

Sept. 30, 1992

## DRAFT

These are generic design guidelines intended to establish prioritized criteria for any actual design to meet and to promote awareness and establish direction in design tradeoffs between alternatives.

In general, measured performance of any proposed new design is to be equal to or superior to that of the comparable system in the product currently produced.

BOLT PLUGPriorityCharacteristic

Minimize adverse affects of rearward gas flow (pierced primer, etc.). First, on shooter. Then on product.

*^space*  
Impede flow traveling rearward:

- 1
  - o within bolt
    - possible strategy: stack firing pin spring solid before full diameter portion of firing pin head is fully rearward of corresponding hole in bolt plug
      - o how to assemble?
- 2
  - o around circumference of bolt
- 3
  - Exposed firing pin head
    - o provides visual indication of cocked status without adding extension/mass to firing pin system which would increase lock time
- 4
  - Protected firing pin head
    - o bolt plug to absorb any impact from the rear and prevents it from being imposing on the release mechanism
- 5
  - Relationship to rear of receiver
    - o Front of bolt plug will be noticeably forward of (within) rear of receiver when bolt assembly is fully locked up
      - o cosmetic

WAW