VOLVO CONSTRUCTION EQUIPMENT

MATRIS REPORT

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341484	4319.4	13/12/2019

Company name	Dealer	Report Issuer
Scott Equipment Company, LLC		
Contact name	**Technician**	**Primary Application**
	shigginbotham	Earth moving construction
Site	**Workorder**	**Ground Condition**

MATRIS Reading, Summary / Recommendation

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Main equipment	Type	Equipment
	Tyre size/class	Sold without tyres
	Body extensions	Not mounted
	Tail-gate	Overhung (linkage)
	Extra spillguard	Not mounted
	Wear plates	Not mounted
	Pattern	None

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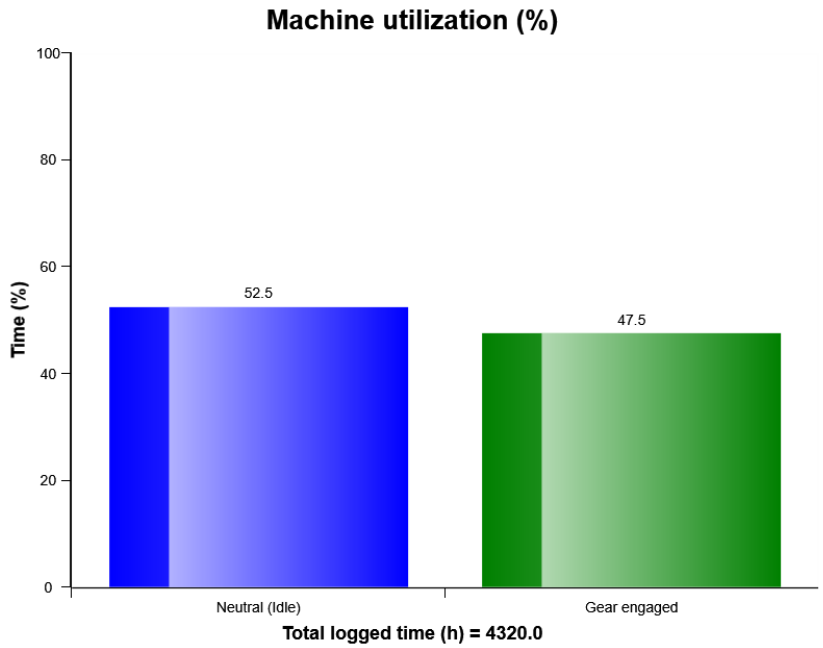

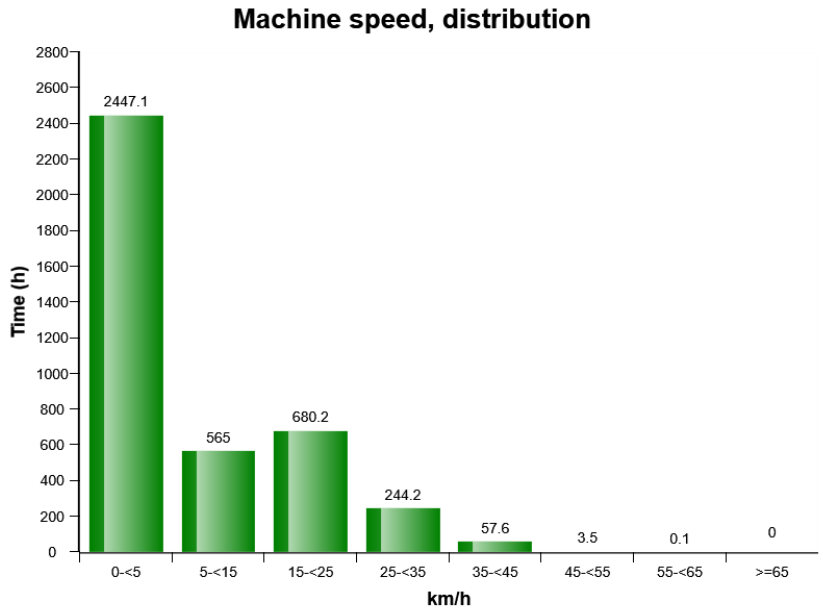

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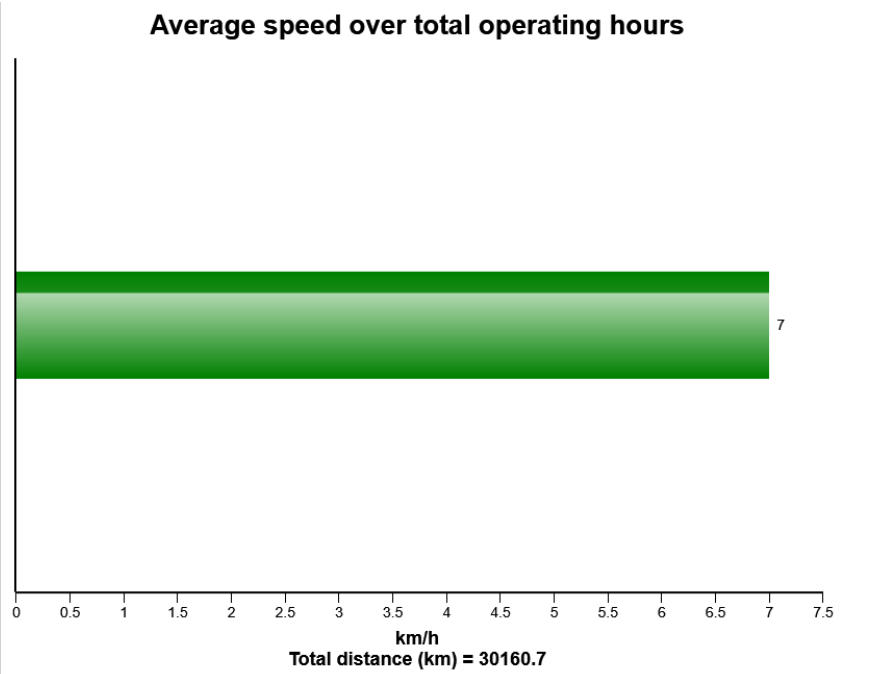

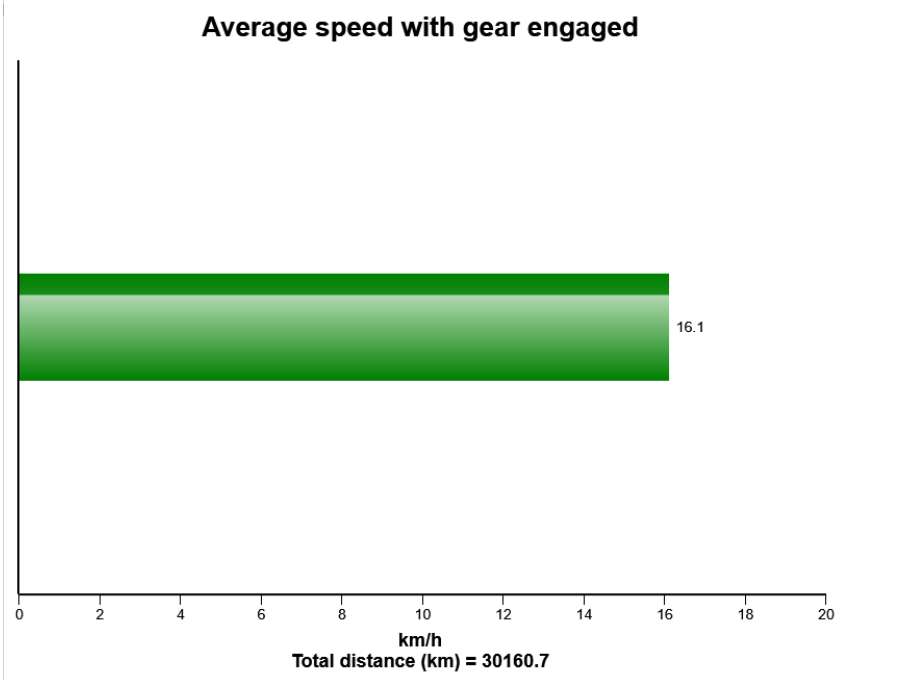

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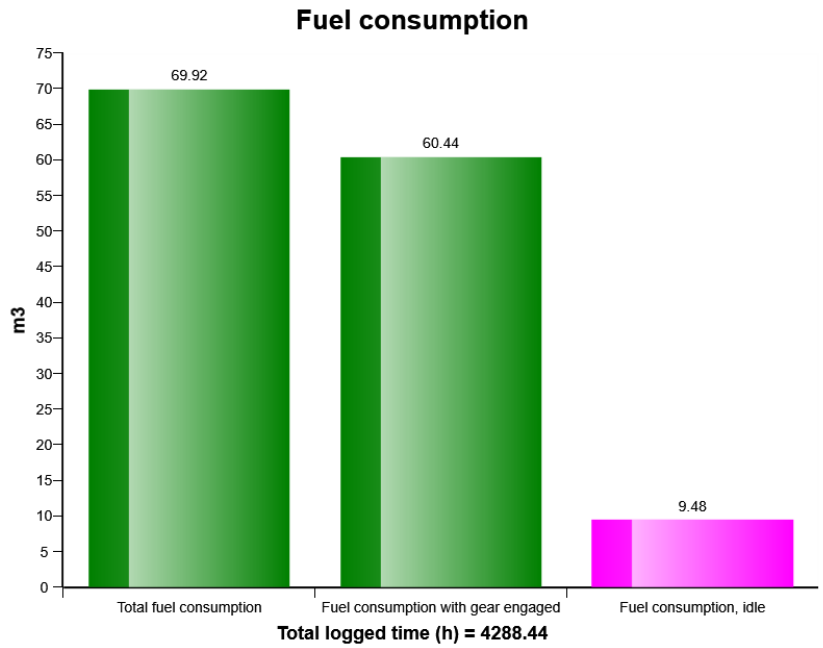

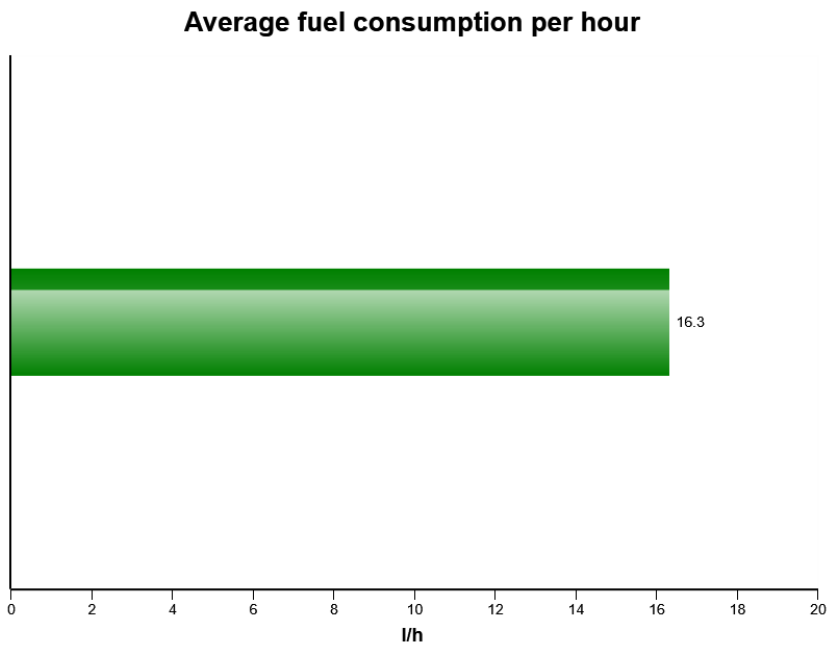

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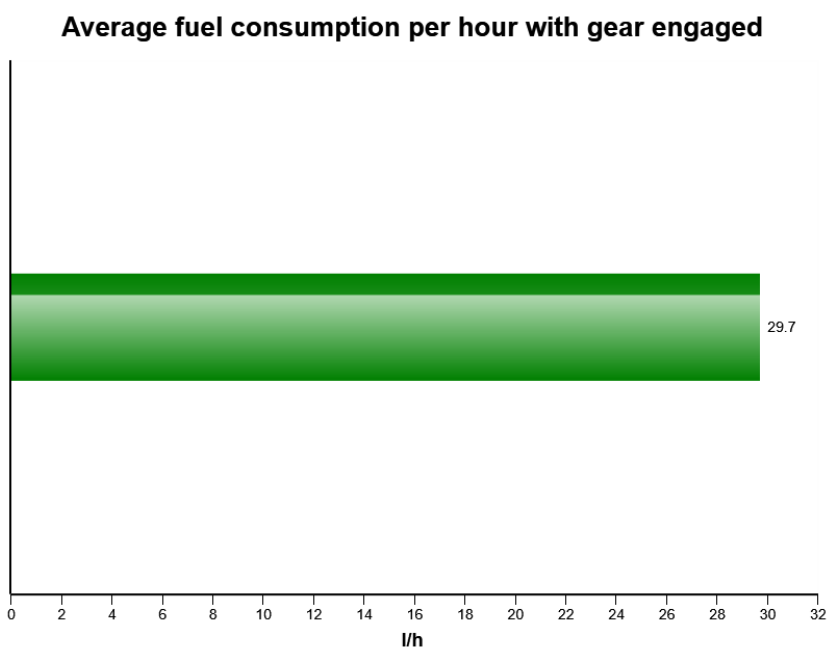

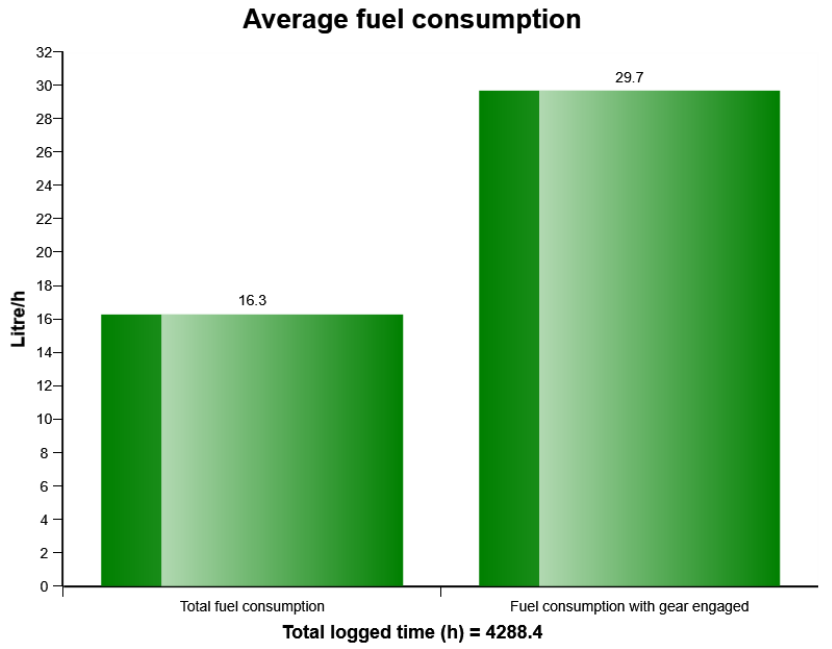

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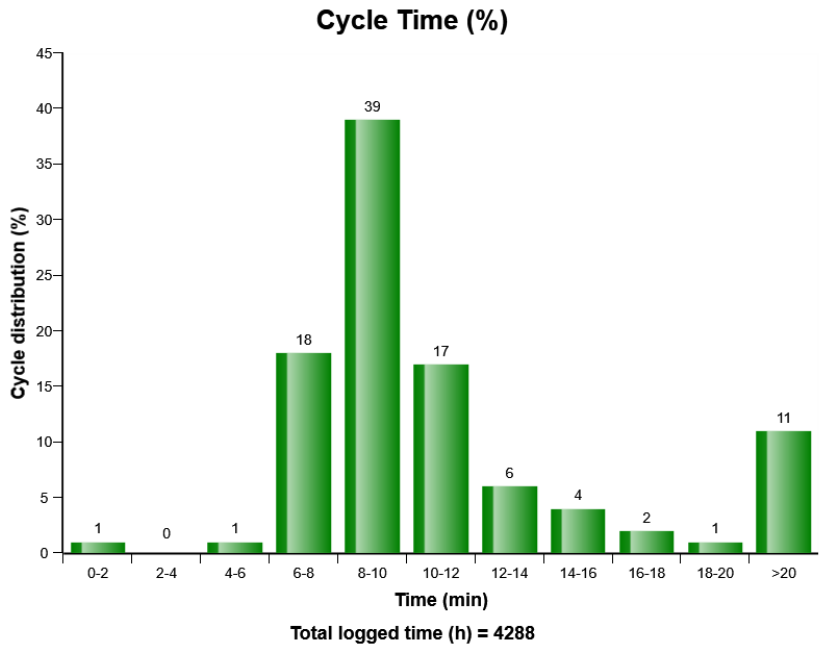

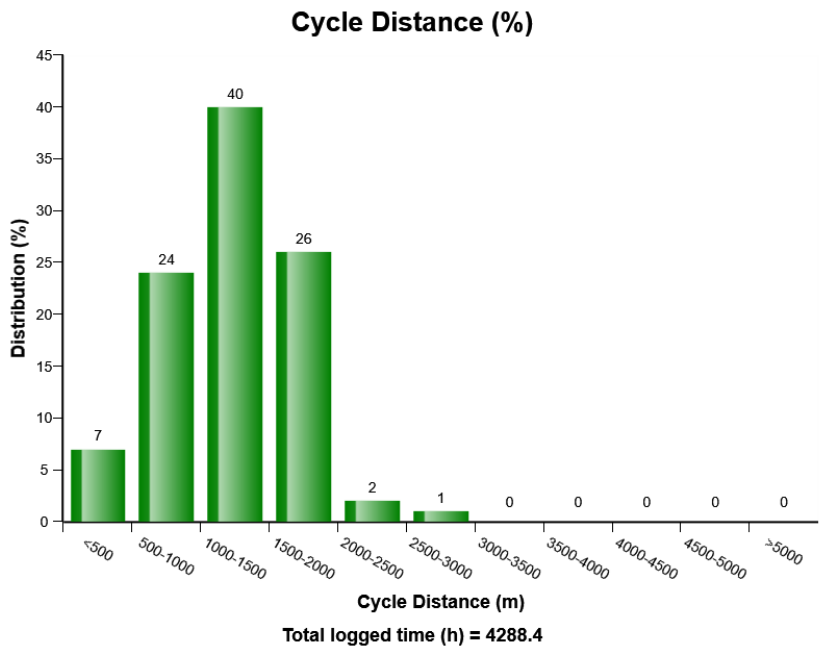

Machine model	SerialNo	Operating Hours	Reading Date
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Accumulated performance
Total logged time (h) =

Total logged time (h) =	2814.8
Total fuel consumption	45693.9
Production (tonne)	410048.1
Tonne/h	145.7
Tonne/litre	9.0
Litre/tonne	0.1
Number of cycles	12984
Cycles overloaded (%)	0.0
Load utilisation / cycle (%)	81.0

Machine model	SerialNo	Operating Hours	Reading Date
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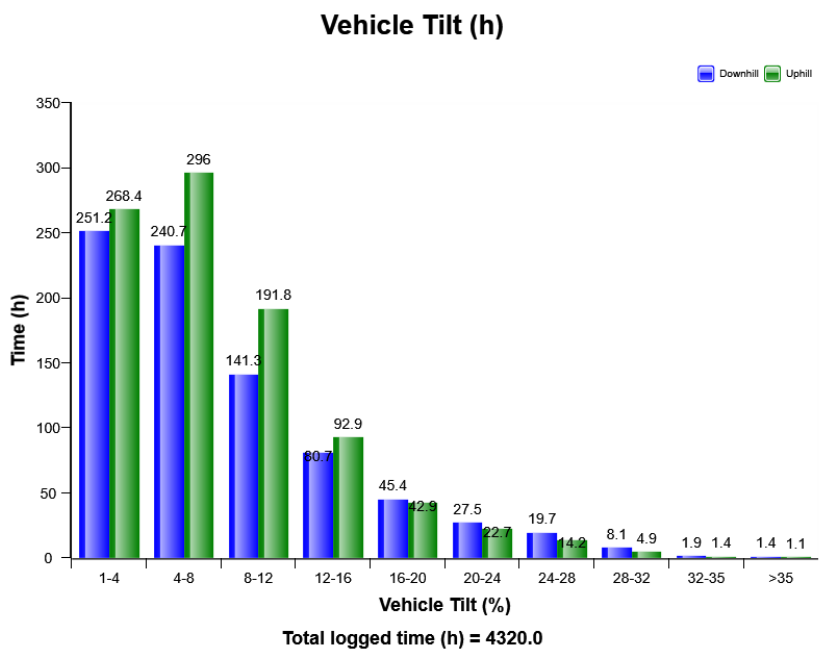
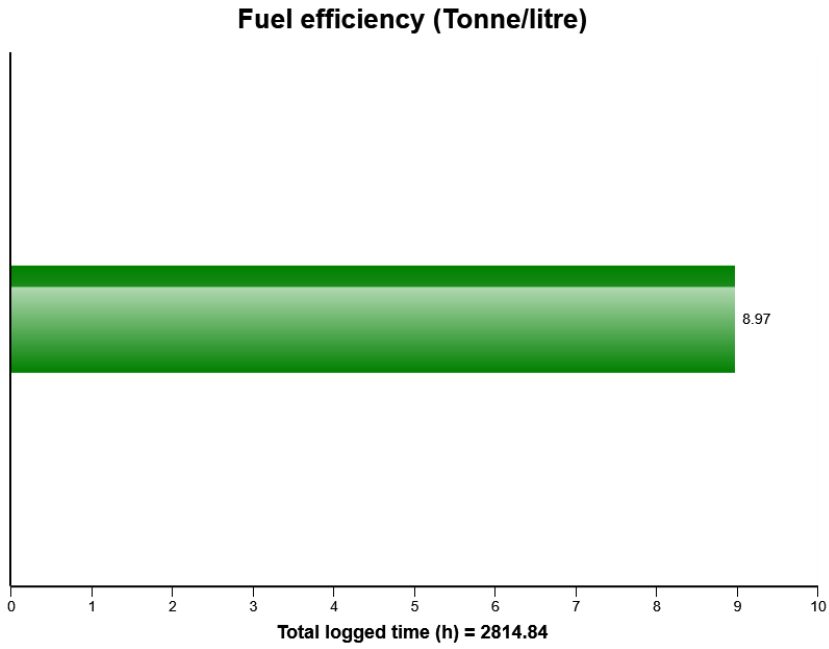
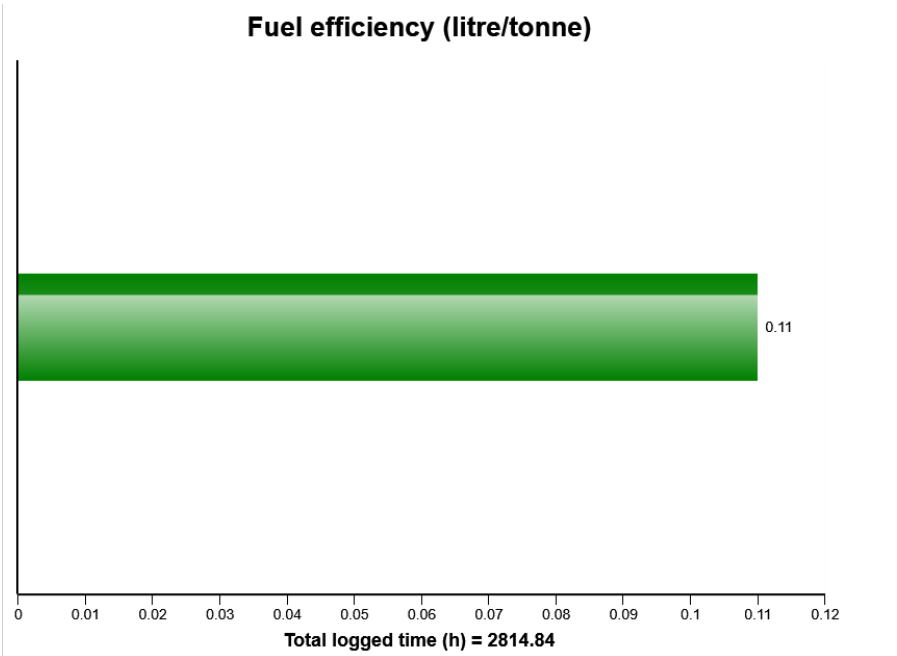
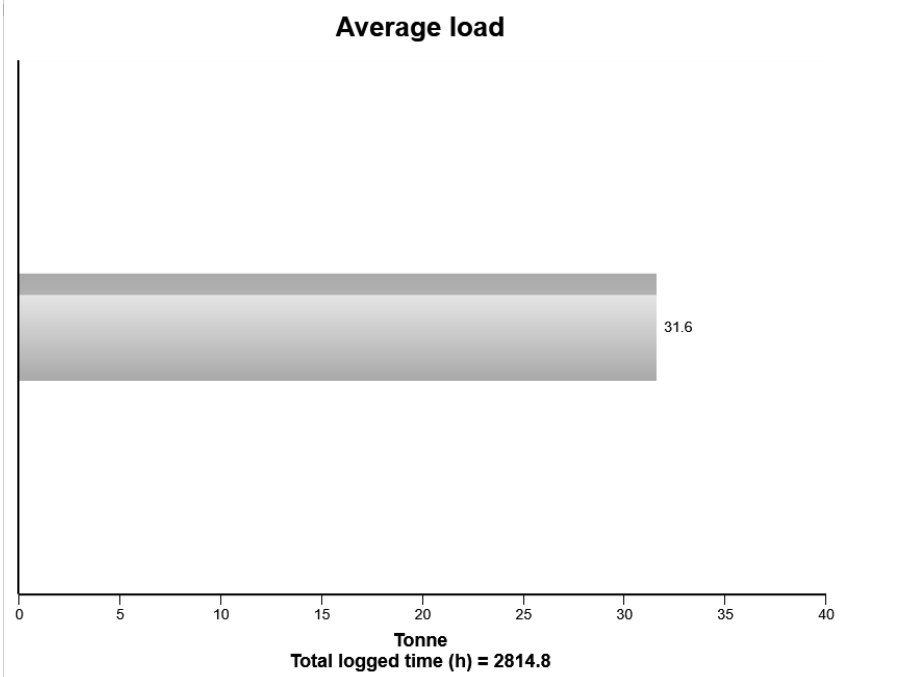





Fuel efficiency (litre/tonne)
0.11
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
0.11
0.12
Total logged time (h) = 2814.84


Average load
31.6
0
5
10
15
20
25
30
35
40
Tonne
Total logged time (h) = 2814.8

Machine model	SerialNo	Operating Hours	Reading Date
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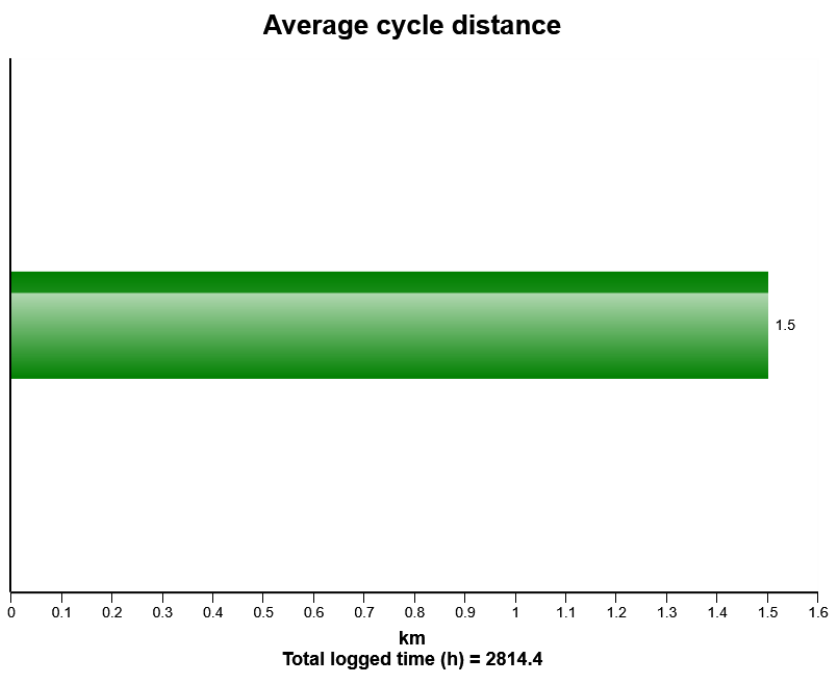
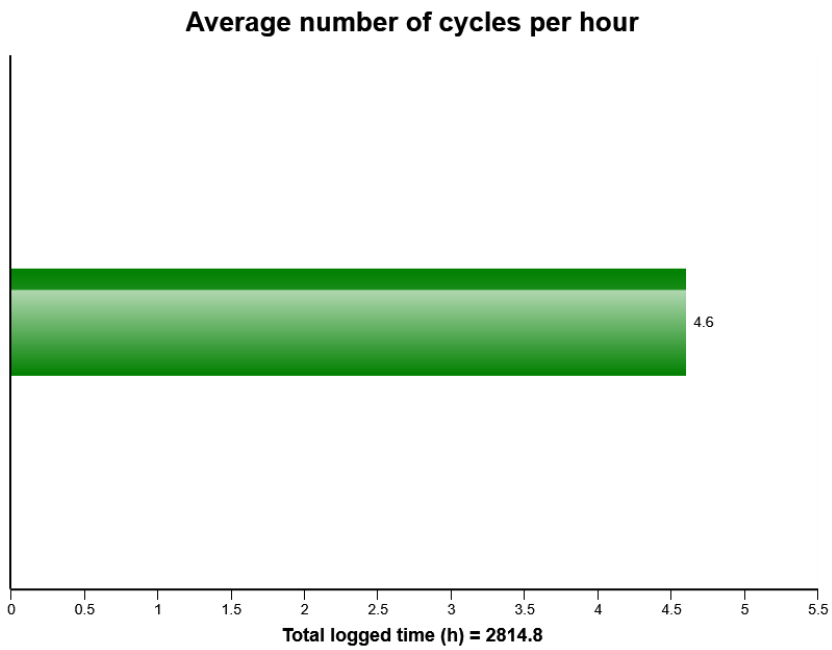
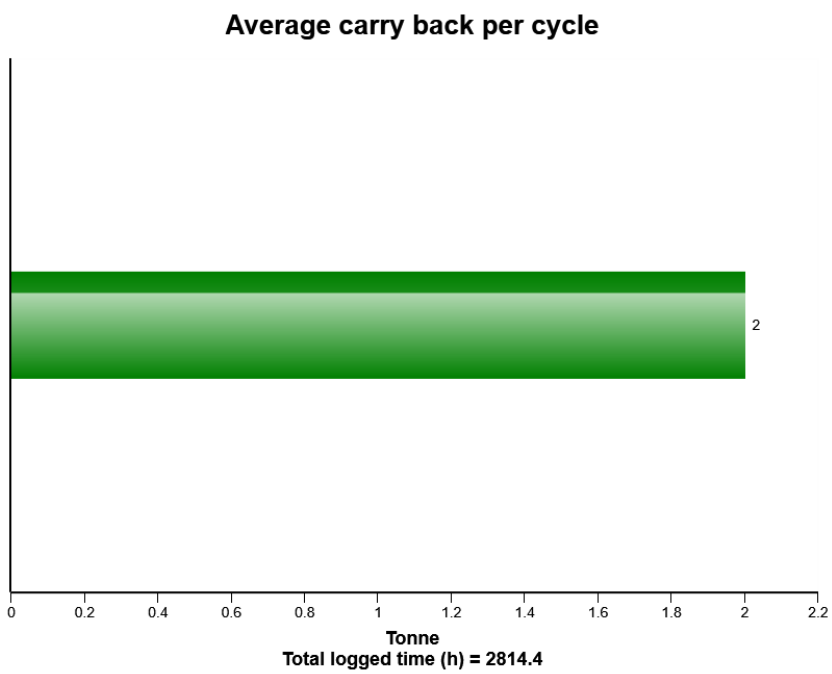
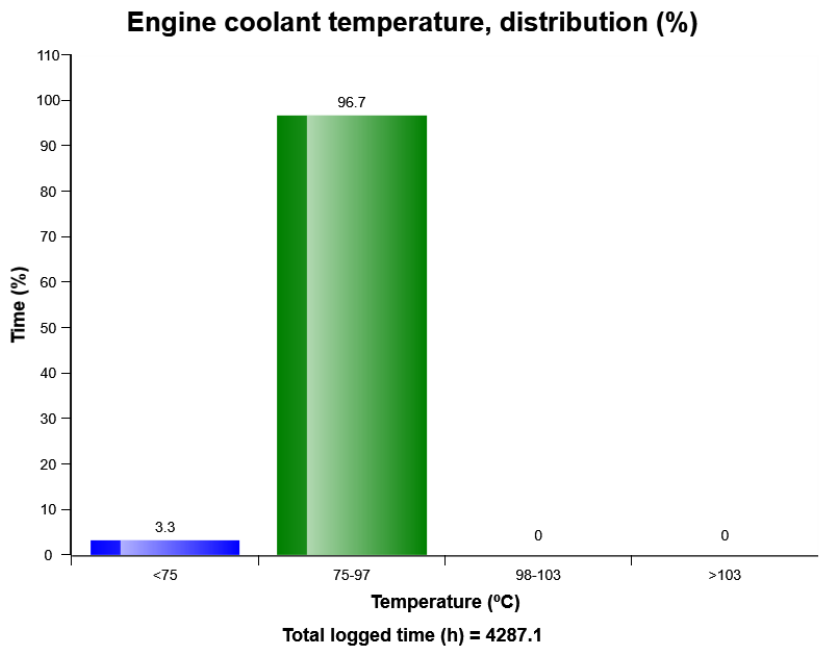





Average carry back per cycle
2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
2.2
Tonne
Total logged time (h) = 2814.4


Engine coolant temperature, distribution (%)
Time (%)
110
100
90
80
70
60
50
40
30
20
10
0
96.7
3.3
0
0
<75
75-97
98-103
>103
Temperature (ºC)
Total logged time (h) = 4287.1

Machine model	SerialNo	Operating Hours	Reading Date
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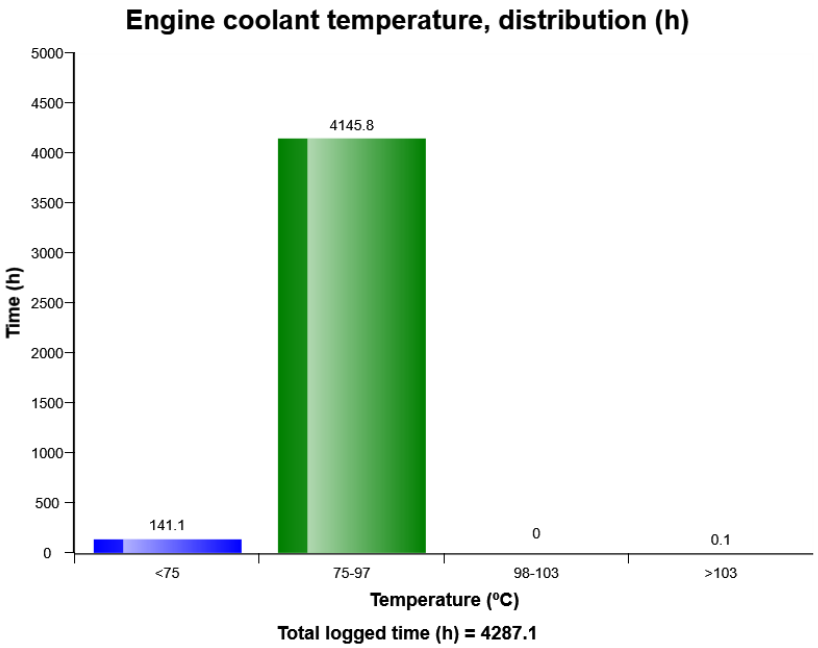
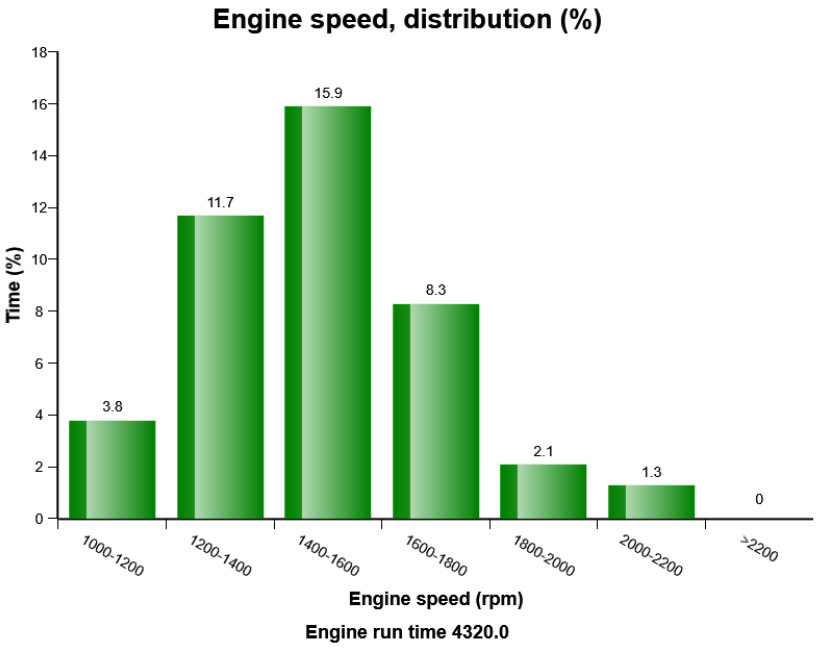
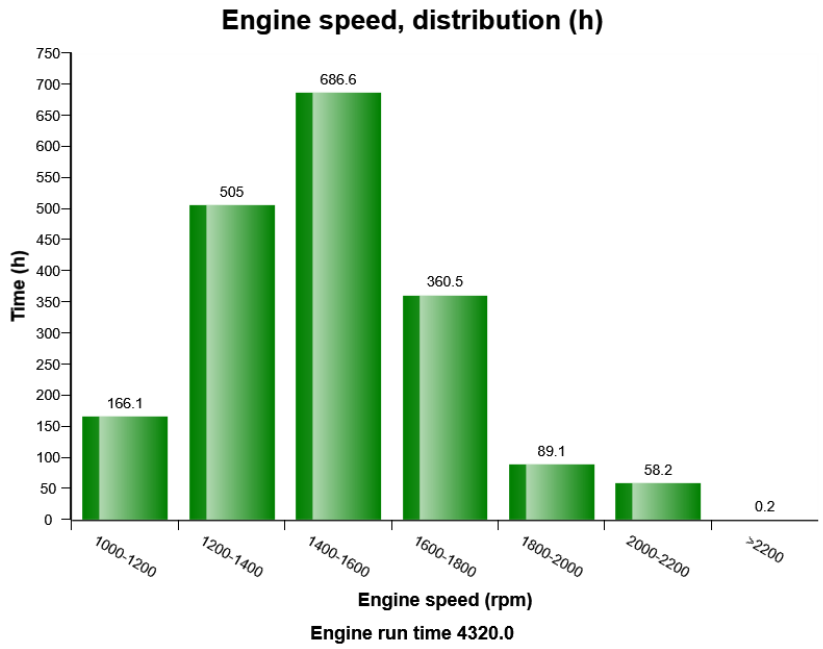
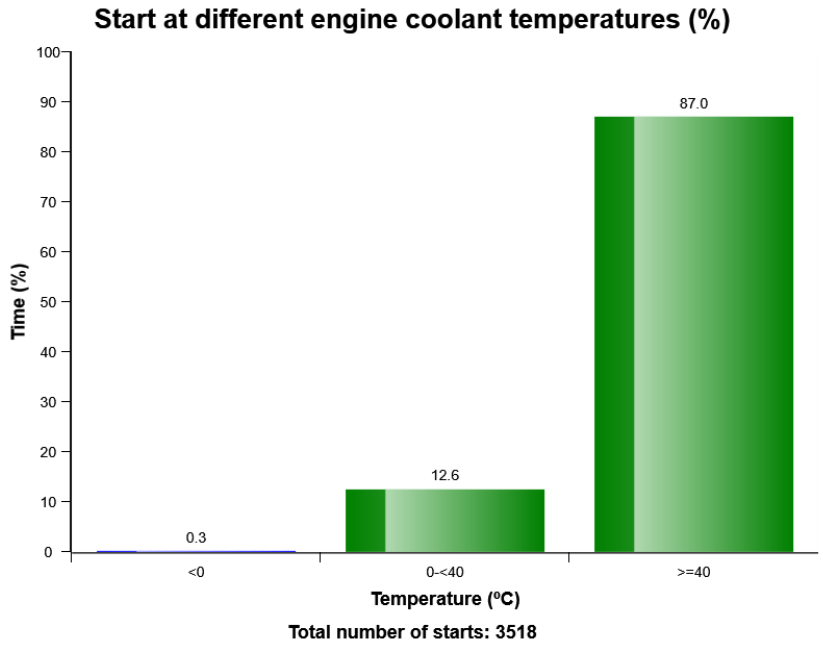
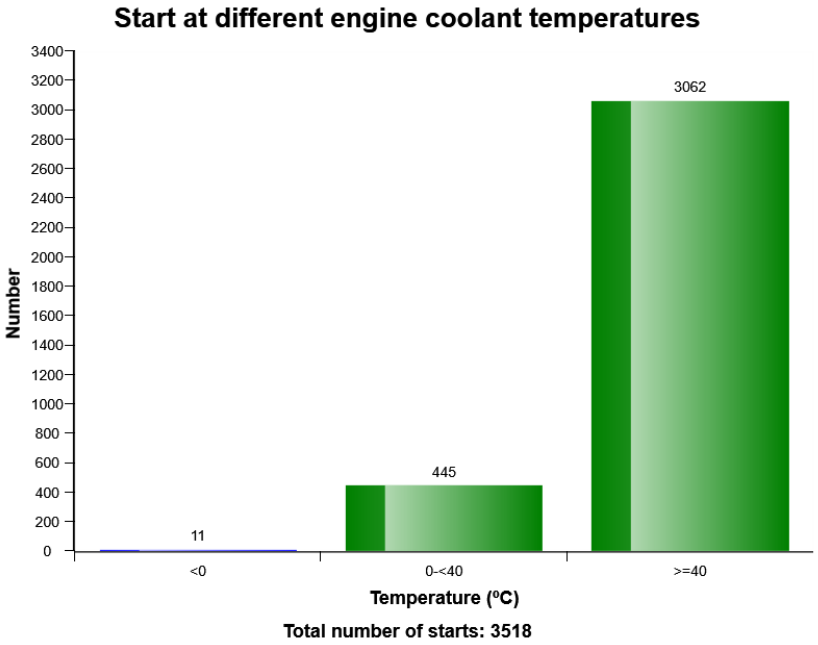
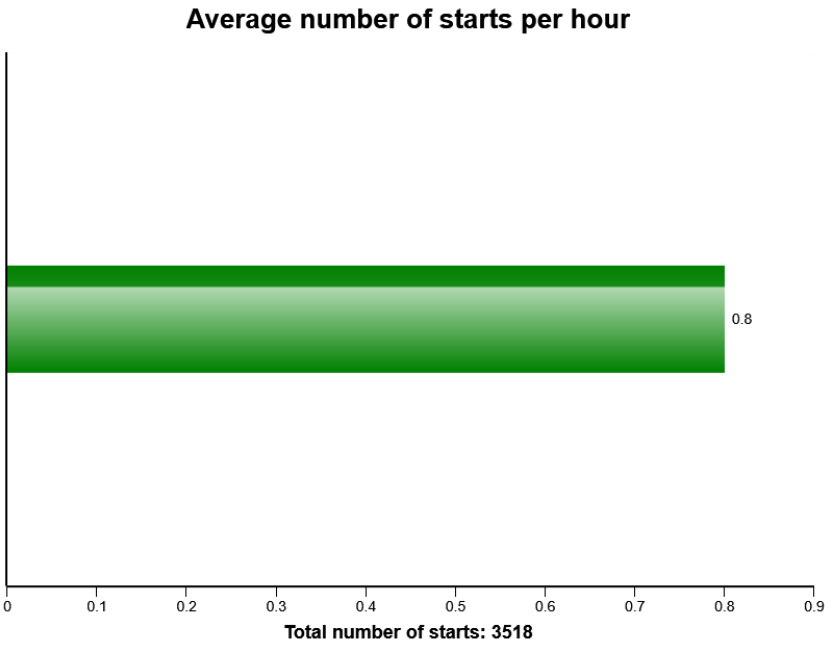





Engine speed, distribution (h)
Time (h)
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
166.1
505
686.6
360.5
89.1
58.2
0.2
1000-1200
1200-1400
1400-1600
1600-1800
1800-2000
2000-2200
>2200
Engine speed (rpm)
Engine run time 4320.0


Start at different engine coolant temperatures (%)
Time (%)
100
90
80
70
60
50
40
30
20
10
0
0.3
12.6
87.0
<0
0-<40
>=40
Temperature (ºC)
Total number of starts: 3518


Start at different engine coolant temperatures
Number
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
11
445
3062
<0
0-<40
>=40
Temperature (°C)
Total number of starts: 3518


Average number of starts per hour
0.8
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
Total number of starts: 3518

Machine model	SerialNo	Operating Hours	Reading Date
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High engine coolant temperature
Total number of occurences = 4

	Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (° C)
E	0	2000	0	0	0	0	0	0
F	0	2000	0	0	0	0	0	0
G	0	2000	0	0	0	0	0	0
H	0	2000	0	0	0	0	0	0
I	0	2000	0	0	0	0	0	0
J	0	2000	0	0	0	0	0	0
A	4044	2018	2	14	9	5	14	109
B	4044	2018	2	14	9	6	20	118
C	4044	2018	2	14	9	11	225	116
D	4044	2018	2	14	9	31	33	108

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341484	4319.4	13/12/2019

Low Air filter pressure
Total number of occurences = 2

Op hours	Year	Month	Day	Hour	Minute	Duration (sec)
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
868	2016	11	10	0	9	6
868	2016	11	9	23	54	711

Machine model	SerialNo	Operating Hours	Reading Date
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Regeneration duration
Total number of occurences = 96

Op hours	Year	Month	Day	Hour	Minute	Duration (min)
4101	2018	3	1	14	54	4
4103	2018	3	1	23	22	53
4113	2018	3	2	10	32	35
4128	2018	3	3	10	1	39
4141	2019	1	12	8	25	68
4150	2019	1	14	10	47	50
4167	2019	1	17	13	55	20
4168	2019	1	21	15	24	20
4169	2019	1	21	15	50	54
4178	2019	1	22	16	12	53
4189	2019	1	24	15	16	47
4209	2019	1	27	11	4	48
4224	2019	1	29	14	12	52
4234	2019	1	31	10	16	43
4240	2019	2	1	7	32	50
4247	2019	2	2	12	20	10
4247	2019	2	2	12	32	4
4247	2019	2	2	13	25	45
4260	2019	2	6	10	27	68
4282	2019	2	22	7	4	52

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341484	4319.4	13/12/2019

Water level warning in water separator
Total number of occurences = 1

Op hours	Year	Month	Day	Hour	Minute	Duration (min)
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
0	2000	0	0	0	0	0
109	2016	9	7	15	20	0

Machine model	SerialNo	Operating Hours	Reading Date
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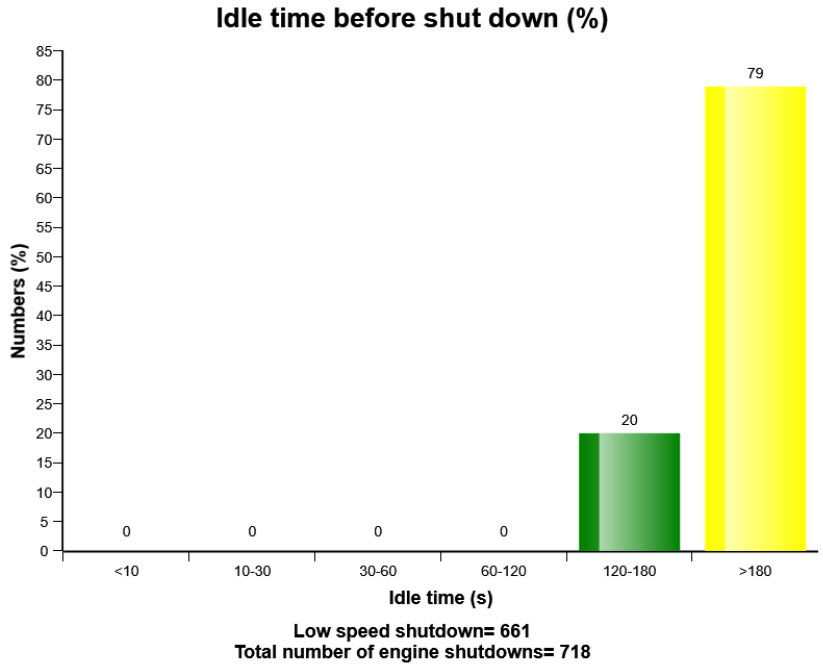
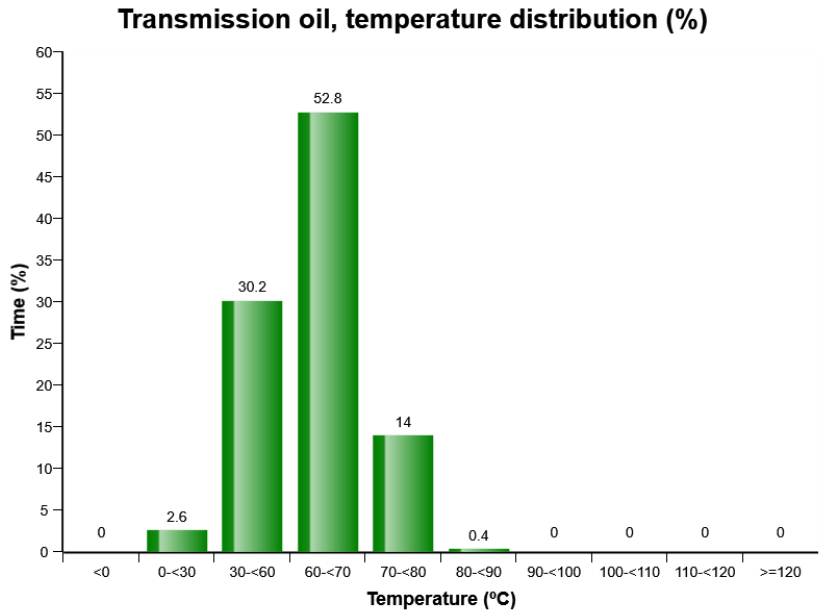
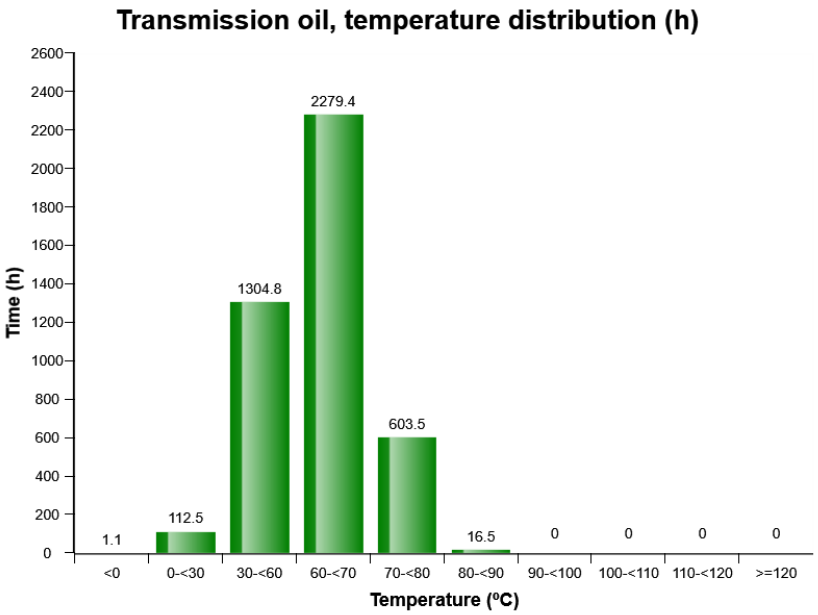
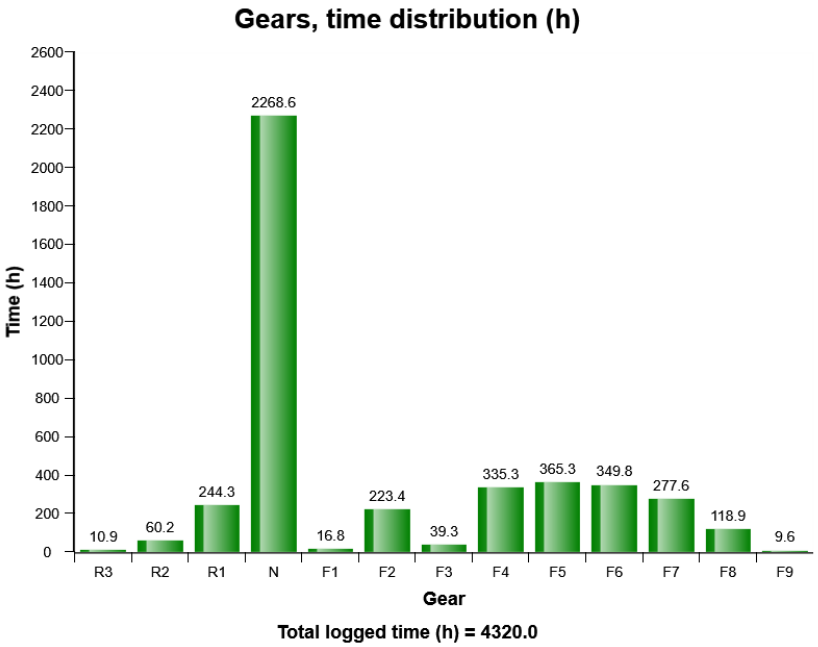
High voltage
Total number of occurences = 4

Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme value
3122	2017	9	20	12	50	1	29.2
3121	2017	9	20	12	8	37	30.9
1580	2017	1	23	12	0	2	30.8
272	2016	9	23	9	24	1	30.3
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0
0	2000	0	0	0	0	0	0.0

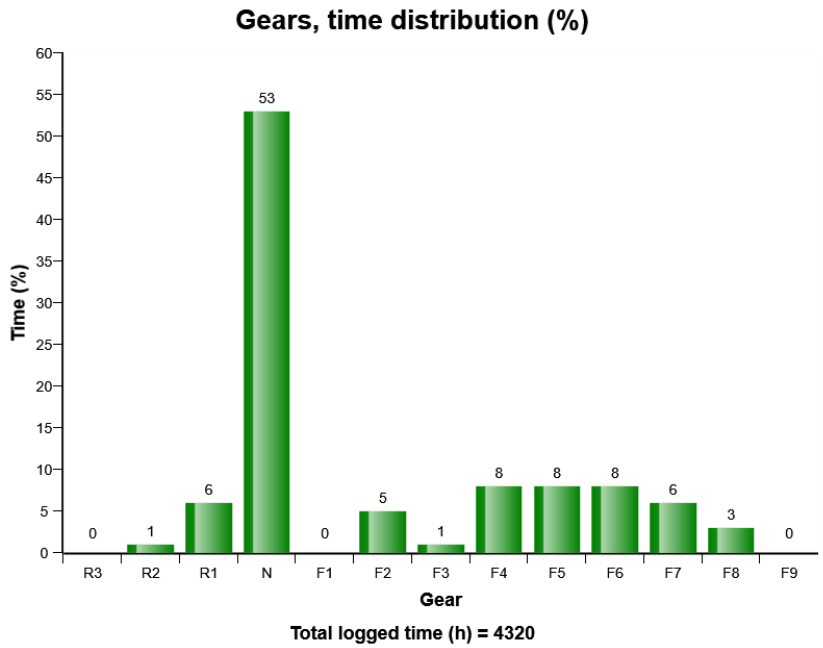

Idle time before shut down (%)
Numbers (%)
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
0
0
0
0
20
79
<10
10-30
30-60
60-120
120-180
>180
Idle time (s)
Low speed shutdown= 661
Total number of engine shutdowns= 718

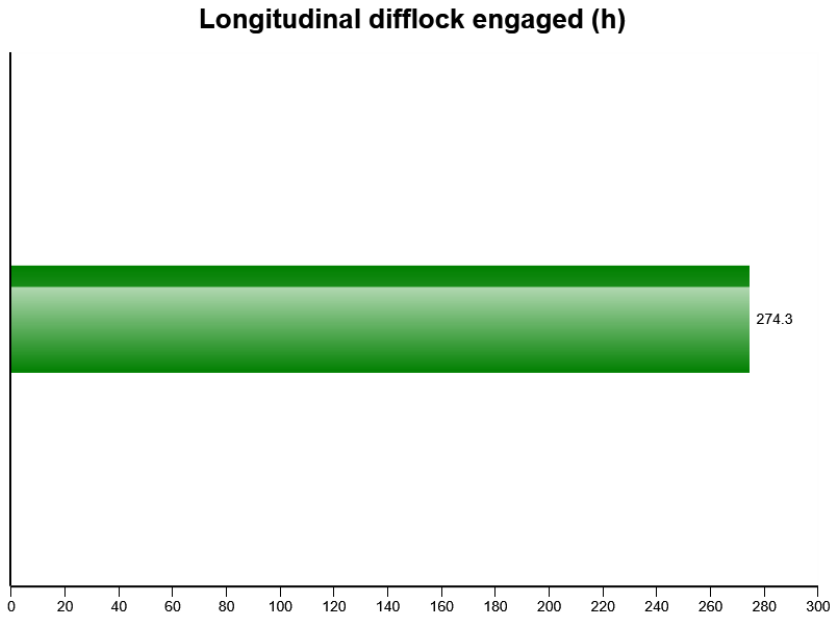

Transmission oil, temperature distribution (%)
Time (%)
60
55
50
45
40
35
30
25
20
15
10
5
0
0
2.6
30.2
52.8
14
0.4
0
0
0
0
<0
0-<30
30-<60
60-<70
70-<80
80-<90
90-<100
100-<110
110-<120
>=120
Temperature (ºC)





Total logged time (h) = 4320.0


Gears, time distribution (%)
Time (%)
60
55
50
45
40
35
30
25
20
15
10
5
0
0
1
6
53
0
5
1
8
8
8
6
3
0
R3
R2
R1
N
F1
F2
F3
F4
F5
F6
F7
F8
F9
Gear
Total logged time (h) = 4320


Longitudinal difflock engaged (h)
274.3
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300

Machine model	SerialNo	Operating Hours	Reading Date
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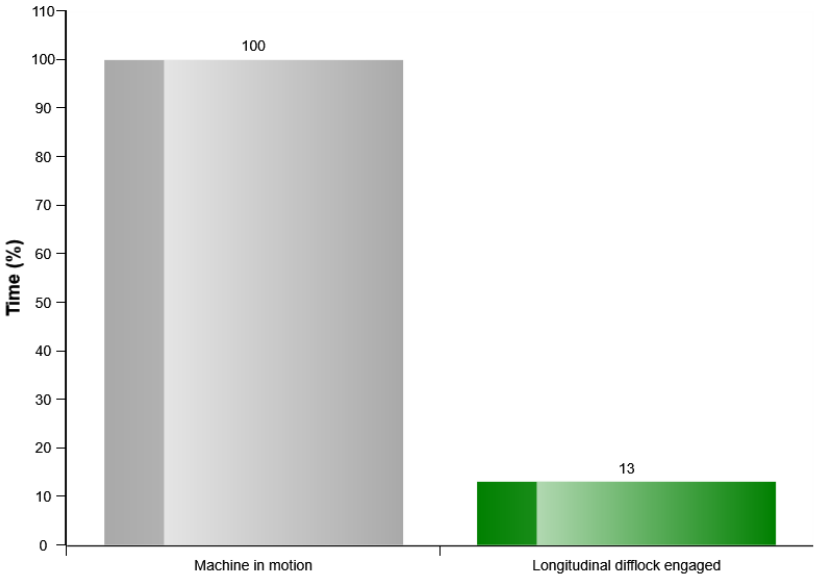
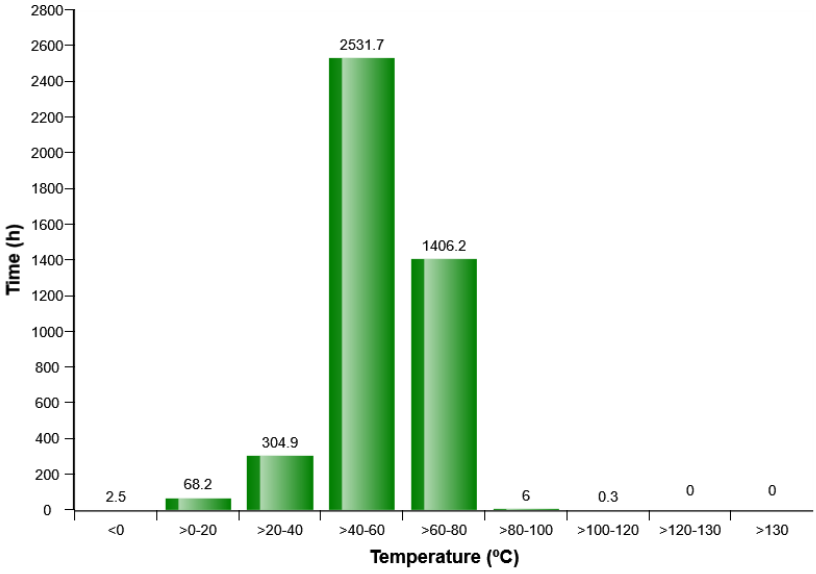
Transmission oil pressure low
Total number of occurences = 41

Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (bar)
1849	2017	2	15	15	56	0	87.5
1907	2017	2	21	0	55	0	96.0
2132	2017	4	10	9	19	0	103.3
2660	2017	7	24	16	0	0	98.5
2742	2017	8	3	9	16	0	65.9
2807	2017	8	22	3	22	0	91.2
2873	2017	8	28	12	48	0	127.1
2977	2017	9	8	8	45	0	54.9
2995	2017	9	9	13	21	0	118.3
3193	2017	9	27	9	10	0	143.6
3211	2017	9	28	11	30	0	120.9
3212	2017	9	28	12	17	0	104.8
3225	2017	9	29	7	22	0	80.2
3233	2017	9	30	7	54	0	96.7
3235	2017	9	30	9	2	0	54.6
3343	2017	10	10	7	10	0	56.8
3346	2017	10	10	10	21	0	94.9
3358	2017	10	11	12	7	0	56.4
3467	2017	10	30	15	0	10	77.7
4059	2018	2	13	7	54	0	112.5

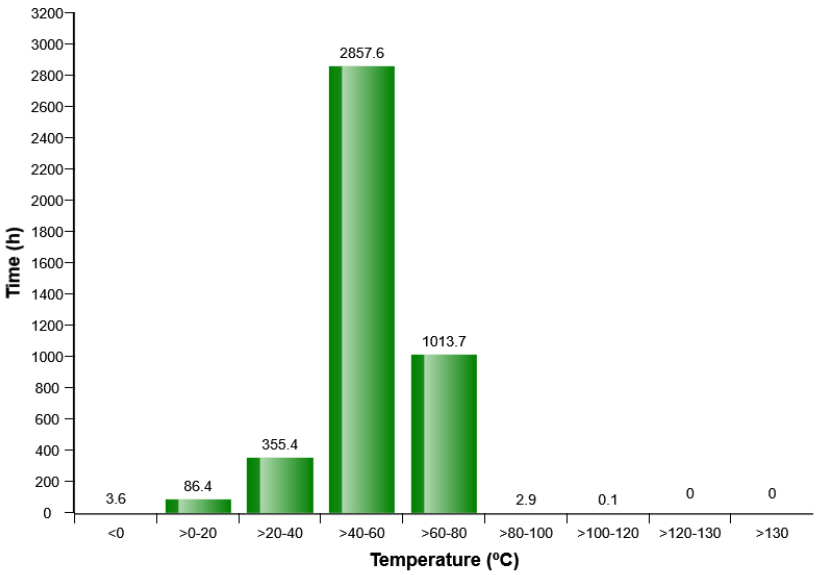
Longitudinal difflock use related to machine in motion (%)



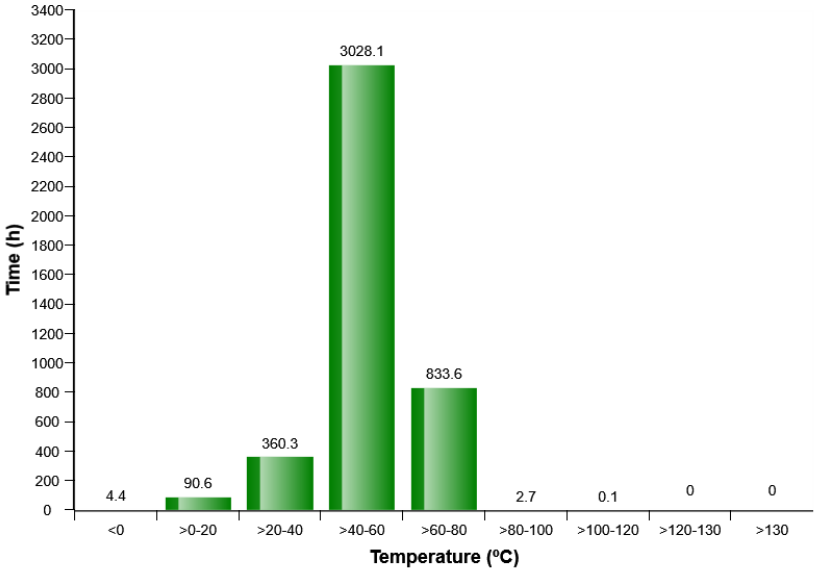
Service brake cooling oil, front axle temperature



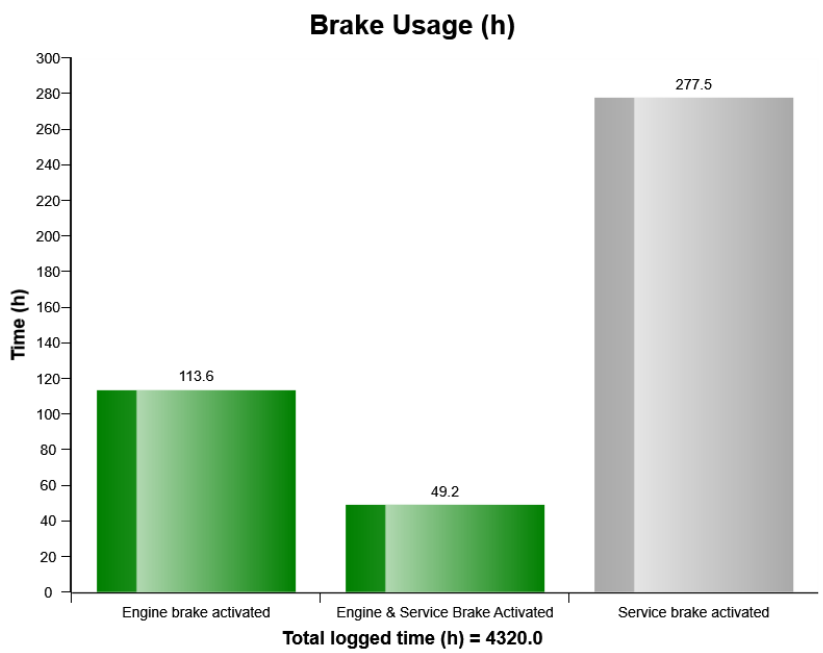
Service brake cooling oil, first bogie axle temperature

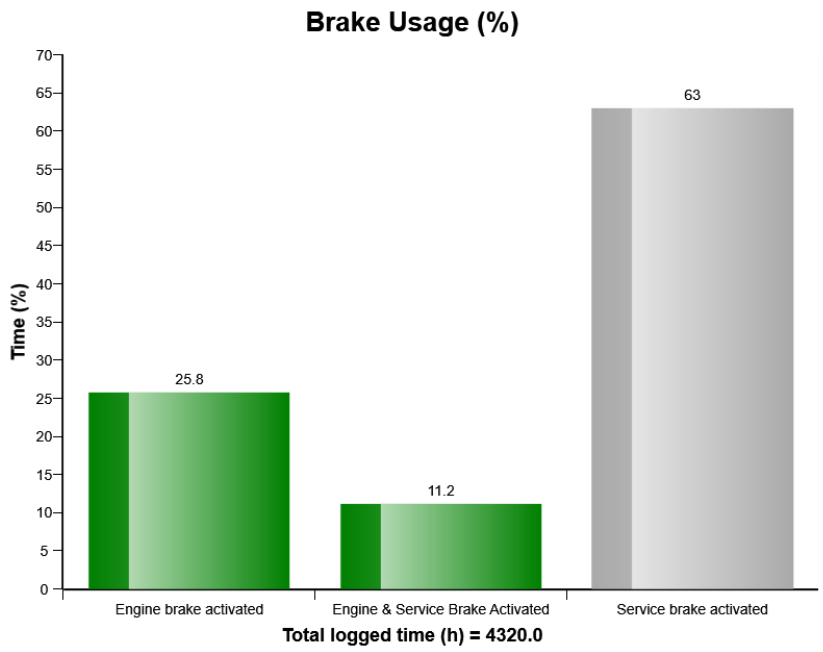


Service brake cooling oil, second bogie axle temperature



Machine model	SerialNo	Operating Hours	Reading Date
A40G	341484	4319.4	13/12/2019



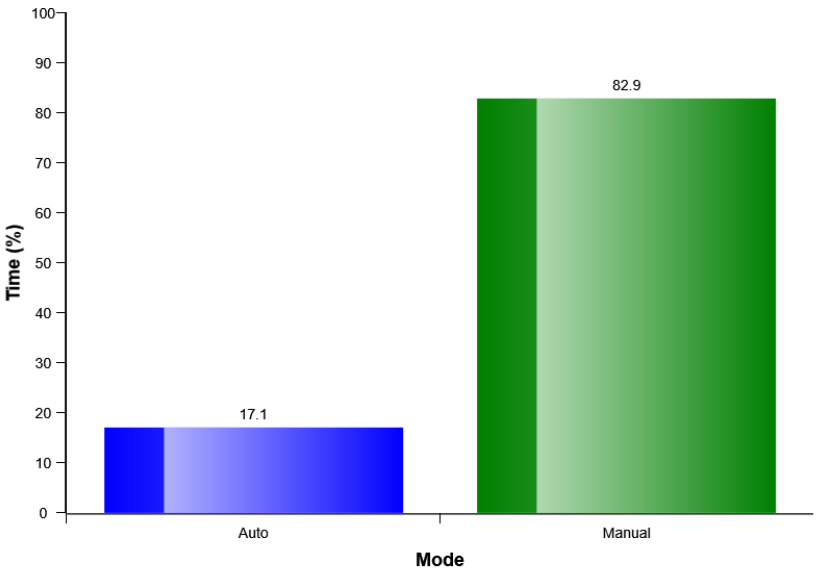


Machine model	SerialNo	Operating Hours	Reading Date
A40G	341484	4319.4	13/12/2019

Low Brake Servo Pressure
Total number of occurences = 6

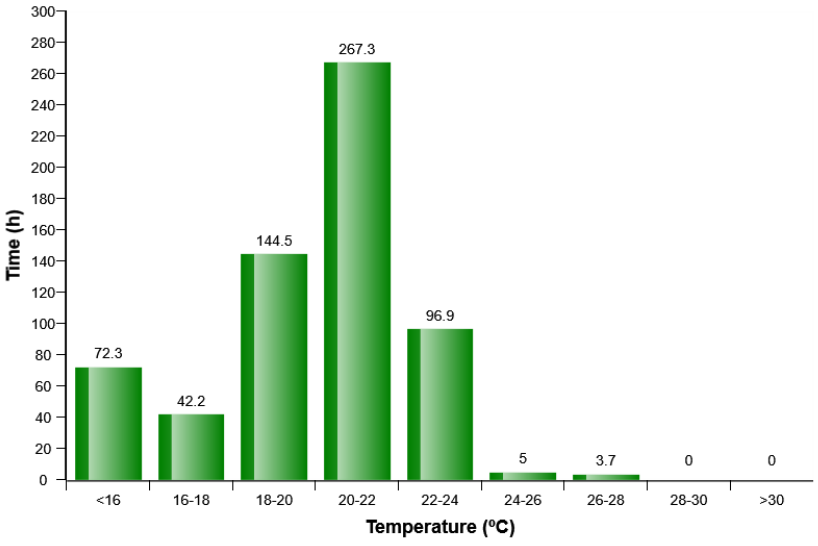
	Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (bar)
A	0	2016	6	16	5	8	0	147
G	0	2000	0	0	0	0	0	0
H	0	2000	0	0	0	0	0	0
I	0	2000	0	0	0	0	0	0
J	0	2000	0	0	0	0	0	0
B	87	2016	9	4	15	47	0	150
C	4167	2018	7	13	14	28	9	143
D	4167	2018	8	30	7	35	10	143
E	4287	2019	2	5	6	57	0	156
F	4311	2019	2	18	8	48	9	153

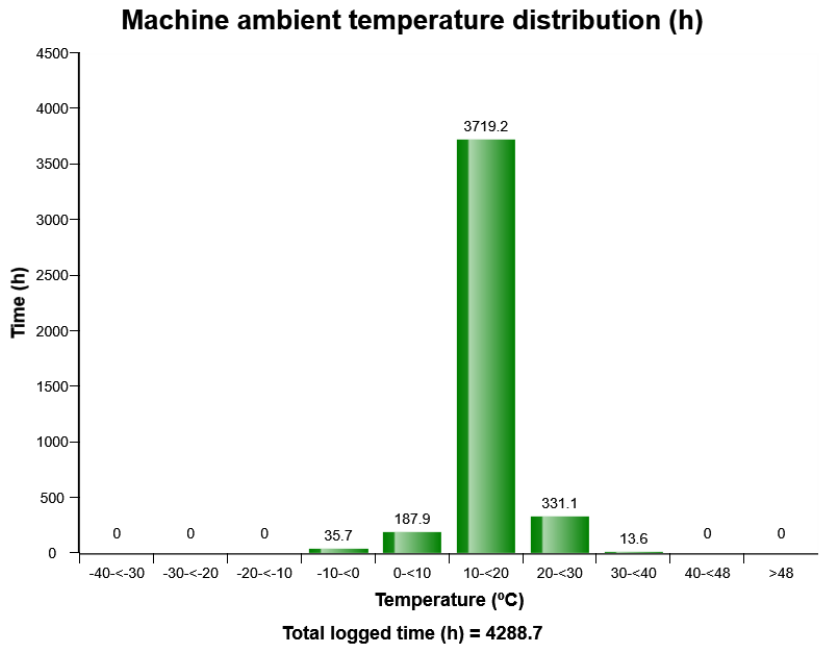
HVAC Auto - Manual mode selection distribution (%)

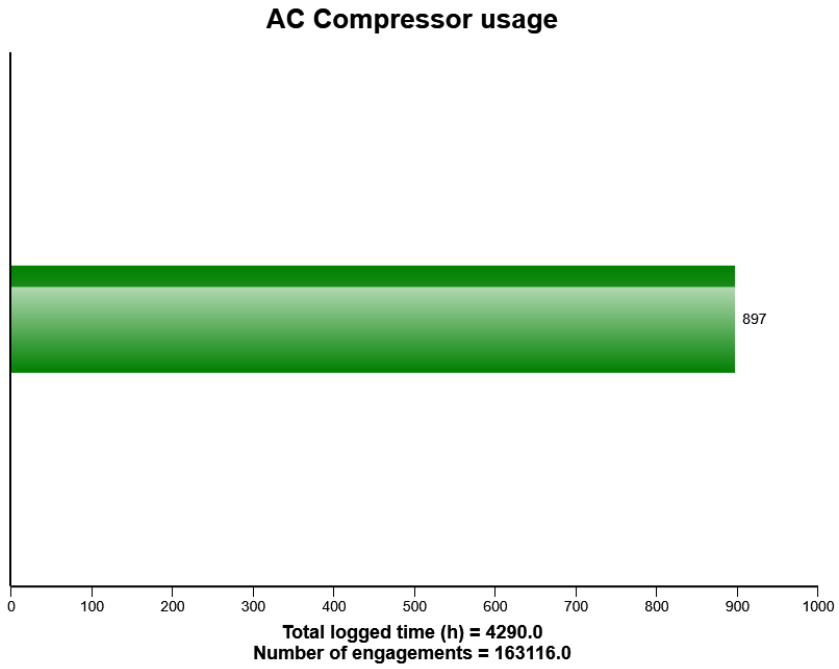


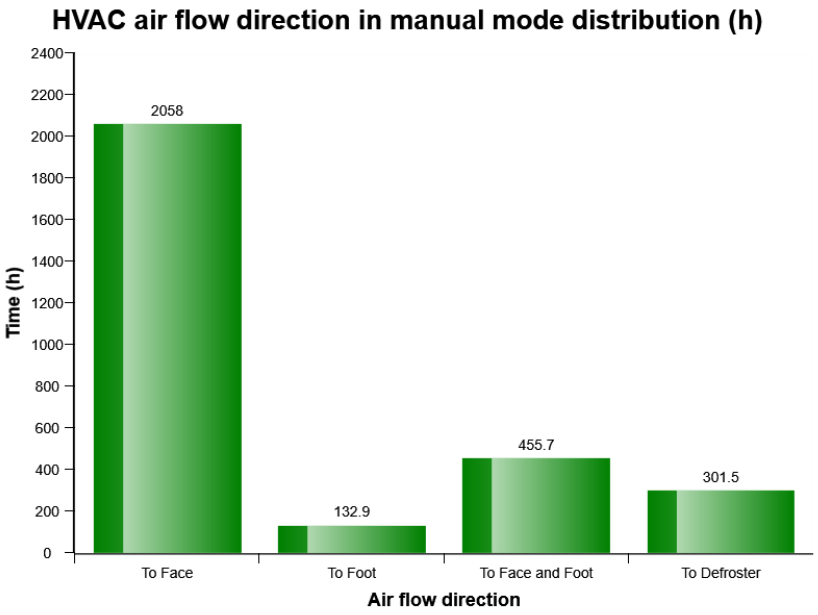
Total logged time (h) = 3688.4

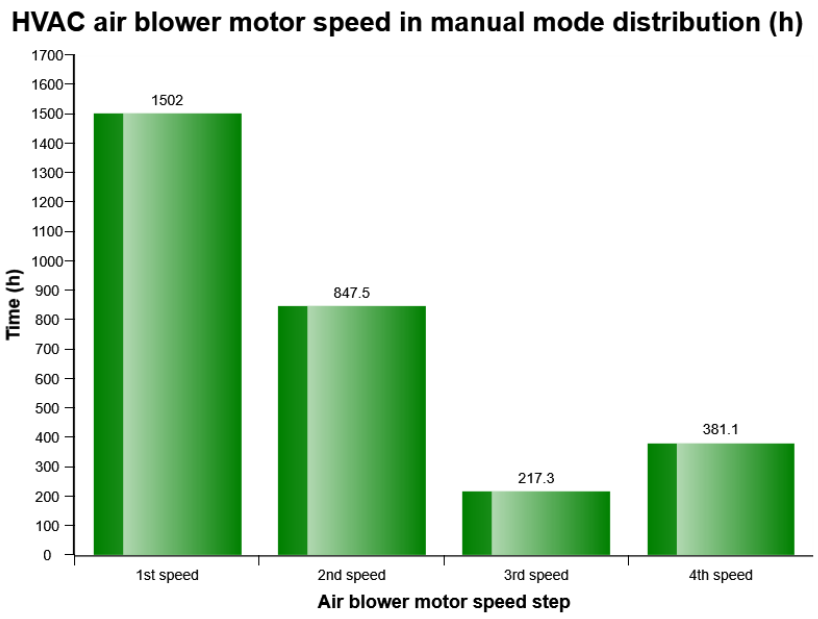
HVAC air temperature setting in auto control mode distribution (h)




Machine ambient temperature distribution (h)
Time (h)
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
0
0
35.7
187.9
3719.2
331.1
13.6
0
0
-40-<-30
-30-<-20
-20-<-10
-10-<0
0-<10
10-<20
20-<30
30-<40
40-<48
>48
Temperature (°C)
Total logged time (h) = 4288.7


AC Compressor usage
897
0
100
200
300
400
500
600
700
800
900
1000
Total logged time (h) = 4290.0
Number of engagements = 163116.0


HVAC air flow direction in manual mode distribution (h)
Time (h)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2058
132.9
455.7
301.5
To Face
To Foot
To Face and Foot
To Defroster
Air flow direction


HVAC air blower motor speed in manual mode distribution (h)
Time (h)
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
1502
847.5
217.3
381.1
1st speed
2nd speed
3rd speed
4th speed
Air blower motor speed step

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341484	4319.4	13/12/2019

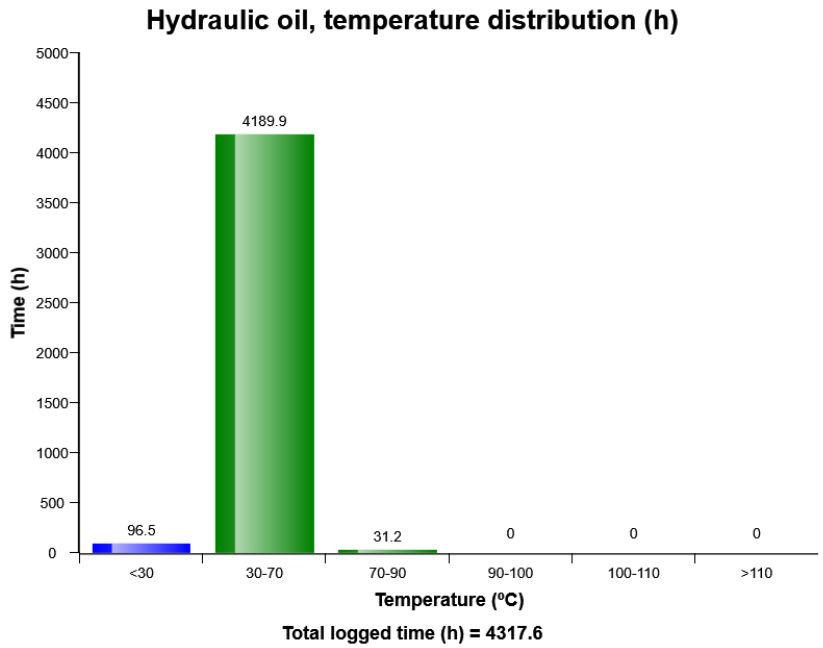
AC High Pressure
Total number of occurences = 720

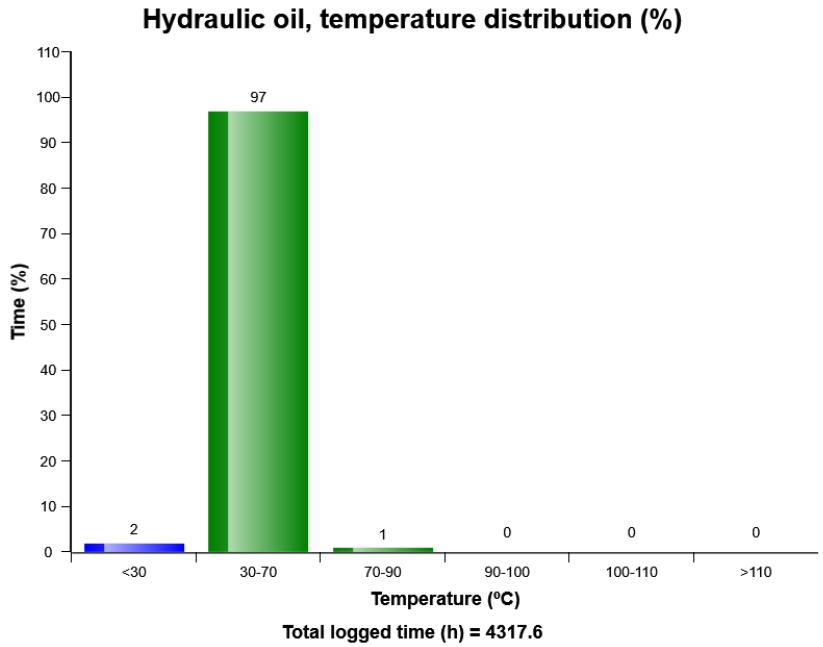
Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (° C)
3772	2017	12	21	10	27	105	18
3772	2017	12	21	11	9	112	19
3772	2017	12	21	11	6	94	19
3772	2017	12	21	10	22	91	19
3772	2017	12	21	10	46	119	18
3772	2017	12	21	10	36	153	18
3772	2017	12	21	10	56	106	18
3773	2017	12	21	11	41	98	16
3774	2017	12	21	13	35	109	18
3775	2017	12	21	13	50	82	17
3776	2001	10	19	12	9	770	12
3776	2018	1	2	1	19	-511427282	15
3776	2001	10	19	12	5	148	12
3778	2001	10	19	14	9	194	18
3779	2001	10	19	15	21	91	18
3781	2001	10	19	17	20	101	16
3782	2001	10	19	18	23	134	12
3782	2018	1	2	7	49	-511427231	17
3786	2001	10	19	22	40	104	15
3789	2001	10	20	2	31	511296345	15

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341484	4319.4	13/12/2019

AC System Cut Out Pressure
Total number of occurences = 438

Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (° C)
3769	2017	12	15	15	39	46	17
3769	2017	12	21	7	57	55	17
3771	2017	12	21	10	17	57	19
3772	2017	12	21	11	10	73	19
3772	2017	12	21	10	22	60	19
3772	2017	12	21	10	56	61	18
3772	2017	12	21	10	28	67	18
3772	2017	12	21	11	6	63	19
3773	2017	12	21	11	42	53	16
3774	2017	12	21	13	35	64	18
3775	2017	12	21	13	50	55	17
3778	2001	10	19	14	11	81	18
3779	2001	10	19	15	21	53	18
3781	2001	10	19	17	20	49	16
3782	2001	10	19	18	24	53	12
3786	2001	10	19	22	40	53	15
3789	2001	10	20	2	31	511296307	15
4249	2002	11	15	19	31	344	11
4256	2002	11	16	19	31	1010	0
4261	2019	1	31	7	9	-511426224	-2


Hydraulic oil, temperature distribution (h)
Time (h)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
96.5
4189.9
31.2
0
0
0
<30
30-70
70-90
90-100
100-110
>110
Temperature (°C)
Total logged time (h) = 4317.6


Hydraulic oil, temperature distribution (%)
Time (%)
110
100
90
80
70
60
50
40
30
20
10
0
2
97
1
0
0
0
<30
30-70
70-90
90-100
100-110
>110
Temperature (°C)
Total logged time (h) = 4317.6