


AUTOMAG LOADING & CASE FORMING DIES

By J. Waters

	357 AMP Taper Crimp	<p>Background: I wanted to create a page that would give the Automag Owner/Collector a guide to many of the loading dies that are/were made for the Automag. I am a fairly new Automag owner, and really didn't have a clue as far as the Loading Dies went when I got my Automag. I have found that purchasing used dies can be tricky as many are missing parts, etc., and often the seller doesn't really know what they have.</p> <p>Outline: There are many types of dies, as you can see on the picture on the left. I intend to talk about the dies themselves, which ones should be in what set, but this is not a reloading primer or manual. I'll cover the straight wall cases first (44 AMP and 45 Magnum (Winchester Magnum)), then the bottleneck cases (357 AMP, but should apply to 22 LMP, 25 LMP, 30 LMP, 41 JMP, or other bottleneck cartridges), and finally, case forming dies. This focus is mainly RCBS made dies, as that's what a majority of the Automag dies are that I have come across. Also included is the current, affordable Hornady offering in 44 AMP.</p> <p>Evolution: This may sound a little strange but loading dies have gone through an evolution over the years and are not the same as they were 30 years ago. While the basic concept is the same, some changes have been made, particularly of note to accommodate progressive loading machines. I'll try to point those out along the way.</p> <p>Types of Die Sets:</p> <p>3 Die Sets typically consist of a Sizing Die, Expander Die, and a Seat/Crimp Die.</p> <p>4 Die Sets typically consist of a Sizing Die, Expander Die, Seat Die, and a Crimp Die.</p> <p>-Note that the decapping unit may be located in either the Size Die, or the Expander Die.</p> <p>Case Form Sets consist of a Form/Trim Die, Reamer Die w/Reamer, and should include an extended shellholder.</p>
	357 AMP 3 Die Set	
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	357 AMP Case Form	
	44 AMP Taper Crimp	
	44 AMP 4 Die Set?	
	44 AMP 4 Die Set	
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	44 AMP Case Form	
	44 AMP Case Form	
	44 AMP Case Form	
	44 AMP 3 Die Set	
	45 Magnum 4 Die Set	

Straight Wall Automag Dies

44 Auto Magnum (44 AMP)



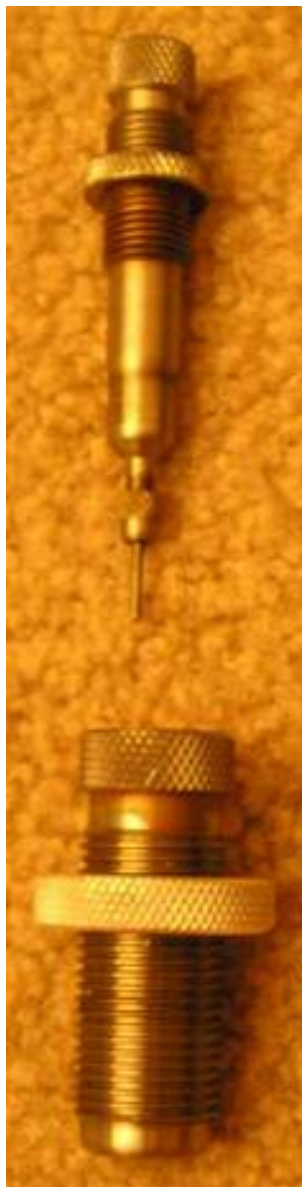
Above is pictured a 44 AMP RCBS 4 Die Set, RCBS Part # 19226.



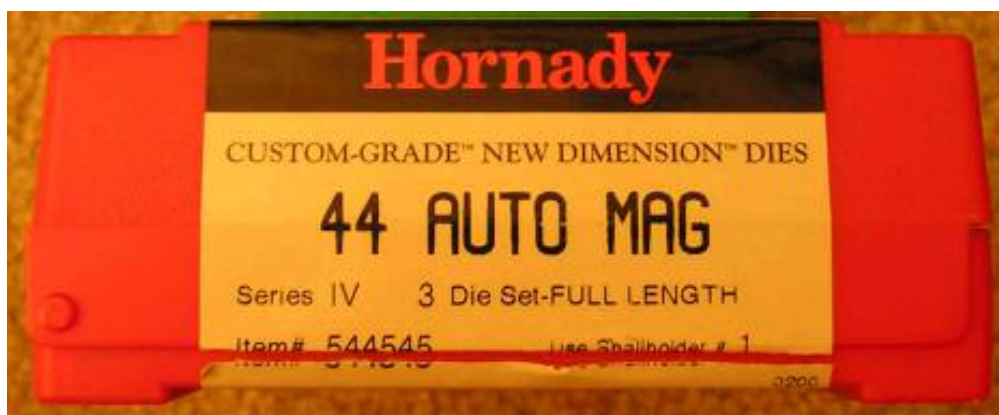
This is a comparison of a 1972 RCBS set to a 1975/76 RCBS set. Note the different knurling height on the die sets (no effect on functionality). The dies are pictured from L to R: Size, Expand/Decap, Seat, Crimp.



Pictured above is the markings on the top of each die. Early dies have the date stamped on them like "75", seen here. The Expander doesn't have a date. Later, RCBS went to a "Letter" system to date dies (A, B, C, etc. each represent a year).



Notice the expander on the left with integrated decapper, the decapping pin is held by a collet machined into the end of the expander assembly. The decapping pin on this era die is "straight", no "head". RCBS changed to a headed pin sometime in the 1990's.



Hornady 44 AMP die set, current manufacture (as of 2002), Part # 544545.



Detailed picture of Hornady Die Set. Hornady uses a floating decapper in the size die, the expander is fixed and cannot be unscrewed. The seater is a floating unit that guides the bullet nose all the way up, and then seats and crimps. Currently the best bargain for the new Automag owner having difficulty locating an original set.

45 Winchester Magnum (45 WIN MAG)





Pictured above is a RCBS 4 die set for the 45 Winchester Magnum. I thought it was worth mentioning as a few hundred were chambered for this cartridge in the 1980's. Notice the "55000" part number from RCBS, this is used to denote a Custom Die Set. The dies are as follows: size/decap, expander, seater, and crimper. They are similar to the 44 AMP 4 die set. This set happens to have "split" aluminum lock rings, the best type, as they cinch down around the dies, instead of using the brass screw into the threads.

Necked Automag Dies

357Auto Magnum (357 AMP)



Here's a common 357 AMP Die Set, RCBS Part # 35505, the tapered Autmag cartridges used a 3 die set: Size Die, Expander/Decapper, and Sear/Crimp Die.



To expand on the above, this shows some variation. Notice the Decap assembly available for the size die. This came about in the late 1970's, early 1980's for RCBS. This allowed use in progressive reloading machines such as the Dillon which require decapping in the sizing stage. Notice the two expanders- The first is the traditional expand/decap assembly, the second is only and expander. It is common to find the collet damaged/broken on this era die sets, rendering it useless for decapping. One option is to purchase the decapper unit for the size die, and cut off the expander decap collet and make the die only an expander. Also, note that any 357 Magnum Expander will work, and used die sets of 357 Magnum can be readily purchased to acquire an original

expander/decapper.



This is a 1990's 357 AMP dies set, RCBS Part # 56424 (notice the different part number). Notice the decap assembly is in size die. The expander does not have the decapper. Notice the hexagon lock nuts with brass set screws. The lock nuts are small enough to use on tightly crowded progressive machines (The older larger knurled lock nuts are too close for many machines). RCBS recommends placing a lead shot under the brass set screw to avoid damage. Black oxide coating on certain parts.



This is a 357 AMP Taper Crimp Die, RCBS Part # 55000 (custom die). Lee Jurras advertised these in his Newsletter's. The 357 AMP headspaces on the shoulder, so a taper crimp so not be as critical, however, this die was offered in limited quantity. I have also heard of people using 150gr 35 caliber spitzer bullets (loaded singly) for hunting, possibly using this die.

I don't have any info on other necked calibers, but die sets should basically be the same as the 357 AMP.

Case Forming Dies

44 Auto Magnum (44 AMP) from 30-06
Springfield or 308 Winchester



Complete 44 AMP Case forming set, RCBS Part # 40039 (sometimes # 55000 was used). On left, Reamer Die w/ Reamer, on right top, RCBS extended shell holder #3 for case trimming, on right bottom form/trim die. Note Reamer is still in original protective coating.



These are both RCBS case forming dies (On left, #40039, On right # 55000). I put this picture to show the difference in manufacturing. The reamer die on the left is taller than the right. The reamers are the same length, but note the stop collar on the left is higher than the one on the right. RCBS preset the stop collar from the factory and recommended it never be adjusted. Also, this picture shows a good comparison of the die lock rings, set screw on left (with lead shot underneath, unseen), and split lock ring on the right.



Case forming set from CH4D. Reamer does not come with stop. CH4D provides custom dies at reasonable prices for many obsolete/rare/wildcat calibers.

357 Auto Magnum (357 AMP) from 308
Winchester

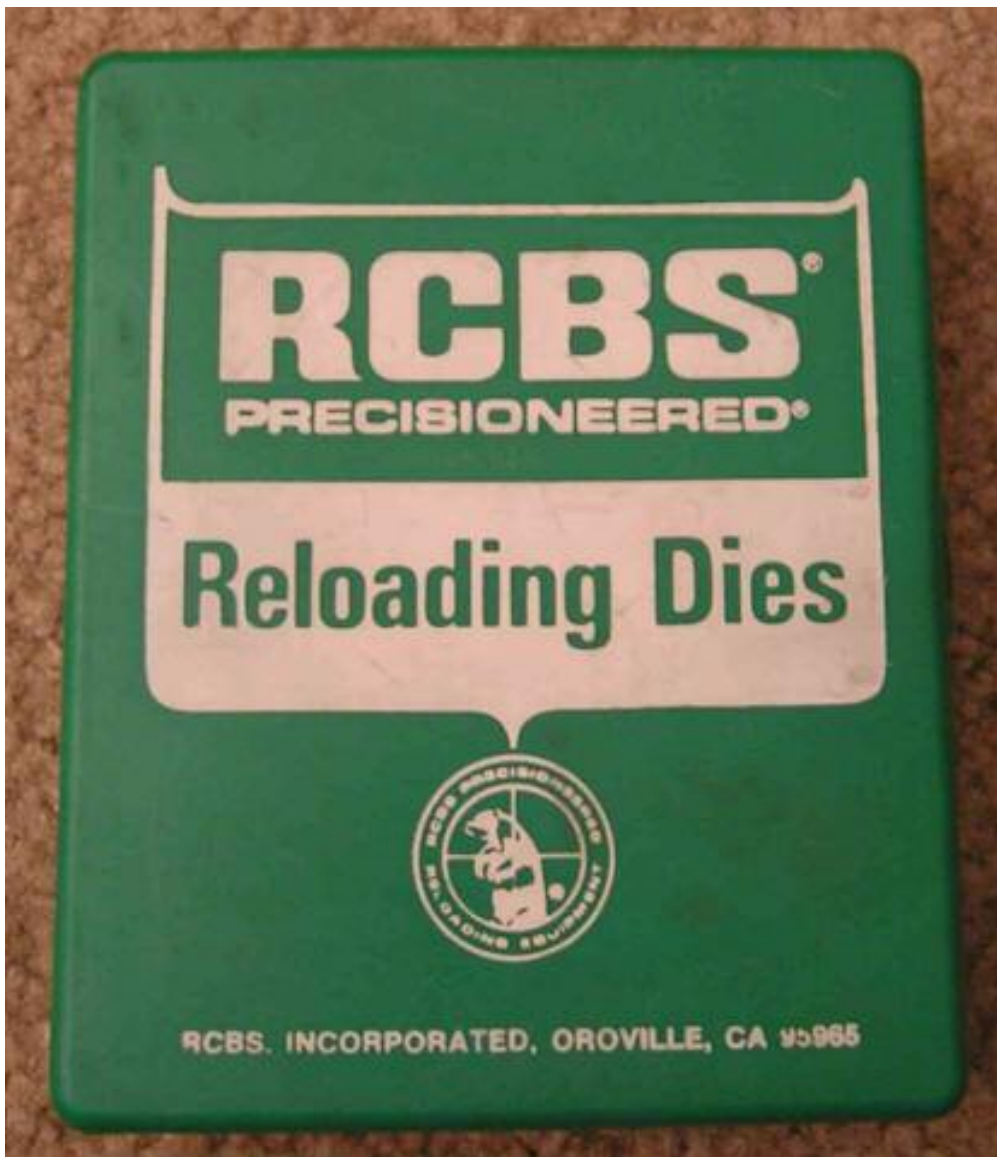


357 AMP Case forming set, RCBS Part # 40040 (sometimes # 55000 was used, shown here). On left, form/trim die, on right reamer die with reamer. No extended shell holder, could be missing or not ordered. Note Reamer has no stop, as the case is necked down before reaming and is reamed straight through. With Starline 44 AMP brass, one does not need this case form set, simply reform the brass in the 357 AMP sizing die.

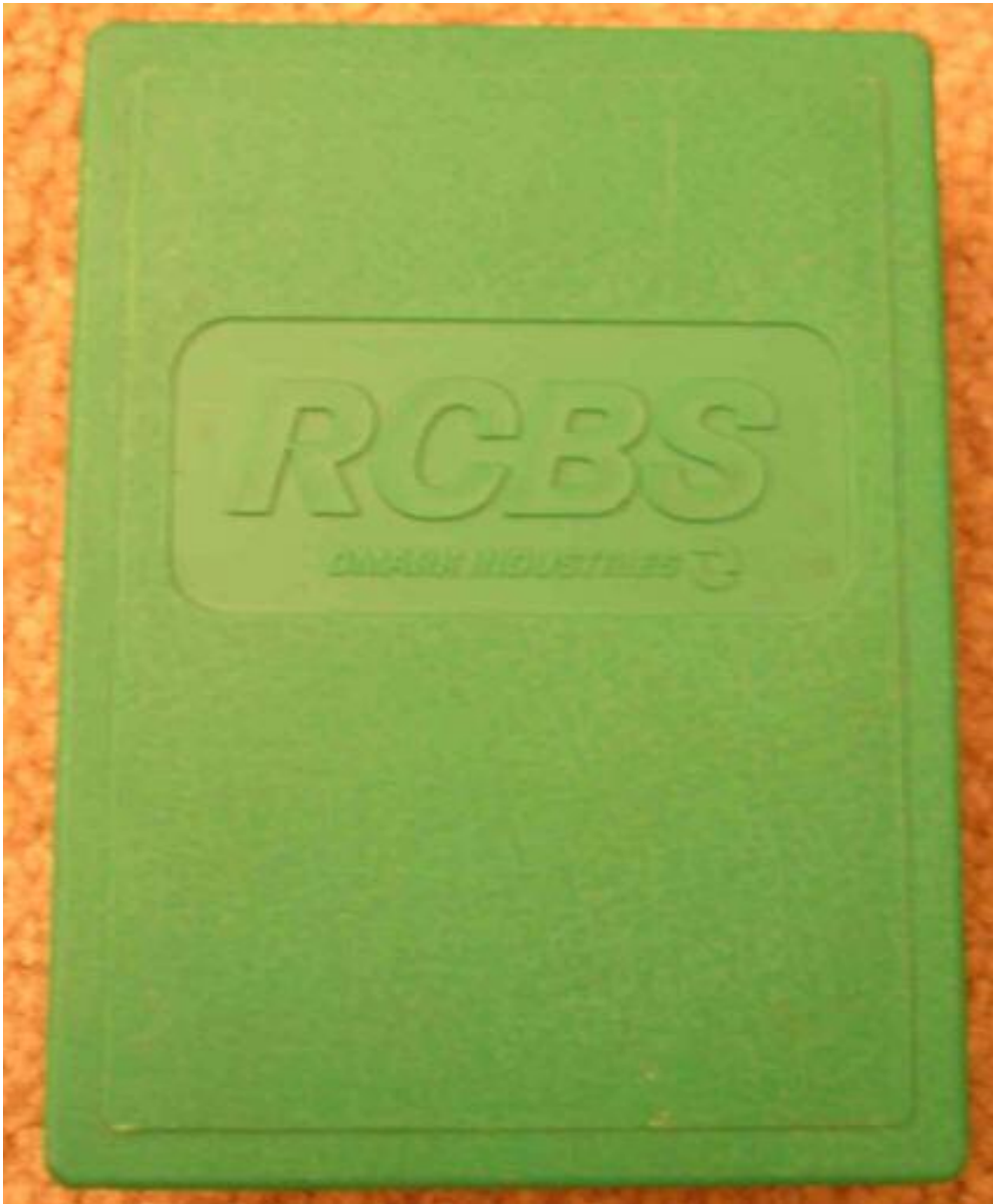
The 357 AMP case form set was recommended to use with 308 Winchester Brass, and did not include 30-06 Springfiled as an option. I do not know why this is, maybe someone else can shed some more light on this.

Note on all reamer dies, all parts could be ordered seperately, and it is possible to come across where someone has only a few pieces of the set.

Miscellaneous Notes



1970's RCBS Die Box, common for most Automag Dies



1980's to current RCBS Die Box, may not say "Omark", depending on era. Newer carbide die boxes are grey.

Interesting Facts from the 1972 and 1976 RCBS Catalogs

Die Set	RCBS Part Number	1972 Price	1976 Price
357 AMP Loading Dies, 3 Die Set	35505	n/a	19.50
44 AMP Loading Dies (SWC), 4 Die Set	19226	22.50	24.00
44 AMP Loading Dies (WC), 4 Die Set	19227	22.50	24.00

357 AMP Case Form	40040	n/a	28.50
44 AMP Case Form	40039	27.00	28.50

In 1972, the dies cost no more than other similiar dies (ie, 44 Remington Magnum). In 1976, the 44 AMP carried a \$1.50 premium due to the Taper Crimp.