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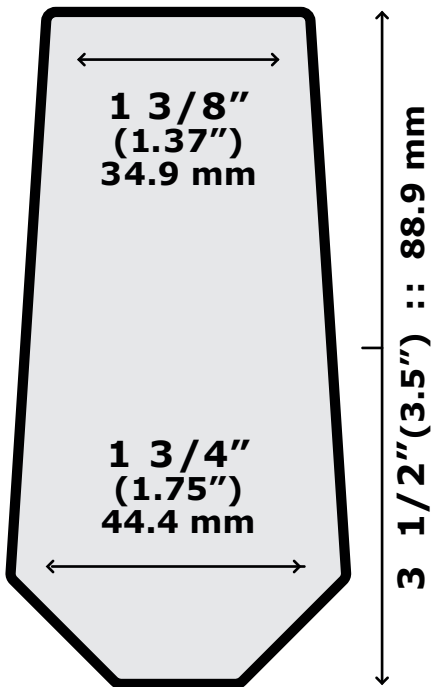
DURA  TUFF

GROUSER PRODUCTS

TM

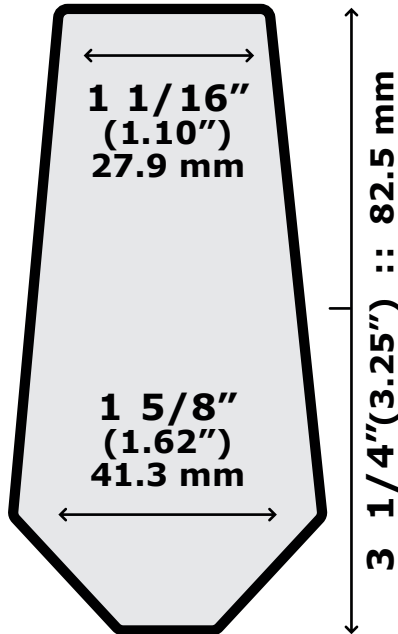
BORON ALLOY STEEL

13 Bar



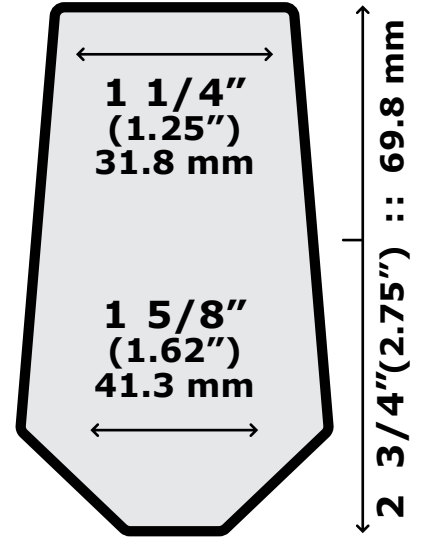
17.53 LB/FT- 26.08 KG/M

11 Bar



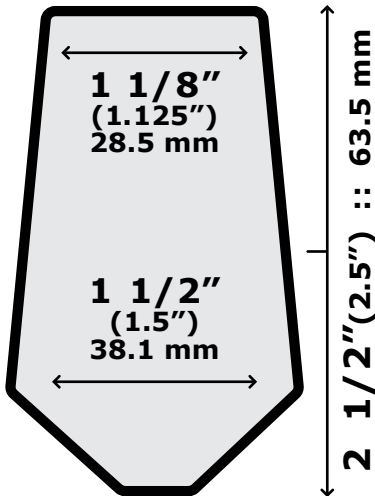
14.17 LB/FT- 21.08 KG/M

12 Bar



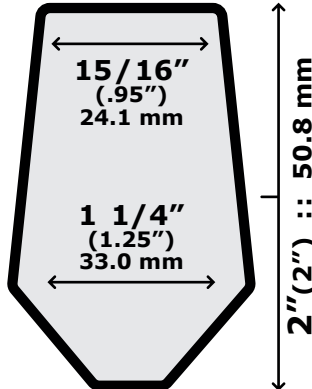
12.62 LB/FT- 18.78 KG/M

10 Bar



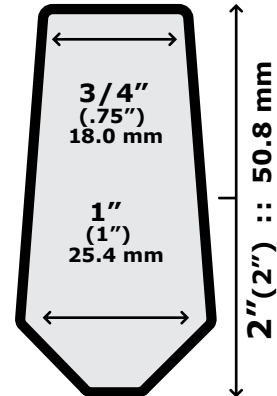
10.55 LB/FT- 15.70 KG/M

9 Bar



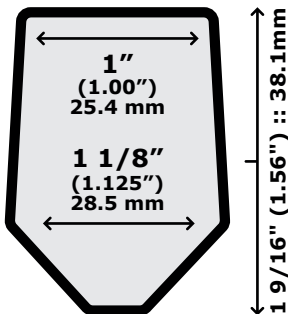
7.05 LB/FT- 10.49 KG/M

8 Bar



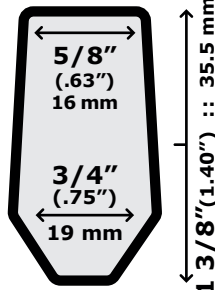
5.35 LB/FT- 7.96 KG/M

19 Bar



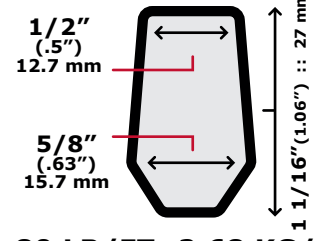
4.96 LB/FT- 7.38 KG/M

7 Bar



3.02 LB/FT- 4.49 KG/M

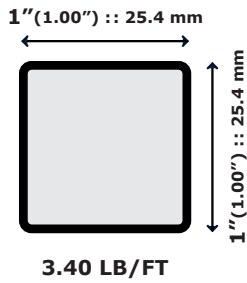
6 Bar



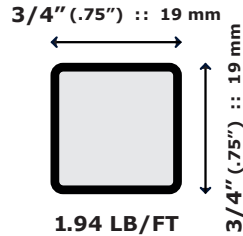
1.80 LB/FT- 2.68 KG/M
(Only available in 1070 High Carbon Steel)

SQUARE BAR - 1080 HIGH CARBON STEEL

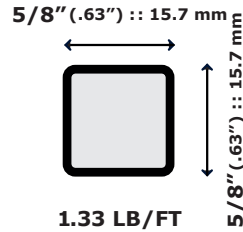
5 Bar



4 Bar



3 Bar



GROUSER BAR PROFILES BY MANUFACTURER

CATERPILLAR®

MODEL NUMBER	GROUSER BAR SIZE
D3, D4, 953D, 973D, 963K	3, 4, 5, 6
D5, D6, 572, 951, 955, PL 61, 72, 83	6, 7
D7, D8, 583, 527	7, 19, 8, 9
D9	8, 9, 10
D10, D11	9, 10, 11, 12, 13

KOMATSU

MODEL NUMBER	GROUSER BAR SIZE
D50, D51, D53, D55, D58, D63	6, 7
D60, D65, D68, D75, D80, D83, D85	7
D135, D155, D155AX	19, 8, 9
D275, D355, D375A-1	8, 9, 10
D375A-2	9, 10, 12
D475A-2, D575-A	11, 12, 13

JOHN DEERE

MODEL NUMBER	GROUSER BAR SIZE
655, 755, 605	3, 4, 5
350, 450, 550, 650, 700, 750, 850	6, 7
950, 1050	7, 19, 8, 9

LEIBHERR

MODEL NUMBER	GROUSER BAR SIZE
PR716, 726, 736, LR624, LR 636	6, 7
PR746	7, 19, 8, 9
PR756, PR764	8, 9, 10
PR776	9, 10, 11, 12, 13

CASE

MODEL NUMBER	GROUSER BAR SIZE
310 (all), 350, 420B, 450, 520	6
600B, 750, 800, 850, 1000, 1010, 1150, 1550	6, 7

HITACHI

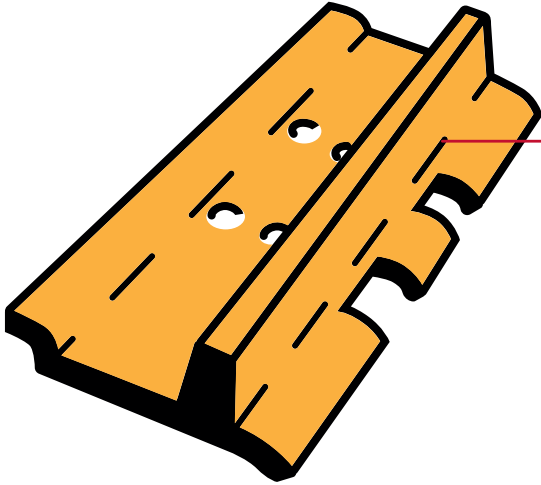
MODEL NUMBER	GROUSER BAR SIZE
ZX17U-5, ZX26U-5, ZX35U-5, ZX60USB-5	6
ZX130-5, ZX160LC-5, ZX180LC-5	
ZX210LC-6, ZX210-6, ZX250LC-6, ZX290LC-5	
ZX300LC-6, ZX350LC-6, ZX380LC-6	6, 7
D150, ZX470LC-6, ZX670LC-6	6, 7, 19, 8
D180, ZX870LC-6	

VOLVO

MODEL NUMBER	GROUSER BAR SIZE
EC140D, EC140E, ECR145D, ECR145E	6
ECR235D, ECR235E, EC160D, EC220D, EC220E	
EC250D, EC20E, EC300D, EC300E, ECR305C, EC340D, EC350E, EC280E	
EC480D, EC480E	6, 7
EC700C	7, 19, 8, 9



GROUSER BAR



EXTEND TRACK SHOE LIFE

Grouser Bar is a type of steel bar used to restore the tread on dozers, excavators and other tracked vehicles. A worn track shoe can be regrousered up to four times, greatly extending the life of the shoe. New grouser bar from Dura-Tuff can also add height (up to 110% of the original) for added traction and increased wear life.

GROUSER BAR SPECIFICS:

- Rolled in a unique 'coffin' shaped profile to fit easily on a worn track pad surface
- Grouser bars are welded onto worn track shoes as an alternative to completely replacing them with new OEM or aftermarket shoes
- Designed to match or even exceed the hardness and durability of the original track shoe
- Available in a variety of profile sizes to accommodate the largest dozers down to the smallest track loaders or excavators



WHY USE GROUSER BAR?

WHAT DOES "GROUSER" REFER TO?

The grouser refers to the protrusion on a track shoe which directly engages the ground. Grousers are intended to increase the traction of tracked machines, especially in loose material such as soil or snow. The grouser works by increasing contact with the ground like conventional tire treads, and similar to a cleated athletic shoe — giving the machine the traction it needs to push, pull, and rip through rock, sand, soil, and debris.



Regrousering can significantly prolong the life of the track group and save literally thousands of dollars over the life of the undercarriage.

WHAT'S THE ADVANTAGE?

In many abrasive environments, the grouser wears down at a disproportionate rate to the rest of the undercarriage, making the concept of regrousering a cost-effective way to approach undercarriage maintenance. Regrousering can significantly prolong the life of the track

group and save literally thousands of dollars over the life of the undercarriage.

WHY CHOOSE DURA-TUFF?

OUR HISTORY

Dura-Tuff was started in 1986 when we identified a need in the industry, originally called W.M.C.. A few years later we changed the name to Dura-Tuff to emphasize the Durability and Tuffness of our grouser products.

MADE IN THE USA—WORN WORLDWIDE

America has a rich industrial heritage and a proud tradition of steel working. We continue that tradition with a passion for making the best, most durable, and innovative grouser products in the world. We work hard every day to make products that work even harder in some of the most abrasive environments on the planet, in more than twenty-five countries throughout the world.



IT STARTS WITH THE STEEL

We start with a proprietary boron alloy which maximizes hardness and weldability. From there the steel is cut-to-length and individually heat treated for consistent through-hardness. This process of hand crafting each bar results in steel that is up to 20 points harder (Rockwell C) than our competitor's bar.

OUR FOCUS

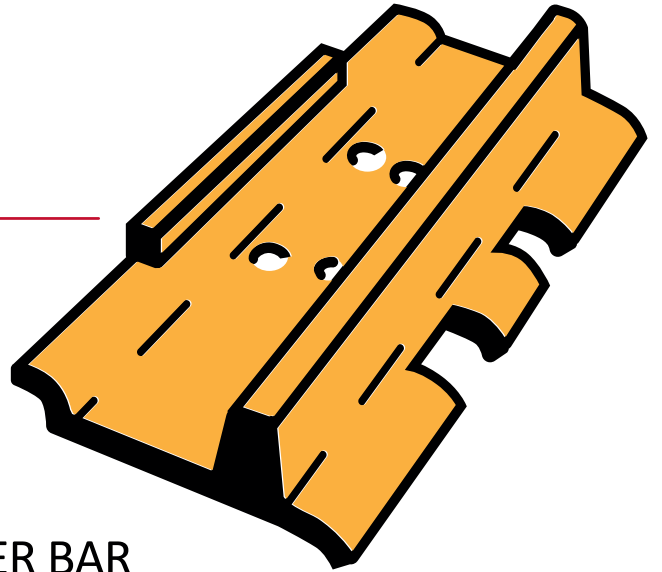
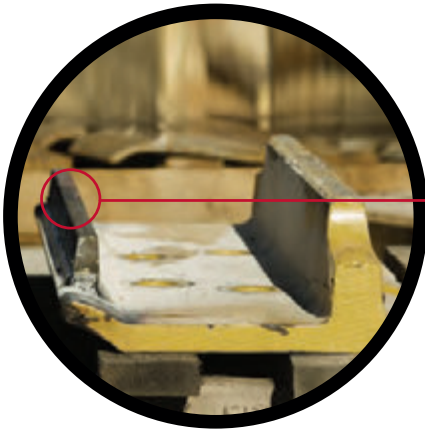
At Dura-Tuff we have a singular focus—consistently seeking to raise the bar for grouser products.



CALL TO LEARN MORE AT (801) 973-8900
duratuff.com



TRAILING EDGE BAR (T-BAR)



THE PERFECT COMPANION TO GROUSER BAR

Trailing Edge Bar (T-Bar) is an additional, smaller grouser bar, welded on to the trailing edge of the track shoe. The T-Bar absorbs the bulk of the wear and keeps the track shoe thick enough to allow the same shoe to be regrousered multiple times. T-Bar is the perfect solution to prolonging track shoe life and increasing undercarriage savings by as much as \$10,000 per machine.

PROTECT YOUR HARDWARE

Trailing Edge Bar also provides protection to the track shoe hardware. Bolt heads often become overly worn and need to be torched off. By installing trailing edge bar, track shoe hardware can be removed and re-used for another maintenance cycle.

DID YOU KNOW?

The hardware on a large dozer can cost as much \$5,000! Trailing Edge Bar is only a fraction of that cost. It has become a standard practice for many of the world's largest dozer fleets and undercarriage track shops.



WITHOUT T-BAR, SHOES DEVELOP AN UNEVEN TRAILING EDGE SCALLOPING EFFECT, BOLT HEADS WEAR DOWN, AND THE OVERALL SHOE BECOMES THIN AND FRAIL.

TRAILING EDGE BAR SIZE RECOMMENDATIONS

Dozer	Profile Size	Centered On Track Shoe	Full Width Of Track Shoe
D8	6 Bar	12"	18"–32" (see dozer specs for shoe width)
D9			
D10	7 Bar		
D11	8 or 19 Bar		

HELPFUL HINT

Trailing Edge Bar is commonly welded onto a brand new track shoe in order to protect the shoe from the get go. It is usually not necessary to replace the Trailing Edge Bar during the life of the shoe, but it extends the shoe life significantly.

COMMON APPLICATIONS

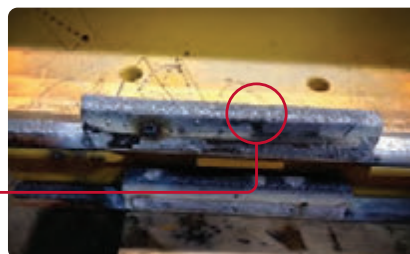
Full Width T-Bar welded across the entire trailing edge of the track shoe.



Centered T-Bar welded in the center of the trailing edge.



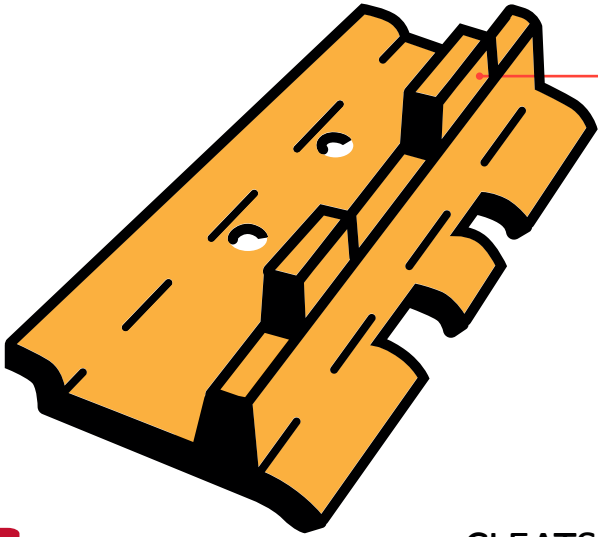
Centered T-Bar with tungsten carbide overlay for additional wear life.



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ICE LUGS



CLEATS THAT PIERCE THE SNOW AND ICE

Ice lugs are short pieces of grouser bar (typically 2"-6" long) welded on top of the existing grouser. Dura-Tuff ice lugs deliver increased stability and extra traction for the dozer during the winter months. While working on slippery slopes, ice lugs are essential to provide safety and to amplify efficiency while pushing and pulling on frozen turf.

ADVANTAGES OF DURA-TUFF ICE LUGS

- Clean cut—no mess or sharp edges
- No added labor, material, or waste associated with chopping down to size
- Packaging provides easy counting and transportation to job site
- Extreme Service available for severe conditions
- Boron steel alloy provides superior weldability
- Tungsten carbide ice lugs extend wear in abrasive environments



COMMON ICE LUG SIZES

Profile Size	Length	Extreme Service	High Carbon	General Service
6	3"		HC0603	
	4"		HC0604	
7	3"	E0703		G0703
	4"	E0704		G0704
19	3"	E1903		G1903
	4"	E1904		G1904
8	3"	E0803		G0803
	4"	E0804		G0804
9	3"	E0903	HC0903	G0903
	4"	E0904	HC0904	G0904
10	4"	E1004		G1004
	5"	E1005		G1005
11	4"	E1104		G1104
	5"	E1105		G1105

*Ice Lugs available in any size 2"-6"

TUNGSTEN CARBIDE OVERLAY

As tough as Dura-Tuff ice lugs are, our tungsten carbide ice lugs are even tougher. A great option to extend wear life, tungsten carbide lugs are designed for high abrasion so they last longer than regular ice lugs. Get more out of your run time between maintenance in areas of severe wear with Dura-Tuff tungsten carbide ice lugs.



DURA-PACKED PACKAGING

Dura-Tuff ice lugs are packaged and organized to make storage and transportation to the job site a breeze. The smaller sizes—6 and 7 bar—are packaged in small boxes or compact totes in quantities of 50 and 100, and then placed in a larger box for storage. When it is time to weld the lugs, simply grab a couple of boxes and go. Larger ice lugs are stacked neatly in our standard Dura-Tuff boxes to make counting your inventory simple, easy and headache free.



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OTHER USES

GROUSER BAR HAS MANY USES

In addition to its primary use as a method of retreading worn track shoes, or providing cleat-like traction in heavy winter conditions, grouser bar can be used to strengthen, reinforce, and extend the life of a variety of hard-working heavy equipment. In fact, those who count on Dura-Tuff's lightning-hard grouser bar for superior durability continue to find new applications. Here are a few of the most common.



BULLDOZER BLADE AND SHOVEL REINFORCEMENT

Grouser bar is commonly used to provide extra steel reinforcement to dozer blades and buckets to prolong their life by providing support and reducing the amount of wear. Grouser bar is welded into joints and spaces as needed.



GRIZZLY BARS

Grizzly bars are long beams used to separate large rocks from fine material in mining applications. Grouser bars have been found to be excellent for this use. Due to the high boron content and Rockwell C hardness, they last much longer than other grizzly bars on the market and can be interchanged or replaced as needed.



SCRAPER FLIGHTS

Grouser bar can also be used as a solution to restore scraper flights that have worn down. Built to last, Dura-Tuff grouser bars add resilience and reinforcement. This is a great way to extend the wear of a scraper.



SNOWPLOW BLADE BUILD UP

Snow plow blades show the most wear at bottom of the blade where the blade is engaging the ground. Welding a grouser bar at the bottom increases blade wear life and decreases the frequency with which snowplow blades need to be changed.



LANDFILL TRACK SHOES

Bulldozers working in landfills have unique challenges to efficiently deal with waste material. Dura-Tuff grouser bars provides additional surface area which helps to compact the waste material keeping the dozer from sinking into the material.



DURA-TUFF GROUSER BARS ARE BUILT TO TAKE ON EXCESSIVE WEAR AND IMPACT FOR EXTENDED LENGTHS OF TIME, MAKING THEM IDEAL FOR MANY OTHER USES WITHIN THE WEAR PARTS INDUSTRY.



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DETERMINE THE REQUIRED HARDNESS

Available Grades

Dura-Tuff® offers three grades of grouser bars in order to meet the varying needs of our customers.

HEAT TREATED

HARDNESS		STEEL GRADE	ROCKWELL C (RC)	BRINELL (BHN)	APPLICATION(S)	WEAR RESISTANCE	USES
Super Extreme	S	Heat Treated Boron	45-53	421-525	Hard Rock Mining, Oil Sands, Construction	Extreme	Track Shoe regrousering, dozer blade reinforcement, bucket liners, Trailing Edge Bar, Grizzly Bars, and Ice Lugs
Extreme	E	Heat Treated Boron	38-44	353-409	Coal mining, Construction	High	

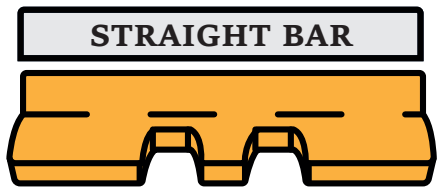
NON-HEAT TREATED

HARDNESS		STEEL GRADE	ROCKWELL C (RC)	BRINELL (BHN)	APPLICATION(S)	WEAR RESISTANCE	USES
High Carbon	HC	Non-Heat Treated High Carbon (1070)	21-25	231-253	Forestry and agriculture. General Wear applications	Moderate	Scraper flights, Dredgers, general wear bar, Ice Lugs
General	G	Non-Heat Treated Boron	20	226	Forestry and agriculture	Moderate	

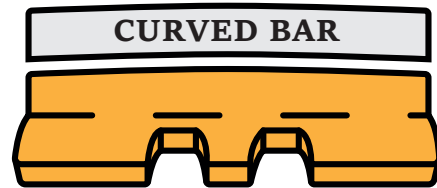
GROUSER BAR AVAILABLE BY HARDNESS

PROFILE SIZES		3	4	5	6	7	19	8	9	10	11	12	13
HARDNESS DEGREES	Super Extreme					✓	✓	✓	✓	✓	✓	✓	✓
	Extreme					✓	✓	✓	✓	✓	✓	✓	✓
	High Carbon	✓	✓	✓	✓				✓				
	General					✓	✓	✓	✓	✓	✓	✓	✓

WHICH SHAPE BEST FITS YOUR WEAR PATTERN?



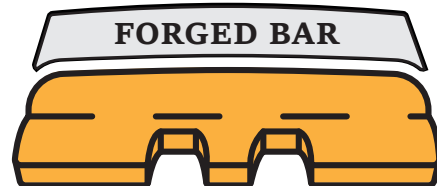
- Wear pattern is even all the way across
- Shoe is trimmed for a flat surface
- Works well with automated welders



- Slightly rounded wear pattern
- Eliminates the need for trimming
- Curved bar shape reduces amount of fill weld required
- Ideal for track shoes welded in the field

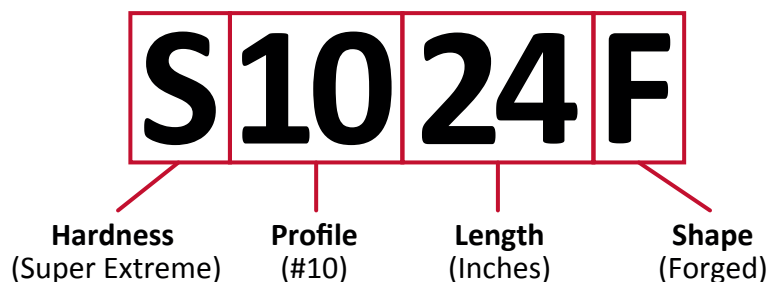


- Wear pattern is even all the way across
- Shoe is trimmed for a flat surface
- Ends of bar are clipped at a 45 degree angle for less turning resistance and added support
- Works well with automated welders



- Rounded wear pattern with severely worn edges
- Eliminates the need for trimming
- Ends of bar are clipped at a 45 degree angle for less turning resistance and added support
- Hooked bar ends are designed to fit track shoes with severe wear on edges
- Ideal for track shoes welded in the field

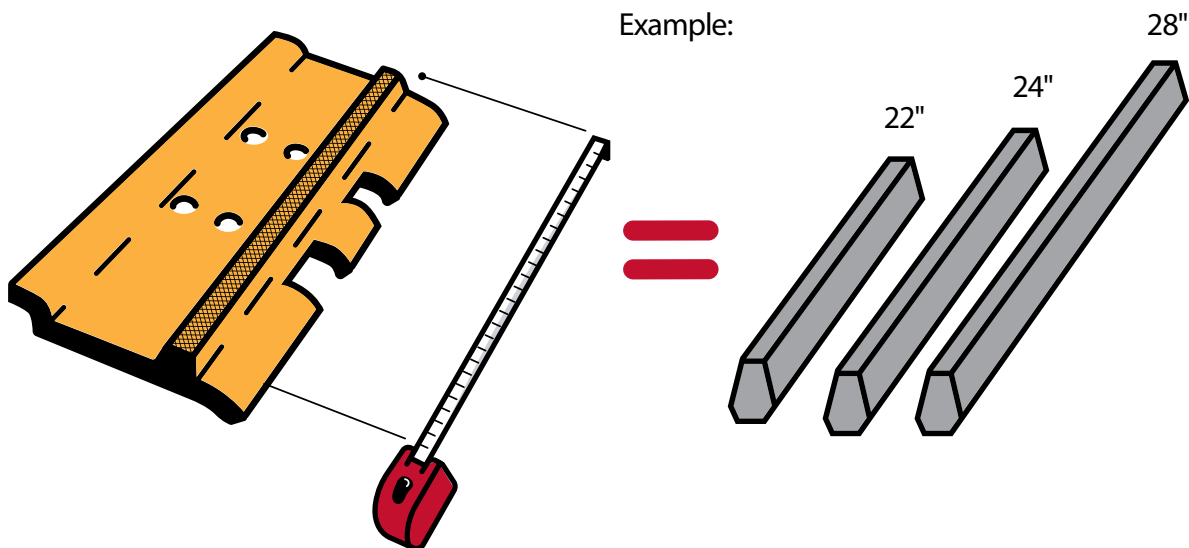
UNDERSTANDING DURA-TUFF'S PART #'S



CHOOSE THE LENGTH OF YOUR BAR

Dura-Tuff offers grouser bar in any length and profile size. Our Weld-Ready™ Cut-to-Length Bar is pre-cut to your desired length. Our Full Length Bar (10 foot) is also available and shipped in bundles. Learn the advantages of each and decide what best fits your needs.

1) Do you want Cut-To-Length Bar?



ADVANTAGES OF WELD-READY™ CUT-TO-LENGTH BAR

- Bar arrives ready to weld, straight from the box
- Straight, curved, forged, and beveled bar available for a variety of wear patterns, eliminating the need to trim
- The bar is cut BEFORE heat treating. Cutting the bar after heat treating takes hardness out of the bar on cut ends
- No wasted labor, sharp edges, scrap, time or hardness loss associated with cutting the bar on your own
- Dura-Tuff's premium Dura-Packed Shrinkwrap protects packaging during shipping and storage and ensures it arrives in tact



2) Or do you want Full Length Bar?

120" / 3 meters



- ✓ When you purchase Full Length Bar, you can cut them down to your preference.

REASONS/ADVANTAGES OF FULL LENGTH (10 FOOT) BAR



- Full Length or 10 Foot Bars are a great option to maintain inventory
- Having bar in stock allows dealers to make bar available to their customers anytime
- Customer can cut bar down for regrousering, ice lugs, and other abrasive applications such as bucket and shovel reinforcement
- Dura-Tuff offers bundle pricing discounts for dealers who want to stock full length bars

DID YOU KNOW?

Many Dura-Tuff customers prefer to order grouser bar just a bit shorter than the track shoe. Why? One of the biggest challenges of welding grouser bar is welding the ends. By ordering the bar just $\frac{1}{2}$ inch shorter (23 $\frac{1}{2}$ " as opposed to 24"), less fill weld is required on the ends.

QUESTIONS? Call (801) 973-8900 or Email sales@duratuff.com

DURA-PACKED

Weld-Ready™ products are Dura-Packed to make sure they arrive on time and ready to go to work. Bundled with steel brackets and 7ml thick shrink wrap, our products allow easier access for quicker installation and protection from the elements.



When you order grouser products, order them Weld-Ready, and be confident you'll get what you pay for.



CALL TO LEARN MORE AT (801) 973-8900
duratuff.com





DURA-TUFF GROUSER PRODUCTS WELDING PROCEDURE



GETTING STARTED

Dura-Tuff is often asked for suggestions on which welding consumables to use when regrousering. The products listed below are based on the information obtained from Dura-Tuff customers and have been proven to be effective for welding grouser bar. Consult your welding supplier for recommendations on welding hardened steel.

WELDING PRODUCT RECOMMENDATIONS		
Welding Process	Brand	Product
MIG		INNERSHIELD® NS-3M
		Fabshield® 4
Submerged Arc		LINCOLNWELD® L-61® LINCOLNWELD® L-60®
Electrode		E-7018

**Consult your welding supplier for recommendations on welding hardened steel.

PREPARE THE WORN TRACK SHOE FOR WELDING

- 1) Remove any dirt, grease or moisture from the welding surface. Rust and dirt can be a source of hydrogen and cause a weld to crack. Often the surface can be cleaned with a metal brush or metal conditioning disk.
- 2) Dry off any moisture with a torch or allow to air dry.

TRIMMING THE TRACK SHOE

1. Trimming is not necessary if using the Dura-Tuff Weld Ready Forged or Curved grouser bar.
2. If using straight grouser bar, it is recommended that the worn track shoe be trimmed evenly to create a flat surface to weld on the new grouser bar.
3. The trimming is normally done using an oxy-acetylene torch, and it is important to ensure that there is a clean, smooth edge to weld on to.
4. Trimming is important to ensure that there is a clean, smooth edge to weld on to.

PREHEATING THE TRACK SHOE

1. Cold metals should not be welded. Grouser bars and track shoes should be at a uniform temperature before welding.
2. Preheating is needed if track shoes and/or grouser bars are colder than 60°F (16°C).
3. Trimming the worn grouser provides adequate preheat for the pad. Do not preheat over 300°F (149°C).
4. If trimming is not necessary, preheat with a torch to 100°F (38°C)
5. Preheating can also be achieved by first running a ¼" to 3/8" weld pass. This is called a heat pass where the weld will heat up both the grouser and shoe. In cold welding conditions, the heat pass would be closely followed by the fill and/or final weld pass.
6. Preheating and post heating will reduce cooling rates and residual stresses, reducing the chance of a crack forming in the weld.

WELDING THE GROUSER BAR

1. To begin, tack weld each grouser bar on to the worn track shoe with at least a 2" bead at each end of the bar and a small tack at the midpoint of the track shoe. Clean slag from tacks.
2. Leave approximately 1/16" gap so the grouser bar can move slightly as the weld shrinks. The gap can be obtained by striking the shoe with a heavy center punch.



3. It is important to make sure that the ends of the grouser bar are completely welded to the shoe. Avoid leaving cavities where the weld was started as this will allow the end of the grouser bar to break off.
4. Begin welding by making a single continuous pass on one side of the bar. Use a full penetration weld to get a maximum strength hold.
5. Keep the grouser bar and track shoe temperature as low as possible. This will help minimize seal lip damage if welding with the undercarriage still on the machine and will prevent warping.
6. The track shoe should not be heated beyond 150 -160°F. More than one additional pass may be necessary. If welding on the rail, allow bar to cool before moving to the other side of the bar to make the final pass. If necessary, make another pass on each side.
7. Try and keep the bar heat as low as possible. This will minimize the chance of cracking at the weld.
8. Allow to cool as slowly as possible. Post Heating is recommended.

GROUSER BAR WELDING METHODS

There are a few ways to weld grouser bars to track shoes:

Track shoes removed from undercarriage:

- A. Mechanized Welder-There are some great grouser welding machines available on the market. These typically require the shoes to be completely removed from the links and chains and are mounted in a fixed position to weld.
- B. Some grouser welders allow multiple track shoes to be mounted for faster turn around.
- C. This is the most conservative way to re-grouser as the risk of adding too much heat to the links and damaging the seals is a non-factor.

On the Rail Re-grousering:

This technique refers to welding grouser bars on to worn track shoes while the undercarriage is still on the machine. This is usually done on the job site. Dura Tuff does not recommend this technique due to possible excess heat being applied to the undercarriage and possible damage to track chain seals.

High Drive Welding Technique:

This technique involves removing the complete track group from the machine and mounting it on a high drive system solely for the purpose of regrousering. This is a very efficient way to regrouser as it makes it possible for 2 welders to be welding on different ends of the tracks simultaneously. It also makes transportation and handling more convenient.

*It is still possible for excess heat to damage track chain seals, so Dura-Tuff recommends the proper precautions be taken to avoid this.



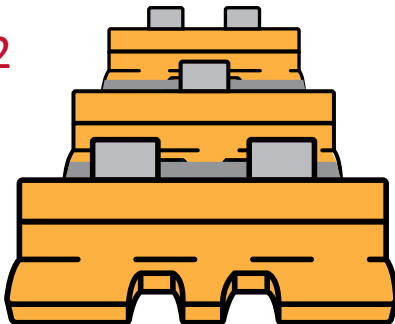
ICE LUG WELDING PROCEDURE

The technique for welding ice lugs is similar to full length grouser bar.

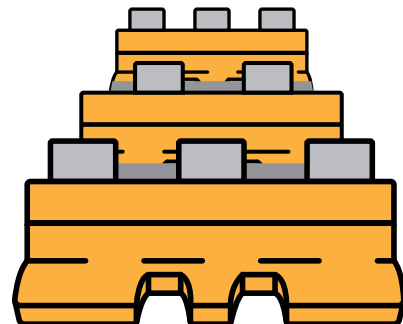
- 1) Ensure a clean and smooth weld surface.
- 2) Preheat as needed, especially if welding in winter conditions.
- 3) Select a pattern for placing ice lugs on grouser surface that provides the most grip while using the fewest ice lugs.

COMMON ICE LUG PATTERNS

2-1-2



3-2-3



-
- 4) The weld usually begins with tacks at the center of the ice lug, leaving a 1/8" gap after tacking.
 - 5) Clean slag from tacks.
 - 6) Make welding pass with one stop and start if possible.
 - 7) Allow to cool as slowly as possible. Post heating may be necessary.
 - 8) Do not allow weld to be quenched with snow or water.

Straight Bar



Dura-Tuff® straight bar is used when the grouser on the shoe is worn evenly (as opposed to more wear on the ends of each shoe). Straight bars are easy to weld on and work well with automated welders or when shoes are trimmed straight.

Part #			L	Weight
6 Bar - High Carbon	Extreme Service	Super Extreme	(in)	(lbs)
HC0612	Available in High Carbon Grade Only		12	1.80
HC0616			16	2.40
HC0618			18	2.70
HC0619			19	2.85
HC0620			20	3.00
HC0622			22	3.30
HC0624			24	3.60
HC0626			26	3.90
HC0627			27	4.05
HC0630			30	4.50
HC0634			34	5.10
HC0636			36	5.40
7 bar - General	Extreme Service	Super Extreme	(in)	(lbs)
G0712	E0712	S0712	12	3.02
G0715	E0715	S0715	15	3.78
G0716	E0716	S0716	16	4.03
G0718	E0718	S0718	18	4.53
G0719	E0719	S0719	19	4.78
G0720	E0720	S0720	20	5.03
G0721	E0721	S0721	21	5.29
G0722	E0722	S0722	22	5.54
G0723	E0723	S0723	23	5.79
G0724	E0724	S0724	24	6.04
G0726	E0726	S0726	26	6.54
G0727	E0727	S0727	27	6.80
G0728	E0728	S0728	28	7.05
G0730	E0730	S0730	30	7.55
G0732	E0732	S0732	32	8.05
G0736	E0736	S0736	36	9.06
8 bar - General	Extreme Service	Super Extreme	(in)	(lbs)
G0812	E0812	S0812	12	5.35
G0818	E0818	S0818	18	8.03
G0820	E0820	S0820	20	8.92
G0822	E0822	S0822	22	9.81
G0824	E0824	S0824	24	10.70
G0826	E0826	S0826	26	11.59
G0827	E0827	S0827	27	12.04
G0828	E0828	S0828	28	12.48
G0830	E0830	S0830	30	13.38
G0836	E0836	S0836	36	16.05
9 bar	Extreme Service	Super Extreme	(in)	(lbs)
Available in High Carbon and General	E0922	S0922	22	12.93
	E0924	S0924	24	14.10

9 bar - cont.	Extreme Service	Super Extreme	(in)	(lbs)
Available upon Special Request	E0926	S0926	26	15.28
	E0927	S0927	27	15.86
	E0928	S0928	28	16.45
	E0930	S0930	30	17.63
	E0932	S0932	32	18.80
	E0936	S0936	36	21.15
	E0938	S0938	38	22.33
10 bar - General	Extreme Service	Super Extreme	(in)	(lbs)
Available upon Special Request	E1015	S1015	15	13.19
	E1020	S1020	20	17.58
	E1022	S1022	22	19.34
	E1023	S1023	23	20.22
	E1024	S1024	24	21.10
	E1026	S1026	26	22.86
	E1027	S1027	27	23.74
	E1028	S1028	28	24.62
	E1032	S1032	32	28.13
	E1034	S1034	34	29.89
	E1036	S1036	36	31.65
11 Bar- General	Extreme Service	Super Extreme	(in)	(lbs)
Available upon Special Request	E1124	S1124	24	28.34
	E1127	S1127	27	31.88
	E1128	S1128	28	33.06
	E1130	S1130	30	35.43
	E1132	S1132	32	37.79
	E1135	S1135	35	41.33
	E1136	S1136	36	42.51
12 bar- General	Extreme Service	Super Extreme	(in)	(lbs)
Available upon Special Request	E1220	S1220	20	21.03
	E1224	S1224	24	25.24
	E1227	S1227	27	28.40
	E1228	S1228	28	29.45
	E1232	S1232	32	31.55
	E1236	S1236	36	37.86
13 bar- General	Extreme Service	Super Extreme	(in)	(lbs)
Available upon Special Request	E1324	S1324	24	35.06
	E1327	S1327	27	39.44
	E1328	S1328	28	40.90
	E1334	S1334	34	49.67
	E1336	S1336	36	52.59
19 bar- General	Extreme Service	Super Extreme	(in)	(lbs)
Available upon Special Request	E1912	S1912	12	4.96
	E1918	S1918	18	7.44
	E1920	S1920	20	8.27
	E1922	S1922	22	9.09
	E1923	S1923	23	9.51
	E1924	S1924	24	9.92
	E1926	S1926	26	10.75
	E1927	S1927	27	11.16
	E1928	S1928	28	11.57
	E1932	S1932	32	13.23
	E1936	S1936	36	14.88

BHN 240

BHN 353-409

BHN 421-535

Straight Bar (Half Inch Short)



Dura-Tuff® half-size bar is a ½" shorter than the original grouser bar. Sometimes shoes have extra wear on the ends. Using the ½" bar saves time and money by eliminating the need to fill in the ends and this bar is close enough to the original length to give the necessary support.

Part #			L	Weight
6 bar High Carbon Service	Extreme Service	Super Extreme Service	(in)	(lbs)
HC0613.5	Available in High Carbon Grade Only		13.5	2.03
HC0615.5			15.5	2.33
HC0617.5			17.5	2.63
HC0619.5			19.5	2.93
HC0621.5			21.5	3.23
HC0623.5			23.5	3.53
HC0635.5			35.5	5.33
7 bar General Service	Extreme Service	Super Extreme Service	(in)	(lbs)
G0717.5	E0717.5	S0717.5	17.5	4.40
G0719.5	E0719.5	S0719.5	19.5	4.91
G0721.5	E0721.5	S0721.5	21.5	5.41
G0723.5	E0723.5	S0723.5	23.5	5.91
8 bar	Extreme Service	Super Extreme Service	(in)	(lbs)
G0819.5	E0819.5	S0819.5	19.5	8.69
G0821.5	E0821.5	S0821.5	21.5	9.59
G0823.5	E0823.5	S0823.5	23.5	10.48
G0825.5	E0825.5	S0825.5	25.5	11.37
G0827.5	E0827.5	S0827.5	27.5	12.26
G0835.5	E0835.5	S0835.5	35.5	15.83
9 bar	Extreme Service	Super Extreme Service	(in)	(lbs)
Available upon Special Request	E0921.5	S0921.5	21.5	12.63
	E0923.5	S0923.5	23.5	13.81
	E0925.5	S0925.5	25.5	14.98
	E0926.5	S0926.5	26.5	15.57
	E0927.5	S0927.5	27.5	16.16
	E0931.5	S0931.5	31.5	18.51
10 bar	Extreme Service	Super Extreme Service	(in)	(lbs)
Available upon Special Request	E1021.5	S1021.5	21.5	18.90
	E1023.5	S1023.5	23.5	20.66
	E1025.5	S1025.5	25.5	22.42
	E1026.5	S1026.5	26.5	23.30
	E1027.5	S1027.5	27.5	24.18
	E1030.5	S1030.5	30.5	26.81
	E1031.5	S1031.5	31.5	27.69
	E1035.5	S1035.5	35.5	31.21

Part #			L	Weight
11 Bar	Extreme Service	Super Extreme Service	(in)	(lbs)
Available upon Special Request	E1123.5	S1123.5	23.5	27.75
	E1127.5	S1127.5	27.5	32.47
	E1129.5	S1129.5	29.5	34.83
	E1131.5	S1131.5	31.5	37.20
	E1135.5	S1135.5	35.5	41.92
12 bar	Extreme Service	Super Extreme Service	(in)	(lbs)
Available upon Special Request	E1223.5	S1223.5	23.5	24.71
	E1226.5	S1226.5	26.5	27.87
	E1227.5	S1227.5	27.5	28.92
13 bar	Extreme Service	Super Extreme Service	(in)	(lbs)
Available upon Special Request	E1323.5	S1323.5	23.5	34.33
	E1326.5	S1326.5	26.5	38.71
	E1327.5	S1327.5	27.5	40.17
19 bar	Extreme Service	Super Extreme Service	(in)	(lbs)
Available upon Special Request	E1921.5	S1921.5	21.5	8.89
	E1923.5	S1923.5	23.5	9.71
	E1925.5	S1925.5	25.5	10.54
	E1926.5	S1926.5	26.5	10.95
	E1927.5	S1927.5	27.5	11.37
	E1931.5	S1931.5	31.5	13.02
	E1935.5	S1935.5	35.5	14.67

Brinell (BHN)
353 - 390
Rc 38 - 42

Brinell (BHN)
421 - 535
Rc 45 - 53

Curved Bar

Dura-Tuff® curved bar is used when the grouser on the shoe is not worn evenly and is a great alternative to forged bar. Little to no trimming is required with curved bar.



Part #			L	Weight
7 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0722C	S0722C	22	5.54
	E0724C	S0724C	24	6.04
8 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0822C	S0822C	22	9.81
	E0824C	S0824C	24	10.70
	E0826C	S0826C	26	11.59
9 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0922C	S0922C	22	12.93
	E0923C	S0923C	23	13.51
	E0924C	S0924C	24	14.10
	E0926C	S0926C	26	15.28
	E0927C	S0927C	27	15.86
	E0928C	S0928C	28	16.45
10 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1022C	S1022C	22	19.34
	E1023C	S1023C	23	20.22
	E1024C	S1024C	24	21.10
	E1027C	S1027C	27	23.74
	E1028C	S1028C	28	24.62
11 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Extreme & Super Ext. Only	E1124C	S1124C	24	28.34
	E1128C	S1128C	28	33.06
12 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1224C	S1224C	24	25.24
	E1226C	S1226C	26	27.34
	E1228C	S1228C	28	29.45

Part #			L	Weight
19 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1922C	S1922C	22	9.09
	E1924C	S1924C	24	9.92
	E1926C	S1926C	26	10.75
	E1927C	S1927C	27	11.16
	E1928C	S1928C	28	11.57

Brinell (BHN) 240 Rc - 20	Brinell (BHN) 353 - 409 Rc 38 - 42	Brinell (BHN) 421 - 535 Rc 45 - 53
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Curved Bar
(Half Inch Short)

Dura-Tuff® half-size curved bar are ½ in. shorter than the original curved grouser bar. Similar to the straight half inch bar, this bar is used when there is extra wear on the ends of each shoe. It also reduces the need to fill weld the ends.



Part #			L	Weight
7 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0723.5C	S0723.5C	23.5	5.91
8 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Extreme & Super Ext. Only	E0821.5C	S0821.5C	21.5	9.59
	E0823.5C	S0823.5C	23.5	10.48
9 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0921.5C	S0921.5C	21.5	12.63
	E0923.5C	S0923.5C	23.5	13.81
	E0925.5C	S0925.5C	25.5	14.98
	E0926.5C	S0926.5C	26.5	15.57
	E0927.5C	S0927.5C	27.5	16.16
10 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1021.5C	S1021.5C	21.5	18.90
	E1023.5C	S1023.5C	23.5	20.66
	E1026.5C	S1026.5C	26.5	23.30
	E1027.5C	S1027.5C	27.5	24.18
11 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Extreme & Super Ext. Only	E1123.5C	S1123.5C	23.5	27.75
	E1127.5C	S1127.5C	27.5	32.47
12 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1223.5C	S1223.5C	23.5	24.71
	E1225.5C	S1225.5C	25.5	26.82
	E1227.5C	S1227.5C	27.5	28.92

Part #			L	Weight
19 bar	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1921.5C	S1921.5C	21.5	8.89
	E1923.5C	S1923.5C	23.5	9.71
	E1925.5C	S1925.5C	25.5	10.54
	E1926.5C	S1926.5C	26.5	10.95
	E1927.5C	S1927.5C	27.5	11.37

Brinell (BHN) 240
Rc - 20

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Forged Bar

Dura-Tuff® Forged Bar is used to help customers keep labor and consumable costs down during regrousering. The forged bar eliminates the need to trim the shoe grouser to a straight edge before regrousering and forms to the wear of the shoe. The forged ends fit down over the ends of a worn shoe to restore it most closely to original specs.



Part #			L	Weight
7 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0722F	S0722F	22	6.00
	E0724F	S0724F	24	6.54
8 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0822F	S0822F	22	10.63
	E0824F	S0824F	24	11.59
	E0826F	S0826F	26	12.56
	E0828F	S0828F	28	13.52
9 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E0922F	S0922F	22	14.00
	E0924F	S0924F	24	15.28
	E0926F	S0926F	26	16.55
	E0927F	S0927F	27	17.18
	E0928F	S0928F	28	17.82
10 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1022F	S1022F	22	20.95
	E1024F	S1024F	24	22.86
	E1027F	S1027F	27	25.72
	E1028F	S1028F	28	26.67
11 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Extreme & Super Ext. Only	E1124F	S1124F	24	30.70
	E1128F	S1128F	28	35.82
12 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1224F	S1224F	24	27.34
	E1226F	S1226F	26	29.62
	E1227F	S1227F	27	30.76
	E1228F	S1228F	28	31.90

Part #			L	Weight
19 bar General Service	Extreme Service - no returns	Super Extreme Service	(in)	(lbs)
Available in Extreme & Super Extreme Grades Only	E1922F	S1922F	22	9.85
	E1924F	S1924F	24	10.75
	E1926F	S1926F	26	11.64
	E1927F	S1927F	27	12.09
	E1928F	S1928F	28	12.54

Brinell (BHN) 240
Rc - 20

Brinell (BHN)
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Rc 38 - 42

Brinell (BHN) 421
- 535
Rc 45 - 53

10 Foot Length Bars

Dura-Tuff's 10 foot lengths make it easy to inventory grouser bar, because they can be cut to size as needed. 10 foot bars are also occasionally welded onto scraper flights, rock crusher liners, grizzlies, grader edges and other applications where strength and exceptional wear is needed.

Dura-Tuff can fulfill requests for custom sizes and shapes. For example, beveled bar is available upon request.



Part #			L	Weight
10 ft. bar	Extreme Service	Super Extreme Service	(in)	(lbs)
HC03120	Available in High Carbon Only		120	13.30
HC04120			120	19.40
HC05120			120	34.00
HC06120			120	18.00
G07120	E07120	S07120	120	30.20
G08120	E08120	S08120	120	53.50

g Bar is also available in High Carbon

Part #			L	Weight
10 ft. bar General Service	Extreme Service	Super Extreme Service	(in)	(lbs)
G09120	E09120	S09120	120	70.50
G10120	E10120	S10120	120	105.50
G11120	E11120	S11120	120	141.70
G12120	E12120	S12120	120	126.20
G13120	E13120	S13120	120	175.30
G19120	E19120	S19120	120	49.60

Brinell (BHN) 240 Rc - 20	Brinell (BHN) 353 - 390 Rc 38 - 44	Brinell (BHN) 421 - 535 Rc 45 - 53
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TRAILING EDGE BAR SIZE RECOMMENDATIONS

Dozer	Profile Size	Centered On Track Shoe	Full Width Of Track Shoe
D8	6 Bar	12"	18"-32" (see dozer specs for shoe width)
D9			
D10	7 Bar		
D11	8 or 19 Bar		

Trailing Edge Bar is commonly welded onto a brand new track shoe in order to protect the shoe from the get go. It is usually not necessary to replace the Trailing Edge Bar during the life of the shoe, but it extends shoe life significantly.

Ice Lugs

Dura-Tuff® ice lugs offer extra traction where conditions are snowy or icy. The 3-5” small pieces of bar are welded right on top of the grouser bar to add additional traction in severe conditions.



Part #	Part #	L	Weight
6 bar High Carbon			
HC0602		2	0.30
HC0603		3	0.45
HC0604		4	0.60
7 bar General Service	Extreme Service	(in)	(lbs)
G0702	E0702	2	0.50
G0703	E0703	3	0.76
G0704	E0704	4	1.01
G0705	E0705	5	1.26
8 bar General Service	Extreme Service	(in)	(lbs)
G0803	E0803	3	1.34
G0804	E0804	4	1.78
9 bar General Service	Extreme Service	(in)	(lbs)
G0903	E0903	3	1.76
G0904	E0904	4	2.35
G0906	E0906	6	3.53
10 bar General Service	Extreme Service	(in)	(lbs)
G1003	E1003	3	2.64
G1004	E1004	4	3.52
G1005	E1005	5	4.40
11 bar General Service	Extreme Service	(in)	(lbs)
G1103	E1103	3	3.54
G1104	E1104	4	4.72
G1105	E1105	5	5.90
19 bar General Service	Extreme Service	(in)	(lbs)
G1903	E1903	3	1.24
G1904	E1904	4	1.65
G1905	E1905	5	2.07

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Rc20

Brinell (BHN)
353-409
Rc38 - 44



Dura Tuff Grouser Products
3055 South 1030 West
Salt Lake City, Utah 84119

www.DuraTuff.com



Telephone: (801) 973-8900

Email: sales@duratuff.com