

RCBS 7MM BACKCOUNTRY RELOADING DIE SET INSTRUCTIONS

SKU 710102 3 DIE NECK T/C DIE SET 7MM BACKCOUNTRY

WARNING! Before using this product, read and follow these instructions carefully. Failure to do so could result in serious injury or death, or property damage. Keep this sheet as a permanent part of your reloading equipment; a replacement copy is available at rcbs.com.

⚠ WARNING — The 7mm Backcountry is a high-pressure cartridge that uses a steel alloy case specifically designated as reloadable by the manufacturer. Strict adherence to verified load data and safe reloading practices is required. Failure to follow proper reloading procedures, published load data, or storage guidelines for this cartridge and its steel alloy case may result in property damage, serious personal injury, or death.

ABOUT THIS DIE SET

SAAMI approved January 2025, the 7mm Backcountry was engineered by Federal Premium Ammunition® to deliver magnum performance in a standard bolt face — 3,000 fps with a 170-grain bullet from a 20" barrel. It uses Federal PEAK™ alloy cases, which are not traditional brass and must be reloaded differently. This RCBS set was designed specifically for this cartridge and the PEAK case:

- **Neck Sizer Die** — Sizes the case neck only. Because the case body is not resized, cases must be reloaded for the same rifle they were fired in.
- **Expander Die** — Expands the case mouth to proper diameter and applies a slight flare (bell) so the bullet can be seated.
- **Taper Crimp Seater Die** — seats the bullet and applies a taper crimp in one operation.

NOTE: This set is designed only for the cartridge imprinted on the dies. Do not attempt to load other cartridges with it.

PEAK™ ALLOY CASE HANDLING

- Reload only cases fired in your rifle — this is what ensures the cartridge will re-enter your chamber after neck sizing.
- Reload only the bright, nickel-plated PEAK cases designated as reloadable by their original manufacturer. Do NOT reload the duller zinc-nickel cases designed as non-reloadable.
- Do NOT trim or deburr these cases, and do not deburr the primer pocket.
- Sort cases by length. Consistent case length keeps the flare and taper crimp consistent.
- Inspect every case before reloading and discard any case not in good condition.
- Use a wax-based lubricant when neck sizing. Do not lubricate the case shoulder.
- Avoid any cleaning chemical that damages or removes the case plating or case material.
- Seat the bullet in one smooth motion rather than several separate pushes.
- Remove all lubricant before firing. Fire only completely clean ammunition.
- Follow published data — alloy cases do not show traditional pressure signs.

LOADING DATA

Use only laboratory-tested reloading data developed for the 7mm Backcountry. Current, verified data is available at hodgdonreloading.com. **CAUTION! OBSERVE ALL WARNINGS ABOUT THE USE OF MAXIMUM LISTED LOADS.** Because PEAK alloy cases do not show traditional pressure signs, published data is your only reliable guide.

STEP 1 — NECK SIZING

WARNING! Do not resize a primed case. Never modify a Sizer Die or Shell Holder — doing so can result in incorrect headspace and create a dangerous condition. After resizing, always inspect the case for dents, cracks, bulges or damage of any kind; do not use a damaged case.

1. With the correct Shell Holder in the press ram and the ram at its uppermost position (handle all the way down), screw the Neck Sizer Die into the press until the die touches the top of the Shell Holder.
2. To remove all play from the press leverage system, raise the handle slightly, lowering the Shell Holder, and set the die 1/8 to 1/4 turn lower into the press frame. Return the handle to the lowest position — you will feel resistance as the Shell Holder contacts the bottom of the die, and the handle will "pop" as the compound leverage of the press cams over.
3. Set the large 7/8"-14 die Lock Ring and tighten the brass setscrew. Return the handle to the "up" position.
4. Apply a small amount of wax-based lubricant to the case neck. Do not lubricate the shoulder. Place the case in the Shell Holder and run it fully into the die. The case is now neck sized only.
5. Confirm the case re-enters your chamber freely before proceeding.

STEP 2 — EXPANDING AND FLARING

The Expander Die performs two operations: it expands the case mouth to proper size, and it flares (bells) the mouth to accept the bullet.

WARNING! Do not overflare (bell) the case mouth. Excessive flaring can permanently damage or split the case mouth and create a dangerous condition.

1. Lower the press handle, raising the ram to the top of the stroke. Thread the Expander Die body down into the press until it is just above the Shell Holder, then lock the die Lock Ring.
2. Loosen the Expander Plug Lock Ring and unscrew the Expander Plug out so that only two to three threads are engaged.
3. Raise the handle and insert a SIZED case into the Shell Holder. Slowly lower the handle until you feel the case engage the Expander Plug; you

should be able to lower the handle completely. The plug has entered the case but is not yet set deeply enough.

4. Screw the Expander Plug down into the case until you feel slightly greater resistance — the tapered portion of the expander contacting the case mouth. Raise the handle slightly and turn the plug down a half turn. Run the case back into the die, then remove it and inspect the flare.
5. Measure the flare. You want a flare diameter of bullet diameter + 0.020", or less. The objective is to flare the case mouth just enough to accept the bullet when it is placed on top of the case.
6. Adjust for flare by loosening the Lock Nut on top of the die and turning the expander up or down. Adjust in small increments, re-measuring after each change, then lock the Expander Plug Lock Ring.

STEP 3 — PRIMING AND CHARGING

The case may now be primed and charged. Charge and inspect all cases before you begin bullet seating, so every charge is uniform and correct, and inspect each case for the proper charge before seating a bullet.

STEP 4 — BULLET SEATING AND TAPER CRIMPING

WARNING! Ensure bullets are seated at the proper depth — too high or too low can result in excessive pressures, a bullet in the bore, or other dangerous conditions. Measure Cartridge Over All Length (C.O.A.L.) after seating. When the loaded cartridge is chambered, under no circumstances should the bullet touch the bore rifling; dangerous pressures could result. Use slow, even pressure when seating on compressed charges and inspect the case for bulging or cracking. Use care when crimping — excessive force can damage the case and result in dangerous pressures. Cases must be of consistent overall length to prevent over-crimping; sort 7mm Backcountry cases by length, do not trim them.

1. Place a sized, primed and powder-charged case into the Shell Holder and run it to the top of the press stroke.
2. Screw the Taper Crimp Seater Die down into the press until you feel slight resistance — the crimp shoulder contacting the case mouth. Back the die up, away from the case mouth, one full turn and temporarily set the die Lock Ring.
3. Unscrew the Seater Plug several turns. Lower the case, insert a bullet into the case mouth, and slowly run the case up into the die, seating the bullet part way in one smooth motion.
4. Adjust the Bullet Seat Plug in small increments and repeat until the top of the bullet cannelure is seated just above the case mouth. With bullets that have no cannelure, seat to your desired COAL. Check the bullet for proper seating depth.
5. Unscrew the Seat Plug a few turns so it will not contact the bullet. Loosen the Die Lock Ring, lower the press handle and raise the cartridge fully into the Seater Die.
6. Screw the die body down until you feel the crimp shoulder touch the case mouth, then continue until you feel firm resistance. Use only finger pressure — do not use pliers or other tools.
7. Measure your taper crimp. The taper crimp angle is shallow, so you may not be able to see the crimp being applied. Using the fine blade section of your calipers, measure the loaded round near the base of where the bullet is seated in the case neck, then measure the case neck right at the case mouth. The case mouth measurement should be .001"–.002" smaller in diameter.
8. Adjust the Taper Crimp Seater Die body down 1/8 turn at a time until you reach this measurement. This is a trial-and-error method.
9. When you are satisfied with the crimp, set the Die Lock Ring and run the completed cartridge into the die. Screw the Seater Plug down until it touches the bullet and tighten the Seater Plug Lock Nut. The die now seats and crimps in one operation.

RELOADING SAFETY

NOTICE — This sheet is not intended to provide comprehensive instructions or safety information on how to reload, or how to handle or use reloading components. Always read and thoroughly understand a reloading manual before attempting to reload ammunition. Reloading is an enjoyable and rewarding hobby when conducted safely, but as with many hobbies, carelessness or negligence can make it hazardous. Always follow these guidelines to minimize the risk of personal injury or death.

- Always wear safety glasses.
- Understand what you are doing and why. Read verified reloading handbooks and manuals and contact suppliers of equipment or components if you have questions or are in doubt.
- Read and understand all warnings and instructions accompanying your equipment and components.
- Do not rush or take short cuts. Establish a routine and follow it at a leisurely pace.
- Keep complete records of your reloads. Label each box with the date produced and the case, primer, powder and bullet used.
- Do not smoke while reloading, or reload near sources of heat, sparks or flame.

- Observe good housekeeping in the reloading area. Keep tools and components neat, clean and orderly, and clean up any spills promptly and completely.
- Keep all reloading equipment and components out of the reach of children.
- Stay alert. Reload only when you can give your undivided attention. Do not reload when tired, ill, rushed or under the influence of drugs or alcohol.
- Examine empty cases to be sure they are in good condition before reloading. Thin, split, deformed, or badly corroded or pitted cases may be structurally weak and result in a dangerous condition. Pay particular attention to splits in the mouth, separation between the case and the head, and dents in the shoulder.
- Do not store cartridge cases or ammunition near harsh chemicals such as gasoline or household cleaners. The fumes can weaken the case and present a dangerous condition.
- Do not clean cases with chemicals other than those specifically designed for the purpose, and never with a chemical that attacks or removes the case plating or material. Do not attempt to clean loaded ammunition or primed cases — doing so can cause corrosion and weaken the case, or cause a misfire/hangfire condition.
- Ensure cases have proper primer pocket sizes. Attempting to seat a primer into an undersized pocket, or into a pocket with staking or crimping, can result in detonation.
- Do not ream out or enlarge the flash holes of cartridge cases. This may change the ignition rate and result in dangerous pressures.
- Never attempt to guess at the identity of your ammunition.
- CAUTION! Handling bullets may result in exposure to lead, which is known to cause birth defects, reproductive harm and other serious physical injury. Wash hands thoroughly after handling. Use the correct bullet caliber and design for your specific cartridge and rifle configuration.

Because RCBS has no control over the choice, assembly or use of components or other reloading equipment, RCBS assumes no liability, expressed or implied, for the use of ammunition reloaded with this product.

Replacement, repair, refund or credit of the original purchase price, at RCBS's sole discretion, are the exclusive remedies of the customer.

RCBS is not liable for any incidental or consequential damages caused by the use, misuse or inability to use the Non-Electronic Product. These include but are not limited to any damages in the form of lost profits, loss of use, legal fees, economic loss, personal injuries, or any other damages caused by circumstances beyond the control of RCBS. Notwithstanding the foregoing, the customer's recovery cannot exceed the purchase price of the Non-Electronic Product. This Warranty does not extend to anyone other than the original customer who purchased the Non-Electronic Product and is not transferrable. No person is authorized to alter, extend or waive the Warranty of RCBS.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on warranties, so the above limitations or exclusions may not apply to you. This Warranty gives you specific rights, and you may have other rights, which vary from state to state. The exclusions and limitations to the Warranty apply to the maximum extent permitted by law and unless restricted or prohibited by law. Where any term of this Warranty is prohibited by applicable law, it is null and void, but the remainder of this Warranty will remain in effect.

CONTACT US

Website: **RCBS.com** | Customer Service: **RCBS.com** | Current 7mm Backcountry load data: **Hodgdon.com**

CUSTOMER SERVICE

All RCBS dies are carefully checked and thoroughly inspected before shipping, and the cartridge name is stamped on every die and die box — ensure the correct dies are being used for your firearm. Should a die perform unsatisfactorily, contact RCBS through rcbs.com and explain the problem in detail, mentioning the caliber of the dies and the year of manufacture. In most cases we can help you overcome the problem without the inconvenience and expense of returning the dies. If necessary, we will authorize the return of the die(s). Do not attempt to alter the dies in any way. A case stuck in a sizer die may be removed with an RCBS Stuck Case Remover or Stuck Case Remover-2, sold separately and available from your RCBS dealer. Replacement parts should be ordered through RCBS Customer Service at rcbs.com.

LIMITED LIFETIME WARRANTY

Your non-electronic RCBS product ("Non-Electronic Product") is warranted to be free from defects in material or workmanship for as long as the original owner owns it for the reasonable, useable lifetime of the Non-Electronic Product. Non-Electronic Products include all RCBS products except those that require a battery or power cord to operate. This warranty is extended only to the original consumer purchaser with a dated proof of purchase. This warranty excludes any electrical components or other products not specifically identified herein.

Should you believe that your Non-Electronic Product is defective in material or workmanship, you must return the product to RCBS through its Oroville facility postage paid for evaluation. If the Non-Electronic Product is found to be defective in material or workmanship, RCBS will, at its sole discretion and option, either: (i) replace the non-conforming product with a new product, (ii) refund the original purchase price of the product (excluding tax) to the original customer, (iii) issue a credit to the original customer in the amount of the original purchase price of the product (excluding tax), or (iiii) repair the product, at no charge to the original customer.

EXCLUSIONS AND LIMITATIONS TO WARRANTY:

This Warranty covers Non-Electronic Product non-conformity in the reasonable and normal use of the Non-Electronic Product, and does not cover (a) damage or failure caused by or attributable to product abuse or misuse, use of the product under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of RCBS, failure to follow directions, instructions and/or terms set forth on the product labels or the product packaging, (b) transportation, shipping, delivery, insurance, installation or set-up costs; (c) costs of product removal, transportation or reinstallation costs; (d) ordinary wear and tear, cosmetic damage or damage due to acts of nature or accident; or (e) modification of or to any part of the product. Further, all RCBS products are intended for non-commercial use by hobbyists. Any other use of these products will void the warranty.

The Warranty is contingent upon the proper use, maintenance and care of the Non-Electronic Product. The Warranty may be void if the Non-Electronic Product has been used in a manner contradictory to or in violation of the directions, instructions and/or terms set forth on the product labels or product packaging. The use or addition of parts, accessories or features to the Non-Electronic Product that are not recommended by RCBS could affect the intended function of the product, and therefore RCBS is not responsible for any damage or loss caused by the use or addition of parts, accessories or features to the Non-Electronic Product that are not recommended by RCBS. This Warranty is made in lieu of and supersedes all other warranties or conditions of merchantability or fitness for a particular purpose or general use, whether express, implied, collateral, statutory, or provided by common law, the Uniform Commercial Code or otherwise. No other express warranty or guaranty given by any other person, firm or entity with respect to the Non-Electronic Product is binding on RCBS.