

### Live Fire Data

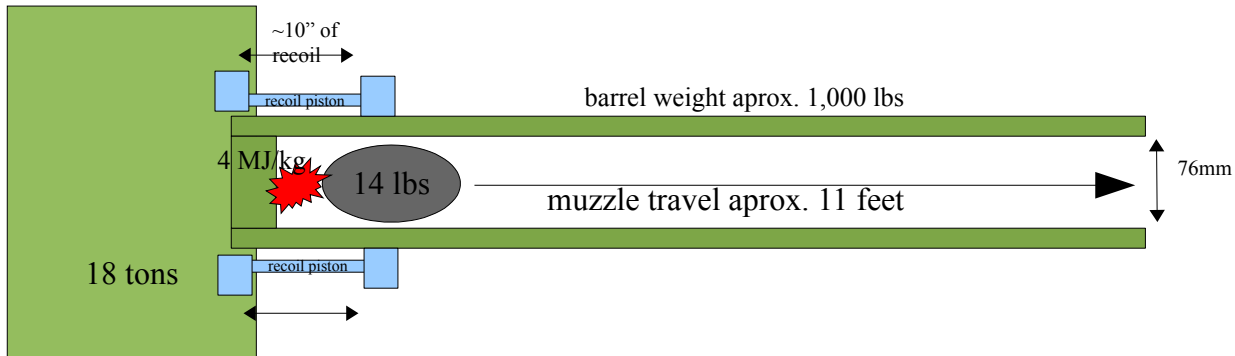
recoil: ~10 inches

propellant: 3.75 lbs of smokeless powder (gelatinized nitrocellulose)

projectile weight: 14 lbs

approximate propellant energy: 4 MJ/kg

projectile muzzle velocity: 2,600 ft/sec



### Blank Fire Data

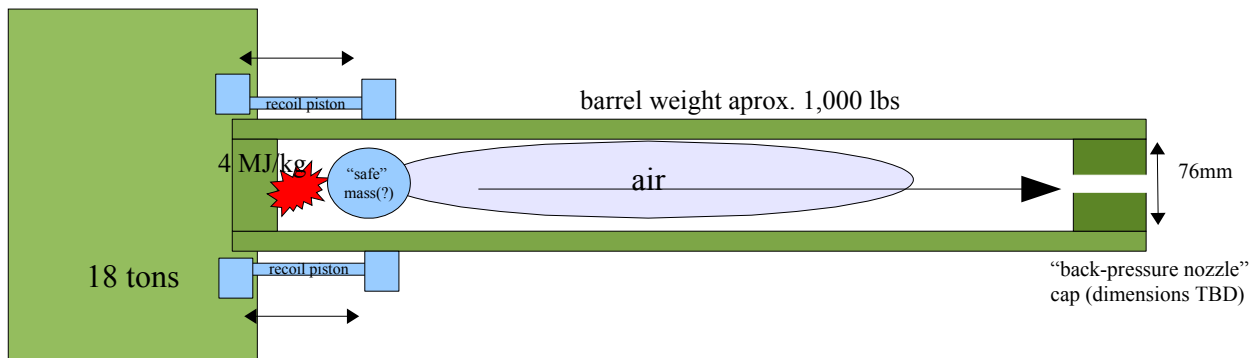
recoil: unknown

propellant: 0.5 lbs of smokeless powder (gelatinized nitrocellulose)

projectile weight: near zero (air) and/or possibly "safe" mass

approximate propellant energy: 4 MJ/kg

projectile muzzle velocity: N/A



### **Goals:**

Maximize the recoil in the blank fire model.

Determine if using a "safe" mass (eg. water) is required to achieve this goal.

Determine if a "back-pressure nozzle" is useful towards this goal.

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