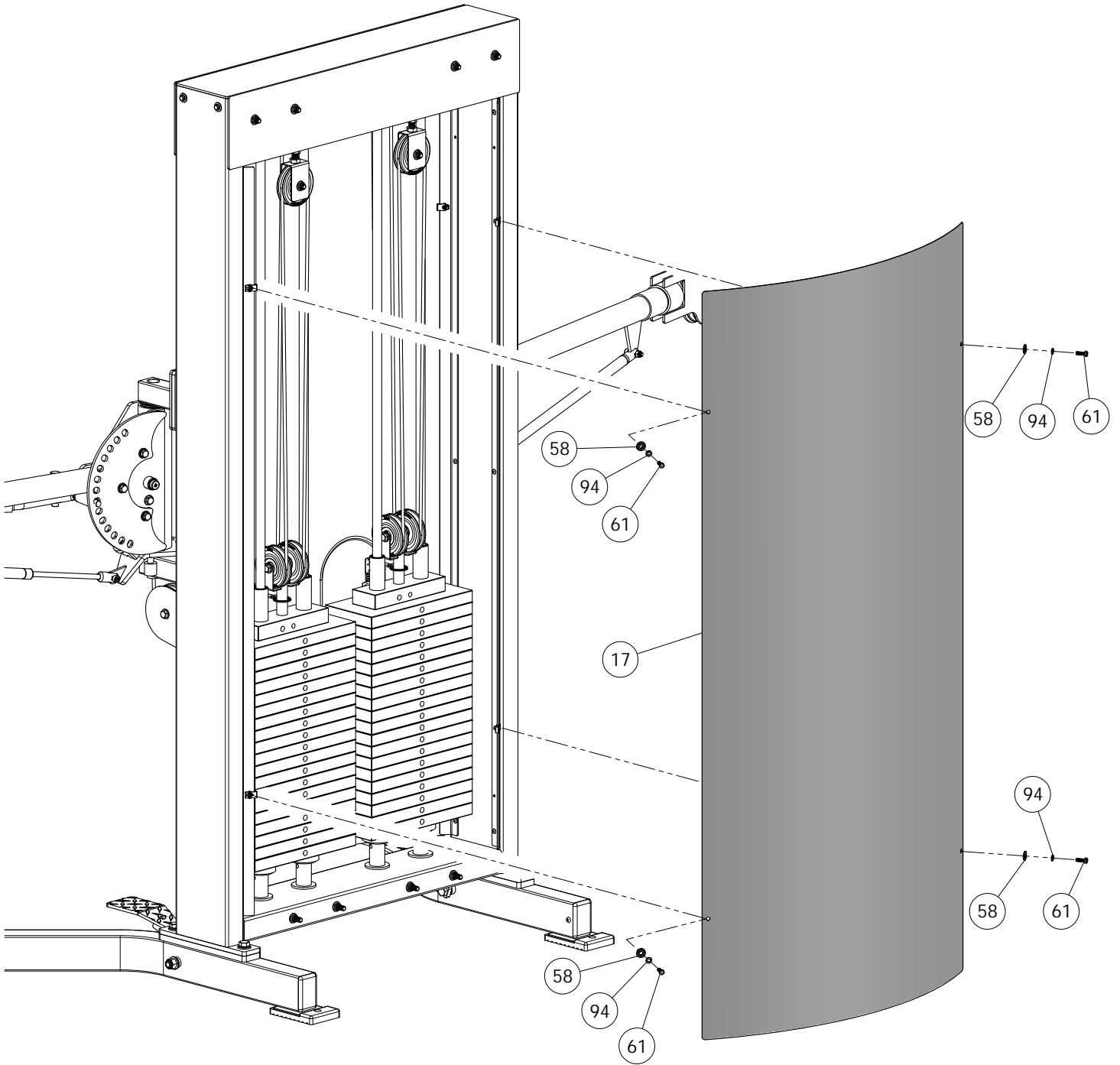


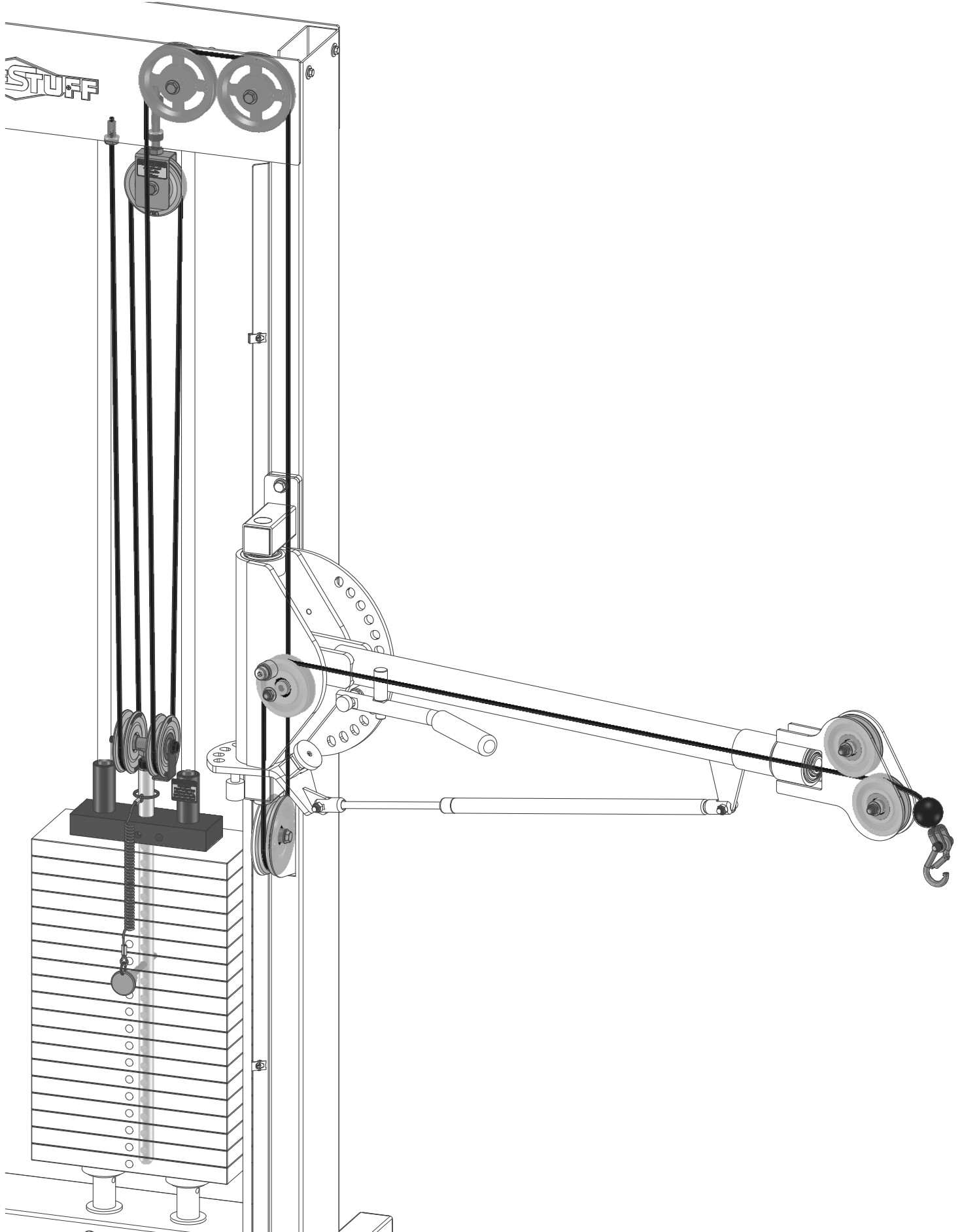
Step 3

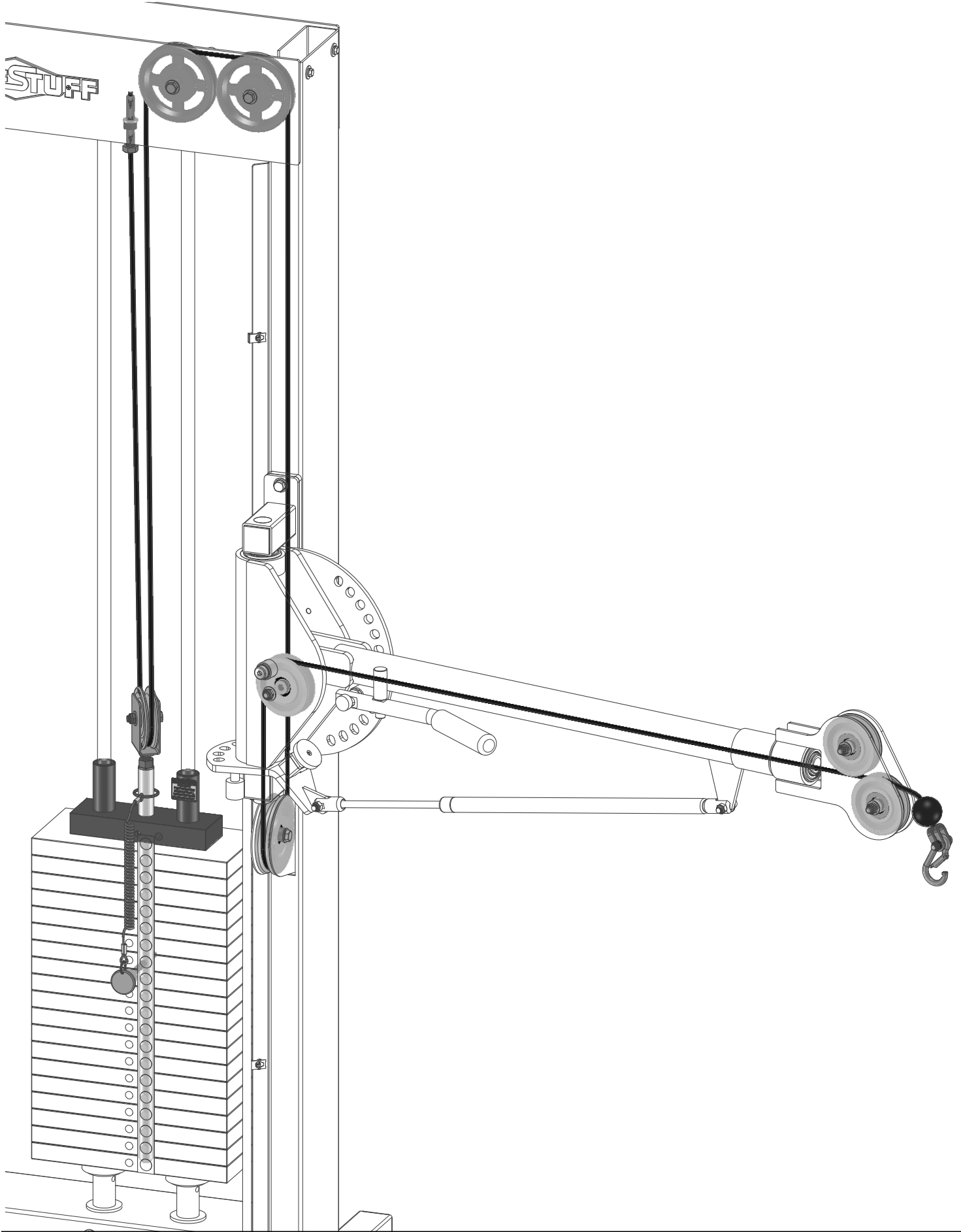


Step 4

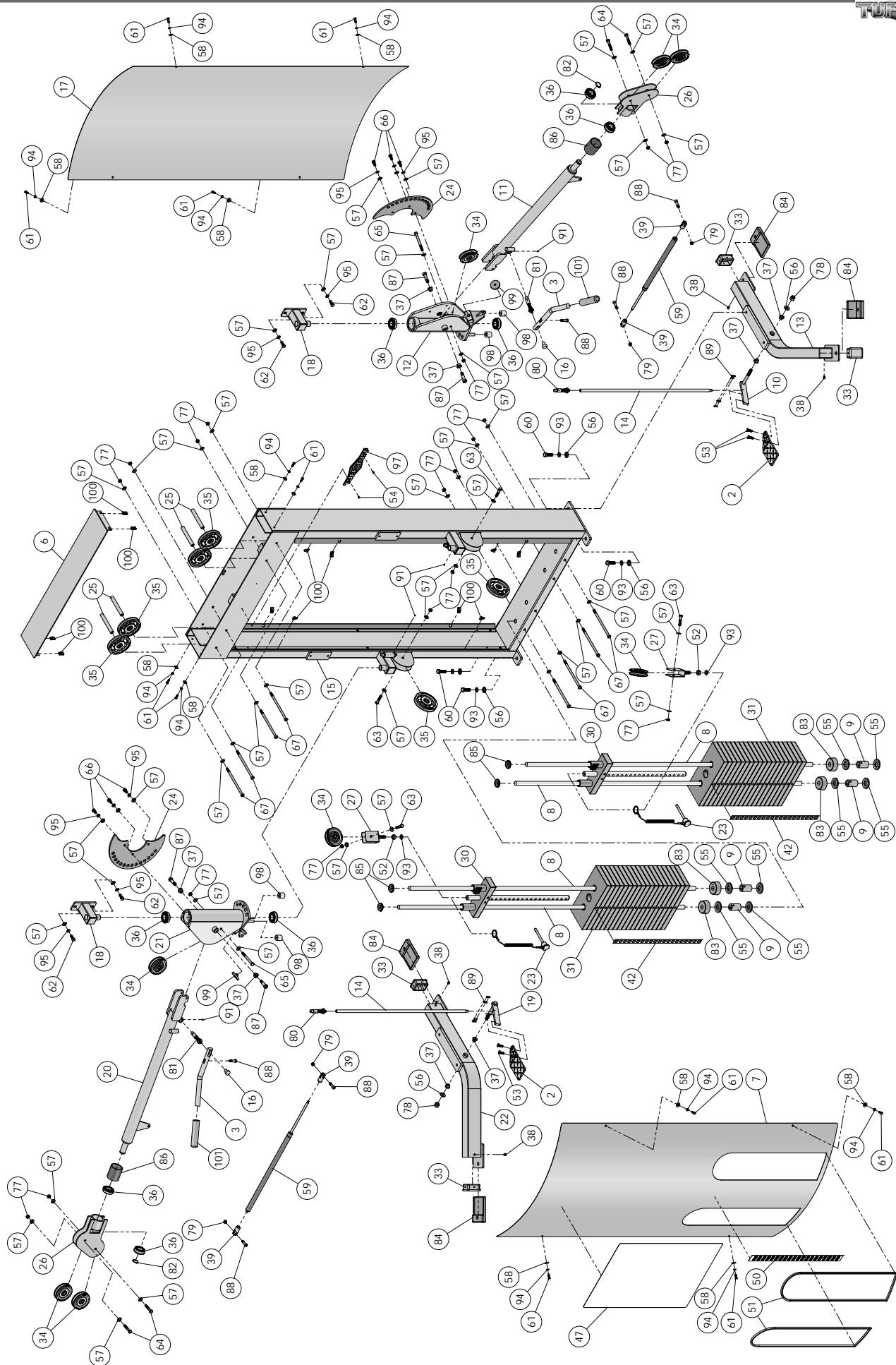




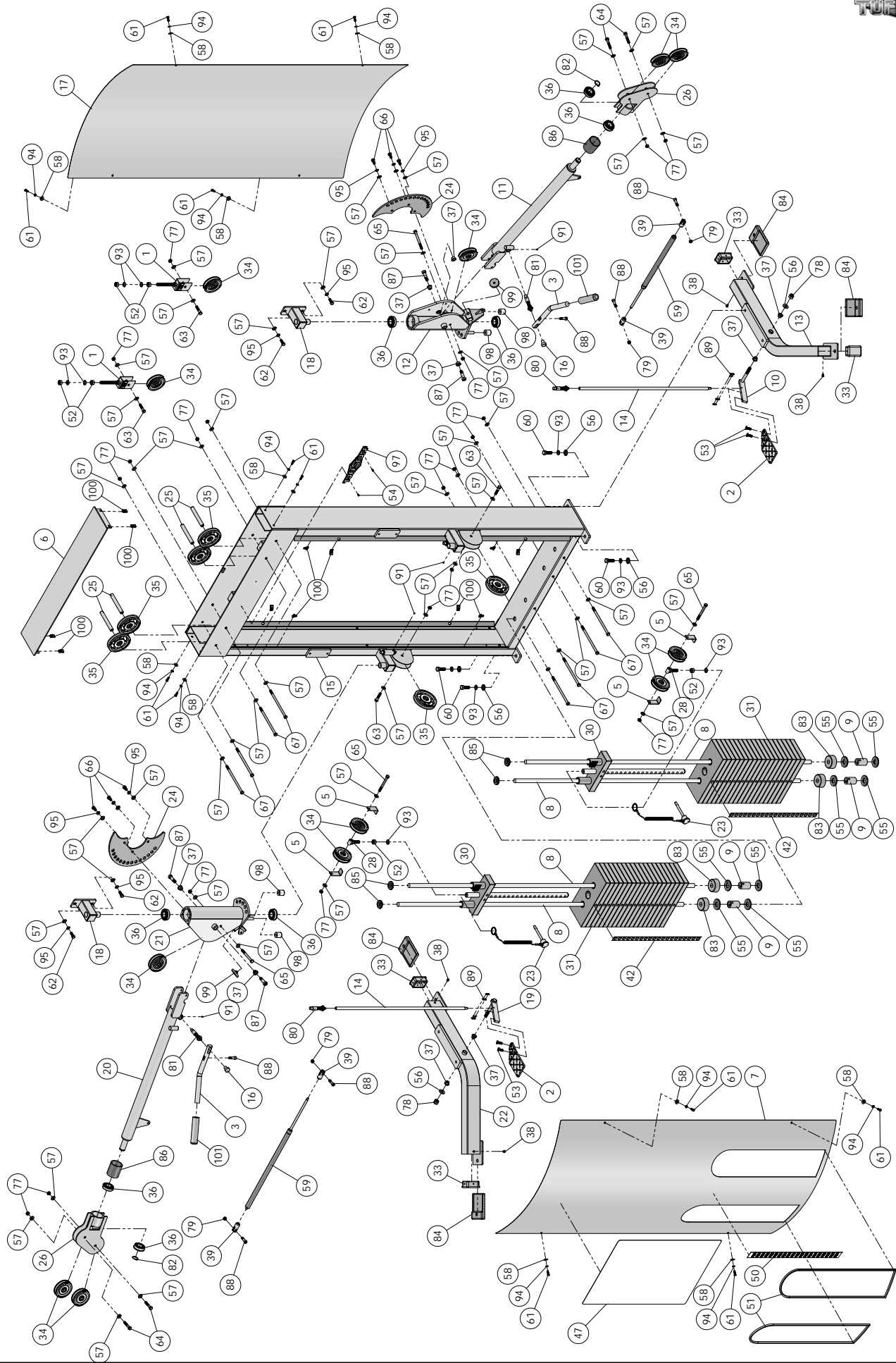




PS-245.2X Exploded View Diagram



GS-245.4X / PS-245.4X Exploded View Diagram



COLOR CHART

BOLD FONT = SUB-ASSEMBLY PARTS

BLACK= HARDWARE

GS-245.4X / PS-245.4X

Parts List

REVO

ITEM	DESCRIPTION	REV	PART NO.	QTY	ITEM	DESCRIPTION	REV	PART NO.	QTY
1	ADJUSTABLE 3 1/2 PULLEY BRACKET 4"	0	UP5831	2	62	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 1		BNH0275	4
2	ALUMINUM FOOT PLATE	0	UP5911	2	63	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 1 3/4		BNH0274	4
3	ALUMINUM LEVER HANDLE	0	UP5905	2	64	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 2		BNH0279	4
4	CABLE RATIO 4:1	0	UP5801	2	65	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 3 3/4		BNH0281	4
5	CABLE RETAINER BRACKET	0	UP0998	4	66	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 3/4		BNH0283	6
6	COVER PLATE 6 X 33 11/16	0	UP5830	1	67	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 7		BNH0733	8
7	FRONT WEIGHTSHOUD	0	UP5909	1	68	HEX KEY ALLOY 1/4"		BNH0375	1
8	GUIDE ROD 3/4 X 65 5/8	0	UP5913	4	69	HEX KEY ALLOY 3/32"		BNH0372	1
9	GUIDE ROD RETAINER SLEEVE 2"	0	UP2690	4	70	HEX KEY ALLOY 5/32"		BNH0373	1
10	LEFT SIDE FOOT PEDAL BRACKET	0	UP5906	1	71	HEX KEY LONG ARM ALLOY 3/16"		BNH0371	1
11	LEFT SIDE PIVOT ARM	0	UP5918	1	72	HEX TAP BOLT GR-5 Z/P 1/2-13 X 1 (Ø.156" HOLE)		BNH2273	2
12	LEFT SIDE PIVOT ARM SWIVEL HOUSING	0	UP5915	1	73	HEX TAP BOLT GR-5 Z/P 1/2-13 X 3 (Ø.156" HOLE)		BNH2274	0
13	LEFT SIDE STABILIZER	0	UP5903	1	74	LEATHER ANKLE STRAP		BNH1231	2
14	LOCKING PIN 1/2 RD X 33 3/4	0	UP5912	2	75	NYLON BALL W/THREADED SOCKET 1 3/4 X 5/16		BNH0022	2
15	MAIN FRAME	0	UP5902	1	76	NYLON D HANDLE (# H834A)		BNH1215	2
16	PULL PIN CAP	0	UP5922	2	77	NYLON INSERT JAM LOCK NUT B/O 3/8-16		BNH0365	20
17	REAR WEIGHT SHROUD	0	UP5908	1	78	NYLON INSERT LOCK NUT B/O 1/2-13		BNH0212	2
18	RETAINING HOUSING	0	UP5919	2	79	NYLON INSERT LOCK NUT B/O 5/16-18		BNH0215	6
19	RIGHT SIDE FOOT PEDAL BRACKET	0	UP5907	1	80	PULL PIN ASSY 3 1/2 CUSTOM CUT HRD SPRING		BNH1723	2
20	RIGHT SIDE PIVOT ARM	0	UP5917	1	81	PUSH PULL PIN 1/2 X 3 1/2 ASSY (COMM) W/O KNOB		BNH0874	2
21	RIGHT SIDE PIVOT ARM SWIVEL HOUSING	0	UP5914	1	82	RETAINING SNAP RING EXT. PLAIN .925 X 1 X .042		BNH0419	2
22	RIGHT SIDE STABILIZER	0	UP5904	1	83	RUBBER DONUT 3/4 X 2 1/2		BNH0068	4
23	SELECTOR PIN W/COIL 3/8 X 4 GOLD KNOB	0	UP3035	2	84	RUBBER FOOT 3 X 4 1/2		BNH0607	4
24	SELECTOR PLATE CHROMED	0	UP5910	2	85	RUBBER GROMMET 3/4" ID		BNH0401	4
25	SPACER 5/8 RD X .109 X 4 3/4	0	UP5920	4	86	RUBBER TUBE 1.875 ID X .125 WALL X 2 1/2		BNH2276	2
26	SWIVEL DOUBLE PULLEY BRACKET	0	UP3824	2	87	SHOULDER BOLT ALLOY 1/2 X 1		BNH2057	4
27	TOP PLATE 3 1/2 PULLEY BRACKET 1 1/2 BOLT	0	UP5832	0	88	SHOULDER BOLT ALLOY 3/8 X 3/4		BNH0718	8
28	TOP PLATE DOUBLE PULLEY BRACKET	0	UP5921	2	89	SINGLE STRAND CONNECTING LINK #40		BNH0066	2
29	WEIGHT SHROUD RETAINER	0	UP5916	4	90	SNAP LINK Z/P 8MM X 80MM		BNH0065	2
30	10 LB TOP PLATE W/ADJ SLTR BAR 19 BLK WTS ASSY		BNH1982	2	91	SOCKET SET SCREW ALLOY 10-32 X 1/8		BNH0473	4
31	STEEL WEIGHT PLATE BLACK (GS-245.4X 15 lbs)		BNH1651	38	92	SOCKET SET SCREW ALLOY 3/8-16 X 3/4		BNH0476	2
32	ALUMINUM BLIND RIVET 3/16" #AB66A		BNH0881	12	93	SPLIT LOCK WASHER B/O 1/2"		BNH0653	16
33	ALUMINUM INSERT CAP 2 X 3		BNH1504	4	94	SPLIT LOCK WASHER B/O 1/4"		BNH1939	12
34	ALUMINUM PULLEY 3/8 X 1 X 3 1/2		BNH1266	12	95	SPLIT LOCK WASHER B/O 3/8"		BNH0658	10
35	ALUMINUM PULLEY 3/8 X 1 X 4 1/2		BNH0069	6	96	STRAP BRACKET 20 #SF20 STAINLESS STEEL 3/32"		BNH1904	2
36	BALL BEARING #W 516		BNH0628	8	97	TUFFSTUFF LOGO ALUMINUM LARGE		BNH1324	1
37	BRONZE BUSHING 1/2 X 5/8 X 1/2 X 7/8 X 1/8		BNH0528	12	98	UHMW STOPPER 1/2" ID X 1" OD X 1"		BNH1107	4
38	BUTTON HEAD SOCKET CAP SCREW B/O 1/4-20 X 3/8		BNH1346	4	99	URETHANE BUMPER 1 3/4		BNH0229	2
39	CLEVIS BRACKET 3/16" THREAD 8 MM		BNH1719	4	100	U-STYLE TAPPED HOLE NUT 1/4-20		BNH0708	12
40	DECAL - LEFT ARC NUMBERS 1-14 HIGH, MID, LOW		BNH2294	1	101	YELLOW GRIP 3/4 X 5 1/16		BNH1515	2
41	DECAL - RIGHTARC NUMBERS 1-14 HIGH, MID, LOW		BNH2295	1					
42	DECAL WEIGHT NUMBERS 1-20 DOTS Ø11/16		BNH2201	2					
43	DECAL-ADJUST CABLE HERE		BNH1751	2					
44	DECAL-CAUTION WEIGHT TRAINING SAFETY...		BNH0126	1					
45	DECAL-DANGER TIGHTEN THIS RETAINING...		BNH0142	4					
46	DECAL-IMPORTANT FOR BEST PERFORMANCE...		BNH1894	2					
47	DECAL-MULTI-FUNCTIONAL TRAINER (17 X 23 1/4)		BNH2275	1					
48	DECAL-PROFORMANCE BY TUFFSTUFF 3 X 13		BNH1627	2					
49	DECAL-WARNING ATTENTION USERS! MOVING...		BNH1895	2					
50	DECAL-WEIGHT NUMBERS REF		BNH2296	1					
51	EDGE PROTECTOR CHROME 11 GA X 60		BNH1724	2					
52	FINISHED HEX NUT B/O 1/2-13		BNH0201	6					
53	FLAT HEAD SOCKET CAP SCREW B/O 5/16-18 X 1		BNH0762	4					
54	FLAT PHILLIPS SCREW ZINC # 5 X 1/2		BNH1481	2					
55	FLAT WASHER B/O 3/4 X 2"		BNH0878	8					
56	FLAT WASHER SAE B/O 1/2"		BNH0238	6					
57	FLAT WASHER SAE B/O 3/8"		BNH0239	50					
58	FLAT WASHER USS B/O 1/4"		BNH0233	12					
59	GAS SHOCK #9416K23 25 33.94 EXT, 16.14 STROKE		BNH1705	2					
60	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 1 1/2		BNH0727	4					
61	HEX HEAD CAP SCREW GR-5 B/O 1/4-20 X 3/4		BNH0890	12					

**PS-245.2X
Parts List**

All parts same as PS-245.4X, except for the parts listed below

ITEM	DESCRIPTION	REV	PART NO.	QTY
1	ADJUSTABLE 3 1/2 PULLEY BRACKET 4"	0	UP5831	0
4	CABLE RATIO 2:1	0	UP5800	2
5	CABLE RETAINER BRACKET	0	UP0998	0
27	TOP PLATE 3 1/2 PULLEY BRACKET 1 1/2 BOLT	0	UP5832	2
28	TOP PLATE DOUBLE PULLEY BRACKET	0	UP5921	0
31	10 LB STEEL WEIGHT PLATE BLACK 4 9/16 X 9 7/16		BNH1650	38
34	ALUMINUM PULLEY 3/8 X 1 X 3 1/2		BNH1266	8
52	FINISHED HEX NUT B/O 1/2-13		BNH0201	2
57	FLAT WASHER SAE B/O 3/8"		BNH0239	46
65	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 3 3/4		BNH0281	2
72	HEX TAP BOLT GR-5 Z/P 1/2-13 X 1 (Ø.156" HOLE)		BNH2273	0
73	HEX TAP BOLT GR-5 Z/P 1/2-13 X 3 (Ø.156" HOLE)		BNH2274	2
77	NYLON INSERT JAM LOCK NUT B/O 3/8-16		BNH0365	18
93	SPLIT LOCK WASHER B/O 1/2"		BNH0653	16

DO NOT DISCARD THIS MANUAL



TUFFSTUFF WARRANTY

TuffStuff warrants to the original purchaser that TuffStuff equipment will be free from defects in material and workmanship. All warranty periods begin to run from the date of delivery to the original purchaser. The warranty and remedies set forth herein are conditioned upon proper storage, installation, use and maintenance and conformance with any recommendations of TuffStuff. This warranty does not cover products not manufactured by TuffStuff or products which are altered without the express written consent of TuffStuff. This warranty as specified:

FULL COMMERCIAL WARRANTY (more than 5 hours of use per day): a) Frames, welds, cams and weight plates -- Lifetime, b) Pivot bearings, pulleys, bushings, gas shocks and guide rods -- Five (5) years, c) Belts, linear bearings and pull-pin components -- One (1) year, and d) Upholstery, cables, finish and rubber grips -- Six (6) months.

LIGHT COMMERCIAL WARRANTY (less than 5 hours of use per day): a) Frames, welds, cams and weight plates -- Lifetime, b) Pivot bearings, pulleys, bushings, gas shocks and guide rods -- Five (5) years, c) Linear bearings, finish and pull-pin components -- One (1) year, and d) Upholstery, cables and rubber grips -- Three (3) months, and all other parts not mentioned elsewhere in this warranty will expire one (1) year from the date of delivery to the original purchaser. The obligation of TuffStuff under this warranty is limited to repairing or replacing warranted defective parts, as TuffStuff may elect, at TuffStuff's facility in Pomona, California, without charge to purchaser for either parts or labor. 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.

THE FOREGOING SHALL CONSTITUTE THE SOLE REMEDY OF THE PURCHASER AND THE SOLE LIABILITY OF TUFFSTUFF WITH REGARD TO WARRANTY. NO IMPLIED STATUTORY WARRANTY OR IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, NEGLIGENCE OR OTHERWISE, SHALL TUFFSTUFF BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE, LOSS OF USE OF EQUIPMENT, COST OF CAPITAL, COST OF SUBSTITUTION EQUIPMENT, DOWNTIME COST, OR CLAIMS OF CUSTOMERS OR PURCHASER FROM SUCH DAMAGE.

This written 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 Fitness Equipment, Inc. at 1325 E. Franklin Avenue, Pomona, California 91766, before returning any defective equipment.

TuffStuff Fitness Equipment, Inc.

1325 E. Franklin Avenue
Pomona, CA 91766, USA

Ph: 909-629-1600 Fax: 909-629-4967

E-mail: service@tuffstuff.net Net: www.tuffstuff.net