

Dick has written a very good book on casting. It covers the necessary territory without a lot of fluff and with good clear examples and photos. I think many new casters will find this very helpful in their quest to begin casting and many older casters will find a tip or two of use as well.

I have attached the table of contents and a few short excerpts below. For complete copies, Contact Dick at the email address at the bottom of the page.

Contents Page

About the Author 2

Introduction 3

What are cast bullets and the reasons for them ? 3

Cast bullet performance 5

Brief description of casting and lubing 6

Safety 6

Equipment 8

Melters 11

Bullet moulds 16

Mould care and maintenance 19

Alloy 21

Bulk alloy production 29

Fluxing 30

Impurities and their effects 31

Casting methods 31

Bottom pour v ladle casting 37

Dippers 38

Casting sequence in pictures 38

Multi cavity moulds 40

Rifle bullets 41

Lubrisizing 43

RCBS and Lyman lubrisizing presses 43

SAECO Lubrisizing press 48

Star Lubrisizing press 48

Lubricant 49

Simple and cheap methods 51

Lead shot for shotguns 53

A Note about Glock Pistols 55

Conclusion 55

Cast Bullet Performance

Cast handgun bullets will do anything that jacketed bullets will do. Furthermore, there is a wider variety of cast bullet moulds than available jacketed bullets giving the cast bullet shooter a bigger choice of bullet weight and style. The advantages are therefore obvious. The only downside, if it can be called that, is that there is a certain amount of lead fouling that has to be cleaned out of the bore. But if the alloy is right and the bullets are properly lubricated the fouling is minimal and not difficult to clean.

It must be conceded that cast rifle bullets will not quite equal jacketed bullets. If they did, jacketed bullets wouldn't have been invented in the first place. Nonetheless, cast rifle bullets can, if properly made and loaded, deliver performance that will surprise the uninformed. With gas checks, velocity can be as high as 2400 FPS or even higher in some cases. That is not far behind jacketed bullets in medium calibres and cast bullets can equal jacketed velocities in big calibres like the 458 Win. Admittedly, their round nose design makes them lose velocity more quickly than jacketed spitzers, but down range velocity is still respectable out to 300 or 400 yards.

Equipment

Typical equipment consists of a melting pot, mould and handles, wood mallet, and a means of lubricizing the bullet, usually a press of the type made by Lyman and RCBS. An additional item, if ladle casting is to be done, is a dipper of the sort also made by Lyman and RCBS. A set of these tools is shown in Fig 3.

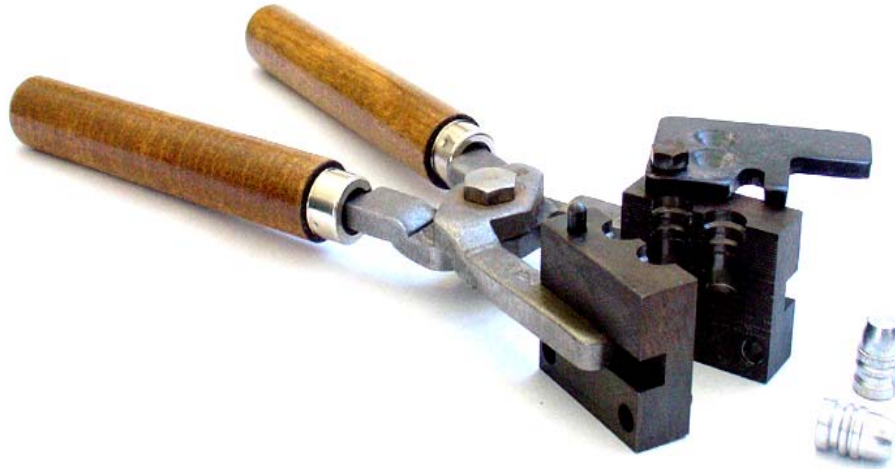
Fig 3 Lee melting pot, RCBS dipper, RCBS mould and handles, hammer shaft for use as mallet, and RCBS



lubrisizer.

Bullet Moulds

There are six big mould manufacturers that I can think of, plus a couple of smaller ones and a handful of custom mould makers, all in the US. I know of one custom maker in the UK, one in South Africa, and at least one in Australia. No



doubt there are others in countries where shooting is popular.

Fig 13 RCBS double cavity mould & handles.

Mould choice is not as straightforward as it might seem. Obviously bullet weight and style are the first considerations. I don't recommend very light or heavy bullets for calibre, unless there are good reasons. A good reason would be a cast 115 grain SWC with fast powder like Red Dot in short barrelled 38 Special revolvers to duplicate the popular 110 grain JHP factory load.

Bullet weight does not affect function in revolvers but it does in pistols. 100 Grain bullets in the 9mmP often won't function the slide fully because there is insufficient recoil impulse. The 147grain favoured by some since the FBI invented it for better penetration after the failure of the 9mm to do the job in the infamous Miami shoot out, is also not reliable. Not as obviously unreliable as very light bullets, but some US police departments have abandoned it because of unreliability. The problem is that both are outside the weight envelope for which 9mm pistols are designed. Most 9mm pistols are designed for military or police use with the standard military 115 grain hardball. I consider 135 grains the practical heaviest in the 9mmP. Anything between 115 and 130 grains is suitable for normal use.



Lee 100 grain 380 Auto, Lee 120 grain 9mm, Lyman 130 grain 9mm, Lyman 150 grain 40 S&W, Magma 180 grain 40 S&W, Lee 200 grain 45 ACP, Lee 230 grain 45 ACP.

I will do my best to answer further questions by e mail : boothroyd@polka.co.za