

Daniel tests a Mossberg 464 Mariner 30/30 which would have been problematic on his old lead sled.



Caldwell Lead Sled tames curse of recoil

Daniel O'Dea

A bit more than a decade ago when setting up my shooting bench, the one item I invested in which has not only had most use but has also been most useful is my Caldwell Lead Sled. What's a 'lead sled' you might ask? Basically it's a shooting rest platform made by US-based accessory firm Caldwell you literally load up with weighted bags of lead shot, or something of similar heft, which absorbs more than 90 per cent of a rifle's felt recoil on firing. It deals with felt recoil and provides a rock-steady rest for precise and repeatable shooting.

In shooting terms everyone's affected by recoil, it's basic physics where the difference lies in whether or not it bothers you, like pain - something may hurt but does it deter you enough to stop you doing it? Recoil also affects practical accuracy and in my experience most people shoot lighter calibre rifles more accurately and consistently than heavier ones.

Personally I've always had a more than reasonable tolerance towards felt recoil. In my mid-teens my first centrefire rifle was a .308 Winchester and among my favourite all-round hunting rifles are a .338 Win

Mag, 8mm Rem Mag and .300 Weatherby Magnum. I don't use my .458 Lott much these days but have one of those as well.

Truth is I've never really noticed recoil in the field. For sure it's there, just not recalled in the moment of the hunt. Yet the same can't be said if you lock yourself down to a bench for an afternoon of load development with any heavy hitter, in which case you'll quickly find the novelty wears off as you develop and start fighting the inevitable flinch. With the Caldwell Lead Sled you can forget felt recoil completely and focus on target alignment and trigger release.

In my capacity as a gun writer I've always felt if I can remove as many variables while testing it's going to help provide the fairest representation of the product under review. The Caldwell not only gives me a solid repeatable rest but removes felt recoil all but completely, these factors combined going a long way towards achieving this objective.

The Caldwell also saves me ammunition when sighting-in rifles. In reviewing firearms, scope fitting and alignment is a regular occurrence and my preferred sighting method is to first bore sight and

once I have a single round on paper to simply adjust the cross-hairs to align with the point of impact.

The theory of this method was covered in the April 2020 edition of *Australian Shooter* in an article by fellow writer Mike Smith. This method has you sighted-in with the bare minimum expenditure of ammunition, as little as two or three rounds, most critical is the stability of the rifle during scope adjustment. It must remain completely fixed in position as the cross-hairs are adjusted to the point of impact and, as the Caldwell Lead Sled supports the rifle both front and rear, the gun remains stable and allows for quick and effective sighting-in.

But with the arrival of modern chassis-style rifles with MSR-style pistol grips, I often find those grips can impact on the main centre frame bar of my old lead sled. Rifles with long single stack magazines would have the same issue, like my Remington 700 Police with Wyatt bottom metal and long single-column 10-round mags, while lever-actions need to be tilted or lifted out of the rest to cycle. Likewise, being a licensed dealer for prohibited firearms sometimes has me testing category

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'D' guns with high-capacity magazines which simply won't fit in the sled.

With my existing sled being more than 10 years old I wasn't surprised to hear Caldwell had revised and improved the Lead Sled and extended the options to include a dual frame version which would cure all my issues. Caldwell distributor Nioa sent me the latest version Lead Sled DFT 2 for review.

Having assembled the DFT 2 I was impressed by multiple improvements over the original version I'd been using all these years, main point of difference being the Dual Frame Technology (DFT) whose design specifically allows the use of firearms with long magazines and pistol grips. Starting at the front, the whole forward cradle and support assemble tracks forward and aft along the dual rails, to adjust for firearms of different length, with a total adjustment range of 18" (457mm). This was fixed on the original Lead Sled and meant in some cases, with shorter carbines for instance, you might end up with the front of your rifle supported by the barrel in the rest as opposed to the fore-end, hardly ideal.

The fore-end cradle used to comprise a mini front bag fixed with Velcro but is now a recoil-absorbing rubberised cradle with horizontal adjustment knob for 2½" (64mm) adjustment which actually extrapolates to 27ft at 100 yards (8.23m at 90m). It also has a rubber strap which can be used to lock down the fore-end for rifles with excessive muzzle lift.

The main height adjustment wheel has been increased in diameter and shaft lock extended, both improvements making height adjustment more user friendly than the old system. Below the frame is the improved weight tray which can hold up to 100lb (about 45kg), Caldwell producing purpose-made weight bags to hold lead, sand or other heavy medium to sit in the tray. When I bought my old sled, I had a mate who was a trimmer make me half a dozen small bags filled with lead shot which have been ideal. I've heard of others using fitness weights or even old window weights for this.

At the rear of the DFT 2 is a new adjustment knob for the back foot, previously a bolt and nut locked up with a spanner and not readily adjustable. Again, this gives a finer level of adjustment across the total system. The rifle buttrest or rear cradle now has a recoil absorbing pad which holds your buttstock securely, the rear exterior of the cradle also padded where you might rest your shoulder. The loading effect of weight in the tray combined with

recoil absorbing pad in the cradle made for claimed felt recoil reduction of 95 per cent.

Using the Caldwell Lead Sled has only ever shown upside but some considerations must be thought through. Firstly, just because recoil can't be felt doesn't mean it's not there, the reality being it still exists but has been absorbed and mitigated through the rest and rifle. Some older firearm stocks were never engineered to absorb all recoil energy produced on firing, rather to roll with the shooter under recoil. This is especially so with older large calibre dangerous game rifles which are generally regulated using a standing rest.

Newton's first law of physics states to every reaction there's an equal but opposite reaction, so technically if you have 6000ft-lb of energy leaving the muzzle forward, you have an equal force in momentum moving backwards. Rearward momentum is absorbed and disbursed in recoil but if all this reward momentum comes to a complete stop, something might fail at the weakest point. I only ever load enough weight on the sled to adequately mitigate the recoil present, and modern stocks with effective recoil pads and the new recoil absorbing cradle on the DFT 2 also reduce the effect.

The only other consideration to keep in mind is manual handling of lead if used as the ballast. Again, once contained in a rest bag or similar there's little chance of contamination, especially if a proper handling regime is maintained with hand washing etc. For me, the DFT 2 has overcome the few issues I had with my older sled when reviewing some firearm designs so, all in all, the Caldwell Lead Sled DFT 2 is a great thing made better.

My original has given great service over many years and been an integral part of my testing equipment. In researching for this review the DFT 2 is but one of many rest options offered by Caldwell who have a huge variety of quality benchrests, sleds, bags and other gear. More on Caldwell products at nioa.com.au and follow the links. ●



The cradle and support assemble tracks forward and aft along dual rails to adjust for firearms of different length and design.



Unlike other lead sled models the dual frame DFT 2 allows for cycling of lever-action firearms.



The DFT 2 provides magazine clearance for rifles like Daniel's Remington 700 Police with Wyatt bottom metal and 10-round mag.



Once lined up, the lower knob locks the vertical adjustment wheel shaft to prevent accidental movement.



On the DFT 2 the rear foot is adjustable via a large easy-to-use turn knob for vertical adjustment.