

SHREDDER WEAR PARTS

Dual Hardness Shredder Hammers

Hammers with a hardened striking face over a tough body, for longer face life without giving up impact resistance.



OVERVIEW

A conventional manganese hammer is tough everywhere but relies entirely on work-hardening for its wear face. A dual hardness hammer starts with a genuinely hard striking region backed by a tough, ductile body, so the face resists abrasion from the first hour while the eye and shank keep their impact resistance.

Melco produces dual hardness hammers as a bi-metallic casting: the hard wear region is metallurgically bonded to the tougher body during pouring, not welded on afterwards. That bond is what keeps the hard region attached under shredder loading.

The result suits operations where hammers are being pulled for face wear rather than for breakage, which is the case in many automobile shredders running relatively clean, dense scrap.

APPLICATIONS

- Automobile and ELV shredders on dense scrap
- High-throughput scrap recycling lines
- Operations replacing hammers on face wear rather than breakage
- Shredders where hammer change-out downtime is costly

KEY FEATURES

- Metallurgically bonded, not welded - The hard region is bonded during pouring, so there is no weld interface to fail under shredder impact.
- Hard face from hour one - The striking region does not wait for work-hardening to reach its working hardness.
- Tough body retained - Eye and shank stay ductile, so the hammer survives the shock loads that break fully hard castings.
- Fewer change-outs - Longer face life targets the real cost in a shredder: the downtime of a hammer change, not

the hammer itself.

MANUFACTURING SPECIFICATION

Parameter	Specification
Moulding	No-bake resin sand and green sand
Melting	Induction furnace, spectrometer-controlled
Piece weight	5 kg - 2,000 kg
Heat treatment	In-house, computer-controlled cycles
Dimensional control	Template and CMM check against drawing
Documentation	Chemical, hardness and dimensional report per heat

MATERIAL GRADES

Grade	Typical composition	Hardness	Suited to
Dual hardness (hard face)	Alloyed white iron / martensitic wear region	55-62 HRC	Striking face
Dual hardness (body)	Austenitic manganese steel, ASTM A128	200-229 BHN, work-hardening	Eye, shank and body
ASTM A128 Grade A	1.05-1.35% C, 11.0-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened	Standard high-impact duty
ASTM A128 Grade B-3	0.9-1.05% C, 11.5-14.0% Mn	200-229 BHN as-cast, 500+ BHN work-hardened	Heavier sections, improved toughness

ENQUIRIES

Send a drawing, a sample or the machine model and we will confirm the fitment, recommend a grade and quote a firm price and delivery date.

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