



WR MAGAZINES: ALL MODELS

Your WR magazine has been designed to be reliable and offer a most suitable capacity and generally a longer overall load length (where possible of functional). WR mags have the DNA of an elite item for the competitive and serious shooter that can also be used by the fastidious hunter and sports shooter. These units have been many years in the making and continue to evolve into the perfect solution.

This is the mag of choice by many national and international champion shooters. You may want it to last, so some care is needed, hence this info sheet for assembly, care and maintenance.

ARRIVAL: Look over the unit, and look for any obvious issues before trying to fit and use. A general appearance look should suffice to start. The WR mags do general resemble the factory units.

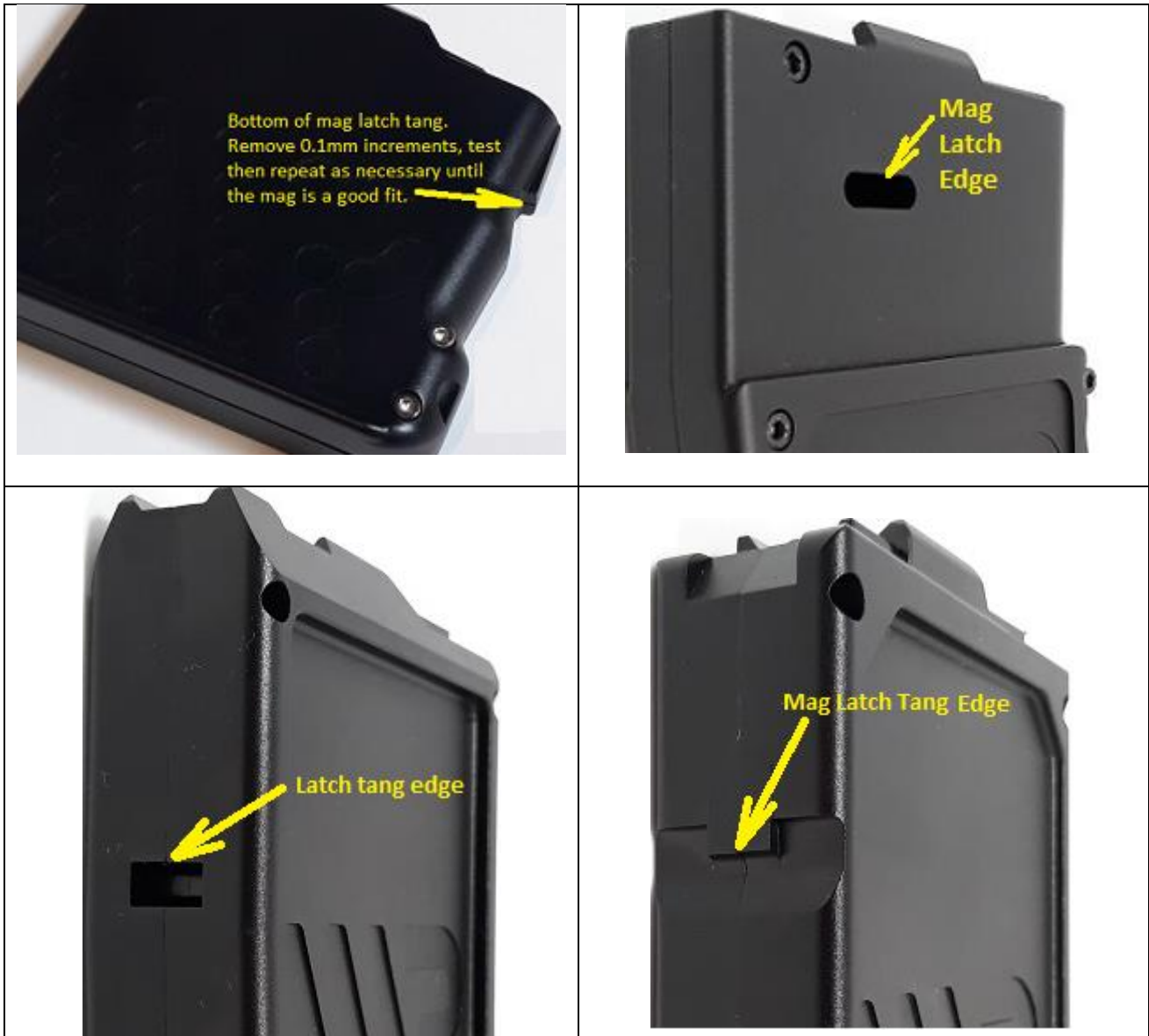
LUBRICATION: The unit ships dry and free of any lube. The magazine may run fine without lube, but a light sparing application of a suitable dry lube can help in many ways. Suggest to use something non-marking (dark) for the sake of mess and maintaining a clean look.

CHECK MAG FIT: The WR mag is made to 0.05 to 0.1mm tolerances (dependant on area of focus). The rifle receiver, stock and floorplate may vary up to nearly 1mm. If the rifle is bedded by way of a compound, then variance could be a lot more. The magazine has proven to fit most every standard, model, stock, from a factory release version. After market modifications done beyond factory spec may require small changes.

TIGHT FIT IS BEST FIT: Ensuring a tight and solid fit keeps your repeater rifle as close to performance as a bolt action single shot rifle. Tight and solid fitting magazines stops the mag solution being the weak link for proper harmonic vibration through the whole rifle system. You may see elite shooters that run free-dropping AICS or CTR/TRG type mag solutions using a wrap-around of electrical tape to act as a spacer and minimise rattle. Rattle is not a good thing on a rifle.

CLIPPING IN AND OUT: The mag may be tight to clip in and tight to depress the release lever to remove the magazine. This is a precisely made magazine (perhaps too precise). There are tolerance differences from rifle to rifle. As an example, the action take-down screws can be done up to different tension (sometimes too much) causing permanent distortion. Another example is the same rifle may come in different stock materials that alter in dimensions based on different conditions (in heat, plastic expands, but wood shrinks).

If you think latching will never improve, then simply use a "smooth" (fine) file and take 0.1mm increments off the magazine latch tang. Be sure to continuously test fit as you go – and if in doubt, test fit again before filing. DO NOT REMOVE more than 0.1mm at a time between testing. The magazine should be a tight fit (a preference by design) and material cannot be later added.



FOLLOWER BINDING: Ensure the follower flows freely in both halves before putting together. If it does not, there may be some foreign matter, damage, or the follower might be too new/tight.

The follower and internals are made to a tight tolerance at 21deg C, so the follower may need to **wear-in** a little. Expedite the wear by scraping (not cutting) 0.05mm increments of material out of front shape of the follower – ensure a concave curve in the front of the follower to suite the mag internal front chute shape.

DON'T OVER HEAT: The follower is made of POM which expands considerably with heat. The follower may function fine normally, but if the magazine is left to sit in the sun or used on an extreme hot day, the follower may bind. Again, to the “follower binding” section to overcome the jam. Alternatively, keep the mags out of direct sunlight during warm weather.

WEAR IN: When you first purchase a WR mag, the follower may be "too sharp" or “too new”. The follower works best after it has cycled and bedded into the precise shape of mag internals. This will come with use, but this can be expedited by manually depressing and releasing the follower – but do it carefully - if manually wearing by hand, BE SURE to move the follower up and down squarely, such as it would when used in the rifle (ie. avoid tipping, tilting and stressing deforming of the follower).

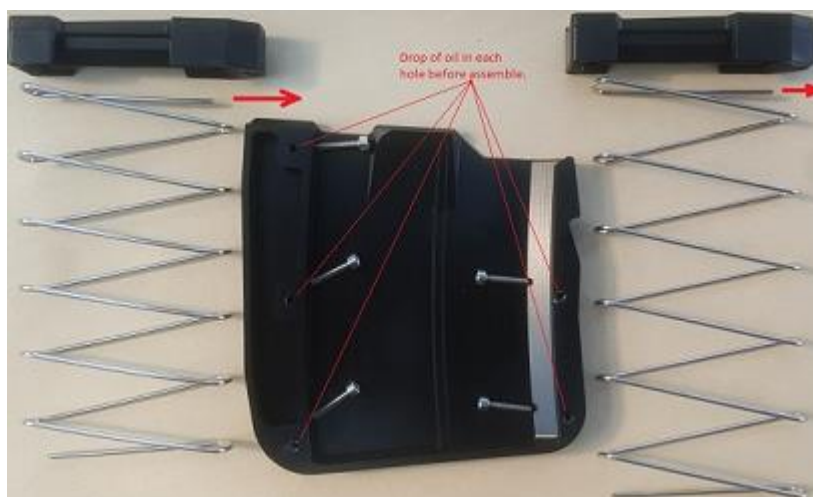
ASSEMBLY & MAINTENANCE:

a) **CLEAN:** Clean the mag internals with a suitable solvent, removing all grease, oil, dirt, debris.

- b) **DRY LUBE:** A clear dry-lube for the internal of the mag may be advantageous. The most common dry-lubes are Graphite powder, PTFE (Teflon) drying silicone spray (non-greasy). Do not use oil, grease or similar.
- c) **THREADS:** Apply a tiny drop of a synthetic oil to the clam screw threaded holes before assembly. This prevents the threads from “binding” with the screws, reduce Alum and SS electrolysis. DO NOT allow oil or grease to run into the mag internals (wipe out if it does).

- d) **SPRING DIRECTION:** The spring tail at the top into the follower should point forwards, towards the front of the follower/mag (the base may be opposite facing, depending on mag model).

A drip of oil in each screw threaded hole recommended before assembly. Do not over-fill so oil runs into chute area.



SPEEDLINE NOTE: The SPEEDLINE spring tail faces to the REAR.

- e) **ALIGN:** Be sure to align the 2 body parts as best as you can. There is 0.05mm play in the screw holes, so it may require some manual alignment as necessary. Be sure the mating surfaces are free of debris.

- f) **TIGHTEN:** Screws should be done up pinch tight (do not over tighten). Be sure there is no foreign matter in the threaded hole. Easiest way to remove stubborn matter is using a bottom threading hand tap, or if just light debris, use a cotton tip with some oil and screw in and out. If using a hand tap, BE CAREFUL to not tap beyond depth of the hole, otherwise a witness mark/ protrusion may be seen on the outside.

- g) **SPRING:** The spring may appear too strong or weak. If too weak, simply remove the spring and slightly twist-stretch it (see table for free lengths below). If the spring seems too stiff/hard, it may be because of being new or having done minimal work. Use it for some considerable time before bending the shape or cutting (remember, cutting is permanent). If taking the trimming rout, trim fraction by fraction (cutting is permanent and what is trimmed off can't be replaced). The follower should present at stop top with a small amount of force.

- h) **FINE TUNE:** If you wish to “fine tune” for best performance of the stripping resistance, simply very fractionally re-form the spring free length:

- **Stretching** - twist with the coil direction while stretching (twisting stops the spring form a helical shape).
- **Shortening** - reduce the free length by using pliers and pinching the coil ends a fraction.
 - bending the tails to be flat (perpendicular) to the spring axis.

- i) **TEST:** When assembled, test carefully. Take any appropriate corrective action. If in doubt, ask.

MARKING AND SACRIFICE: WR metal magazines will always result in some witness marks when used on metal magwells. This is always going to happen. It is a preference for a magazine body to wear, to protect undue wear in the more expensive rifle receiver. Witness marks can be marked over with black as desired.

MAGAZINE SPRING DETAILS:

MAGAZINE CARTRIDGE	GENERATION	CAPACITY	SPRING FREE LENGTH AS STANDARD	COILS AS STANDARD
223	ALL	6	100	4.5
223	ALL	10	130	6.5
6BR/250	ALL	6	130	5.5
6BR/250	ALL	10	170	7.5
308	ALL	5	100	4.5
308	ALL	6	130	5.5
308	G1-G6	10	170	7.5
308	G7 (wide body)	10	150	6.5
X55	ALL	6	130	5.5
X55	G1-G6	10	170	7.5
X55	G7 (wide body)	10	150	6.5
3006	ALL	6	130	5.5
3006	G1-G6	10	170	7.5
3006	G7 (wide body)	10	150	6.5
Magnum	ALL	5	130	5.5
Magnum	G1-G6	8	170	7.5
Magnum	G7 (wide body)	8	150	6.5

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