
II. PRODUCT DISSECTION

SUBSYSTEMS



Figure 2.1: Disassembled Hopper



Figure 2.2: Disassembled Body: Barrel, Vertical Feed Receiver, Sight Rail, Valve, and Pressure Chamber



Figure 2.3: Completely Assembled Paintball Gun



Figure 2.4: Disassembled CO₂ Assembly: Port Reducer, Hose, CO₂

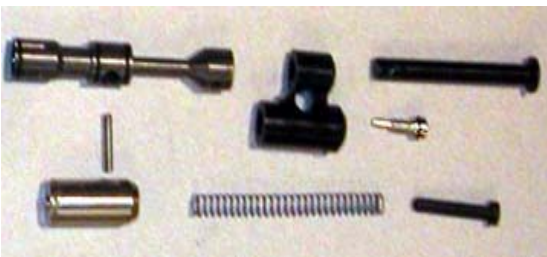


Figure 2.6: Disassembled Cocking Device: Rod, Bolt, and Hammer



Figure 2.5: Disassembled Handle: Trigger, Frame, Grips

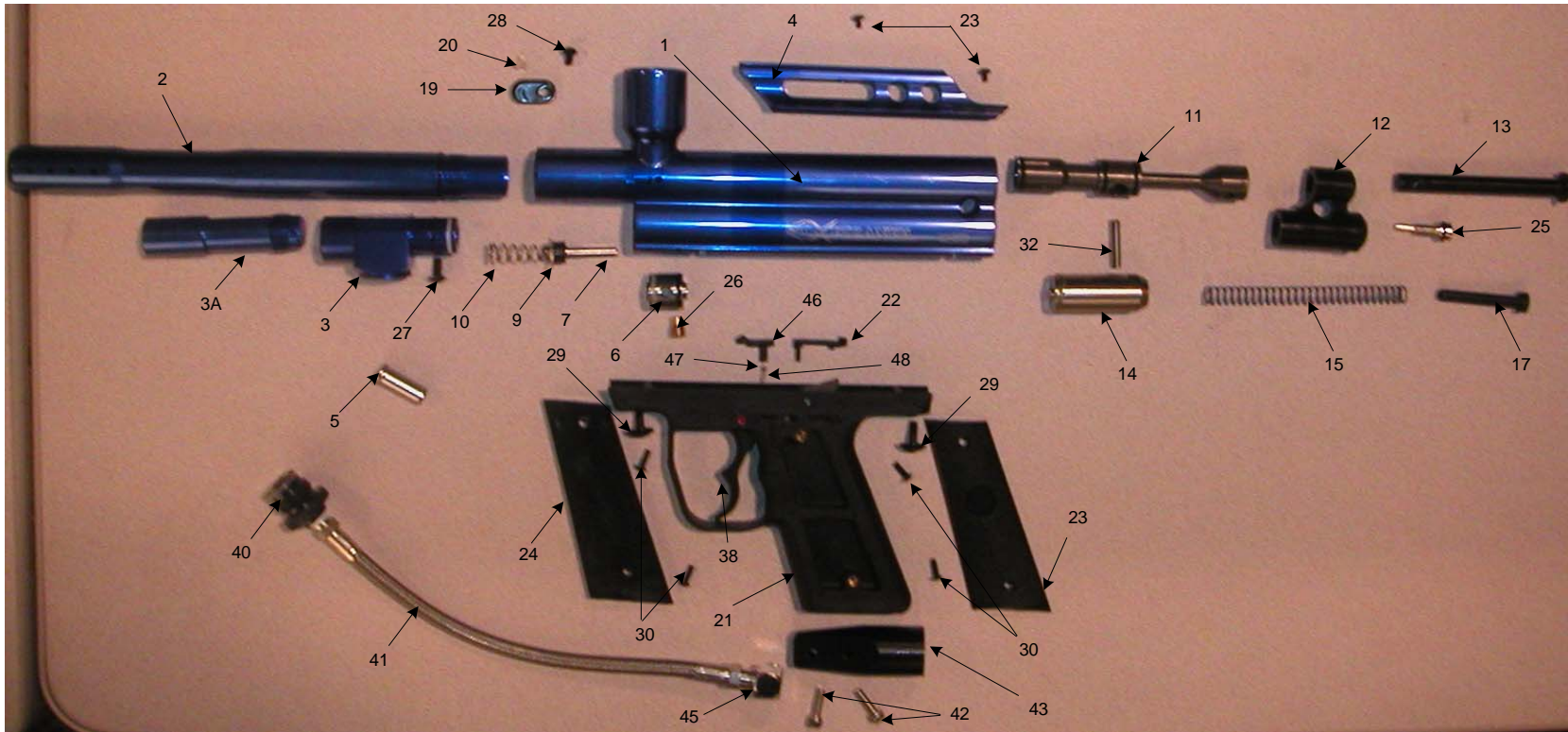


Figure 2.7: The paintball marker was disassembled and examined to fully understand the interaction of the components.

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|----|-------------------------------|----|-----------------------------------|----|-------------------------|
| 1 | Vertical Feed Receiver | 22 | Sear Release Slide | 37 | Port Reducer O-Ring |
| 2 | Barrel | 23 | Grip Left | 38 | Trigger |
| 3A | Optimized Pressure Chamber | 24 | Grip Right | 39 | Barrel O-Ring |
| 3 | Vertical ASA | 25 | Velocity Screw | 40 | Port Reducer |
| 4 | Sight Rail | 26 | Valve Set Screw | 41 | 10" SS Braided Hose |
| 5 | Field Strip Pin | 27 | ASA Screw | 42 | Bottom Line SS Screws |
| 6 | Valve Body | 28 | Ball Detent Screw | 43 | 10° Bottom Line Adapter |
| 7 | Valve Cup Seal Assembly | 29 | Trigger Frame Screw | 44 | Sear |
| 9 | Valve Guide | 30 | Grip Screws | 45 | 90° Elbow |
| 10 | Valve Spring | 31 | Sight Screw | 46 | Safety Slide |
| 11 | Bolt | 32 | Bolt Pin | 47 | Safety Ball |
| 12 | Rear Block | 33 | Velocity Screw O-Ring | 48 | Safety Spring |
| 13 | Cocking Rod | 34 | Rear Block O-Ring | 49 | Screen Filter |
| 14 | Hammer | 35 | Hammer O-Ring | 55 | Trigger Spring |
| 15 | Hammer Spring | 36 | ASA O-Ring Rear | 56 | Sear/Trigger Pin |
| 17 | Spring Guide | 37 | Bolt O-Ring | 57 | Sear Spring Pin |
| 19 | Ball Detent Cap | 37 | Valve O-Ring | 58 | Sear Spring |
| 20 | Ball Detent | 37 | ASA O-Ring Front | | |
| 21 | Double Trigger Frame Assembly | 37 | Optimized Pressure Chamber O-Ring | | |