

**FIRE CAPTAIN  
FIRE ENGINEER  
FIREFIGHTER**

**Orange County Fire Authority**

**(Engineer tasks are designated with an E)**

**1. STATIC STRENGTH**

1. While wearing BA and full turnout gear, carry a pike pole from truck to structure.
2. While wearing full turnout gear and BA, carry a 24' extension ladder 200'.
3. With another firefighter and while wearing full turnout gear and BA, carry a 60 to 70-lb. smoke ejector into a structure.
4. While wearing full turnout gear and BA, pull 1 3/4" charged line up stairs.
5. With another firefighter and while wearing full turnout gear and BA, carry a victim down ten flights of stairs to an outside safe area.
6. While performing overhaul, lift and carry furniture out of a structure.
7. While wearing full turnout gear and BA, carry a 40-lb. smoke ejector up two flights of stairs.
8. Carry a hydraulic spreader from truck to vehicle at an accident scene.
9. Carry a circular saw and an axe from the truck and up a ladder to the roof of a structure.
10. Carry a 25-lb. chain saw and an axe up a ladder.
11. In a small bathroom or shower stall, where only one firefighter can stand, step in and lift up an unconscious victim in order to remove him from the bathroom.
12. While wearing full turnout and BA, drag an unconscious victim out of a building.
13. During a rescue, carry one end (while another firefighter carries the other end) of a backboard with a victim on it a distance of 50'.
14. Pull a charged 1 3/4" charged hose line 100' toward a structural fire.
15. Carry a 50' - 2 1/2' hose roll and a straight bore nozzle a distance of 200'.

16. Carry a 100' hose bundle over shoulder and climb up a 35' ladder.
17. With another firefighter, lift and carry a patient from a back bedroom to front room where the patient can be worked on.
18. With several other firefighters, lift a 480-lb. patient out of a bathtub or off the floor.
19. Carry a drug box, cardiac monitor, and airway bag a distance of 300'.
20. Hoist a 50' 2 1/2" hose roll from ground level up to the 5th floor of a building.
21. Pull charged 3" hose line out of the street to make room for arriving engines.
22. Drag an uncharged 4" supply line 100'.
23. Use a wrench to open the valve on a hydrant.
24. Shut down a hydrant while water is pouring down on your head from a leak.
25. While wearing full turnout gear and BA, raise a 16' ladder.

## **2. EXPLOSIVE STRENGTH**

26. Quickly run from falling burning debris at a structural fire.
27. Break down a door with a 12-lb. sledge hammer.
28. Throw a salvage cover over furniture or other objects during overhaul.
29. Open a stuck gate valve with a hard pulling motion to charge a hose line.
30. Pull the halyard to extend and lock a 35' extension ladder.
31. Lift a 24' ladder off the side of an engine or from the ground.
32. With a burst of strength, hoist yourself up to climb through a bathroom window.
33. Break open a door with an axe.
34. With a stabbing motion, shove a pike pole into a lathe and plaster ceiling.
35. Perform a quick pull to advance a charged 2 1/2" hoseline.
36. Kick out a door to gain entry.

37. Jerk down with a pike pole to pull a ceiling down in order to gain access.
38. While wearing full turnout gear and BA, jump up to climb over a 6' wall to gain access to the backyard of a burning house.
39. Using an initial burst of energy, lift a 35' ladder to get it into position to carry it.
40. With a jerking motion, pull pre-connected hose off an engine.
41. With an initial burst of energy, pull yourself up onto truck or engine.
42. Quickly pull the starter cord on a power tool.
43. Toss a throw-bag to a victim during a water rescue.
44. Throw a roll of hose to unravel it.
- E45. Push or pull the T-handle on a discharge valve.
46. Turn a wheel handle to open or close an intake/discharge valve.
47. Swing a halligan tool at a tempered glass window in a commercial building.
48. Toss a rope bag off a truck down to the ground.
49. Throw rope bag over the side embankment to perform a rescue.

### **3. DYNAMIC STRENGTH**

50. Carry a 100' hose bundle and a forcible entry tool up 20 flights of stairs.
51. Spend 1 hour fighting a large structural fire.
52. While wearing full turnout gear and BA, direct the stream of a 2 1/2" charged flowing hose line for 20 minutes.
53. Use a shovel to scrape earth, throw dirt, and chop for two hours. Continue throughout the day during a wildland fire.
54. Perform CPR for 30-40 minutes on a victim.
55. With another firefighter, handle a charged 2 1/2" line for 30 minutes.

56. As part of a fire crew, use a progressive hose lay to maneuver 1 1/2" charged hose line through brush and uneven terrain during a wildland fire over a 24-hour period.
57. Climb up a hill while wearing a wildland hose pack and carrying a third section of hose.
58. With three other crew members, carry a victim in a stokes basket a distance of 2 miles out of a remote area.

#### **4. TRUNK STRENGTH**

59. While wearing full turnout gear and BA, bend over repeatedly while ventilating roof with an axe or chain saw.
60. Twist and bend over repeatedly while reloading hose while in a hose bed.
61. While wearing full turnout gear and BA, search a room while on your hands and knees.
62. Bend over and into a car while extricating an accident victim.
63. Bend over in order roll up several 100' lengths of hose.
64. Advance with a hose line into a structure while crawling on your stomach.
65. With another firefighter and while wearing full turnout gear and BA, crawl through an attic and perform tasks in a crouched position.
66. Lean or bend over to gain patient history, start an IV, or perform other patient care task.
67. Bend over while working on the side of a hill while using ropes and rigging for a rescue.
68. Bend over repeatedly when filing paper work in filing cabinets.
69. Crawl and crouch into a building that has been severely damaged to extricate a victim.
70. Crawl through drainage pipes or sewer pipes during an extrication.
71. Support upper body when working over a patient in a moving ambulance on the way to a hospital.

**5. STAMINA**

72. With another firefighter and while wearing full turnout gear and BA, advance and reposition a charged 2 1/2" hose line for 30 minutes while fighting a large structural fire.
73. While wearing full turnout gear and BA, carry a hose bundle and BA bottle up 20 flights of stairs.
74. Swing an axe to cut through various parts of a structure for 15 minutes during fire suppression.
75. While engaged in a wildland fire, perform a progressive hose lay over rough and uneven terrain for an extended period of time.
76. While wearing full turnout gear and BA, use a pike pole for 15 minutes.
77. While performing an interior fire attack and wearing full turnout gear and BA, pull a hose line up to the second story of a house.
78. While wearing full turnout gear and BA, carry a hose bundle and an axe up 20 flights of stairs.
79. While wearing full turnout gear and BA, perform a variety of fire ground tasks, including pulling hose, lifting ladders, directing hose streams and using hand tools during a structural fire.
80. Work for several hours pulling smoldering material out of a house and garage.
81. With three other crew members, carry a victim on a stretcher a distance of 2 miles out of a remote area.

**6. EXTENT FLEXIBILITY**

82. Reach and stretch to get up into a truck cab.
83. Reach up to remove BA from its compartment and mounting bracket on an engine.
84. Reach and stretch while climbing over a 6' wall in full turnout gear.
85. Bend and stretch to gain access into a mangled car to render first aid or extricate accident victims.
86. Twist and stretch to get off or on a ladder and into a window.

87. Bend, twist, and stretch while connecting a hose line to a hydrant.
88. Reach up to a storage compartment on an engine to get a salvage cover or other equipment.
89. Reach up to get a 35' extension ladder off an engine.
90. Reach, twist, turn to pick up and raise a 35' ladder.
91. Reach into the hose bed to pull out a section of fire hose.
92. While at a hose drying tower, reach, twist, and stretch to place a wet hose on a hanging rack.
93. While on top of a rig, reach and bend over the side to hand equipment to a firefighter on the ground.
94. Bend and stretch while pulling hoseline.
95. Reach down to pick up a hose bundle off the ground.
- E96. Manuever under a dash to replace fuses in the cab.
97. Pick up and put on a wildland hose pack.
98. Bend over when walking through thick brush.
99. Bend and reach to connect and disconnect hoses on fire apparatus.
100. Reach and stretch to retrieve or replace portable monitor.
- E101. Reach into engine compartment when performing routine maintenance on appratus.

## **7. DYNAMIC FLEXIBILITY**

102. Reach and twist while placing a victim in a stokes basket and carrying him out of a secluded area.
103. Reach and stretch to pull ceiling with a pike pole.
104. While wearing full turnout gear and BA, manuever through a crawl hole into an attic.
105. Repeatedly reach and stretch while climbing up a 90' aerial ladder.

106. With another firefighter, carry a patient on a backboard over your head and down a narrow flight of stairs.
107. Bend, twist, and stretch while using an axe ventilating a roof.
108. Continually bend and reach while reloading hose line onto engine.
109. Feed hose line into a building while nozzle man is advancing.
110. Continuously bend, stretch and twist while racking or stacking rolled hose after cleaning it.
111. Bend, twist, and stretch while using shovel and pike pole and other related tools during overhaul operations.
112. Struggle with a hysterical patient, who requires medical attention to gain control over him.
113. Continuously reach out to pull shingles off a roof during ventilation.
114. Lay sandbags for several hours during flooding conditions.
115. Fill sandbags with shovels prior to flood.
116. Use tools to cut line in a wildland fire.
117. Reach and stretch while mopping station floor.
118. Reach and stretch while rappelling.
119. Reach to pull on a pulley system in a ropes and rigging operation.

**8. SPEED OF LIMB MOVEMENT**

120. Throw a salvage cover up and over an object.
121. While fighting a fire, quickly reach out to steady yourself when you have suddenly lost your footing.
122. Quickly move your arm to block falling debris at a fire scene.
123. Quickly reach for the arm or foot of a combative person trying to harm you in order to gain control.
124. Rapidly apply brakes to stop vehicle in an emergency.

## **9. WHOLE BODY COORDINATION**

125. With another firefighter, raise and position a 35' ladder up against the side of a building.
126. Climb over a 5' wall in full turnout and BA.
127. Crawl on the floor of a burning structure while advancing a charged hose line.
128. While wearing full turnout gear and BA, crawl through an attic and perform tasks in a crouched position.
129. Crawl through a heavily damaged building during a search and rescue.
130. Coordinate arm and leg movements while assisting in carrying a 250-lb. patient on a backboard down a narrow staircase.
131. Carry a 10' collapsible ladder up a flight of stairs.
132. Coordinate arm and leg movements to safely walk up a 90' aerial ladder.
133. Walk up an aerial ladder that is slightly raised while carrying tools.
134. Coordinate body movements while lowering a semiconscious person down a ladder.
135. Coordinate body movements while walking up or down a hillside while carrying a Hurst tool.
136. Coordinate body movements to get off a ladder and onto a rooftop.
137. Climb up to top of a fire apparatus.
138. Coordinate body movements while quickly moving along side an embankment during a water rescue.
139. Coordinate arm, leg, and body movements when walking along side a gurney with a patient on it and performing CPR.
140. Crawl through sewer pipe during a rescue or search operation.

## **10. WHOLE BODY EQUILIBRIUM**

141. Maintain your balance while walking over rough and uneven terrain while advancing a hose line during a brush fire.



142. Wrap your leg around the beam of a ladder to support yourself while you work off the opposite side of the ladder.
143. Maintain your balance while positioning a ladder on an uneven surface.
144. Maintain balance while working on a roof during strong winds.
145. Maintain your balance while standing in rapidly flowing floodwater during a rescue.
146. Maintain your balance while walking down hillsides and over rough, uneven, slippery, and unknown terrain at night.
147. Maintain your balance while performing CPR in the back of a moving ambulance.
148. Maintain your balance while walking across a wet pitched roof in full turnout gear.
149. Maintain your balance while working off a ladder with a hose, axe, or chainsaw.
150. Maintain your balance while rappelling during an over-the-side rescue.
151. Maintain your balance while walking on top of engine or truck.
152. Maintain your balance while walk on wet slippery surfaces around truck
153. Maintain your balance while at the end of an aerial ladder that is swaying.

## **11. ARM-HAND STEADINESS**

154. Hold arm and hand steady while pouring gas from a 3-gallon container into a generator.
155. Place a drop of blood on a chem strip.
156. Hold arm and hand steady while applying direct pressure in order to stop bleeding.
157. Direct the hose stream at a target.
158. Start an IV
159. Hold a pen light steady to examine patient's pupils.
160. Hold binoculars steady while viewing through them.
161. Use a screwdriver to make an adjustment in tool or equipment.

- 162. Hold a leg steady while splints are being applied.
- 163. Hold a flashlight steady to see in dark.

## **12. MULTI-LIMB COORDINATION**

- 164. While standing in one position, operate a circular saw or chain saw.
- 165. Don BA.
- 166. Carefully operate hydraulic rescue tools in close proximity to a victim.
- 167. Properly position a chain saw blade while cutting.
- 168. Operate hydraulic spreader with both hands<sup>1</sup>.
- 169. Coordinate arm movements while pulling hose.
- 170. Perform various tasks in the cab in route to a fire such as turning on the light, using the on-board computer, handling a map, etc.)
- 171. Use a hand over hand motion to extend a ladder.
- 172. Drive a forklift.
- 173. Drive a fire vehicle.
- E174. Stand at panel and operate throttle control and open and close discharge valves.
- 175. Tend a rope "belay" system.
- 176. Coordinate hand movements to wax vehicle.

## **13. MANUAL DEXTERITY**

- 177. Couple, uncouple hose and connect nozzle.
- 178. Secure a patient to a backboard by utilizing straps or tape.
- 179. Hold a patient's head steady for cervical stabilization.
- 180. Operate the control levers to position the aerial ladder.

181. Splint and bandage a patient.
182. Maneuver the master stream from the basket during aerial operations.
183. Carefully use sizzors when cutting clothes off a trauma patient.
- E184. Pour oil into an engine1.
185. Reassemble a K-12 after cleaning.
186. Assemble air bags to raise and stabilize vehicle.
187. Disconnect and connect electrical twist locks on extension cords.
188. Grasp and remove BA facemask.
189. Maintain the proper airway and seal while performing resuscitation when using the bag valve mask.
190. Use a hydrant wrench.
191. Operate the nozzle on a hose line.
192. Tape a patient to a backboard.
193. Use an air chisel.
194. Use twist handles to open doors on apparatus.
195. Operate a fire extinguisher.
196. Assemble IV solution bag and tubing together.
197. Replace backboard straps on a backboard.
198. Use a pack set.
199. Connect hoses on hydraulic tools.
- E200. Operate throttle at pump panel.
201. Attach a hose strap to a hose line.

**14. FINGER DEXTERITY**

- 202. Adjust the controls on the BA regulator.
- 203. Pull the tabs on BA facemask.
- 204. Type reports on a computer.
- 205. Set the choke to start a smoke ejector or other power tool.
- 206. Key the mike.
- 207. Disassemble, clean, and reassemble a chain saw.
- 208. Hand write a report.
- 209. Adjust purge valve on BA.
- 210. Operate siren switches, air horn, lights, PTO switches, and other controls in cab.
- 211. Tighten or loosen or nuts, bolts, or fasteners by hand.
- E212. Measure tread depth on tires.
- E213. Open the petcock valve on air reservoir to drain water out.
- 214. Dial radio frequencies.

**15. NEAR VISUAL ACUITY**

- 215. Read the inspection tag on a fire extinguisher.
- 216. Read gauges on BA.
- 217. Read measures on a sphygmometer.
- 218. Read a DOT hazardous materials book.
- 219. Read watch while taking pulse.
- 220. Read memos and training documents.
- 221. Observe trauma victim for obvious signs of injury.

- 222. Read material safety data sheet during an inspection.
- 223. Read inspection reports.
- 224. Conduct primary patient survey (airway, breathing, and circulation).
- 225. Conducts secondary patient survey (physical examination - head to toe).
- 226. Visually inspect electrical systems and appliances.
- 227. Read maps at night while in a cab.
- 228. See keys on computer keyboard.
- 229. Read the screens on onboard computer.
- 230. Read printout that comes off the printer at the station.
- 231. See the appropriate location to start IV.
- 232. Read the screen or printout on EKG.
- 233. Read display on pager.
- 234. Read indicator lights on a fire alarm panel.
- 235. Read preplans for a building.
- 236. Read various gradations or measures on syringe.
- 237. Read dashboard gauges.
- E238. Read pump panel labels and gauges to determine where water is going.
- 239. Inspect equipment for damage or wear.
- 240. Observe wounds to assess patient condition
- 241. Quickly find appropriate tools and supplies in a trauma box.
- 242. Read a map.
- 243. Read gallons per minute on nozzle for water stream.
- 244. Read size of solid bore tip.

- 245. Read the print on the drug packaging.
- 246. Read the part numbers off vehicle parts.

**16. FAR VISUAL ACUITY**

- 247. Recognize a hazardous materials placard from a distance of 100'.
- 248. See the top of a 35' ladder during placement to avoid hazards.
- 249. See where you are placing the water stream.
- 250. Identify a fire victim in a typical house living room.
- 251. From the ground, see people waving from the 10th floor window of a burning building.
- 252. See the top of a 90' aerial ladder during placement.
- 253. Assist driver spotting highway hazards.
- 254. Judge distances to estimate the amount of hose line needed at a fire.
- 255. See hydrants from vehicle.
- 256. See other vehicles as you approach a four or five way intersection.
- 257. See overhead power lines while driving to or operating at fire scene.
- 258. See scuppers on the wall of a commercial building in order to correctly position ladder.
- 259. Spot road hazards while driving.
- 260. When working on a roof, notice changes in smoke conditions.
- 261. Spot overhanging objects to avoid hitting them with vehicle.
- 262. Spot smoke or flames en-route to fire.
- 263. Look at the passenger side rear view mirrors in order to position vehicle.
- 264. While driving, see hand signals of spotter indicating where to turn.
- 265. Estimate the size of discharge on hydrant.

266. Locate FDC at commercial building.

## **17. COLOR DISCRIMINATION**

267. Identify red, green, and amber traffic signals.

268. Discriminate color of DOT truck placards.

269. See skin color and contrasts (pale, blue, and jaundice) when administering first aid.

270. See unusual colors of smoke (white, gray, brown, yellow, black, green) indicating a hazardous material condition.

271. See unusual colors in water runoff indicating possible haz-mat situation.

272. Distinguish between transmission, oil, coolant fluids to determine what is leaking from vehicle.

273. Distinguish between green, yellow and red engine dashboard warning lights in cab of vehicle.

274. Distinguish between red, yellow, black, blue, and white helmets.

275. Distinguish between blue and yellow, white, or red reflector dots on highway.

## **18. PERIPHERAL VISION**

276. While at a traffic accident, see people who are walking into your safe zone.

277. See cars driving into the accident scene.

278. While climbing a ladder at the side of a building, see to your extreme left and right to maintain the safety of your position.

279. Notice a wall shifting to your extreme left or right during a structural fire.

280. See vehicles off to your left or right on freeways.

281. See the area around the basket when operating aerial controls from the basket.

282. Notice flashes of fire inside, overhead, or to the extreme left or right inside a building.

283. While inside a structure, see other firefighters running out of the building at your extreme left or right.

**19. HEARING - QUIET**

284. Hear the speech of an instructor during a training course.

285. Listen to person explain medical history on a medical call.

286. Hear and understand the speech of another crew member during a one-on-one meeting.

287. Hear and understand the speech of a patient who is speaking softly.

288. Listen for people in a collapsed building.

289. Hear partner whisper to indicate that a dangerous person is present.

**20. HEARING - NOISE**

290. Hear radio conversation and instructions over the sounds of the truck and siren while in transit to a fire.

291. Hear fire officers giving instructions to the fire crew at a fire scene.

292. Hear victims calling for help while in a burning building.

293. Hear incident commander give commands through BA and over the sounds of radios and other running equipment.

294. Hear the speech of an injured worker at a noisy industrial site.

295. At a loud sporting event, hear the speech of an injured player to determine his medical history.

296. Hear and understand speech of victims and friends of victims at a chaotic situation.

297. Hear and understand speech of a patient over the speech of other persons speaking at the same time.

E298. Hear radio while operating pump panel.

299. Hear the speech of other crew members at the side of busy highway in the rain.



- 300. Hear firefighter yelling directions or warnings from the back of vehicle.
- 301. Hear conversation while working around power tools at fire scene.
- 302. Hear the speech of other crew members while working in close proximity to a helicopter.

## **21. HEARING - LOCATION**

- 303. Determine from what direction shots are fired in a neighborhood.
- 304. Recognize when the ambulance, or other emergency vehicle, has passed your location and is heading off the wrong way.
- 305. Determine the direction aircraft is approaching you prior to its dropping fire retardant near your position.
- 306. Hear from what direction a smoke alarm is sounding.
- 307. Locate a fallen firefighter by the sound of the PDL (Personal Distress Locator).
- 308. Hear the hiss of a gas leak to determine its location.
- 309. While in a house hear from which direction a person is yelling for help.
- 310. Locate the position of a fire in a building by hearing the direction of a crackling noise or other fire sounds.

## **22. HEARING - DISCRIMINATION**

- 311. Recognize the sound of an air leak.
- 312. Hear unusual noises coming from vehicle engine.
- 313. Recognize when an unusual sound is coming from the ceiling area indicating a possible ceiling collapse.
- 314. Hear water flowing in an outside riser to determine if there is a false alarm.
- 315. Hear unusual mechanical noise during a fire indicating a problem with equipment.
- E316. Hear unusual pump sounds indicating cavitation or other problem.
- 317. Discern the sound of electrical hazard in a fire by a crackling noise.

318. Hear unusual sounds in equipment indicating mechanical malfunctions.
319. Hear the changing whistling pitch of a relief valve indicating a possible explosion from an over-pressurized vessel.

