

TUFFSTUFF

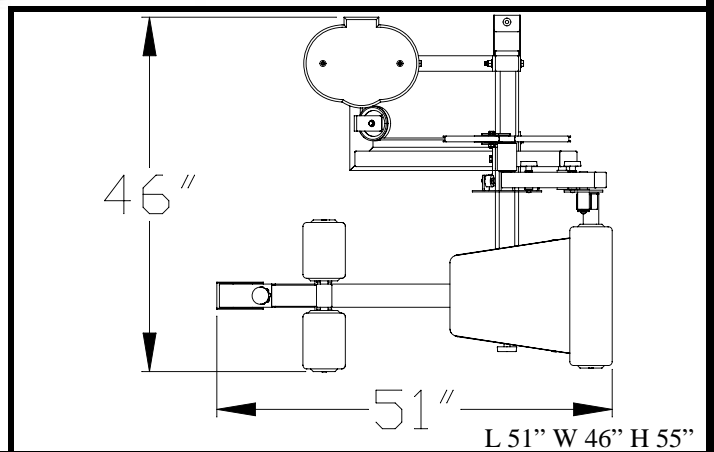
AMERICA'S PREMIER EXERCISE EQUIPMENT

SP-4410

AB/BACK

ASSEMBLY MANUAL

REV. 0



Simplex PLATINUM



Introduction

About the Ab/Back SP-4410

Congratulations on your new purchase of the **Ab/Back**. 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 TuffStuff 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 Inc., today.

Specifications

- | | |
|-------------------------|------------------|
| 1. Maximum Wt. Capacity | - 200 Lbs. |
| 2. Total Machine Weight | - 605 Lbs. |
| 3. Footprint (LWH) | - See Front Page |

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

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 safety precautions.

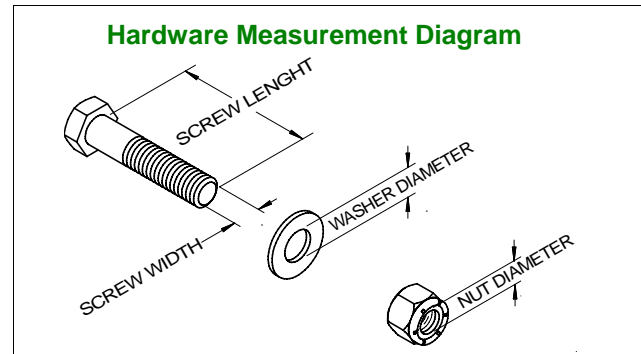
1. Read, study and understand the Owner's Manual and all the warning labels on this product. Furthermore, it is recommended to familiarize yourself and others with the proper operation and workout recommendations for this Tuff Stuff product prior to use. Some of this information can be obtained in this Owner's Manual, as-well-as from your local Tuff Stuff retailer.
2. It is imperative that you retain this Owner's Manual and be sure all warning labels are legible and intact. Replacement of Owner's Manuals and labels are available from your local Tuff Stuff retailer.
3. Consult with your physician before beginning any exercise program.

Prior to the Assembly of the Ab/Back

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

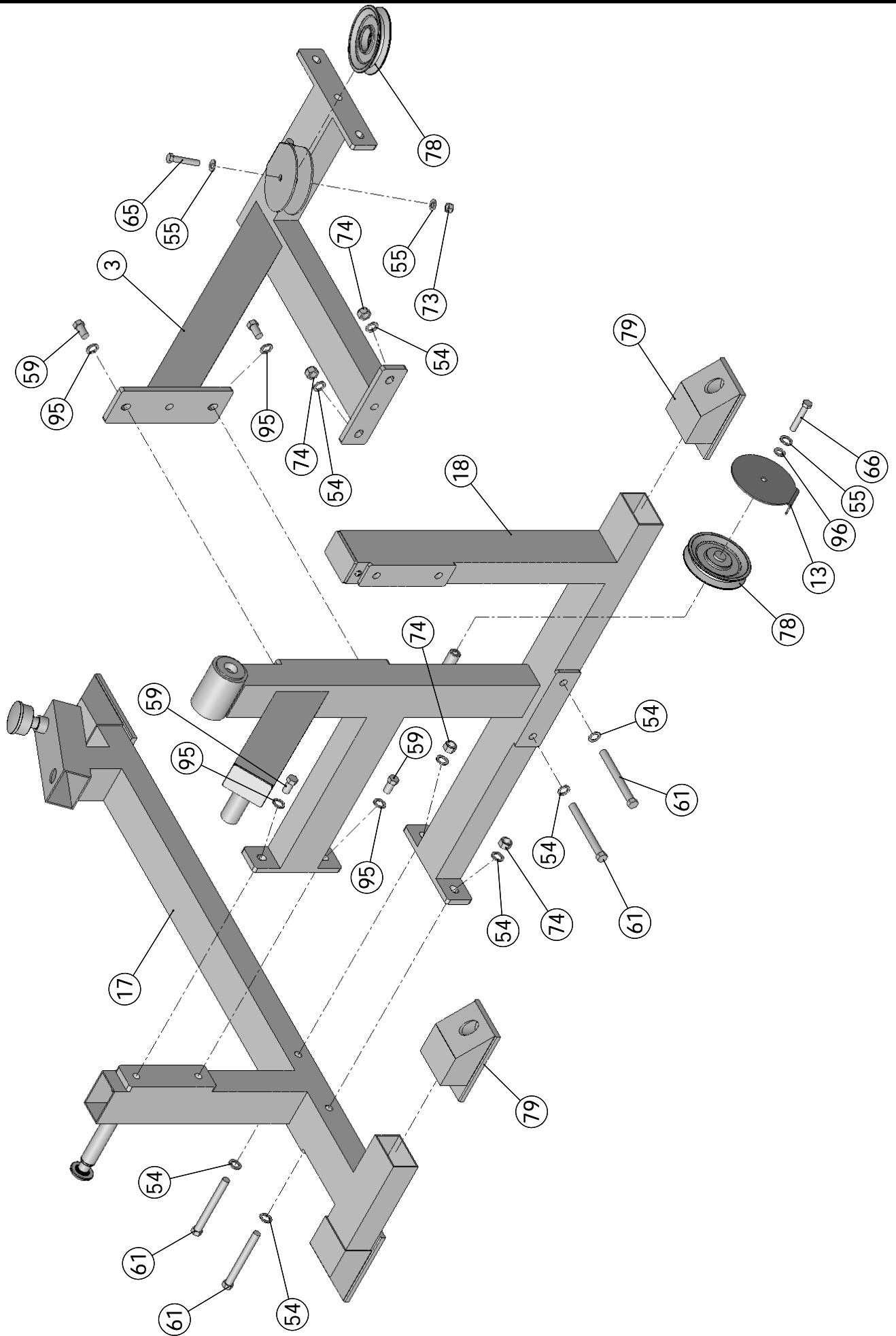
Tool Requirements

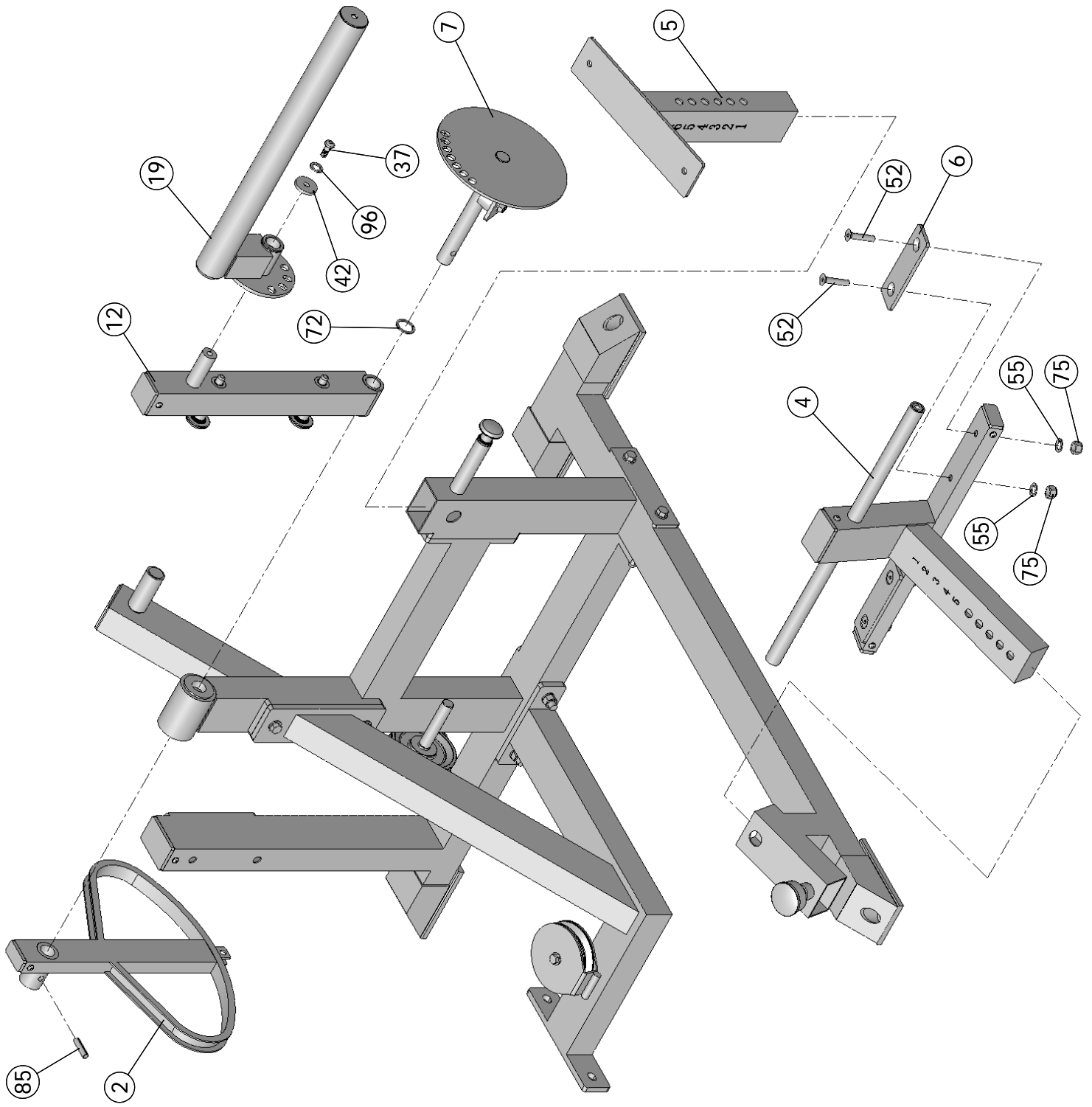
1. One 3/4" combination wrench
2. One 9/16" combination wrench
3. One 7/16" combination wrench
4. One ratchet
5. One 3/4" socket
6. One 9/16" socket
7. One 7/16" socket
8. Rubber mallet
9. Windex or household glass cleaner
10. One can silicone spray / teflon spray lubricant
11. Measuring tape
12. Utility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

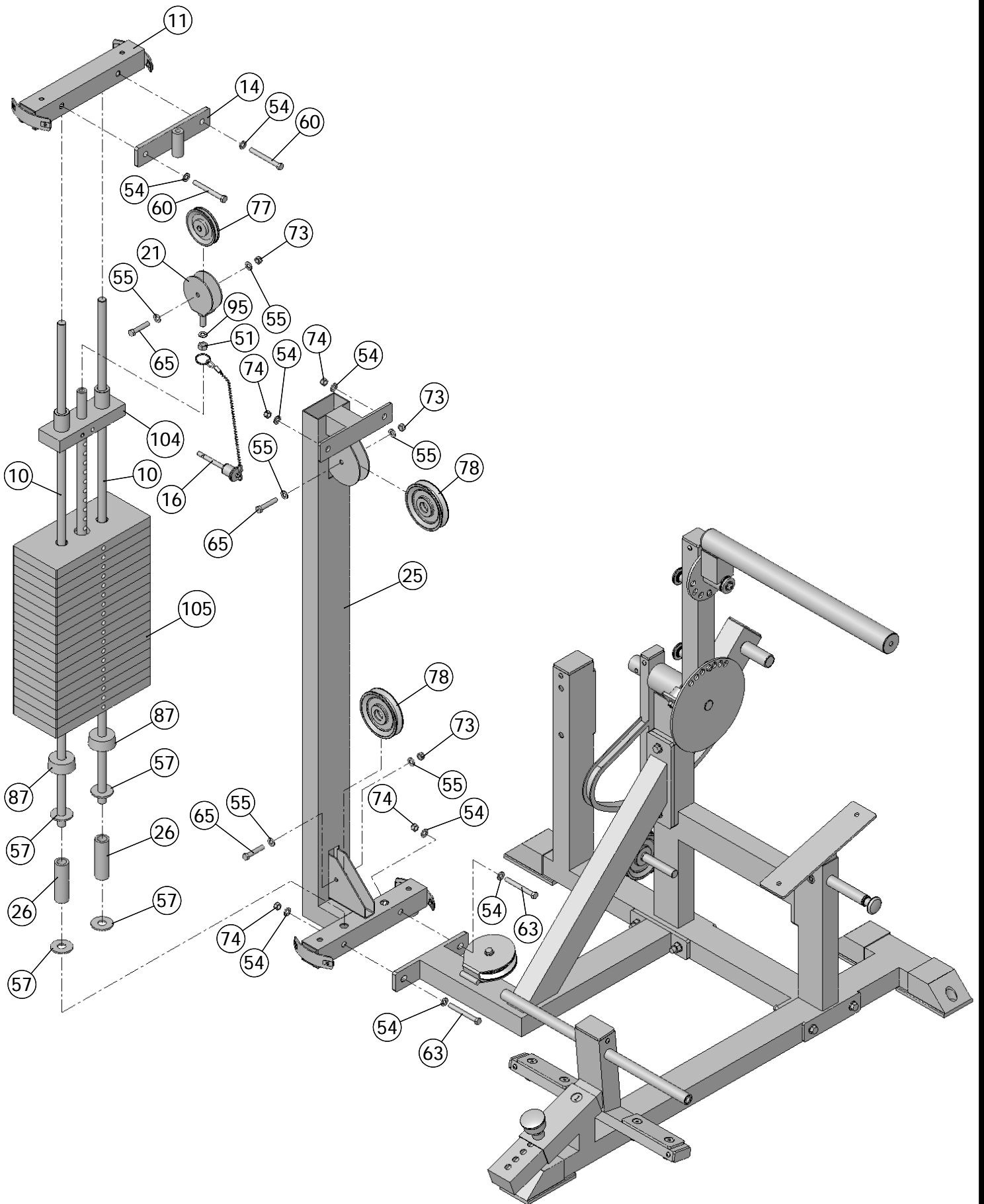


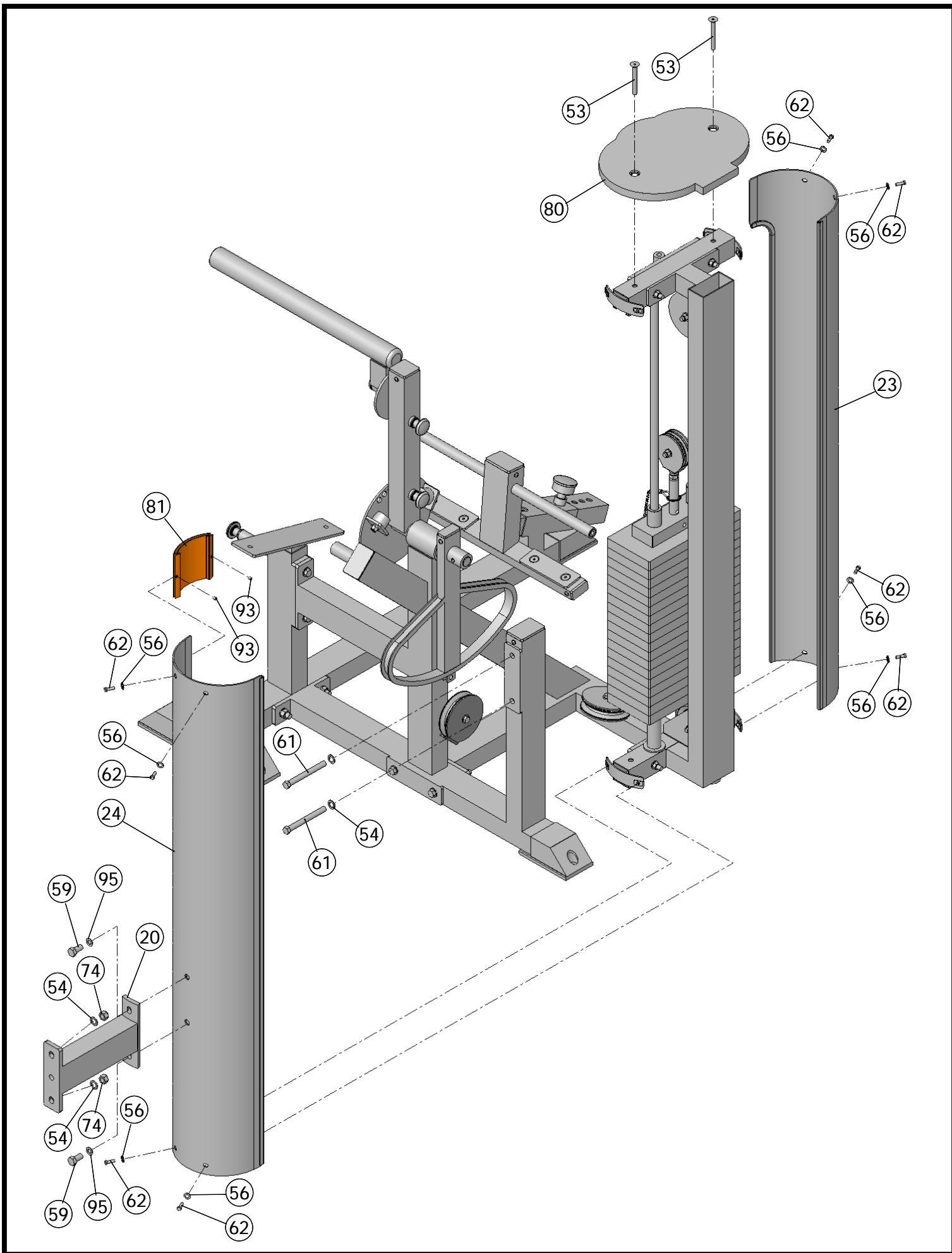
Safety Precautions

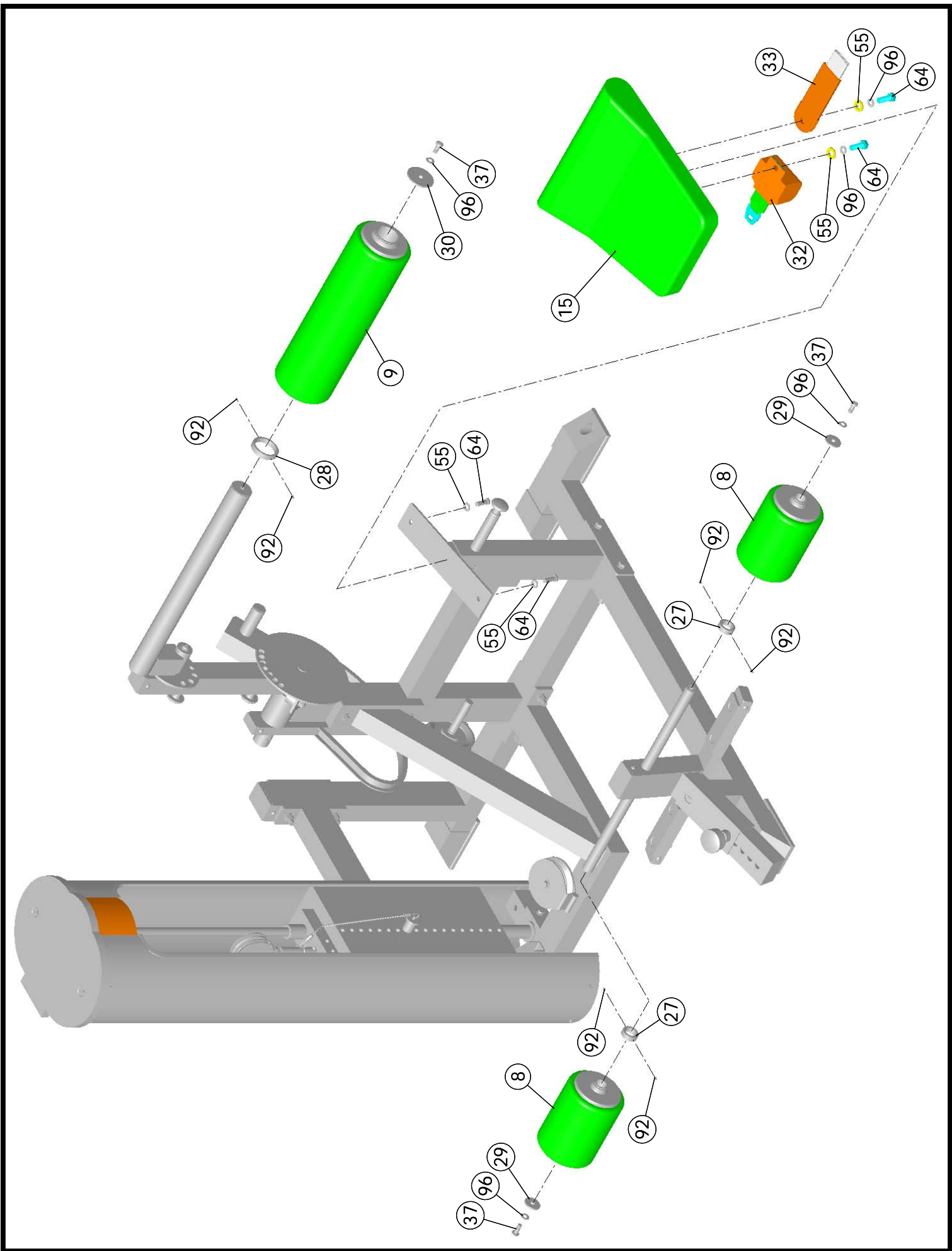
4. Use proper discretion when children are present.
5. Frayed or worn cables can be dangerous and may cause injury. Periodically check these cables for any indication of wear.
6. Keep hands, limbs, loose clothing and long hair well out of the way of moving parts.
7. Do not attempt to lift more weight than you can control safely.
8. Inspect the Unit 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 the defective part is repaired or replaced.











COLOR CHART
 GRAY= SUB-ASSEMBLY PARTS
 BLACK= HARDWARE

SP-4410 Ab/Back Parts List

Item No.	Description	Part No.	Qty	Item No.	Description	Part No.	Qty
1	AB/BACK CABLE	UP5105	1	53	FLAT HEAD SOCKET CAP SCREW B/O 3/8-16 X 3	BNH0787	2
2	ACTUATOR ARM	UP5149	1	54	FLAT WASHER SAE B/O 1/2"	BNH0238	20
3	BOTTOM CROSS BRACE	UP5150	1	55	FLAT WASHER SAE B/O 3/8"	BNH0239	19
4	ADJUSTABLE FOOT PIECE	UP5104	1	56	FLAT WASHER USS B/O 1/4"	BNH0233	8
5	ADJUSTABLE SEAT FRAME	UP5102	1	57	FLAT WASHER USS B/O 3/4 X 2"	BNH0878	4
6	ALUMINUM DIAMOND PLATE 1/4 X 2 X 6	UP2220	2	59	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 1	BNH0259	6
7	CIRCULAR PLATE WITH AXLE	UP5097	1	60	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 3 5/8	BNH1842	2
8	FOAM ROLL 1 X 5 1/2 X 7 1/4	UP0350	2	61	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 4 5/8	BNH1843	6
9	FOAM ROLL 2 X 5 1/2 X 18	UP2031	1	62	HEX HEAD CAP SCREW GR-5 B/O 1/4-20 X 3/4	BNH0890	8
10	GUIDE ROD 3/4 X 53 3/4	UP0783	2	63	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 3 3/8	BNH1841	2
11	GUIDE ROD RETAINER W/THREAD	UP5017	1	64	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 1 1/2	BNH0303	4
12	PIVOT ARM	UP5098	1	65	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 1 3/4	BNH0274	6
13	PULLEY COVER (ROUND)	UP5011	1	66	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 2 1/4	BNH0277	1
14	REINFORCEMENT PLATE W/ADJUSTER	UP2183	1	67	HEX KEY 3/16"	BNH0371	1
15	SEAT PAD	UP5103	1	68	HEX KEY 3/32"	BNH0372	1
16	SELECTOR PIN W/COIL 3/8 X 4 GOLD KNOB	UP3035	1	69	HEX KEY 5/32"	BNH0373	1
17	SIDE FRAME	UP5096	1	70	HEX KEY 7/32"	BNH0575	1
18	SIDE FRAME CONNECTOR	UP5101	1	71	HEX KEY 1/8"	BNH0767	1
19	SWIVEL FOAM ROLL TUBE	UP5099	1	72	NYLON FLAT WASHER 1 X 1 1/4 X 1/16	BNH0393	2
20	TOP CROSS SUPPORT	UP5100	1	73	NYLON INSERT JAM LOCK NUT B/O 3/8-16	BNH0365	6
21	TOP PLATE PULLEY BRACKET	UP5079	1	74	NYLON INSERT LOCK NUT B/O 1/2-13	BNH0212	10
23	WEIGHT SHROUD 54"	UP5029	1	75	NYLON INSERT LOCK NUT B/O 3/8-16	BNH0214	4
24	WEIGHT SHROUD W/HOLES 54"	UP5030	1	76	NYLON INSERT LOCK NUT B/O 5/16-18	BNH0215	1
25	WEIGHT STACK FRAME 54"	UP5016	1	77	NYLON PULLEY 3/8 X 1 X 3 1/2 BLACK	BNH0506	1
26	WEIGHT STACK SPACER 4"	UP0786	2	78	NYLON PULLEY 3/8 X 1 X 4 1/2 BLACK	BNH0506	4
27	ALUMINUM COLLAR 1.0312 ID X 1.521 OD X .500 THK.	BNH1519	2	79	PLASTIC END CAP 2 X 3	BNH0606	4
28	ALUMINUM COLLAR 2.031 ID X 2.584 OD X .500 THK.	BNH1520	1	80	PLASTIC SHROUD LID 5/8 X 14 1/8 X 10	BNH0185	1
29	ALUMINUM WASHER .390 ID X 1.500 OD X .150 THK	BNH1541	2	81	PLASTIC SHROUD GAP COVER 3"	BNH1829	1
30	ALUMINUM WASHER 3/8 X 2.584 OD X .15 THK.	BNH1521	1	82	PULL PIN 1/2 X 3 1/2 LIGHT SPRING (YELLOW KNOB)	BNH0603	2
31	BALL BEARING W/GROVE 620SRS (0.9850 X 2.0490 X 0.5890)	BNH1831	2	83	PULL PIN 1/2 X 5 5/8 LIGHT SPRING (YELLOW KNOB)	BNH0701	1
32	BLACK SEAT BELT TYPE 1 ALR RETRACTOR	BNH1218	1	84	RETAINING SNAP RING EXT. PLAIN 1.8865 X 2.1990 X .071	BNH1832	2
33	BLACK SEAT BELT TYPE 1 BUCKLE	BNH1217	1	85	ROLL PIN B/O 3/8 X 1 1/2"	BNH0660	1
34	BRONZE BUSHING 1 X 1 1/4 X 3/4 X 1 1/2 X 1/8	BNH0527	2	86	RUBBER BUMPER W/WASHER 3/8 X 1 1/2	BNH0514	2
35	BRONZE BUSHING 3/8 X 1/2 X 5/16	BNH0737	1	87	RUBBER DONUT 3/4 X 2 1/2	BNH0068	2
36	BUTTON HEAD SOCKET CAP SCREW B/O 1/4-20 X 3/8	BNH1346	12	88	RUBBER GROMMET 3/4" ID (2867-012)	BNH0401	2
37	BUTTON HEAD SOCKET CAP SCREW B/O 3/8-16 X 1	BNH0115	4	89	RUBBER STOPPER 1 ID X .187 X 3	BNH0976	1
38	CHROME CAP 2" RD	BNH1137	1	90	SHOULDER BOLT 3/8 X 3/4	BNH0718	1
39	CHROME INSERT CAP 1 X 2	BNH1500	3	92	SOCKET SET SCREW ALLOY 10-32 X 1/8	BNH0473	6
40	CHROME INSERT CAP 2 SQ	BNH1502	1	93	SOCKET SET SCREW ALLOY 1/4-20 X 1/4	BNH0790	2
41	CHROME INSERT CAP 2 X 3	BNH1503	2	94	SPLIT HEX TAP BOLT GR-5 B/O 1/2-13 X 3 1/2	BNH1131	1
42	CHROME WASHER 3/8 X 1 1/2	BNH1015	1	95	SPLIT LOCK WASHER B/O 1/2"	BNH0653	8
43	DECAL-ADJUST CABLE HERE	BNH0789	1	96	SPLIT LOCK WASHER B/O 3/8"	BNH0658	7
44	DECAL-CAUTION 1 3/4 X 5 1/2	BNH0126	1	98	SUPER LUBE TEFLON LUBRICANT 82340	BNH0704	2
45	DECAL-DANGER TIGHTEN THIS RET...., 3/4 X 1 1/2	BNH0142	3	99	TUFFSTUFF LOGO ALUMINUM LARGE (ADHESIVE)	BNH1837	1
46	DECAL-EXERCISE SP-4410 AB/BACK 5 1/4 X 10 1/2	BNH1688	1	100	TURN/PULL PIN W/KNOB	BNH0929	1
47	DECAL-FOR BEST PERFORMANCE 1 1/4 X 1 1/2	BNH0143	1	101	URETHANE BUMPER 1 3/4"	BNH0229	4
48	DECAL-WARNING KEEP HANDS AND FINGERS..	BNH0620	1	102	U-STYLE TAPPED HOLE NUT 1/4-20	BNH0708	8
49	EDGE PROTECTOR CHROME 11 GA	BNH1724	4	103	U-STYLE TAPPED HOLE NUT 3/8-16	BNH1211	2
51	FINISHED HEX NUT B/O 1/2-13	BNH0201	2	104	TOP PLATE AND SELECTOR BAR	BNH0876	1
52	FLAT HEAD SOCKET CAP SCREW B/O 3/8-16 X 2	BNH1248	4	105	15 LB WEIGHT PLATE	BNH0926	19



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. The powder coat finish should be polished with a good car wax on a monthly basis. A daily wipe down of the upholstery with a lanolin based hand cleaner or Naugahyde Cleaner. Do not use cleaners such as Lysol or Windex as they will dry out and crack the vinyl. Lanolin hand cleaner dissolves the sweat and lubricates the vinyl, maintaining its natural flexibility. 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.

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 cable as it terminates at the cam. 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.



Maintenance

Part Three: Lubrication

Bearing and linear bearings systems have advanced over the years but they must be maintained on a regular basis if you expect them to last and perform efficiently. 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.
4. Linear bearing systems are precision, high load components that require regular maintenance. Dirt and corrosion are the major culprits in linear bearing failure. The hardened shafts must be wiped down weekly and lubricated with a light layer of teflon grease. We recommend a teflon-base (silicone-free) gel/grease for this purpose. Lack of care and maintenance will result in corrosion of the linear shaft causing the bearings to clogged and jammed.

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 Fitness Equipment, Inc.
Service Department
1325 E. Franklin Avenue
Pomona, CA 91766
1-800-961-9377
e-mail: service@tuffstuff.net

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

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