

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 91 B5

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B5	100%	0	2502	313	0	37.7	78.6	69	76.8	01.18.45	78.45
			500	2460	271	9.22	38.5	70.5	70.3	77.2	01.16.83	76.83
			1000	2430	218	14.72	38.5	76.9	70.5	77.4	01.07.20	67.2
			1500	2400	151	17.63	37.6	82.7	71.5	75	01.03.48	63.48
			2000	2390	111	19.32	37.8	87.9	73.2	77.6	00.56.46	56.46
			2500	2377	74.5	21.89	38.2	89.2	74.5	77.2	00.56.13	56.13

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B5	100%	0	2505	316	0	36.8	67.5	66.1	78	01.18.77	78.77
			500	2454	270	9.09	37.3	69.7	68.6	78.1	01.15.34	75.34
			1000	2419	217	14.68	37.2	75.5	69.7	78.1	01.06.47	66.47
			1500	2412	149	17.66	35.6	82.5	71.3	78	01.03.98	63.98
			2000	2397	108	19.36	37.3	85.6	68.7	78	00.59.56	59.56
			2500	2379	74.4	20.89	37.1	84.5	69.9	78	01.00.32	60.32

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B5	100%	0	2500	318	0	34.9	67.7	66.8	76.3	01.17.72	77.72
			500	2457	269	9.12	36.8	74.3	69	78	01.15.71	75.71
			1000	2416	218	14.67	37.4	79.5	70.2	78	01.08.78	68.78
			1500	2413	150	17.71	37.6	83.7	70.1	78.2	01.02.79	62.79
			2000	2390	109	19.35	37.7	84.3	68.6	78	00.59.96	59.96
			2500	2373	73.8	22.12	36.7	83.5	69.7	78	00.58.05	58.05

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B5	100%	0	2505	315	0	35.6	67.5	69.2	77.5	01.19.04	79.04
			500	2453	267	9.12	36.9	74.8	68.3	77.9	01.16.33	76.33
			1000	2421	219	14.69	37.2	78.9	70.1	78	01.07.31	67.31
			1500	2409	151	17.68	37.4	84.7	69.8	78	01.02.87	62.87
			2000	2400	111	19.29	36.1	85.1	71.2	78	00.59.59	59.59
			2500	2374	75.2	21.76	37.3	84.7	70.8	78	00.59.74	59.74

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B5	100%	0	2500	316	0	37.4	68.9	69.5	77.7	01.18.77	78.77
			500	2460	267	9.15	36.9	73.8	68.5	78	01.15.40	75.4
			1000	2418	217	14.74	37.1	79.8	70.4	78	01.04.11	64.11
			1500	2414	151	17.67	37.1	84.9	71.8	78.1	01.02.90	62.9
			2000	2414	110	19.3	37.6	84.6	69.9	78	01.00.41	60.41
			2500	2370	74.9	22.07	37.5	83.7	71.5	78	00.59.62	59.62

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 82 B5

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B5	100%	0	2505	315	0	37.8	70.1	71.1	78.1	01.17.14	77.14
			500	2460	274	9.13	37.5	72.8	71.1	78.2	01.09.16	69.16
			1000	2430	213	14.1	38	77.2	71.5	78	01.09.45	69.45
			1500	2390	151	17.6	37.4	82.3	72.2	78	01.00.38	60.38
			2000	2380	105	19.55	37.3	86.1	73.3	78	00.58.95	58.95
			2500	2379	75	21.47	37.3	87.3	74.1	78	01.01.72	61.72

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B5	100%	0	2500	318	0	37.9	72.1	71.2	78	01.18.23	78.23
			500	2458	274	9.13	37.3	71.8	70.9	77.9	01.11.98	71.98
			1000	2440	211	14.08	37.2	81.8	70.8	78	01.09.67	69.67
			1500	2404	149	17.65	37	84.3	71.3	78	01.02.82	62.82
			2000	2384	103	19.42	37.1	82	71.5	78	00.59.77	59.77
			2500	2376	73.4	21.96	37.8	83.1	70.4	78.1	00.58.12	58.12

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B5	100%	0	2504	318	0	37.6	83.2	70.1	78	01.17.77	77.77
			500	2460	273	9.14	37.5	82.2	70.3	78	01.09.45	69.45
			1000	2433	211	14.08	37.5	80.5	71.2	78	01.12.18	72.18
			1500	2402	150	17.66	37.2	81.9	70.9	78.2	01.07.75	67.75
			2000	2389	103	19.45	37.1	84.3	69.8	78.1	01.00.57	60.57
			2500	2375	73.9	22.01	37.6	85.1	71.1	78.1	00.56.94	56.94

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B5	100%	0	2503	317	0	37.4	80.1	68.9	78.1	01.18.14	78.14
			500	2459	272	9.13	37.2	82.9	69.5	78	01.08.78	68.78
			1000	2432	212	14.1	37.1	81.7	69.8	78	01.09.33	69.33
			1500	2400	151	17.86	37.1	83.3	70.2	78	01.04.69	64.69
			2000	2394	104	19.5	37.1	84.6	70.2	78	00.59.53	59.53
			2500	2374	74.4	21.73	37.4	84.5	71.4	78	00.56.04	56.04

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B5	100%	0	2505	318	0	37.9	81.7	70.1	78	01.17.26	77.26
			500	2457	273	9.12	37.4	80.9	70.3	78	01.09.73	69.73
			1000	2432	211	14.1	37.4	82.4	71.8	78	01.09.66	69.66
			1500	2395	149	17.6	37.7	83.6	71.8	78.1	01.05.72	65.72
			2000	2397	104	19.48	37.5	83.6	72.2	78	01.00.80	60.8
			2500	2375	74.2	21.65	37.1	85.1	71.9	78	00.57.27	57.27

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 73 B5

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B5	100%	0	2505	318	0	37.5	76.7	69.1	77.8	01.18.90	78.9
			500	2473	272	9.17	37.8	72.2	69.8	77.9	01.10.29	70.29
			1000	2430	217	14.67	38.5	77.1	69.3	77.9	01.04.17	64.17
			1500	2420	154	17.8	36.9	82.3	70.2	77.8	01.02.90	62.9
			2000	2400	107	19.77	37.9	86	71.1	77.8	00.58.32	58.32
			2500	2380	76.5	22.08	37.8	86.1	71.3	77.7	00.55.84	55.84

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B5	100%	0	2508	314	0	37.4	80.1	69.1	77.4	01.15.44	75.44
			500	2461	270	9.12	37.3	81.7	69.5	77.7	01.10.78	70.78
			1000	2441	218	14.66	37.7	82.2	70.2	78	01.02.76	62.76
			1500	2414	152	17.8	37.5	85.4	70.1	78	01.01.11	61.11
			2000	2396	107	19.76	37.8	82.3	71.4	78.2	00.57.94	57.94
			2500	2377	74.5	21.24	37.2	81.8	70.7	78.1	00.58.11	58.11

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B5	100%	0	2514	316	0	37.7	80.7	70.4	78	01.15.87	75.87
			500	2463	271	9.12	37.8	81.6	71.1	78	01.09.54	69.54
			1000	2434	218	14.66	37.3	82.2	71.1	78	01.02.83	62.83
			1500	2406	152	17.79	37.3	85.4	70.8	78	01.01.87	61.87
			2000	2389	106	19.66	37.4	84.8	70.7	78	00.56.77	56.77
			2500	2379	74.8	21.83	37.3	85.3	71	78.1	00.57.83	57.83

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B5	100%	0	2505	318	0	37.5	79.9	70.2	78.1	01.17.13	77.13
			500	2466	271	9.14	37.6	80.4	71.3	78.1	01.09.21	69.21
			1000	2432	217	14.65	37.9	79.8	69.9	78.1	01.02.76	62.76
			1500	2416	153	17.88	38	81.4	68.9	78	01.02.59	62.59
			2000	2395	106	19.7	37.5	83.6	71.1	78	00.57.65	57.65
			2500	2377	74.1	21.87	37.2	83.5	70.7	78	00.58.24	58.24

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B5	100%	0	2504	317	0	37.6	83.5	69.8	78.2	01.16.76	76.76
			500	2465	270	9.12	37.1	84.1	71.2	78	01.10.52	70.52
			1000	2433	218	14.66	38	85.2	71.5	78	01.03.24	63.24
			1500	2410	152	17.78	37.4	84.6	70.7	78	01.01.45	61.45
			2000	2394	106	19.71	37.5	85.4	70.4	78	00.57.87	57.87
			2500	2380	74.7	22.3	37.3	85.3	70.3	78.1	00.58.32	58.32

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 64 B5

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B5	100%	0	2503	317	0	36.9	73.4	68.9	76.5	01.15.90	75.9
			500	2470	275	9.23	38.8	71.3	69.5	76.5	01.08.10	68.1
			1000	2436	221	14.63	38.9	76.5	71.2	76.8	01.01.55	61.55
			1500	2420	152	17.6	37.8	83.2	73.3	76.9	01.01.94	61.94
			2000	2380	108	19.65	38.4	85.3	71.4	77.2	00.54.25	54.25
			2500	2385	75.5	22.34	36.9	86.2	70.5	76.8	00.54.17	54.17

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B5	100%	0	2503	316	0	36.8	81.8	72.5	78	01.17.86	77.86
			500	2473	275	9.21	37.1	80.6	71.4	78	01.09.27	69.27
			1000	2436	220	14.66	37.3	82.1	70.7	78	01.01.32	61.32
			1500	2422	149	17.61	37.2	83.5	71.1	78.2	01.01.79	61.79
			2000	2396	107	19.57	37.3	84.7	70.8	78.1	00.55.23	55.23
			2500	2377	74.6	22.31	37.1	83.2	71.4	78	00.54.86	54.86

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B5	100%	0	2500	317	0	37.1	82	70.4	78.2	01.15.45	75.45
			500	2469	275	9.22	37.3	83.1	71.7	78	01.07.05	67.05
			1000	2440	218	14.67	37.2	83.2	70.9	78.1	01.01.88	61.88
			1500	2420	149	17.6	37.2	84.6	72.3	78	01.02.51	62.51
			2000	2393	106	19.5	37.4	84.3	71.1	78	00.52.24	52.24
			2500	2386	74.3	21.69	37.1	85.4	71.2	78	00.53.58	53.58

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B5	100%	0	2506	316	0	37.1	80.9	71.1	78	01.16.12	76.12
			500	2468	275	9.22	37.1	80.5	71.2	78.1	01.07.65	67.65
			1000	2438	218	14.68	37.4	81.5	70.3	78.2	01.01.44	61.44
			1500	2421	149	17.6	36.9	82.8	70.7	78.1	01.02.21	62.21
			2000	2394	106	19.56	37.5	81.7	70.9	78	00.53.34	53.34
			2500	2380	74.4	21.63	37.1	83.6	71.2	78	00.54.61	54.61

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B5	100%	0	2505	317	0	37	81.7	72.1	78.1	01.17.48	77.48
			500	2468	275	9.23	36.8	82.6	71.5	78	01.08.09	68.09
			1000	2446	222	14.64	37.3	83.9	71.5	78	01.00.67	60.67
			1500	2418	149	17.59	37.2	84.7	70.7	78	01.00.46	60.46
			2000	2399	107	19.55	37.3	85.4	70.6	78	00.52.82	52.82
			2500	2383	75.3	21.74	36.8	85.3	71.5	78	00.54.73	54.73

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 55 B5

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B5	100%	0	2505	314	0	37.8	73.2	70.8	77	01.16.63	76.63
			500	2470	278	9.22	39.5	71	71.5	77	01.08.23	68.23
			1000	2440	224	14.47	39.7	76.9	75.5	77.1	01.03.33	63.33
			1500	2420	152	17.75	39.4	84.1	75.1	77.3	00.59.35	59.35
			2000	2390	107	19.7	37.1	87.7	74.1	77.7	00.48.23	48.23
			2500	2373	75.1	21.89	38.3	87.6	73.2	77.7	00.50.92	50.92

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B5	100%	0	2505	314	0	37.2	81.8	70.1	78	01.17.54	77.54
			500	2471	277	9.21	37.1	83.5	71.2	78.1	01.07.13	67.13
			1000	2442	224	14.45	37	83.5	70.9	78.2	01.04.39	64.39
			1500	2420	154	17.68	37.2	84.7	69.9	78	01.01.64	61.64
			2000	2405	109	19.5	37.1	84.4	68.9	78	00.52.23	52.23
			2500	2388	75.5	22.55	37.3	85.3	71.5	78	00.56.45	56.45

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B5	100%	0	2508	315	0	37.1	82.9	69.8	78	01.16.12	76.12
			500	2475	276	9.19	37.1	83.1	69.7	78	01.09.49	69.49
			1000	2442	223	14.45	37	84.7	70.1	78	01.07.66	67.66
			1500	2424	153	17.68	36.8	84.7	71.6	78.1	01.05.17	65.17
			2000	2398	105	19.58	37	85	72.3	78.2	00.55.38	55.38
			2500	2382	75.6	21.72	37.2	85.1	71.7	78	00.54.69	54.69

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B5	100%	0	2499	316	0	37.1	80.1	70.1	78	01.15.27	75.27
			500	2472	277	9.22	37.1	80.7	71.2	78	01.10.34	70.34
			1000	2441	224	14.45	37.2	81.2	69.8	78.2	00.07.14	57.14
			1500	2429	152	17.78	36.6	81.6	70.4	78.2	00.55.77	55.77
			2000	2396	110	19.57	36.7	80.9	70.8	78	00.54.55	54.55
			2500	2384	76.1	22.13	37.8	81	71.2	78.1	00.53.79	53.79

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B5	100%	0	2507	318	0	37.1	80.9	70.3	78	01.14.96	74.96
			500	2475	276	9.21	37.6	81.5	69.9	78	01.07.15	67.15
			1000	2445	225	14.45	37.6	82.1	70.4	78	00.58.72	58.72
			1500	2430	154	17.74	36.9	82.1	70.9	78	00.56.48	56.48
			2000	2395	110	19.56	37.2	83.6	72.1	78.1	00.53.16	53.16
			2500	2386	75.6	22.32	37.1	84.7	71.2	78.1	00.51.96	51.96

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 91 B10

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B10	100%	0	2502	313	0	36.3	68	72.1	77	01.22.90	82.9
			500	2455	273	9.17	34.9	74.8	71.9	77.4	01.17.70	77.7
			1000	2410	208	14.06	35.2	78.7	71.1	78	01.14.67	74.67
			1500	2380	142	17.18	36	80.4	70.4	78.4	01.13.22	73.22
			2000	2376	107	19.08	36.4	83.6	70.9	78.2	01.06.44	66.44
			2500	2370	74	20.57	37.2	85.3	71.1	79	01.03.08	63.08

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B10	100%	0	2503	310	0	37.3	80	71.8	78.1	01.19.79	79.79
			500	2455	275	9.16	39.6	83.9	70.8	79.9	01.17.11	77.11
			1000	2415	211	14.08	39.1	79.7	70.7	78.2	01.15.43	75.43
			1500	2391	142	17.15	37.7	83.7	71.9	78.3	01.12.19	72.19
			2000	2381	106	19.02	37.7	84.9	72.1	78	01.03.65	63.65
			2500	2376	74.4	20.28	36.7	83.5	71.4	78.2	01.01.98	61.98

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B10	100%	0	2501	310	0	37.1	80.9	71.1	78.2	01.21.14	81.14
			500	2448	273	9.17	37.1	81.2	70.7	78	01.16.77	76.77
			1000	2418	213	14.08	36.5	83.7	71.7	78	01.14.26	74.26
			1500	2385	142	17.14	36.7	83.7	70.1	78	01.12.87	72.87
			2000	2379	105	19.04	36	84.4	71.5	78.1	01.05.62	65.62
			2500	2370	75.1	20.19	37.7	85	72.1	78	01.03.17	63.17

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B10	100%	0	2502	312	0	37.1	80.1	72.2	78	01.22.16	82.16
			500	2458	272	9.18	36.8	81.4	70.9	78	01.17.82	77.82
			1000	2420	213	14.06	36.8	82.9	71.3	78	01.15.69	75.69
			1500	2389	138	17.18	37.6	81.7	70.8	78	01.13.24	73.24
			2000	2375	108	19.01	37.2	82.5	71.7	78.1	01.04.71	64.71
			2500	2370	75.5	20.41	37.3	84.1	70	78.1	01.03.16	63.16

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 90 : 10	B10	100%	0	2500	314	0	36.9	80.6	70.8	78.2	01.21.66	81.66
			500	2456	273	9.17	36.7	80.3	72	78.1	01.16/07	76.07
			1000	2423	214	14.09	37.4	81.7	71.4	78.1	01.15.73	75.73
			1500	2386	139	17.25	37.3	82	70.3	78.1	01.12.76	72.76
			2000	2379	106	19.08	37.1	82.2	73.2	78	01.06.11	66.11
			2500	2367	75.2	20.34	37.2	84.3	71.1	78	01.04.89	64.89

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 82 B10

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B10	100%	0	2510	313	0	36.1	67.5	68.2	78.7	01.19.83	79.83
			500	2456	273	9.16	36	71.1	69.2	78.2	01.16.26	76.26
			1000	2424	217	14.19	36.2	77.8	71.1	78.3	01.12.60	72.6
			1500	2400	144	17.2	37.1	85	68.7	78.6	01.08.08	68.08
			2000	2375	109	19.3	37.3	87.9	70.1	78.6	01.00.59	60.59
			2500	2372	76	21.14	36.5	88.8	70.9	78.8	01.01.56	61.56

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B10	100%	0	2500	311	0	37.1	80.3	70.6	78.1	01.21.43	81.43
			500	2459	274	9.15	37.2	79.8	71.6	78.2	01.14.98	74.98
			1000	2418	218	14.22	37.2	80.1	70.1	78.3	01.13.12	73.12
			1500	2395	144	17.22	36.8	83.3	71.9	78.1	01.07.76	67.76
			2000	2384	108	19.26	37	84.3	71.8	78	01.01.66	61.66
			2500	2377	74.8	21.14	37.1	81.5	70.1	78	01.02.80	62.8

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B10	100%	0	2499	311	0	37	82.8	72.2	78	01.20.48	80.48
			500	2458	274	9.16	36.9	83.7	71.3	78	01.15.05	75.05
			1000	2422	217	14.16	37	84.6	71.1	78	01.13.31	73.31
			1500	2392	144	17.21	37.1	85.1	70.1	78	01.07.57	67.57
			2000	2379	107	19.23	37.1	83.9	72.7	78.1	01.01.32	61.32
			2500	2374	74.7	21.14	37.2	84.4	73.2	78	01.00.46	60.46

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B10	100%	0	2500	312	0	37.4	82.5	72	78	01.18.19	78.19
			500	2457	275	9.17	37.1	83.8	71.7	78.1	01.14.87	74.87
			1000	2423	218	14.18	37.4	84.3	70.9	78.1	01.11.21	71.21
			1500	2401	143	17.23	37.1	84.8	70.5	78.1	01.06.74	66.74
			2000	2374	108	19.25	36.9	82.6	71.3	78.1	01.00.33	60.33
			2500	2372	74.1	21.13	37	83.2	72.1	78	01.01.47	61.47

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 80 : 20	B10	100%	0	2499	311	0	37.1	81.7	70.9	78	01.19.89	79.89
			500	2456	276	9.15	37.2	82.5	71.5	78	01.15.78	75.78
			1000	2424	216	14.15	37.2	83.6	72.6	78	01.12.34	72.34
			1500	2396	145	17.27	37.1	83.8	72.6	78	01.07.18	67.18
			2000	2382	107	19.27	37.1	83.9	73.4	78	01.01.45	61.45
			2500	2379	74.1	21.14	36.8	84.3	73.4	78	01.02.51	62.51

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 73 B10

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B10	100%	0	2500	315	0	36.7	67.2	66.3	77.8	01.19.74	79.74
			500	2470	275	9.13	39.1	70.5	71.5	77.8	01.12.46	72.46
			1000	2437	217	14.25	38.5	78.9	73.5	78.3	01.08.79	68.79
			1500	2411	146	17.75	37.1	84.5	70.1	78.6	01.05.17	65.17
			2000	2380	107	19.7	35.5	88.3	72.6	78.7	00.58.48	58.48
			2500	2375	75	21.14	35.9	88.9	70.6	78.8	01.00.05	60.05

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B10	100%	0	2506	314	0	37.2	83.1	70.8	78	01.18.77	78.77
			500	2464	273	9.14	36.5	83.8	71.5	78	01.10.20	70.2
			1000	2423	218	14.22	37.1	84.6	71.7	78	01.04.41	64.41
			1500	2409	144	17.79	37	82.7	71.7	78.1	01.01.89	61.89
			2000	2383	108	19.9	36.9	83.3	71.8	78	00.58.03	58.03
			2500	2379	74.7	21.13	37.3	83.4	72.1	78	00.59.75	59.75

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B10	100%	0	2508	315	0	37	80.1	71.4	78	01.17.63	77.63
			500	2462	275	9.13	37.1	82.7	71.3	78	01.10.06	70.06
			1000	2424	219	14.22	37.1	83.6	71.2	78	01.06.79	66.79
			1500	2409	144	17.8	37.2	82	71.5	78	01.05.43	65.43
			2000	2379	109	19.92	36.9	85.5	72.1	78	00.58.92	58.92
			2500	2376	75.2	21.17	36.9	83.6	72.2	78	00.58.87	58.87

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B10	100%	0	2506	314	0	37.2	82.5	70.6	78.1	01.19.55	79.55
			500	2468	276	9.12	37.1	83.1	70.3	78.1	01.11.04	71.04
			1000	2421	217	14.27	37.2	83.8	70.7	78.1	01.05.95	65.95
			1500	2406	147	17.84	37.2	83.3	71.12	78.1	01.03.63	63.63
			2000	2385	108	19.87	37	84.7	71.43	78	00.58.86	58.86
			2500	2377	75.1	21.17	37	85.4	71.55	78	01.00.52	60.52

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 70 : 30	B10	100%	0	2511	315	0	36.9	81.1	71.76	78	01.18.54	78.54
			500	2463	275	9.1	36.8	82.9	71.42	78	01.09.75	69.75
			1000	2424	219	14.22	37.2	80.7	71.44	78	01.03.36	63.36
			1500	2407	146	17.8	37.3	83.5	71.67	78	01.03.71	63.71
			2000	2387	107	19.86	37.1	83.6	72.12	78.1	00.58.23	58.23
			2500	2377	75.5	21.14	37.1	85.4	71.89	78	01.00.60	60.6

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 64 B10

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B10	100%	0	2505	314	0	34.6	68.1	68.1	78.1	01.16.81	76.81
			500	2460	275	9.3	34.7	69.6	69.6	78	01.07.83	67.83
			1000	2430	220	14.4	35.6	76.8	71	78.2	01.04.75	64.75
			1500	2415	148	17.25	35.9	83.8	69.2	78.3	01.02.47	62.47
			2000	2390	107	19.5	36.9	87.5	68.3	78.6	00.55.82	55.82
			2500	2375	73.5	20.78	36.5	87.9	69.7	78.4	00.59.65	59.65

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B10	100%	0	2506	314	0	37.1	80.3	70.6	78.1	01.16.66	76.66
			500	2469	276	9.33	37.2	79.8	70.6	78.2	01.09.31	69.31
			1000	2427	215	14.36	37.2	80.1	71.1	78.3	01.05.45	65.45
			1500	2418	148	17.25	36.8	83.3	70.9	78.1	01.04.93	64.93
			2000	2384	109	19.46	37	84.3	70.8	78	00.52.34	52.34
			2500	2377	73.5	21.3	37.1	81.5	71.1	78	00.57.78	57.78

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B10	100%	0	2506	314	0	37	80.1	71.4	78	01.17.12	77.12
			500	2472	275	9.32	37.1	82.7	71.3	78	01.08.59	68.59
			1000	2428	216	14.38	37.1	83.6	71.2	78	01.04.73	64.73
			1500	2410	147	17.29	37.2	82	71.5	78	01.03.11	63.11
			2000	2382	109	19.59	36.9	85.5	72.1	78	00.53.76	53.76
			2500	2372	74.5	21.35	36.9	83.6	72.2	78	00.58.54	58.54

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B10	100%	0	2509	315	0	37.1	80.9	70.1	78.2	01.15.69	75.69
			500	2468	274	9.29	37.1	81.2	70.7	78	01.08.71	68.71
			1000	2429	217	14.39	36.5	83.7	70.7	78	01.05.34	65.34
			1500	2415	148	17.27	36.7	83.7	71.1	78	01.03.88	63.88
			2000	2394	108	19.53	36	84.4	71.5	78.1	00.52.52	52.52
			2500	2377	73.6	21.31	37.7	85	72.1	78	00.58.53	58.53

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 60 : 40	B10	100%	0	2504	314	0	36.9	81.1	71.76	78	01.15.62	75.62
			500	2471	275	9.3	36.8	82.9	71.42	78	01.08.49	68.49
			1000	2428	217	14.38	37.2	80.7	71.44	78	01.04.47	64.47
			1500	2416	146	17.29	37.3	83.5	71.67	78	01.04.23	64.23
			2000	2396	108	19.53	37.1	83.6	72.12	78.1	00.52.56	52.56
			2500	2380	73.5	21.29	37.1	85.4	71.89	78	00.58.33	58.33

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar BJBS 55 B10

1. Pengujian ke-1

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B10	100%	0	2505	314	0	34.8	68.6	66.7	77.8	01.16.25	76.25
			500	2470	277	9.43	33.1	68.9	67.9	77.5	01.06.72	66.72
			1000	2423	224	14.58	33.3	76.2	70.4	77.2	00.59.28	59.28
			1500	2411	148	17.55	34.8	83.8	68.7	77.5	00.58.12	58.12
			2000	2390	115	19.36	35.8	87.4	70.5	77.5	00.51.83	51.83
			2500	2378	77.2	21.69	35.1	88.7	68.9	77.8	00.53.46	53.46

2. Pengujian ke-2

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B10	100%	0	2499	316	0	37.3	80	69.8	78.1	01.15.63	75.63
			500	2466	276	9.43	39.6	83.9	69.8	79.9	01.07.44	67.44
			1000	2430	221	14.58	39.1	79.7	70.7	78.2	00.58.11	58.11
			1500	2421	149	17.52	37.7	83.7	70.9	78.3	00.57.65	57.65
			2000	2387	114	19.45	37.7	84.9	72.1	78	00.51.12	51.12
			2500	2380	77.2	21.36	36.7	83.5	72.4	78.2	00.53.56	53.56

3. Pengujian ke-3

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B10	100%	0	2504	317	0	36.9	80.6	72.8	78.2	01.16.78	76.78
			500	2476	278	9.44	36.7	80.3	72	78.1	01.04.43	64.43
			1000	2433	222	14.57	37.4	81.7	72.4	78.1	00.57.34	57.34
			1500	2422	148	17.48	37.3	82	71.3	78.1	00.56.29	56.29
			2000	2392	114	19.43	37.1	82.2	71.2	78	00.51.54	51.54
			2500	2379	77.4	20.87	37.2	84.3	71.1	78	00.53.87	53.87

4. Pengujian ke-4

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B10	100%	0	2507	317	0	37.2	82.5	71.6	78.1	01.16.85	76.85
			500	2467	275	9.42	37.1	83.1	71.3	78.1	01.03.32	63.32
			1000	2431	221	14.57	37.2	83.8	71.7	78.1	00.57.77	57.77
			1500	2416	149	17.53	37.2	83.3	72.12	78.1	00.55.68	55.68
			2000	2396	114	19.45	37	84.7	72.43	78	00.51.44	51.44
			2500	2381	77.5	21.46	37	85.4	71.55	78	00.53.57	53.57

5. Pengujian ke-5

Bahan Bakar	Variasi Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Biodiesel Jarak - Biodiesel Sawit 50 : 50	B10	100%	0	2507	317	0	37.1	80.1	72.2	78	01.16.37	76.37
			500	2472	277	9.46	36.8	81.4	70.9	78	01.07.62	67.62
			1000	2430	222	14.58	36.8	82.9	70.3	78	00.59.06	59.06
			1500	2422	151	17.65	37.6	81.7	70.8	78	00.56.63	56.63
			2000	2405	114	19.42	37.2	82.5	70.7	78.1	00.51.26	51.26
			2500	2379	77.7	21.54	37.3	84.1	72	78.1	00.54.77	54.77

Tabel. Data Hasil Pengujian Unjuk Kerja Mesin Diesel Bahan Bakar Solar

1. Pengujian ke-1

Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Solar 100%	100%	0	2510	331	0	34.1	66.2	72.2	77.8	01.14.46	74.46
		500	2477	283	9.35	34.4	73.8	75.9	78.4	01.08.30	68.3
		1000	2445	223	14.47	35.3	79.9	79.3	78.3	00.57.39	57.39
		1500	2396	162	18.41	36.5	84.1	77.3	78	00.52.07	52.07
		2000	2390	111	19.96	35.4	79.2	77.9	78.1	00.50.39	50.39
		2500	2376	77.5	21.88	37	81.7	76.8	78	00.46.07	46.07

2. Pengujian ke-2

Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Solar 100%	100%	0	2505	320	0	36.5	64.2	72.5	78.1	01.15.15	75.15
		500	2476	272	9.15	36.2	71.5	75.7	78.7	01.00.38	60.38
		1000	2458	221	14.44	36.6	77.3	71.4	78.4	00.54.98	54.98
		1500	2429	152	17.78	34.5	79.9	71.5	78.2	00.53.12	53.12
		2000	2396	106	19.66	34.7	82	78.3	77.9	00.50.18	50.18
		2500	2384	74.5	22.58	34.5	85.2	82.4	77.9	00.47.48	47.48

3. Pengujian ke-3

Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Solar 100%	100%	0	2504	325		39.1	68.9	75.5	78.5	01.18.38	78.38
		500	2478	280	9.43	36.6	71.8	71.4	77.7	00.58.91	58.91
		1000	2444	227	14.56	37.1	78.5	74.5	78.2	00.50.73	50.73
		1500	2428	158	18.45	37	84.2	80.7	78.1	00.48.77	48.77
		2000	2396	112	19.77	37.5	87.4	79.7	78.3	00.48.85	48.85
		2500	2377	76	22.79	38	87	79.6	78.2	00.48.19	48.19

4. Pengujian ke-4

Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Solar 100%	100%	0	2501	321	0	36.4	70.4	73.3	78.1	01.11.23	71.23
		500	2469	285	9.4	36.6	75.1	71.4	77.9	00.57.88	57.88
		1000	2454	220	14.38	35.8	80.9	69.7	78.7	00.49.67	49.67
		1500	2431	163	17.7	37.9	85.1	71.6	78.4	00.48.10	48.1
		2000	2397	108	18.98	40.1	86.8	74.2	78.5	00.46.58	46.58
		2500	2382	78	21.87	41.4	88.2	71.1	78.5	00.45.39	45.39

5. Pengujian ke-5

Bahan Bakar	Bukaan Throttle	Beban (watt)	RPM	V	I	Tin	Tex	Cooler	Oli	t (menit) / 10 ml	t (detik) / 10 ml
Solar 100%	100%	0	2506	328	0	35.1	74.8	68.8	78.1	01.13.59	73.59
		500	2487	295	9.54	36.5	73.1	69.6	77.7	00.58.38	58.38
		1000	2445	231	14.58	36.4	78.5	70.1	78.3	00.50.78	50.78
		1500	2418	160	18.76	39	80.6	70.2	78.5	00.48.61	48.61
		2000	2395	113	19.87	38.7	80.2	69.7	78.5	00.46.18	46.18
		2500	2385	81	22.13	39.3	84.5	71.4	78.5	00.46.20	46.2