



375 Raptor Load Data

WARNING (in addition to all standard firearm safety rules and all common sense): **The following load data was originally published at 375Raptor.com and Black Collar Arms has not tested or verified any of it. USE OF THESE LOAD RECIPES IS DONE AT YOUR OWN RISK AND DISCRETION**

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Safety Warning

- Reloading ammunition is an activity that possess with it a certain amount of risk due to hazards of storing and handling flammable chemicals (powder), incendiary devices (primers) and bullets containing lead.
- All reloading components as well as loaded ammunition should be stored properly and securely in accordance with all laws, local and Federal.
- All components should never be handled by children or women who may be or are pregnant or breast feeding.
- Reloading should only occur in a well lit and ventilated area, free from distractions.
- Whenever changing production lots of any component, you must revalidate your load by reducing the charge weight by 10% to account for manufacturing lot-to-lot variances and increase from this new starting load in incremental steps being observant of pressure signs while measuring velocity using a chronograph.
- If you reach your previous recorded velocity at a lower charge weight, stop increasing the charge weight.
- If you reach your previous charge weight with no pressure indications and the velocity is less than your previous performance, proceed with your load development is smaller .2 grain increments.
- Loading without a chronograph is dangerous since a chronograph can provide measured data that pressure is increasing based on the incremental gains in velocity.
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SAFETY FIRST, SAFETY LAST, SAFETY ALWAYS!

Loading data will continually be revised and published only here on this website as new bullets and powders are evaluated.

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- All loading data was tested with new Winchester 308 Winchester commercial brass on the 1st firing unless otherwise noted.
- When using Lake City Military Brass or any other brand of brass, case capacity is reduced by .5 to 2 grains depending on the commercial brass being compared to. Exercise due care and always adjust your starting load accordingly increasing your powder charge in small increments.
- Remember, case capacity will improve slightly following the first firing.
- Case Capacity will vary by brand of brass used as parent case. In weighing samples from both commercial and military sources, there was a 30 grain weight range between cases. Military brass is thicker and has less capacity than commercial brass such as Winchester.

Methods of observing, not measuring, pressure:

- Measure all shots during development with a chronograph recording data and observing incremental gains in velocity. When velocity gains increase in larger increments, pressure is rising at a faster level.
- On new brass only (not remanufactured military or previously fired), measuring the inner diameter of the extractor groove using a knife-edge caliper comparing new unfired brass and fired cases. You will see some growth between .001”-.003” depending on the brand of new brass. Reminder, this method of measurement is applicable to NEW brass only and does not apply to brass that has previously been fired (For example, remanufactured military brass) which experiences work hardening.
- Observe markings on the case head from the ejector which can be indicator of higher pressure
- Observe Primers for changes in the appearance after firing. Some flowing of the primer is normal, but flattening of the primer or seeing flowing of the primer around the firing pin strike are indications of high pressure.

Loads are arranged from lightest to heaviest bullets.

All velocity is measured using LabRadar Chronograph with testing occurring within the following environmental condition range:

- Altitude: 50 feet above Sea Level
- Temperature Range: 49-69 F
- Humidity: 40-60%

Testing is ongoing with additional bullets being tested and loads developed. Currently, the 3 top powders are Alliant 1200R, Alliant Reloader 10X and Vihtavouri N530. For subsonic use, Vihtavouri Tin Star is a low density, clean burning powder that is very effective.

LeHigh 175 Grain Controlled Fracture – 2.715 inches COAL

Powder: Accurate Arms 1680

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 41.0 Grains
- Maximum Load: 43.50 Grains
- 2850 fps with 18 inch barrel
- 2525 fps with 10.75 inch barrel

Powder: Accurate Arms 2200

- Primer: CCI 250

- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 45.0 Grains
- Maximum Load: 47.8 Grains
- 2650 fps with 18 inch barrel

LeHigh 175 Grain Match – 2.715 inches COAL

Powder: Accurate Arms 1680

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 41.5 Grains
- Maximum Load: 43.50 Grains
- 2850 fps with 18 inch barrel and 2525 fps with 10.75 inch barrel

Powder: Accurate Arms 2200

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 45.0 Grains
- Maximum Load: 47.8 Grains
- 2650 fps with 18 inch barrel

Volmer 200 Grain Flat Base – 2.675 inches COAL

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 46.0 Grains
- Maximum Load: 49.0 Grains
- 2650 fps with 18 inch barrel
- 2700 fps with 22 inch barrel

Speer 235 Grain Softpoint – 2.710 inches COAL

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 46.0 Grains
- Maximum Load: 48.0 Grains
- 2400 fps with 12 inch barrel
- 2575 fps with 18 inch barrel
- 2625 fps with 22 inch barrel

Barnes 235 Grain TSX – 2.660 inches COAL

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 46.0 Grains
- Maximum Load: 48.0 Grains
- 2400 fps with 12 inch barrel
- 2575 fps with 18 inch barrel

- 2625 fps with 22 inch barrel

Sierra 250 Grain Game King – 2.690 inches COAL

Powder: Alliant Reloader 10x

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 41.0 Grains
- Maximum Load: 44.4 Grains
- 2465 fps with 18 inch barrel

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 45.0 Grains
- Maximum Load: 47.0 Grains
- 2255 fps with 12 inch barrel
- 2480 fps with 18 inch barrel

Powder: Vihtavouri N530

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 45.3 Grain
- 2425 fps with 18 inch barrel

Powder: Ramshot X-Terminator

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 42.5 Grains
- Maximum Load: 46.0 Grain
- 2380 fps with 18 inch barrel

Powder: Accurate Arms 2200

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 45.0 Grain
- 2450 fps with 18 inch barrel

Barnes 250 Grain TTSX – 2.725 inches COAL

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 44.7 Grains
- 2225 fps with 12 inch barrel
- 2400 fps with 18 inch barrel

- 2450 fps with 22 inch barrel

Swift 250 Grain A-Frame – 2.565 inches COAL (seated to mid-point of cannellure groove)

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 44.5 Grains
- 2475 fps with 22-inch barrel

Lehigh 250 Grain Controlled Fracture – 2.700 inches COAL

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 44.5 Grains
- 2250 fps with 12-inch barrel
- 2450 fps with 18-inch barrel
- 2500 fps with 22-inch barrel

Nosler 260 Grain Solid – 2.685 inches COAL

Powder: Alliant Reloader 10X

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 40.0 Grains
- Maximum Load: 42.0 Grains
- 2350 fps with 20-inch barrel

Nosler 260 Grain Partition – 2.580 inches COAL (seated to mid-point of cannellure groove)

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 44.5 Grains
- 2475 fps with 22-inch barrel

Nosler 260 Grain Accubond – 2.755 inches COAL

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 44.0 Grains
- Maximum Load: 47.0 Grains
- 2270 fps with 12 inch barrel
- 2475 fps with 18 inch barrel
- 2525 fps with 22 inch barrel

Using the Nosler 260 Grain Accubond, 2400 fps is the threshold for a +/- 3 inch trajectory to 250 yards while delivering 2057 ft-lb of energy at 300-yards. To achieve this, 46.0 grains of Alliant 1200R resulted in an 18-inch barrel velocity of 2408 fps with 1/2 groups at 100 yards and a 12-inch barrel velocity of 2220 fps.

If you are wanting a 400 yard rifle, the 260 Accubond at 2525 fps will impact at 400 yards at 1837 fps with 1947 foot pounds of energy. At muzzle, it has 3680 foot pounds of energy.

Speer 270 Grain Boat Tail Soft Point – 2.790 inches COAL

Powder: Alliant Reloader 10x

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 41.0 Grains
- Maximum Load: 43.0 Grain
- 2335 fps with 18 inch barrel

Powder: Vihtavouri N530

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 44.6 Grain
- 2325 fps with 18 inch barrel

Barnes 270 Grain LRX – 2.725 inches COAL

Powder: Alliant 1200R

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 42.0 Grains
- Maximum Load: 44.7 Grains
- 2075 fps with 12 inch barrel
- 2285 fps with 18 inch barrel
- 2335 fps with 22 inch barrel

Sierra 300 Grain Game King – 2.715 inches COAL

Powder: Alliant Reloader 10X

- Primer: CCI 250
- Brass: Starline 308 Winchester – 1st Firing
- Starting Load: 38.5 Grains
- Maximum Load: 40.5 Grains
- 2250 fps with 20-inch barrel

Sierra 350 Grain Match King – 2.800 inches COAL

Powder: Accurate Arms 1680

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 30.0 Grains
- Maximum Load: 33.0 Grains

- 1825 fps with 18 inch barrel
- 1725 fps with 10.75 inch barrel.

SUBSONIC Sierra 350 Grain Match King – 2.800 inches COAL

Powder: Vihtavouri Tin-Star

- Primer: CCI 250
- Brass: Winchester 308 Winchester Commercial – 1st Firing
- Starting Load: 10.0 Grains
- Maximum Load: Variable – Load will vary based on barrel length and conditions. Use a Chronograph as you increase powder charge to achieve target velocity. The speed of sound is 1,130 FPS at 72 degrees F and increases or decreases based almost exclusively on ambient temperature (https://www.weather.gov/epz/wxcalc_speedofsound).