

# BI-METAL WEAR PARTS

Europe



# Designed for the toughest impact and abrasive environments

**Hardox Wearparts bi-metal wear parts are made from a composite material combining chrome-moly white iron with very high wear resistant properties (700 BHN) and the workability of a mild steel backing plate.**

This creates an exceptional product designed to work in the toughest impact and abrasive environments to reduce downtime and increase output.

Bi-metal parts are available in different sizes and shapes and can be ordered from your local Hardox Wearparts cen-

ter. The parts are cast with unique numbers for traceability of related chemistry and heat treatment records.

Typical applications include buckets (excavator, loader, dragline, face shovel), crusher spider arm guards, feed and discharge chutes, feeder grizzly bars, shredder and grinding mills, sugar cane knife edges, adaptor/attachment protection, and dredging equipment.

The ideal working temperature for all bi-metal parts is 300°C or below.



## BUCKET PROTECTION PRODUCTS

At Hardox Wearparts, we offer wear protection products for your buckets. Our bi-metal wear parts most suitable for buckets include Chocky bars and wear buttons/ bars.

Complete buckets:  
Face Shovel, Back Hoe,  
Loader

connections

Inner liners – wear strips

Wing shrouds

Lip Shrouds

Wear cap adapters

Heavy duty teeth

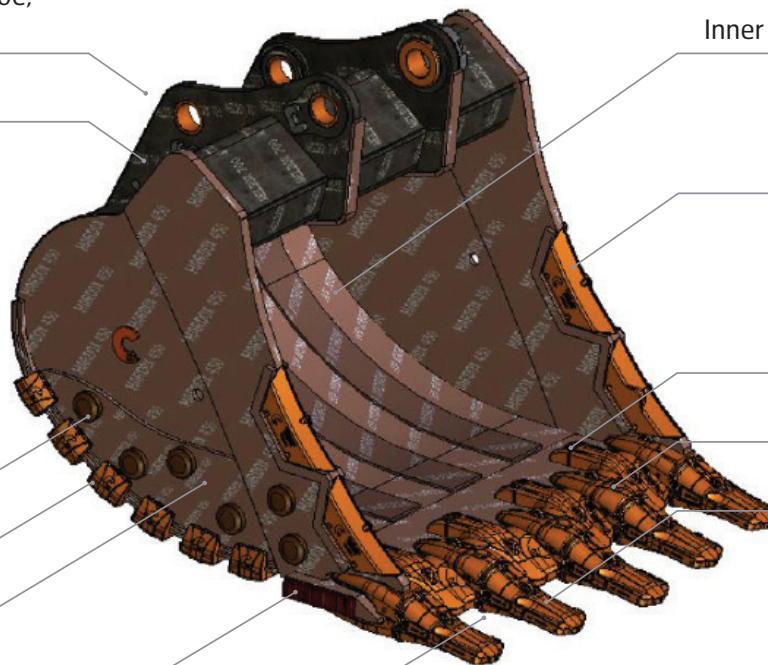
Wear buttons

Heel shrouds

Side wear plate

Lip protectors –chocky bars

Complete blade mounted



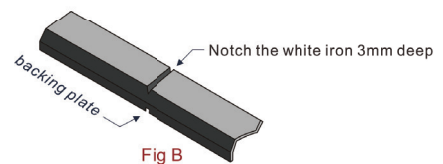
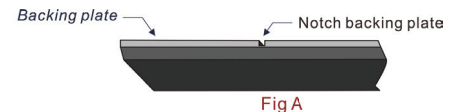
# Workshop Recommendations

## CUTTING

High pressure water jet cutting is recommended for cutting bi-metal parts. Thermal, oxy fuel, arc-air or plasma cutting is not recommended. Abrasive disc cutting is acceptable for blocks less than 1 inch in thickness.

Process:

- Secure the block in a vice or clamp
- Notch the backing plate (Fig A) and notch the white iron 3 mm < inches deep opposite the notch on the backing plate (Fig B)
- Wrap a cloth around the block and carefully hit it using a soft face hammer—the block should break cleanly at the notch



## WELDING

Ensure the surface that the block is attached to is as flat as possible and the area to be welded is clean.

Process:

- Clamp and tack weld the block into position
- Stitch weld, laying 2.5-40 cm maximum length each run, alternating ends or sides to minimize heat penetration. DO NOT deposit weld within .08 inches from the joint (Fig C)
- DO NOT WELD CONTINUOUSLY –Continuous welding may cause warpage, delamination and cracking; maximum temperature allowed is 200°C
- Use low hydrogen weld rods or gas covered cored wire

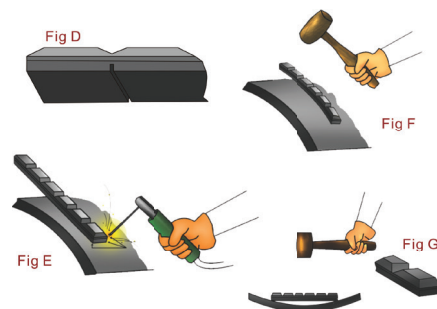


## FORMING CHOCKY BLOCKS

For severe curves with a radius less than 30 cm, or inside curves, it is advisable to notch the steel backing plate opposite the “V” to assist in forming (Fig D). Please note that the chocky bar may crack during bending which is normal.

Process:

- Clean the surface to which the chocky bar will be welded
- Tack weld one end of the bar with a 12.7 mm weld (Fig E)
- For outside curves, hammer down the non-welded area and with a soft face hammer bend the bar to match mating radius (Fig F)
- For inside curves starting in the center, strike the bar with a soft face hammer to bend the piece to match mating radius (Fig G)
- Stitch weld as per the welding procedure



# Dimensions

VALIDITY:

April–June 2017

PART NO	DESCRIPTION	UNIT WEIGHT (KG)
C252-HW	Chocky Bar 240x25x23 Notched	0.90
C402-HW	Chocky Bar 240X40X23 Notched	1.50
C502-HW	Chocky Bar 240x50x23 Notched	1.90
C652-HW	Chocky Bar 240x65x23 Notched	2.50
C802-HW	Chocky Bar 240x80x23 Notched	3.20
C902-HW	Chocky Bar 240x90x23 Notched	3.50
C102-HW	Chocky Bar 240x100x23 Notched	3.90
C132-HW	Chocky Bar 240X130X23 Notched	5.10
C152-HW	Chocky Bar 240X150X23 Notched	7.30
B200-HW	Wear Bar 200X25X25	1.00
B201-HW	Wear Bar 203X51X20	1.60
B202-HW	Wear Bar 210X50X50	4.10
B203-HW	Wear Bar 230X50X50	4.50
B204-HW	Wear Bar 241X100X58	11.00
B205-HW	Wear Bar 294X80X50	9.20
B206-HW	Wear Bar 250X60X20	2.40
B207-HW	Wear Bar 254X50X50	5.00
B208-HW	Wear Bar 254X51X20	2.00
B209-HW	Wear Bar 294X50X50	5.80
B210-HW	Wear Bar 200X75X75	8.90
B211-HW	Wear Bar 230X50X60(40/20)	5.40
B300-HW	Wear Bar 300X25X25	1.50
B301-HW	Wear Bar 300X38X33	3.00
B302-HW	Wear Bar 300X150X60	21.10
B303-HW	Wear Bar 300X50X60(40/20)	7.00

PART NO	DESCRIPTION	UNIT WEIGHT (KG)
B101-HW	Wear Bar 102X33X23	0.90
B102-HW	Wear Bar 127X51X48	2.40
B103-HW	Wear Bar 150X50X50	2.90
B104-HW	Wear Bar 150X75X39	3.40
B105-HW	Wear Bar 150X75X50	4.40
B106-HW	Wear Bar 150X75X60	5.30
B107-HW	Wear Bar 153X38X33	1.50
B108-HW	Wear Bar 190X50X30	2.20
B109-HW	Wear Bar 194X80X50	6.10
B110-HW	Wear Bar 195X25X30	1.10
BT60A-HW	Wear Button 60mm-A 1	0.70
BT75A-HW	Wear Button 75mm-A	0.90
BT90A-HW	Wear Button 90mm-A	1.20
BT115A-HW	Wear Button 115mm-A	2.60
BT150A-HW	Wear Button 150mm	5.70
MK2001-HW	Wear Skid Bar 200x150x45	10.50
MK2501-HW	Wear Skid Bar 250x150x45	13.10
MK2502-HW	Wear Skid Bar 250x250x45	21.90

Hardox Wearparts is the world's leading provider of wear parts and wear services. With more than 250 centers in more than 70 countries, there is always a Hardox Wearparts center close to you. Hardox Wearparts is a part of SSAB, the manufacturer of Hardox wear plate.



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