

SPIEL #15: ROPE SYSTEM

1. **DESCRIPTION:** Twin Tension Rope System with CMC Clutch

2. **USAGE:** Lowering and Hauling scenarios

3. **SPECIFICATIONS:**

3.1. HARDWARE:

- CMC 11mm Clutch (Gray)
 - NFPA (G) Rated, MBS = 40kN (~9000lbf)
 - CMC Max Working Load = 600lb Load
- Carabiners: General (G) and Technical (T)
 - NFPA (G) Rating, Major axis w/ closed gate, $\geq$ MBS 40kN (~9000lbf)
 - NFPA (T) Rating, Major axis w/ closed gate, $\geq$ MBS 27kN (~6000lbf)
- General Rated Pulley (for rope only): NFPA (G) Rated, $\geq$ MBS 36kN (~8100lbf)
- CMC Steel Ring: MBS = 44.5kN (10,000lbf)
- Anchor Plate: MBS = 36kN (~8100lbf)

3.2. SOFTWARE:

- Sterling 7mm sewn prusik cord: MBS = 17kN (~3800lbf) End to End
 - Red: 19"
 - Blue: 25"
- General 1" nylon tubular webbing
 - MBS = 17.8kN (~4000lbf) End to End
 - Green: 5'
 - Yellow: 12'
 - Blue: 15'
 - Red: 16'
 - Orange: 20'
- 11mm Polyester Sheath with Nylon Core static kernmantle rope:
 - NFPA (G) Rated, $\geq$ MBS 40kN (~9000lbf)
- 8mm Drop Bag Rope
 - MBS 13kN (3147lbf)
 - Utility Use
 - Lifespan: 10 Years
- Software Lifespan
 - Operational Lifeline: 0-5 years
 - SDFD Training Lifeline: 5-10 years
 - Utility Line (no live loads): 10-15 years

4. MAINTENANCE:

- Rope log shall be completed after each evolution that occurred with live loads
- Wash ropes if dirty
- Use ½ cup of Citro Squeeze in front load washer (no agitator)
- Hang dry at least 24 hours before being stored for service

5. SAFETY CONSIDERATIONS:

- Inspect ropes after each use for glazing, milking, core shot, and soft spots
- Inspect Class 3 Safety Harness for excessive wear, damaged hardware, and shock indicator on back
- Do not expose ropes to chemicals, exhaust, or sunlight for extended time
- Knots may reduce working strength of rope by up to 50%
- Always consider edge protection
- Do not stand or step on ropes