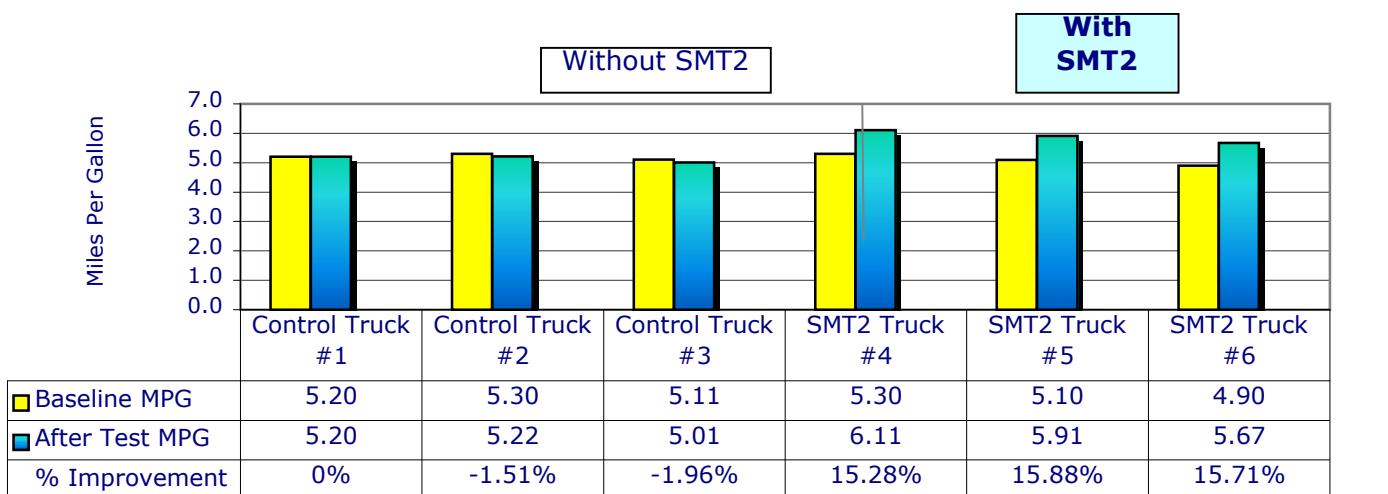


# SAE J1321 Fuel Consumption Test Results

Joint TMC/SAE test developed specifically to meet the needs of the trucking industry

Mobile Test with 3 Control Vehicles & 3 Vehicles w/SMT2



Each Truck ran a baseline segment, using the same oils and fuels for 10 trips of the same route.

Conditions were consistent, including: speed, tire pressure, tread depth, using the air conditioning and electric fan.

Control trucks and test trucks ran the same route 10 times within concurrent times and mileage segments to make testing procedures precise.

This test was done using gallons of fuel used for a specific mileage period, not weights of fuels used in a 20 minute run session.

Testing was also done on two stationary pieces of equipment to determine value in generators and compression applications.

DATA:	Control Trucks			Test Trucks with SMT2		
	Truck 1	Truck 2	Truck 3	Truck 4	Truck 5	Truck 6
Type	Mack	Mack	Mack	Mack	Mack	Mack
Engine	E7-460	E7-460	E7-460	E7-460	E7-460	E7-460
Transmission	FRO14210B	FRO14210B	FRO14210B	FRO14210B	FRO14210B	FRO14210B
Rear Axle	Mack	Mack	Mack	Mack	Mack	Mack
Ratio	3.86	3.86	3.86	3.86	3.86	3.86
Tire Size Truck	275/80R22.5	275/80R22.5	275/80R22.5	275/80R22.5	275/80R22.5	275/80R22.5
Tire Tread Depth	22/32	23/32	22/32	22/32	23/32	22/32
Miles before Test	468212	465721	467830	472345	461333	451229
Miles after Test	486212	483721	485839	490345	479344	469263
Tire Air Pressure	MAX	MAX	MAX	MAX	MAX	MAX
Engine Oil	Delo 400	Delo 400	Delo 400	Delo 400	Delo 400	Delo 400
Gear Oil	Citgo 85w140	Citgo 85w140	Citgo 85w140	Citgo 85w140	Citgo 85w140	Citgo 85w140
Diesel Fuel	Flying J # 2	Flying J # 2	Flying J # 2			
Trailer	48" Great Dane	48" Great Dane	48" Great Dane	48" Great Dane	48" Great Dane	48" Great Dane
Trailer Tires	24.5"	24.5"	24.5"	24.5"	24.5"	24.5"
Tread Depth	21/32	21/32	19/32	18/32	21/32	22/32
Route	SLC to LV	SLC to LV	SLC to LV	SLC to LV	SLC to LV	SLC to LV
Drivers Weight	182 LBS	264 LBS	224 LBS	233 LBS	194 LBS	287 LBS
Total Weight	82,344 lbs	82,421 lbs	82,398 lbs	82,425 lbs	82,388 lbs	82,487 lbs
MPG Before Test	5.20	5.30	5.11	5.30	5.10	4.90
SMT2 Treatment	none	none	none	1 gallon	1 gallon	1 gallon
MPG After Test	5.20	5.22	5.01	6.11	5.91	5.67
Increase/Decrease % in MPG	0.0%	-1.7%	-2.0%	15.3%	15.8%	15.7%

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