

Key Points

1. Average speed without SOD1 Plus: 50.14km, with SOD1Plus: 50.51km – no real difference.

Time spent at each stopping point and waiting for traffic lights was recorded, and no big differences were apparent.



No.	Stopping Point	Distance(km)	A.Without SOD1 Plus									
			15/11/2022		17/11/2022		18/11/2022		19/11/ 2022		Av.speed	
Stop time	Stop duration	Stop time	Stop duration	Stop time	Stop duration	Stop time	Stop duration	Stop time	Stop duration			
1 Gas Station ①		20:14		20:06		19:46		19:24				
2 Tobetsumachi 7-11	18.7	20:35	0:21	20:28	0:22	20:07	0:21	19:44	0:20			
3 Urausu Lawson store	57.5	21:12	0:37	21:07	0:39	20:44	0:37	20:21	0:37			
4 Shintotsugawa Seiko Mart	71.2	21:32	0:20	21:28	0:21	21:00	0:16	20:39	0:18			
5 Asahikawa Midori 7-11	126.8	22:36	1:04	22:35	1:07	22:04	1:04	21:42	1:03			
6 Gas Station ②	131.2	22:46	0:10	22:46	0:11	22:12	0:08	21:51	0:09			
7 Takigawa ramen store	178.1	23:28	0:42	23:42	0:56	23:05	0:53	22:51	1:00			
8 Iwamizawa Bikkuri Donkey	219.0	0:22	0:54	0:28	0:46	23:52	0:47	23:37	0:46			
9 Atsubetsu Police Station	253.4	1:00	0:38	1:12	0:44	0:36	0:44	0:17	0:40			
10 Gas Station	268.3	1:28	0:28	1:40	0:28	1:03	0:27	0:44	0:27			
Time travelled			5:14	5:34		5:17	5:20					
Av. speed (km)	(Distance/Time)		51.27	48.20		50.78	50.31		50.14			

No.	Stopping Point	Distance(km)	B.With SOD1Plus added									
			21/11/ 2022		22/11/ 2022		23/11/ 2022		24/11/ 2022		Av. speed	
Stop time	Stop duration	Stop time	Stop duration	Stop time	Stop duration	Stop time	Stop duration	Stop time	Stop duration			
1 Gas Station①		19:27		19:24		18:40		19:28				
2 Tobetsumachi 7-11	18.7	19:49	0:22	19:47	0:23	19:00	0:20	19:49	0:21			
3 Urausu Lawson store	57.5	20:26	0:37	20:25	0:38	19:36	0:36	20:27	0:38			
4 Shintobetsugawa Seiko Mart	71.2	20:45	0:19	20:45	0:20	19:53	0:17	20:48	0:21			
5 Asahikawa Midori 7-11 store	126.8	21:47	1:02	21:49	1:04	20:53	1:00	21:52	1:04			
6 Gas Station ②	131.2	21:57	0:10	21:58	0:09	21:03	0:10	22:01	0:09			
7 Takigawa ramen store	178.1	22:51	0:54	22:51	0:53	21:58	0:55	22:55	0:54			
8 Iwamizawa Bikkuri Donkey	219.0	23:39	0:48	23:38	0:47	22:43	0:45	23:41	0:46			
9 Atsubetsu Police Station	253.4	0:18	0:39	0:16	0:38	23:23	0:40	0:22	0:41			
10 Gas Station	268.3	0:44	0:26	0:43	0:27	23:54	0:31	0:53	0:31			
Time travelled			5:17	5:19		5:14	5:25					
Av. speed (km)	(Distance/Time)		50.78	50.46		51.27	49.53		50.51			

※268.3Km =Google Map distance

※Although there were minor differences in conditions they were not material.

In-house test report on fuel consumption of SOD-1 Plus

SOD-1 Plus added to transmission and diff drivetrain

D1 Chemical Co
Hokkaido Branch

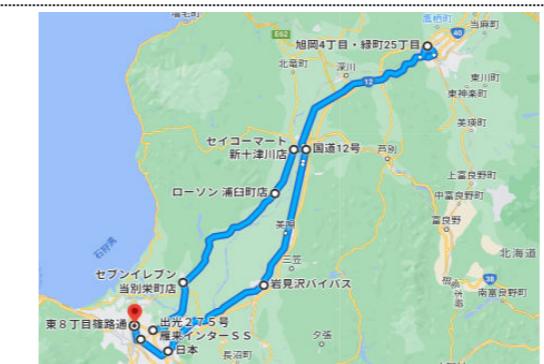
Summary of Test Results

✓ Fuel consumption saving **4.79% Confirmed**

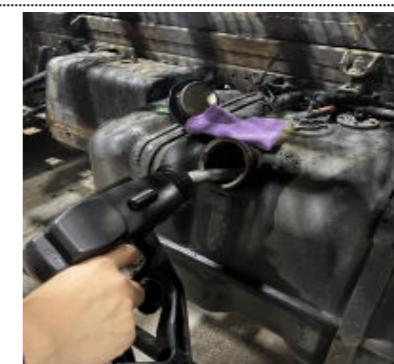
✓ Per vehicle expected annual saving **A\$2,963**

See preconditions

✓ Test Method Full tank method (Same time, route, distance)
Test vehicle: Isuzu 4t truck
Hokkaido(Sapporo-Asahikawa-Sapporo round trip 268.3km
4-day comparison with and without SOD1 Plus added



Total distance 2,146km



Full tank method can cause differences so fuel was added with great care.

Fuel consumption analysis: Adding SOD1Plus to transmission and differential

Result Fuel consump. improvement **4.79%** confirmed

※Without freight (no freight was carried during the test, so further savings may be possible with freight.

Expected annual saving per truck **A\$2,963**

Calculation factors: 10t truck
Annual fuel cost ¥5.6mil (A\$61,837)
(kms driven/year: 120,000km, Fuel consump w/out SOD!Plus: 3km/L, fuel co

Calculation: ann. fuel cost x improvement ratio

▼Test content

Aim	Compare fuel consumption of same journey without and then with SOD-1 Plus added to the transmission/diff.
Test method	Full tank method
Test Course	Hokkaido – Sapporo to Asahikawa to Sapporo (268.3km round trip) ※See table for stopping points (268.3km)
Background	We cooperated with a freight company to do the test. It's very unreliable to use same month/previous year comparisons because different conditions will exist. So using our own truck, we replicated a standard delivery journey both without and with SOD-1 Plus added to the transmission/diff.
Test period	W/out SOD1Plu 15/11/2022~19/11/2022 (4 days) With SOD1Plus 21/11/2022~24/11/2022 (4 days)

Test vehicle info



Model : Isuzu
Year : May 2010
Type : PKG-NPR75N
Engine : 4HK1
Transmission : N.A.
Load capacity : 4,400kg

Oil capacity
Transmission : 3.8L
Diff : 4.0L

SOD-1Plus addition ratio 10%
Transmission : 380cc
Diff : 400cc



			A. Without SOD1Plus					B. With SOD1Plus					Fuelconsumption improve.ratio 4.79%
No.	Item		15/11/ 2022	17/11/ 2022	18/11/ 2022	19/11/ 2022	A. average	21/11/ 2022	22/11/ 2022	23/11/ 2022	24/11/ 2022	B.average	
1	Trip start	a	182,098 km	182,373 km	182,649 km	182,924 km		183,256 km	183,531 km	183,864 km	184,139 km		
	Trip finish	b	182,367 km	182,642 km	182,917 km	183,192 km		183,524 km	183,799 km	184,132 km	184,407 km		
2	Trip distance ※1	c=b-a	268.3 km	268.3 km	268.3 km	268.3 km	268.3 km	268.3 km	268.3 km	268.3 km	268.3 km	268.3 km	
3	Trip duration	d	5:14 hrs	5:34 hrs	5:17 hrs	5:20 hrs	5:21 hrs	5:17 hrs	5:19 hrs	5:14 hrs	5:25 時間	5:18 hrs	
4	Fuel used	Point① e	16.07 L	15.02 L	16.57 L	16.97 L		15 L	14.27 L	15.84 L	14.25 L		
		Point② f	17.31 L	18.07 L	18.1 L	17.16 L		17.91 L	17.11 L	17.03 L	17.73 L		
		Total g=e+f	33.38 L	33.09 L	34.67 L	34.13 L	33.82 L	32.91 L	31.38 L	32.87 L	31.98 L	32.29 L	
5	Round trip fuel used	h=c/g	8.04 km/L	8.11 km/L	7.74 km/L	7.86 km/L	7.93 km/L	8.15 km/L	8.55 km/L	8.16 km/L	8.39 km/L	8.31 km/L	
	Divergence from av.	i	1.36%	2.25%	-2.41%	-0.87%		-1.89%	2.89%	-1.78%	0.96%		
6	Weather condition	Temp.	4.5 °C	5.1 °C	6.6 °C	6.0 °C	5.55 °C	9.3 °C	4.0 °C	4.8 °C	6.3 °C	6.1 °C	
		Sky	Sunny ○	Sleet ×	Rain ×	Cloudy ○		Cloudy ○	Cloudy ○	Rain ×	Rain ×		

※1 Odometer reading (268.3km = Google Calendar distance)

※2 Weather at trip start point

※Some small differences but not material

◆ W/out SOD1Plus

Best fuel consump. : 8.11km/L
Worst fuel consump. : 7.74km/L

◆ With SOD1Plus

Best fuel consump. : 8.55km/L
Worst fuel consump. : 8.15km/L
Better than best w/out SOD1Plus

Same condition-1 During trip	1.Trip distance 268.3km 2.Fuel (full tank) method, filled until small overflow 3.Fixed stopping points 4.Trip speed : fixed at 10km/h over limit; highest speed 70Km/h air conditioning (only heater) 6.Exhaust brake usually ON 7.Night-time driving, so no traffic changes	Same condition-2 Maintenance	※In both tests new oil and fluid was used in engine, transmission, and diff.
		W/out SOD With SOD	Before trip new oil in engine, transmission, diff. Before trip new oil used in engine, transmission and diff, SOD1Plus added 10% ratio Pre-trip inspection Tire pressure checked

※Above results (includ. trip conditions) are based on test vehicle data. Where that differs, beware a different result may occur.