



INDUSTRIES LTD.

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SHEFFIELD BUTLER PREMIUM GROUSER RETREAD BAR



Supplying Grouser Bar to Industry for over 30 Years.

Widest Selection of Grouser Bar available in Canada.

Work Hardening Steel becomes harder and tougher with use.

All sizes are supplied in 10 foot lengths.

Pre-cut ice lugs in L (Brown) & K (Orange) are in stock

Head Office: Unit 1, 9663-199A Street Langley BC V1M 2X7

Phone: 604 881 3000 Fax: 604 881 3010

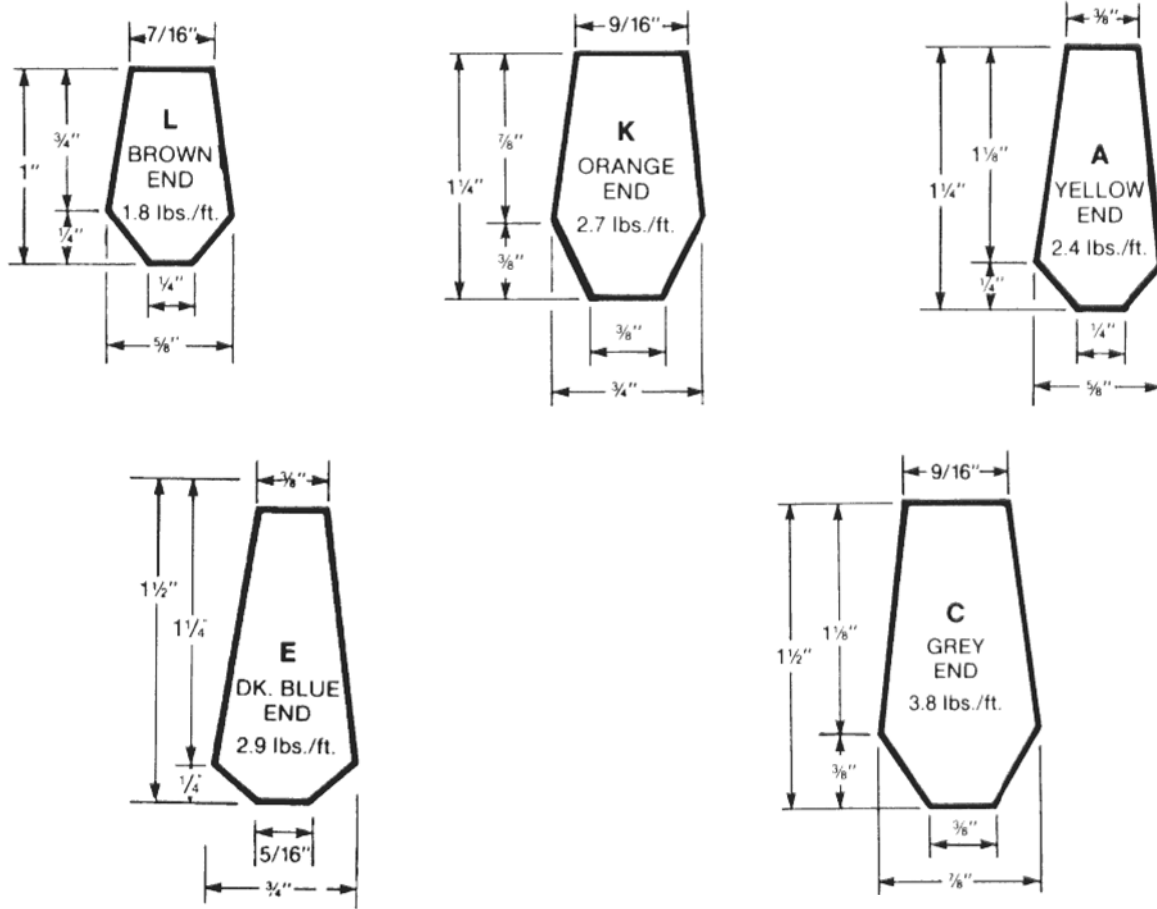
Email: info@wescovan.com

Rigging Centre: 2437 Beta Avenue Burnaby BC V5C 5N1

Phone: 604 292 1220 Fax: 604 292 1222

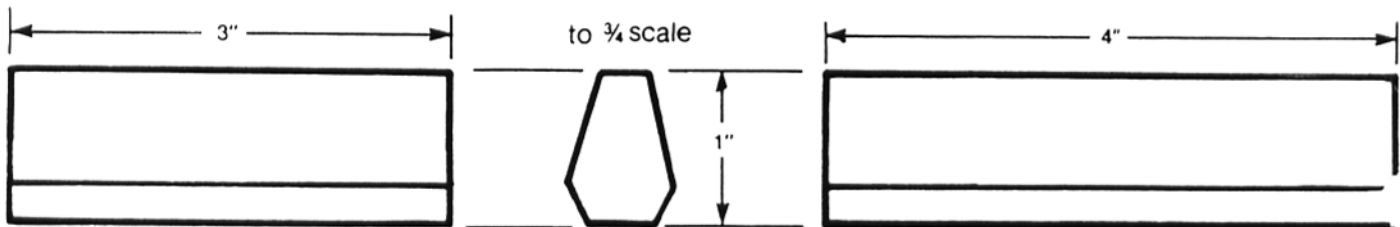
Email: burnaby@wescovan.com

STANDARD GROUSER BAR



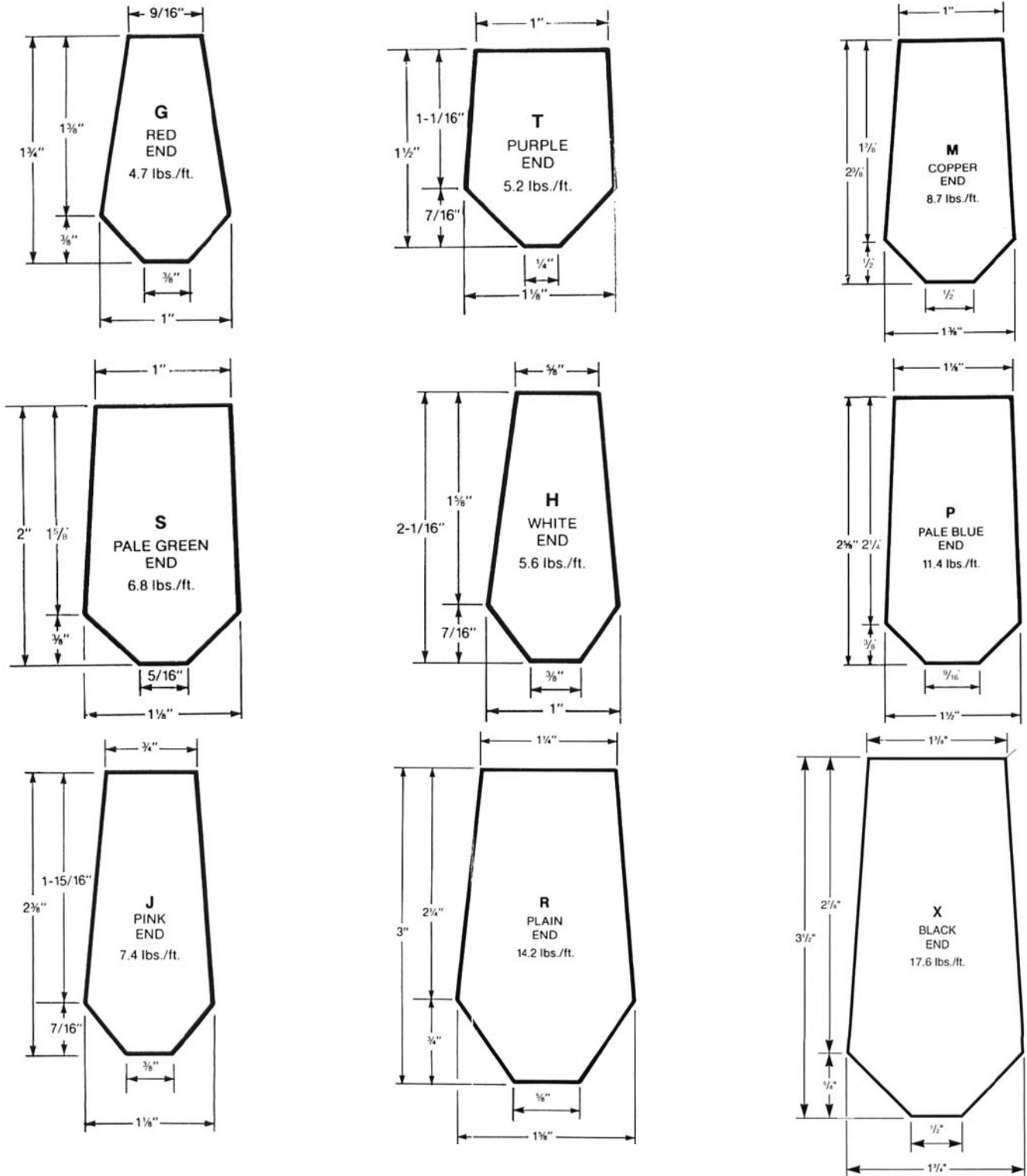
- All Sizes available in 10 Foot Lengths.
- High Quality Work-Hardening Steel.

STANDARD ICE LUGS



- Available from stock in 3" & 4" Lengths in TYPE L (Brown) & TYPE K (Orange).
- Other Lengths and Types available on request.

HEAT TREATED GROUSER BAR



- All Sizes available in 10 Foot Lengths.
- Heat Treated to a hardness of 42-44 Rockwell to deliver optimum wear performance and toughness for extreme weather and working conditions.
- Carbon-Boron Steel facilitates ice lug weld ability

SUGGESTED SIZE SELECTION CHARTS

CATERPILLAR

TRACTOR MODEL	SUGG. SIZE
D2, D3, D4, 931, 933, 941, 955	L
D6C, D7, 571A, 572, 977	L, K, A, E
D8L, D9, D9G, D9H	T, H, S, J, M
D10L, D11	R, X, P

INTERNATIONAL

TRACTOR MODEL	SUGG. SIZE
TD6, TD7, TD8, TD9, 100, 125, 150	L
TD24, TD25, TD30, TD40	T, C, G, H, S, J, M, P

CASE

TRACTOR MODEL	SUGG. SIZE
310, 350, 420B, 450, 520	L

JOHN DEERE

TRACTOR MODEL	SUGG. SIZE
350, 350B, 420, 430, 440, 1010, 2010	L

KOMATSU

TRACTOR MODEL	SUGG. SIZE
D41, D50, D53, D55, D58, D63	L, A
D135, D155, D155AX	G, H, S, T
D375A-2	M, P

TEREX

TRACTOR MODEL	SUGG. SIZE
C6, 8230, 8240	L, K, A, E
8250	T, H, S, J, M

ALLIS-CHALMERS

TRACTOR MODEL	SUGG. SIZE
HD3, HD4, HD6, HD7G	L, A, E
HD15, HD16, HD16B, HD16DP	K, E
HD41, HD41B	T, S, M, P, R

TRACTOR MODEL	SUGG. SIZE
D5, D6, 561, 951, 955K & L, 977	A, E
D8H, K, N, R 583, 983	C, G, H
D9L, D9N, D10N	P, S, M

TRACTOR MODEL	SUGG. SIZE
TD14, TD15, TD18, TD20, 175, 250	L, K, A, E

TRACTOR MODEL	SUGG. SIZE
600B, 750, 800, 850, 1000, 1150, 1550	K, A, E

TRACTOR MODEL	SUGG. SIZE
450, 450B, 555, 850	K, A, E

TRACTOR MODEL	SUGG. SIZE
D60, D65, D68, D75, D80, D83, D85	K, E
D275, D355, D375A-1	J, M, P
D475A-2	R, X

TRACTOR MODEL	SUGG. SIZE
TC12, 8280	C, G, H

TRACTOR MODEL	SUGG. SIZE
HD9, HD11, HD11B, HD11EP	A, E
HD19, HD20, HD21, HD21B	E, K, T, C, G, H, S, L

BAR QUANTITY CHART

- CHART FIGURES INDICATE MINIMUM NUMBER OF 10-FOOT LENGTHS OF GROUSER RETREAD BAR REQUIRED.

NUMBER OF PADS PER TRACTOR

		66	68	70	72	74	76	78	80	82	84	90	92	94
Tractor Pad Width	36"	22	23	24	24	25	26	26	27	28	28	30	31	32
	30"	17	17	18	18	19	19	20	20	21	21	23	23	24
	28"	17	17	18	18	19	19	20	20	21	21	23	23	24
	27"	17	17	18	18	19	19	20	20	21	21	23	23	24
	26"	17	17	18	18	19	19	20	20	21	21	23	23	24
	24"	14	14	14	15	15	16	16	16	17	17	18	19	19
	22"	14	14	14	15	15	16	16	16	17	17	18	19	19
	20"	11	12	12	13	13	13	13	14	14	14	15	16	16
	18"	11	12	12	13	13	13	13	14	14	14	15	16	16

GROUSER BAR WELDING PROCEDURE

1. (A) Pads and bars must be clean and free from moisture at all times.
(B) Rods must be used immediately when taken from moisture-protecting package.
2. (A) Dress old Grouser back to one inch with oxy-acetylene cutting process - resulting in a straight, smooth edge. Clean cut surface of oxide and slag.
(B) Cut Grouser 1" shorter than pad.
(C) On bars with weld preparation ends of 1/4", fit bar with 3/32" root gap 1/2" from end of pad.
On bars with weld preparation ends of 5/16" - 3/8", fit bar with 1/8" root gap 1/2" from ends of pads
3. (A) Tack bar on pad at both ends and center (one side only) with E7016-E7018 electrode using medium to high side of recommended amperage settings. Tacks must be minimum of 2" long and flat surface to assist in cleaning. Apply tacks with a large deposit using high heat and a slow rate of travel.
4. (A) The backstep welding technique should be utilized using a slow rate of travel, large electrodes and high heat. The first pass should be on the opposite of the tacks. Start in the middle of the bar and weld out to the end. Starting at the opposite end, weld to the start of the first deposit. Repeat this procedure for the tacked side of the bar. (On the larger bars this procedure may have to be done twice.) Always clean start of first pass before joining with second pass. If a multi-layer deposit is required, do not clean slag off lower layer until immediately before next deposit. Root passes must be flat on face and fairly heavy. Finish pass contour should be slightly convex. No undercut is allowed on tacks or passes. All craters at the ends of welds should be filled.
(B) Bar ends should be cleaned and corked with fillet weld using E7018 rod.
5. (A) Avoid quenching or rapid cooling of welds (i.e. Water, mud, snow, etc.).

NOTE: To completely ensure a proper welding procedure, preheat (500 Deg) prior to welding should be preformed. However, this method is impractical and is rarely used.

SUGGESTED PROCEDURE FOR ICE LUGGING

1. CONSIDERATIONS BEFORE STARTING

- A) Chose a pattern for placing lugs on pads, that gives the maximum grip with the minimum number of lugs.
- B) Select a size of lug that gives the minimum amount of distance from the pad face to the top of the lug and still grips adequately.
- C) Choose as long of lug as possible.
- D) There must be no arc strikes on the finished pad as this may cause breaking in the pad. If they do occur, thoroughly grind the area to remove the arc damage.
- E) The principle of high heat input and slow cooling will provide optimum weld performance.

2. REQUIREMENTS

- A) Clean dry pads - hand warn if possible. (If re-grousered best to apply lugs as re-grouser and pads are still hot).
- B) 3/16" E7018 electrodes either from freshly opened container or holding ovens @ 250 Degrees F. (Keep electrodes hot).
- C) Ice lug to be welding on pad in horizontal position.

3. PROCEDURE

- A) Select 3/32" or 1/8" electrode size for the job.
- B) Place ice lug on grouser in such a position that the ends of the ice lug do not line up with rail excess in back of the pad.
- C) To position ice lug on the grouser, place tacks in the middle of the lug at 1/2" in from each end of the lug with a gap of 1/8" left after tacking. (Tacks must cover their own arc strikes) Clean slag from tacks.
- D) To start fill pass, strike arc on the tack closest to the outside edge of pad. Then move the bead out to the edge of the ice lug only, without breaking the arc, allow time for weld deposit to completely fill groove then return over bead and tack to the other edge of the ice lug, again allowing time for crater to fill in, then return bead back 1". (Make sure no craters are left on ends of welds.) Complete weld with one stop and start if possible.
- E) Allow to cool slowly, do not allow weld to be quenched with water or snow.

The method described above is a practical solution to help reduce the breakage problems encountered in ice lugging. It is not a guaranteed procedure. To fully ensure successful ice lugging, preheat of the grouser bar to 200 Degrees F. is necessary.





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Loadbinders, **Straps**, **Chain & Hooks**, & **Wire Rope Assemblies**.

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