



Introduction

About the Leg Extension/Curl SP-4414

Congratulations on your new purchase of the **Leg Extension/Curl**. We hope you are completely satisfied with this product and wish you many years of enjoyment.

*T*uff 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

*R*egistration 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
- 2. Total Machine Weight -
- 3. Footprint (LWH)
- 595 Lbs.

- 200 Lbs.

(LWH) - See Front Page

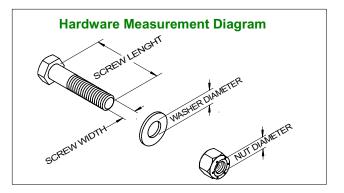
Note: Due to continuing product improvements, specifications and designs are subject to change without notice.

${m \mathcal{P}}$ rior to the Assembly of the Leg Extension/Curl

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.

\mathcal{T} ool 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



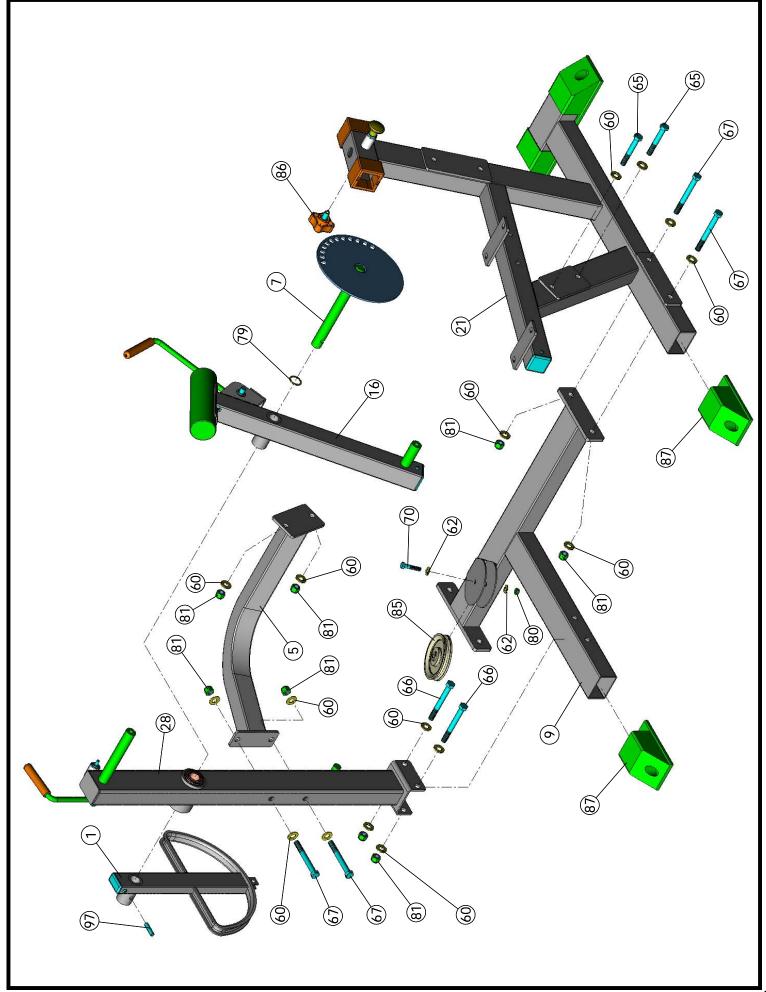
$\mathcal{S}_{afety} \mathcal{F}_{irst}$

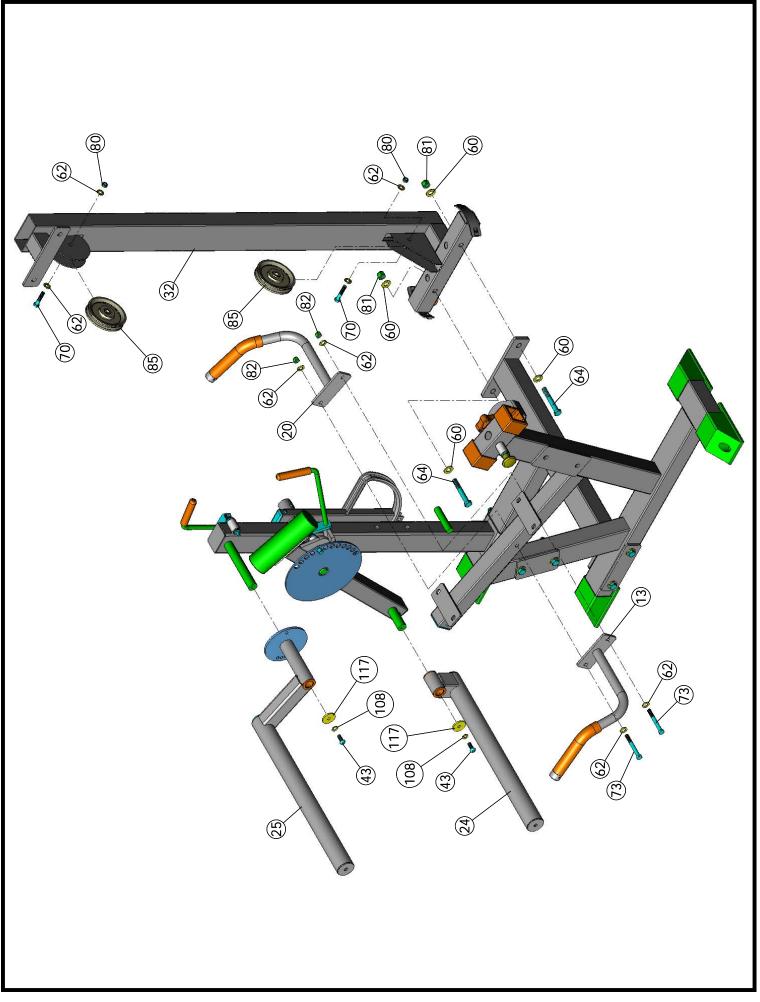
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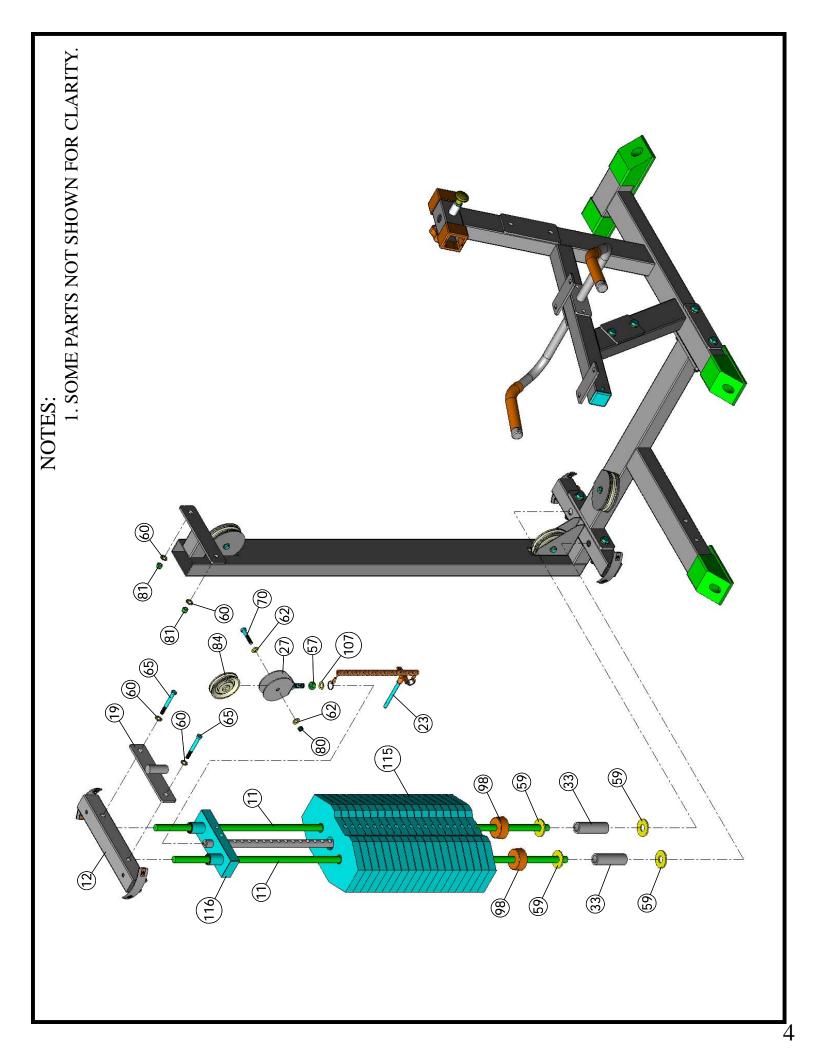
Safety Precautions

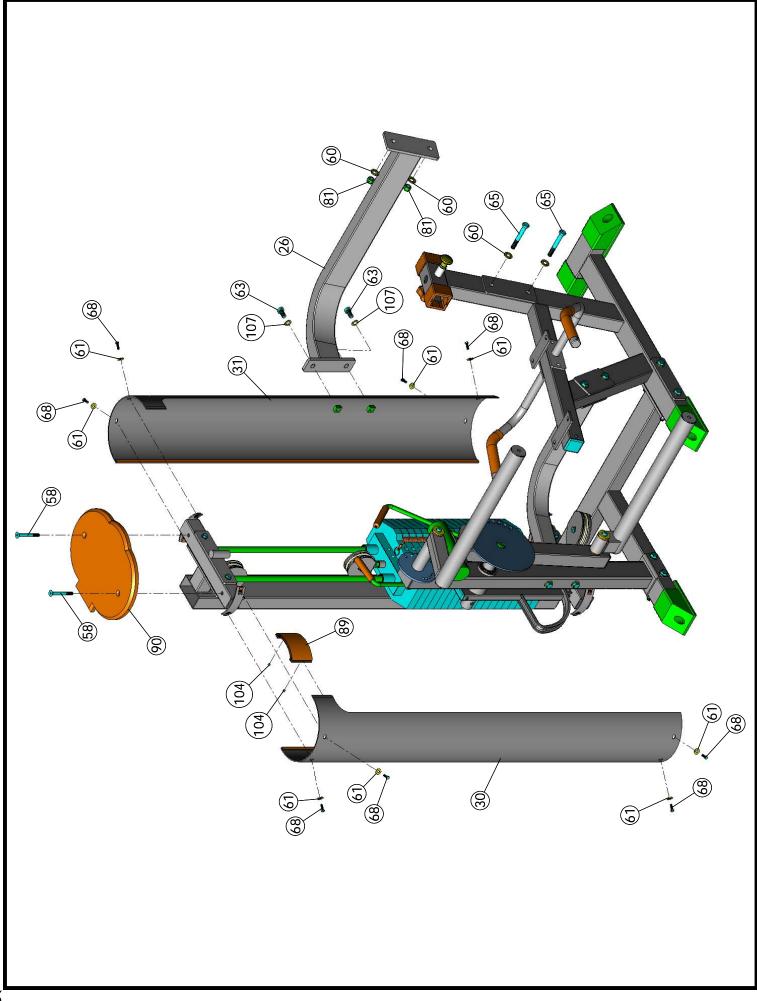
- Regardless of how enthusiastic you may be about getting on your equipment and exercising, take the time to ensure that your safety is not jeopardized. A moment's lack of attention can result in an accident, as can failure to observe certain safety precautions.
- 1. Read, study and understand the Owner's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

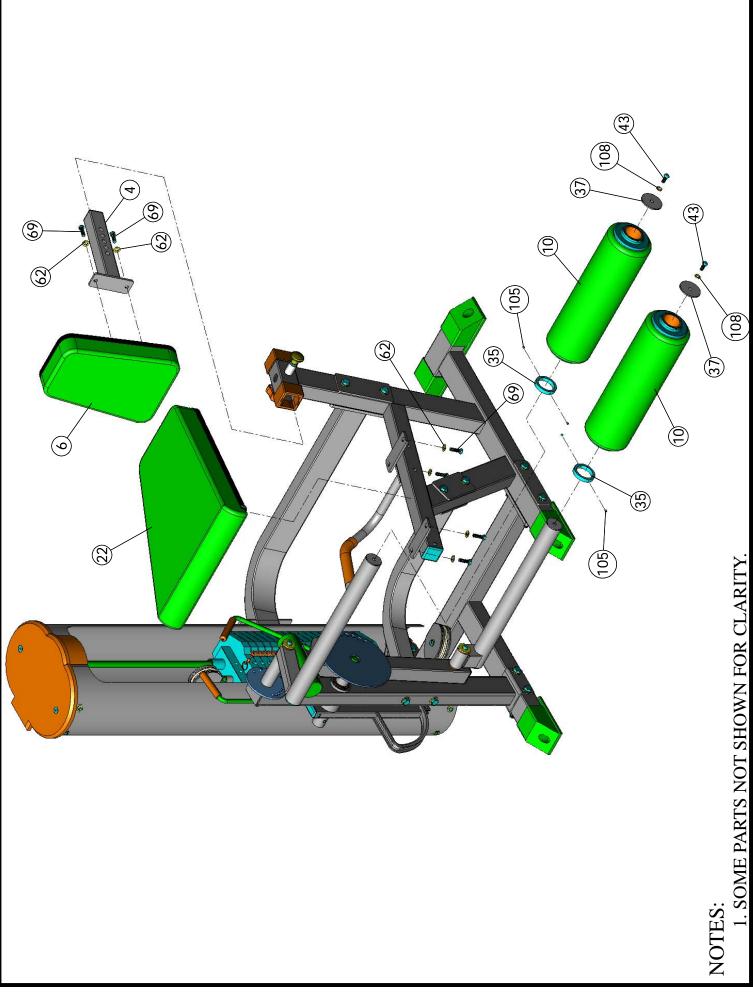
- 4. Use proper discretion when children are present.
- 5. Frayed or worn cables can be dangerous and may cause injury. Periodically check these cables for any indication of wear.
- 6. Keep hands, limbs, loose clothing and long hair well out of the way of moving parts.
- 7. Do not attempt to lift more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

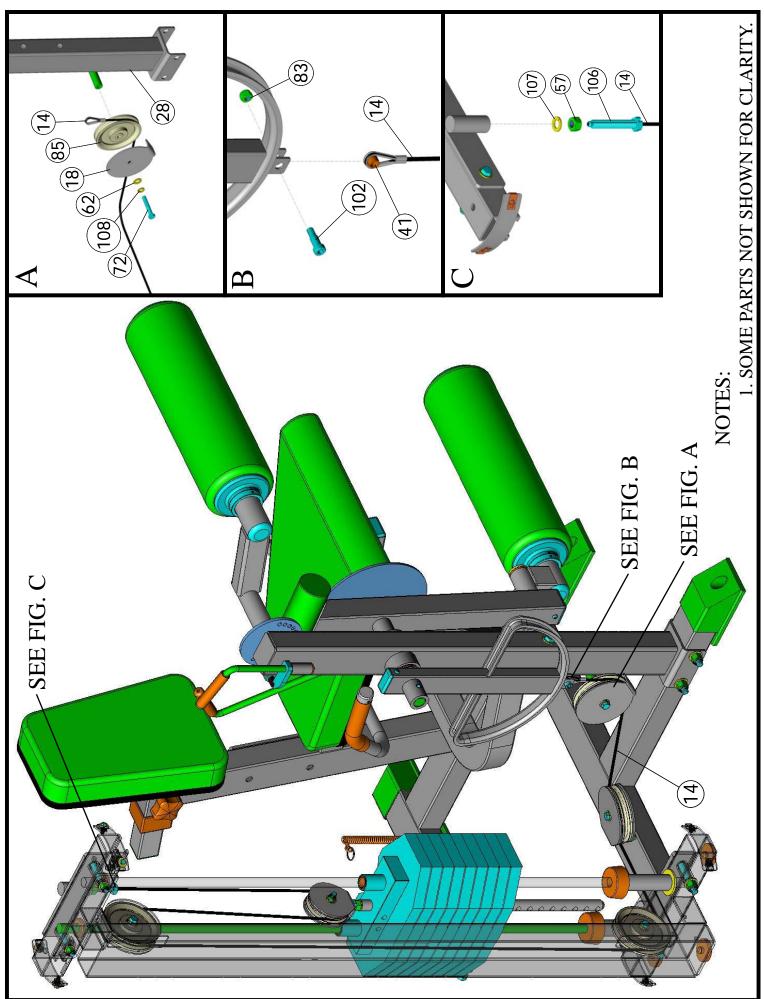












COLOR CHART GRAY= SUB-ASSEMBLY PARTS BLACK= HARDWARE

SP-4414 Leg Extension/Curl Parts List

Item No.	Description	Part No.	Qty	Item No.	Description	Part No.	Qty
1	ACTUATOR ARM	UP5126	1	60	FLAT WASHER SAE B/O 1/2"	BNH0238	29
4	ADJUSTABLE BACK PAD TUBE	UP5119	1	61	FLAT WASHER SAE B/O 1/4"	BNH0877	8
5	ARM SUPPORT	UP5123	1	62	FLAT WASHER SAE B/O 3/8"	BNH0239	19
6	BACK PAD	UP5120	1	63	HEX HEAD CAP SCREW GR-5 B/O 1/2 13 X 1	BNH0259	2
7	CIRCULAR PLATE WITH AXLE	UP2185	1	64	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 3 3/8	BNH1841	2
8	COUNTER BALACE	UP5090	1	65	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 3 5/8	BNH1842	6
9	CROSS BRACE STABILIZER	UP5117	1	66	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 4 1/4	BNH0291	2
10	FOAM ROLL 2 X 5 1/2 X 18	UP2031	2	67	HEX HEAD CAP SCREW GR-5 B/O 1/2-13 X 4 5/8	BNH1843	4
11	GUIDE ROD 3/4 X 53 3/4	UP0783	2	68	HEX HEAD CAP SCREW GR-5 B/O 1/4-20 X 3/4	BNH0890	8
12	GUIDE ROD RETAINER W/THREAD	UP5017	1	69	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 1 1/2	BNH0303	6
13	LEFT HANDLE	UP2178	1	70	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 1 3/4	BNH0274	
14	LEG EXTENSION/CURL CABLE	UP5128	1	72	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 2 1/4	BNH0277	1
15	LEG HOLDER ADJUSTER HANDLE	UP2186	1	73	HEX HEAD CAP SCREW GR-5 B/O 3/8-16 X 3 1/4	BNH0312	2
16	PIVOT ARM	UP5124	1	74	HEX KEY 1/8"	BNH0767	
17	PIVOT ARM ADJUSTER HANDLE	UP2192	1	75	HEX KEY 3/16"	BNH0371	
18	PULLEY COVER (ROUND)	UP5011	1	76	HEX KEY 3/32"	BNH0372	
19	REINFORCEMENT PLATE W/ADJUSTER	UP2183	1	70	HEX KEY 5/32"	BNH0373	
	RIGHT HANDLE	UP2179	1	78	HEX KEY 7/32"	BNH0575	
20	SEAT FRAME	UP5118	1	70	NYLON FLAT WASHER 1 X 1 1/4 X 1/16	BNH0393	
22	SEAT PAD	UP5129	1	80	NYLON INSERT JAM LOCK NUT B/O 3/8-16	BNH0365	
22	SELECTOR PIN W/COIL 3/8 X 4 GOLD KNOB	UP3035	1	81	NYLON INSERT LOCK NUT B/O 1/2-13	BNH0212	
23	SUIVEL FOAM ROLL TUBE	UP5127	1	82	NYLON INSERT LOCK NUT B/O 3/8-16	BNH0212	1
24 25	TOP ADJUSTABLE LEG HOLDER	UP5127	1	83	NYLON INSERT LOCK NUT B/O 5/16-18	BNH0214	1
25		UP5123	1	84		1	
	TOP CROSS BRACE TOP PLATE PULLEY BRACKET				NYLON PULLEY 3/8 X 1 X 3 1/2 BLACK NYLON PULLEY 3/8 X 1 X 4 1/2 BLACK	BNH0553	
27		UP5079	1	85		BNH0506	1
28		UP5122	1	86	PLASTIC BLACK KNOB W/NYLON STUD 1/2-13	BNH0796	1
	WEAR COVER (OPTIONAL)	UP5130	1	87	PLASTIC END CAP 2 X 3	BNH0606	
30	WEIGHT SHROUD 54"	UP5029	1	88	PLASTIC INSERT CAP 1 3/4" SQ.	BNH0053	
31	WEIGHT SHROUD W/HOLES 54"	UP5030	1	89	PLASTIC SHROUD GAP COVER 3"	BNH1829	
	WEIGHT STACK FRAME 54"	UP5016	1	90	PLASTIC SHROUD LID 5/8 X 14-1/8 X 10	BNH0185	
33	WEIGHT STACK SPACER 4"	UP0786	2	91	PLASTIC TUBE GUIDE W/LIP-TEETH 2 1/4" SQ.	BNH0059	
34	ALUMINUM CAP 1" RD. (CAP-100)	BNH0537		92	PULL PIN 1/2 X 2 7/8 LIGHT SPRING (YELLOW KNOB)	BNH0641	
35	ALUMINUM COLLAR 2.031 ID X 2.584 OD X .500 THK.	BNH1520		93	PUSH PULL PIN 1/2 X 2 1/2 SHORT NOSE DRILLED	BNH1151	1
36	SMALL ALUMINUM TUFFSTUFF LOGO	BNH1323		94	PUSH PULL PIN ASSY 3/8 X 2 1/2 DRILLED	BNH1429	
37	ALUMINUM WASHER 3/8 X 2.584 OD X .15 THK.	BNH1521		95	RETAINING SNAP RING EXT. PLAIN .461 X .500 X .035	BNH1154	
	BALL BEARING W/GROVE 620SRS (0.9850 X 2.0490 X 0.5890)	BNH1831		96	RETAINING SNAP RING EXT. PLAIN 1.8865 X 2.1990 X .071	BNH1832	1
39	BRONZE B 0.5135 X 0.6280 X 0.5035 X 0.8670 X 0.1185	BNH1826		97	ROLL PIN B/O 3/8 X 1 1/2"	BNH0660	
40	BRONZE BUSHING 1 X 1-1/4 X 3/4 X 1-1/2 X 1/8	BNH0527		98	RUBBER DONUT 3/4 X 2 1/2	BNH0068	
41	BRONZE BUSHING 3/8 X 1/2 X 5/16	BNH0737	1	99	RUBBER GRIP 1 ID X .125 X 8	BNH0966	2
42	BUTTON HEAD SOCKET CAP SCREW B/O 1/4-20 X 3/8	BNH1346	6	100	RUBBER GRIP 1/2 X 4	BNH0530	2
	BUTTON HEAD SOCKET CAP SCREW B/O 3/8-16 X 1	BNH0115		101	RUBBER GROMMET 3/4" ID (2867-012)	BNH0401	1
44	CHROME CAP 2" RD	BNH1137		102	SHOULDER BOLT 3/8 X 3/4	BNH0718	
45	CHROME INSERT CAP 1 X 2	BNH1500	-	103	SINGLE STRAND CONNECTING LINK #40	BNH0066	1
46	CHROME INSERT CAP 2 SQ	BNH1502	2	104	SOCKET SET SCREW ALLOY 1/4-20 X 1/4	BNH0790	2
47	FLAT PHILLIPS SCREW ZINC # 2 X 1/2	BNH1480		105	SOCKET SET SCREW ALLOY 10-32 X 1/8	BNH0473	4
48	DECAL-ADJUST CABLE HERE	BNH0789	1	106	SPLIT HEX TAP BOLT GR-5 B/O 1/2-13 X 3 1/2	BNH1131	1
49	DECAL-CAUTION 1 3/4 X 5-1/2	BNH0126	1	107	SPLIT LOCK WASHER B/O 1/2"	BNH0653	4
50	DECAL-DANGER TIGHTEN THIS RET, 3/4 X 1-1/2	BNH0142	3	108	SPLIT LOCK WASHER B/O 3/8"	BNH0658	7
51	DECAL-EXERCISE SP-4414 LEG EXT/CURL 5 1/4 X 10 1/2	BNH1690	1	110	SUPER LUBE TEFLON LUBRICANT 82340	BNH0704	2
52	DECAL-FOR BEST PERFORMANCE 1-1/4 X 1-1/2	BNH0143	1	111	TUFFSTUFF LOGO ALUMINUM SMALL	BNH1323	1
53	DECAL-WARNING KEEP HANDS AND FINGERS	BNH0620	1	112	URETHANE BUMPER 1 3/4	BNH0229	3
54	DECAL-WEIGHT NUMBERS REF TP-10 (200 lbs)	BNH1542	1	113	U-STYLE TAPPED HOLE NUT 1/4-20	BNH0708	8
55	EDGE PROTECTOR CHROME 11 GA	BNH1724	4	114	U-STYLE TAPPED HOLE NUT 3/8-16	BNH1211	2
57	FINISHED HEX NUT B/O 1/2-13	BNH0201	2	115	15 LB CAST WEIGHT PLATE GREY (EA)	BNH0926	19
58	FLAT HEAD SOCKET CAP SCREW B/O 3/8-16 X 3	BNH0787		116	TOP PLATE AND SELECTOR BAR (3/4")	BNH0876	1
59	FLAT WASHER B/O 3/4 X 2"	BNH0878	4	117	CHROME WASHER 3/8 X 1 1/2	BNH1015	2



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 upmost 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 and early warning sign to replace the cable.





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 crate 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 teflonbase (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 CAPI-TAL, 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