

Manual for IDV padded Safety-Arrows

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1. Why an instruction manual?

This manual of the IDV padded Safety-Arrows provides you important information concerning your safety and the safety of your gamemates and thereby helps you to avoid unnecessary injuries.

2. General information

This arrow, as simple it may look like, is a pretty complicated technical device. Only with the interaction of the several, accurately co-ordinated components the required safety can be achieved.

Technical measures are able and have to prevent the worst in case of need, but they can never be a substitution for a reasonable and considerate behaviour.

In order to guarantee technical safety, every arrow is provided both with a manufacturer's brand and a code number, which documents the development process of every single arrow from the granulate material to the final assembly.

The arrows are longer than 28 inch! The manufacturer's brand (silver label) marks the 28-inch-tag.

3. Designated use and required safety measures

These arrows are intended for in-game use in Live-Action-Role-Playing ("LARP" / "LRP"). In order to avoid personal injury or property damage, the following safety measures have to be followed implicitly:

- The maximal kinetic energy of the projectile **must not exceed 28 Joule**. This adequates an initial velocity of not more than 28 meters per second. This energy is calculatively reached with an ideal bow, with a **draw weight of 25 lbs** (115 Newton) at an extraction (= difference between unbent an fully taut bow) of 21 inches (520 millimetres). **Never use bows with a draw weight of more than 25 - 30 lbs @ 28"**
- For **crossbow bolts** the maximum kinetic energy is **limited to 18 Joule** as these are always shot with full draw length due to technical reasons.
- Always adjust the actual draw length **to the shooting distance!**
Never draw the bow stronger than necessary! Take care for a free shooting range if aiming at distant targets.
- The forces evolving from the impact of a safety arrow are comparable with those of a tennis ball. Therefore: Never shoot at sensitive or breakable objects like for example windowpanes, glass products, ceramic dishes or vehicles (cars). But also plasterboards, door blades (for example made of hard masonite-hollow plates) can suffer damage from the arrows.
- **Never aim at the head** or shoot at face level at a crowd of people!
- Before any shot, check the arrow for defects!
Do not shoot damaged arrows and select them out immediately, especially in case of damaged pads, shafts or fledging.
- Before every shot, examine the arrows on impurities possibly permeated into the pad head. If alterations can be felt on or inside the padding, do not shoot the arrow. Extra care has to be taken in the proximity of thorn bushes or similar debris.
- Especially during cold weather be sure that the pads are dry and most of all not frozen. If the foam plastic is soaked with water, do not use the arrows until the padding has dried completely and the foam is regularly soft again.
- Never shoot at **animals!** Small animals may get harmed, big animals may react dangerously!

4. Permitted modifications, respectively repair works

Do not modify the arrows in any other way as described in the following:

- colouring of the shaft, nock and fledging
- colouring of the padded head behind the (tactile) edge of the insert at the bevelled part
- Attachment of an index-hole in one or more of the feathers, as far as its diameter does not exceed 5 mm and is at least placed 3 mm from the fringe.
- Wrapping of a scratched – not broken (!) – shaft with thin adhesive tape. At this, wrap from the fledging forward.
- Replacing the plastic fledging by others (e.g. natural bird's feathers) as long as the feather surface and size is not smaller than the original feathering. At least 3 feathers must be attached (2 feathers when used only as crossbow bolt).

In any case, the owner is fully reliable for any modification performed.

5. Impermissible / dangerous modifications

All other modifications than described under chapter 4 are impermissible and possibly put at risk your health and the health of your gamemates. In case of serious consequences such modifications may be avenged by criminal law as bodily injury caused by negligence or even aggravated battery.

6. References for „Weaponcheck“ at events and service instructions for owners

These arrows have been examined by extensive prototype testing on their safety. Multilevel quality assurance measures up to a continuous traceability from the raw-plastic batch to the end-user assure a maximum of reliability.

Intact arrows guarantee a regular and sparing energy release across the entire cross-section and thereby minimise the risk of injuries.

Detailed information about technique and test procedure is available at www.larp-arrow.de

Checklist:

- **Maximum bow draw weight:** Sport-compound bows are impermissible in any case. Otherwise applies: Glass-epoxy-resin-bows and equestrian bows **with a maximum of 25 lbs @ 28"**, wooden longbows with a maximum of 30 pounds, **if the organiser does not define lower limits.**
- Check the padded head for damage and possibly permeated impurities (please press and "knead" in axial direction). The foam must not be "scruffy"! Check the pressure distributor for **breaks or kinks**. All around, an even, straight and solid edge has to be tactile.
- The shaft made of fibre glass epoxy resin may not show longitudinal splitting or even breaks (bending test).
Wooden or metal shafts are impermissible!
- The head has to be **fixed firmly** with the shaft.
- The fledging must not be relocatable.
- In suspicion of arbitrary **manipulations** the arrow should not be admitted. Permissible repair works and modifications are listed under section 4.