

Facilitators Guide

Module 2- The Mighty Engine

Overview Module 2

Students should be able identify engine types and capabilities upon arrival on scene. Students will also gain an understanding of how to deploy and work with them effectively.

Target Audience

Line going firefighters

Time

Video 12minutes, Exercise 15 minutes, Total 27 minutes

Exercise

Group/class discussion

Facilitator Quick Checklist

The following are the most important tasks that should be considered before implementing this module:

- ✓ Preview the video
- ✓ Decide if you'll discuss any topics from the video

Time

Facilitator Tasks

Refer To

1 min

-  Introduce goal listed above.

Facilitators Guide

Module 2- The Mighty Engine

Justification: Easy water access allows quick refilling for smaller engines. Forest roads are not ideal for T1/T2.

4) Pacific Northwest Timber Fire

Size: 1 AC

Location: Clallam County, WA

Fuel Type: timber, grass

Access: windy mountain road

Water Source: lake, 5 miles away

Engine Type (circle best option(s)): 1 / 2 / 3 / 4 / 5 / 6 / 7

Justification: Windy mountain roads are not ideal for larger engines. Small fire size and relatively close water source is suitable for T6/T7.

Talking Points

- Discuss the availability and types of engines in your area.
- Are there any specific ordering procedures on your district?

*Estimate
Total
Time:
27
min*



Facilitator's Notes



**SW
pg xx**

Facilitators Guide



Type 7 Engine

Min. Gallons: 50
 Min. Flow: 10 GPM
 Min. Pressure: 100 PSI
 Min. Personnel: 2

Type 6 Engine

Min. Gallons: 150
 Min. Flow: 30 GPM
 Min. Pressure: 100 PSI
 Min. Personnel: 2



Type 5 Engine

Min. Gallons: 400
 Min. Flow: 50 GPM
 Min. Pressure: 100 PSI
 Min. Personnel: 2

Type 4 Engine

Min. Gallons: 750
 Min. Flow: 50 GPM
 Min. Pressure: 100 PSI
 Min. Personnel: 2



Type 3 Engine

Min. Gallons: 500
 Min. Flow: 150 GPM
 Min. Pressure: 250 PSI
 Min. Personnel: 3

Type 2 Engine

Min. Gallons: 400
 Min. Flow: 250 GPM
 Min. Pressure: 150 PSI
 Min. Personnel: 3
 Ladders: 48'



Type 1 Engine

Min. Gallons: 500
 Min. Flow: 1000 GPM
 Min. Pressure: 150 PSI
 Min. Personnel: 4
 Ladders: 48'
 Master Stream: 500 GPM

Requirements	Engine Type						
	Structure		Wildland				
	1	2	3	4	5	6	7
Tank minimum capacity (gal)	300	300	500	750	400	150	50
Pump minimum flow (gpm)	1000	500	150	50	50	50	10
@ rated pressure (psi)	150	150	250	100	100	100	100
Hose 2½"	1200	1000	-	-	-	-	-
1½"	500	500	1000	300	300	300	-
1"	-	-	500	300	300	300	200
Ladders per NFPA 1901	Yes	Yes	-	-	-	-	-
Master stream 500 gpm min.	Yes	-	-	-	-	-	-
Pump and roll	-	-	Yes	Yes	Yes	Yes	Yes
Maximum GVWR (lbs)	-	-	-	-	26,000	19,500	14,000
Personnel (min)	4	3	3	2	2	2	2