	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 <u>Time</u> Video 12minutes, Exercise 15 minutes, Total 27 minutes <u>Exercise</u> Group/class discussion				
	Facilitator Quick Checklist				
	 <u>The following are the most important tasks that should be</u> 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.				

	Module 2- The Mighty Engine					
Time	Facilitator Tasks					
12 min	• Play video Module 2: <u>The Mighty Engine</u>	Video 2				
15 min	Exercise: Have students get in small groups (3-5), read the following scenarios and choose the type of engine(s) that would be the most effective resource for that scenario. The following answers are suggestions and Instructors should supplement the discussions with personal experiences. 1) Great Basin Grass Fire Size: 3,000 AC Location: Pershing County, NV Fuel Type: cured grass Access: gravel roads Water Source: reservoir (30 miles away) Engine Type (circle best option(s)): 1 / 2 (3/4/5) 6/7 Justification: Fast moving fire, gravel roads – not ideal for T1/T2. Location: Larimer County, CO Fuel Type: timber, grass Access: mix of paved county and gravel roads Water Source: limited hydrants, stream (6 miles away) Engine Type (circle best option(s)) (1/2/3) 4/5/6/7 Justification: Limited pump capability and smaller crew size make T4/5/6/7 less ideal. T1/T2 have ladders, high volume pump abilities, medics (if needed), foam capability.	SW pg xx				
	3) Southeast Area Initial Attack Size: 1/2 AC Location: Caldwell County, NC Fuel Type: hardwood litter, debris Access: forest road Water Source: standing water nearby Engine Type (circle best option(s)): 1/2/3/4/5 (6/7)					

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	Justification: <u>Easy water access allows quick refilling for smaller</u> 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



Type 7 Engine Min. Gallons: 50 Min. Flow: 10 GPM Min. Pressure: 100 PSI Min. Personnel: 2

<u>Type 6 Engine</u> Min. Gallons: 150 Min. Flow: 30 GPN Min. Pressure: 100 PSI Min. Personnel: 2





Type 5 EngineMin. Gallons: 400Min. Flow: 50 GPMn. Pressure:100 PSIMin. 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 in. Flow: 150 GPM n. Pressure:250 PSI Min. Personnel: 3

Type 2 Engine Min. Gallons: 400 Min. Flow: 250 GPN Min. Pressure: 150 PSI Min. Personnel: 3 Ladders: 48'





Master Stream: 500 GPM

	Engine Type						
	Struc	cture	Wildland				
Requirements	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 21/2"	1200	1000	-	-	-	-	•
11/2"	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