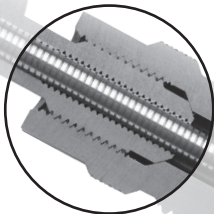


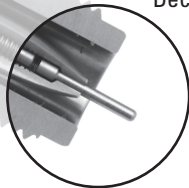
**Hornady**<sup>®</sup>

*Accurate. Deadly. Dependable.*

# Custom Grade<sup>™</sup> Dies



Zip Spindle<sup>™</sup>  
provides precise  
adjustment  
and positive  
lock-down



Headed  
Decapping  
Pin

## BEFORE USING DIES

Before using your new dies, disassemble and carefully clean the inside surface of the sizing and seating dies (and the expander die if a three-die set.) A rust preventive oil is applied at the factory to protect the dies during shipping and ***must be removed before reloading.*** Any commercial solvent or cleaner (like our ONE SHOT Gun Cleaner and Dry Lube) will suffice.

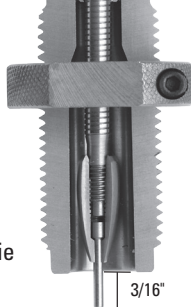
Inspect all cartridge cases and discard those with cracks, splits and other visible defects. Wipe cases clean with a soft cloth to remove grit and other foreign matter which may scratch the die. Before sizing, lubricate the cases with one of the case lubes available from Hornady (ONE SHOT Case Lube or UNIQUE Case Lube, a hard paste.) No matter the method of lubrication, all rifle cases must be lubricated (**Hornady Titanium Nitride three-die sets are lube-free.**) We don't recommend the use of oil-type lubes; they may contaminate the powder inside the case.

Little or no lube on rifle cases will result in a stuck case. Over-lubrication will cause dents in the shoulder, damaging appearance. If you get a case stuck in a die, we can remove the case without damaging the die and return it to you. Please call our customer service department for assistance, 800-338-3220.

## ADJUSTING THE SIZE DIE

To adjust the expander/decap assembly:

1. Loosen the spindle lock.
2. Adjust the spindle so approximately 3/16" of the decap pin is below the end of the die (SEE PHOTO)



**NOTE:** The Zip Spindle is lightly threaded to provide a positive no-slip lock. In its free state, the Zip Spindle can be pulled up and down to make quick adjustments, or can be threaded for more precise adjustments.

3. Make sure the threads on the spindle and collet are engaged and tighten the spindle lock until the spindle no longer rotates.
4. Verify that the decap pin is only extended 3/16" below die.

**NOTE:** The Hornady Zip Spindle comes with an easily replaceable headed decap pin. If during use or adjustment, the pin breaks, an extra decap pin has been provided. Remove the spindle assembly, unthread the expander/retainer, remove the decap pin head, and replace with the new decap pin.

To adjust the full-length size die, follow these steps:

1. Raise the press ram to highest position.
2. Thread the full-length die into the press until the base touches the shell holder head.
3. Tighten the lock ring against the press and tighten the set screw with the allen wrench.

**NOTE:** Firearm action types and chamber dimensions vary causing excess headspace. To eliminate the headspace, adjust the full-length die upward.

## ADJUSTING THE SEATING DIE

Hornady bullet seating dies feature a floating in-line sleeve designed to minimize bullet run-out (misalignment caused by a canted bullet.) The cartridge neck and bullet are aligned in the floating sleeve prior to seating the bullet for in-line, precise bullet seating.

These universal seating dies are manufactured by caliber (.224, .243, .308, .358, etc.) and not by specific cartridge (222 Remington, 240 Weatherby Magnum, 30-30 Winchester, 35 Whelen, etc.)

Prior to seating, make sure the steel seating stem is positioned in the alignment sleeve (see die parts list.) Also, make sure the cases are chamfered before seating.

When properly adjusted, the Hornady seating die may appear as though it's not threaded far enough into the press (they are adjusted for long or short cases). Don't be alarmed. As few as three threads need be screwed into the die for precise and accurate reloading.

**NOTE:** As with all seating dies, when seating lubricated lead bullets, lubricant will build-up within the die causing variations in seating. Clean and inspect as needed.



## SEATING WITHOUT A CRIMP

1. Insert a sized case into the shell holder and raise the press ram. Back out the seater adjustment screw. If you have the seater adjustment screw too low to start, you may run out of adjustment.
2. Thread the seating die into the press until you feel resistance. At that point, the crimp ring has come in contact with the mouth of the case.
3. Back the die out of the press one turn to prevent the case from being crimped — tighten the die body lock ring. Raise the handle and return the ram to its starting position.
4. Insert a bullet in the case mouth - raise the ram so the cartridge and bullet enter the alignment sleeve. Thread the seater adjustment screw until resistance is felt. Upon completion of the stroke, the bullet should be barely seated in the case.
5. Adjust the seater adjustment screw down in small increments, each time operating the handle until the bullet is seated to the desired length. **At the completion of each stroke, inspect the cartridge for the correct overall length.**

## SEATING WITH A CRIMP

To begin, refer to the procedure for SEATING WITHOUT A CRIMP. Follow the procedure throughout, however, DO NOT TIGHTEN THE DIE BODY LOCK RING.

1. Once you've reached the preferred seating depth for the bullet, back out the seater adjustment screw a few turns.
2. Raise the ram, with the cartridge, to the top of the stroke.
3. Thread the seater die body into the press until it meets resistance (**again, at that point, the mouth of the case has met resistance with the crimper.**)
4. Thread the seater die body into the press in small increments (one-sixteenth turns) each time operating the handle. At the completion of each stroke, inspect the cartridge for the proper crimp.
5. Once you've reached the desired crimp (with the cartridge still in the die), tighten the die body lock ring. Then, while holding down the handle, thread the seater adjustment screw downward until it contacts the bullet.

**NOTE:** *On presses with a cam-over action, back out the adjusting screw 1/8 to 1/4 of a turn to allow for cam-over.*

6. Raise the handle and remove the cartridge. Check the lock ring to make sure it's still tight. Try another case with a bullet. If the desired seating depth and crimp are attained, then you can begin seating and crimping in one operation. If not, make the needed minor adjustments.

**NOTE:** *For uniform crimps, cases must all be trimmed to a uniform length.*

## NECKING UP

The elliptical shape of the expander allows the reloader to expand the mouth of the case as well as “neck up” from one caliber to a larger caliber without the use of a tapered expander.

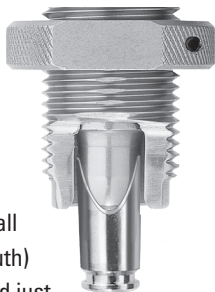
The expander is tapered at the top as well as the bottom to “neck up” in stages. For example, you can use the Hornady 25 caliber and 30 caliber expanders to neck up from a 22 caliber to 30 caliber.

## ADJUSTING THE EXPANDER DIE

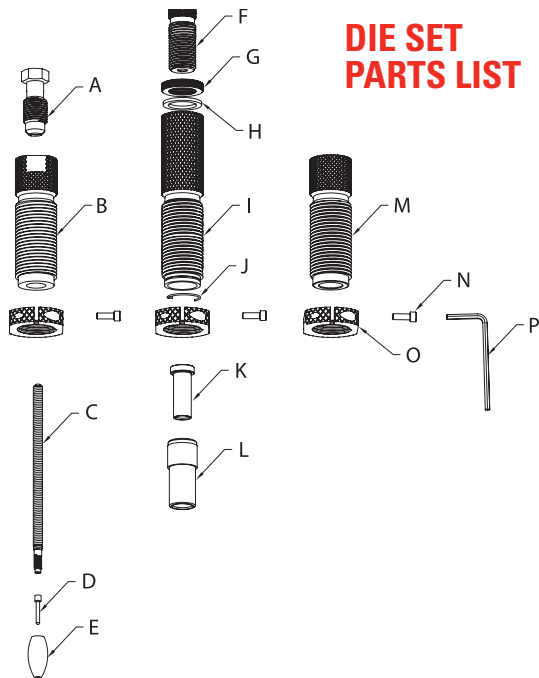
*(Three-die sets only)*

The expander assembly is designed to put a slight “bell” or flare on the case mouth. For uniform flaring, trim all case to their proper length.

To adjust the expander die body, raise the press ram to its full height with a case in the shell holder. Thread the expander die into the press until the expander touches the case mouth. Raise the handle and screw down the die in small increments (each time inspecting the mouth) until the mouth of the case has been flared just enough to seat a bullet. Tighten the die body lock ring and set screw. Keep in mind that an excessive flare can eventually shorten case life, and may keep the case from properly entering the seating die.



## DIE SET PARTS LIST



Key	Description	Part No.
A	Zip Spindle Lock	398731
B	Size Die Body	*
C	Zip Spindle	398567
D	Headed Decap Pin **	390222
E	Expander Decap Retainer	*
F	Seater Adjustment Screw	044100
G	Seater Lock Nut	044800
H	Washer	398067
I	Seater Die Body	*

Key	Description	Part No.
J	Retaining Ring	396430
K	Seating Stem	*
L	Alignment Sleeve	*
M	Expander Die Body (3 Die only)	*
N	Lock Ring Screw	390200
O	Sure-Loc™ Lock Ring	044000
P	Allen Wrench	390656

\*Caliber specific part numbers are assigned to these items.

\*\*3 sizes available (standard, small, PPC)



# PRODUCT WARRANTY

## **Reloading Tools Warranty No-Risk, Lifetime Warranty\***

All Hornady reloading tools and accessories are warranted against material defects and workmanship for the life of the product. Simply stated – if it breaks, we'll repair it or replace it at no charge (at Hornady Manufacturing Company's option).

Hornady reloading tools and accessories are warranted against defective materials and workmanship only. This warranty is void if the product (1) has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in material or workmanship; or (2) has been altered or repairs have been made or attempted by other than authorized factory personnel; (3) is used commercially; or (4) has been altered or defaced in any way.

This warranty supersedes all other warranties for Hornady products either written or oral. No other warranty is expressed or implied.

### **\*ELECTRONIC COMPONENTS**

Hornady electronic components are covered by a one-year warranty from the date of purchase.

All tool return claims must have a Return Authorization (RA) number assigned before acceptance at our facility for further examination. Please DO NOT send tool items without obtaining a RA number from our Customer Service staff.

All tool warranty claims are handled on a case-by-case basis. In order to initiate a claim, please contact our Customer Service Technicians at 800-338-3220.

## ACCESSORIES

### MicroJust™

The economical way to achieve optimum bullet seating depth for bench rest accuracy and consistency. Simply replace the standard seating depth adjustment stem on your Custom Grade Dies with the MicroJust Seating stem. Allows you to precisely set bullet seating depth in .001" increments.

**No. 044090**



### Lock-N-Load Die and Conversion Bushings

Simply insert a Hornady conversion bushing into your RCBS® Rock Chucker or other reloading press using a 1¼-12 thread, and you're ready to start using the Lock-N-Load System. It's the easiest way to get the most out of your reloading press. These bushings let you take advantage of Lock-N-Load technology on other reloading press brands. The Lock-N-Load Conversion kit includes three die bushings and one conversion bushing.

- Press Conversion Bushing ..... **No. 044095**
- Die Bushings (2-pk.) ..... **No. 044094**
- Die Bushings (3-pk.) ..... **No. 044093**
- Die Bushings (10-pk.) ..... **No. 044096**
- Conversion Kit ..... **No. 044099**



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## **HORNADY WARRANTY REGISTRATION**

Name\* \_\_\_\_\_

Address\* \_\_\_\_\_

City\* \_\_\_\_\_ State\* \_\_\_\_\_

Country \_\_\_\_\_ Postal /  
Zip Code \_\_\_\_\_

Phone\* \_\_\_\_\_

Email \_\_\_\_\_

Item Name \_\_\_\_\_

Item No. \_\_\_\_\_

Retailer/Dealer \_\_\_\_\_

Purchase Date \_\_\_\_\_

Retailer City \_\_\_\_\_

State \_\_\_\_\_ Country \_\_\_\_\_

*Return this registration within 30 days to:*

Hornady Manufacturing Company

PO Box 1848

Grand Island NE 68802-1848

\*Required information



**Hornady**<sup>®</sup>

*Accurate. Deadly. Dependable.*

P.O. Box 1848 • Grand Island, NE 68802-1848

308-382-1390 • 800-338-3220

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