VOLVO CONSTRUCTION EQUIPMENT

MATRIS REPORT

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Company name	Dealer	Report Issuer
volvo	arnold machinery	

Contact name	Technician	Primary Application
mike seifert	CE Tech	Quarries

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	Not mounted
	Extra spillguard	Not mounted
	Wear plates	Not mounted
	Pattern	None

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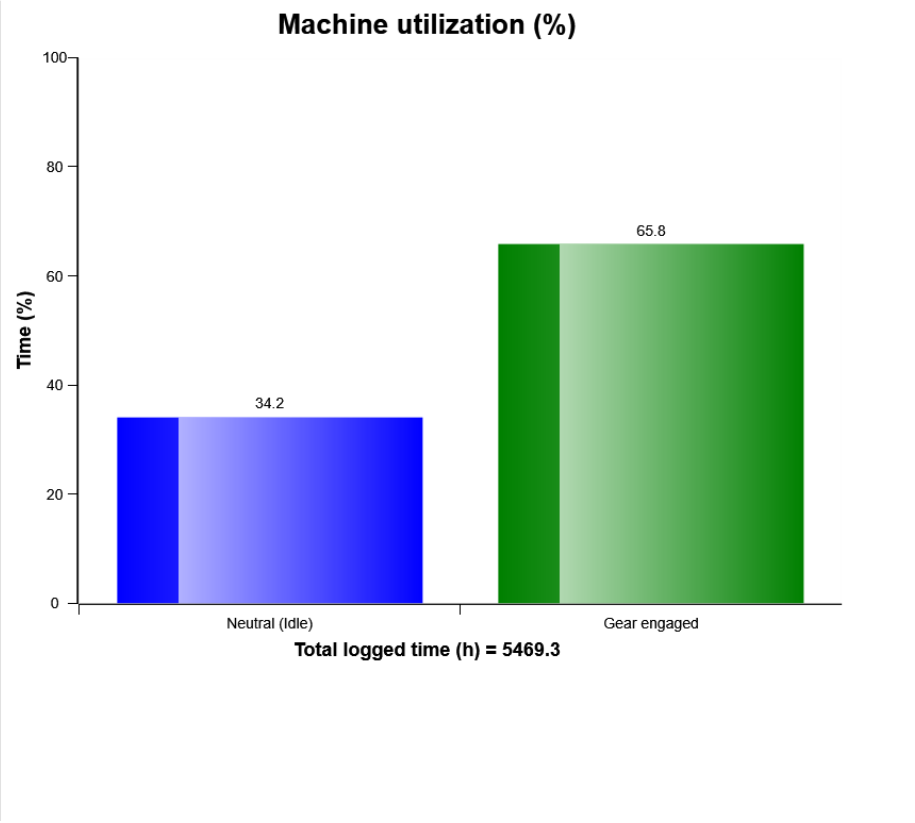

The diagram shows a simplified presentation of the machines utilization based on the relation between time in gear and time in neutral. The "Gear engaged " includes both forward and reverse gears.

This presentation of the machines utilization can only be seen as a guideline value since a full calculation of the machines utilization is more advanced. E.g. "Neutral" includes time for loading and dumping which should be seen as operating time.

High percentage of neutral time may indicate that the machine is underused due to e.g. under dimensioned loading tool or oversized hauler fleet

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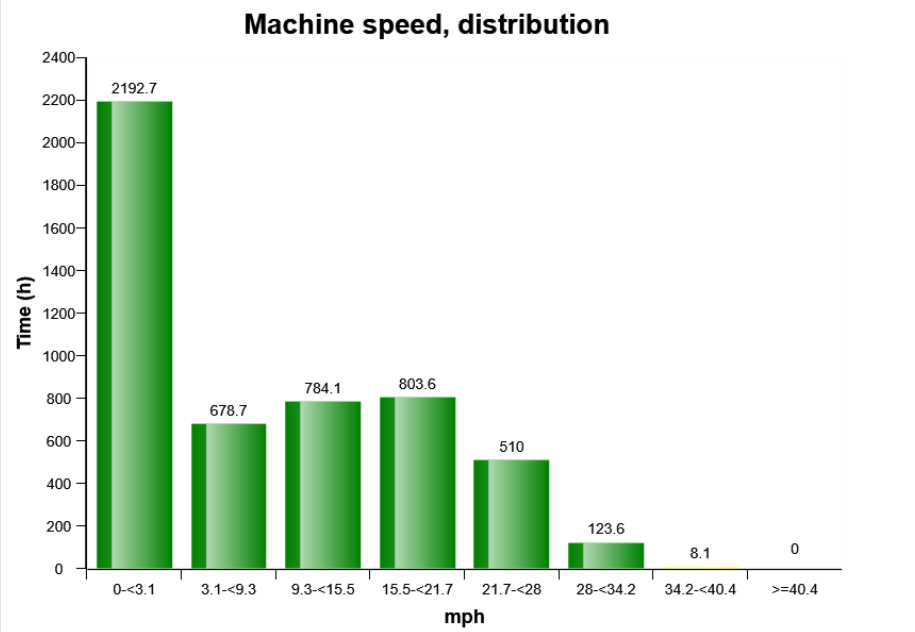

The presentation shows the time in hours in speed-intervals for the machine.

Note that the interval 0-3,1 mile/h includes machine not in motion. If the machine has been operated above 34,2 Mile/h there is a risk of engine over speed, check "Engine speed, over 2100 rpm"

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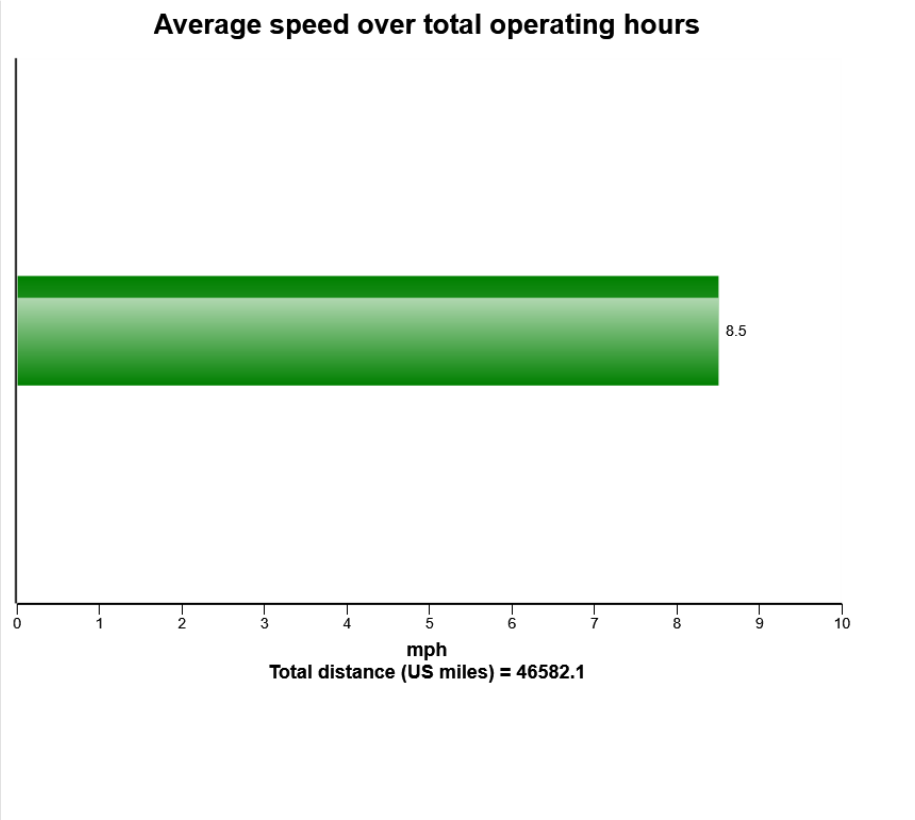

The diagram shows the machines average speed based on the total operating hours

Machine model	SerialNo	Operating Hours	Reading Date
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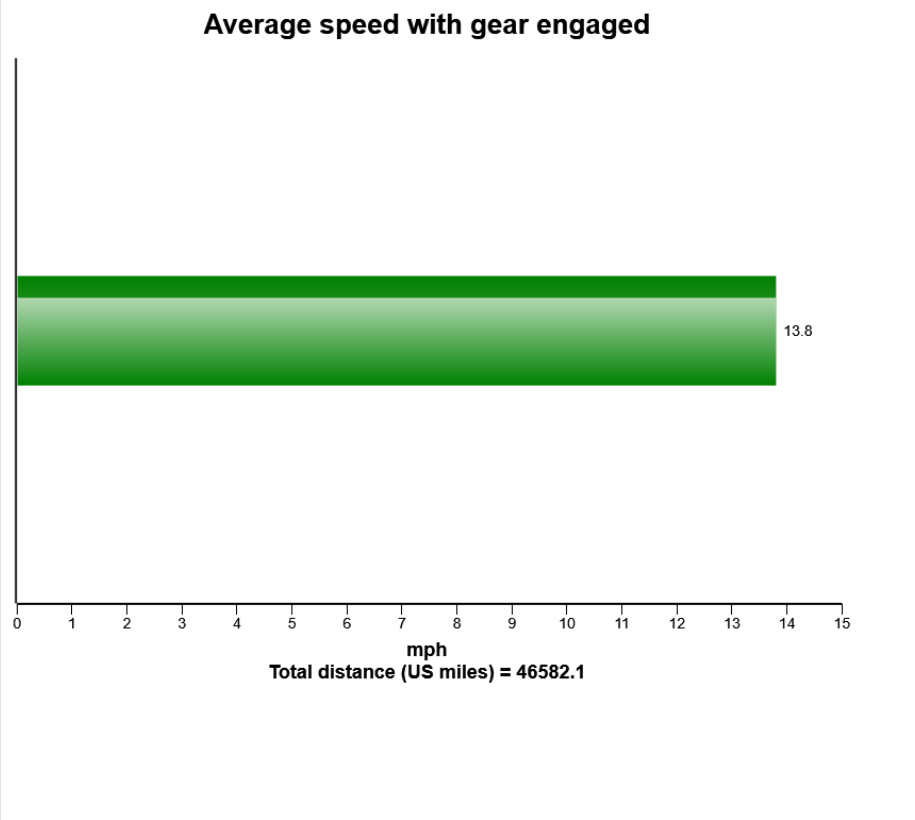

The diagram shows the machines average speed based on the operating hours with gear engaged.

Machine model	SerialNo	Operating Hours	Reading Date
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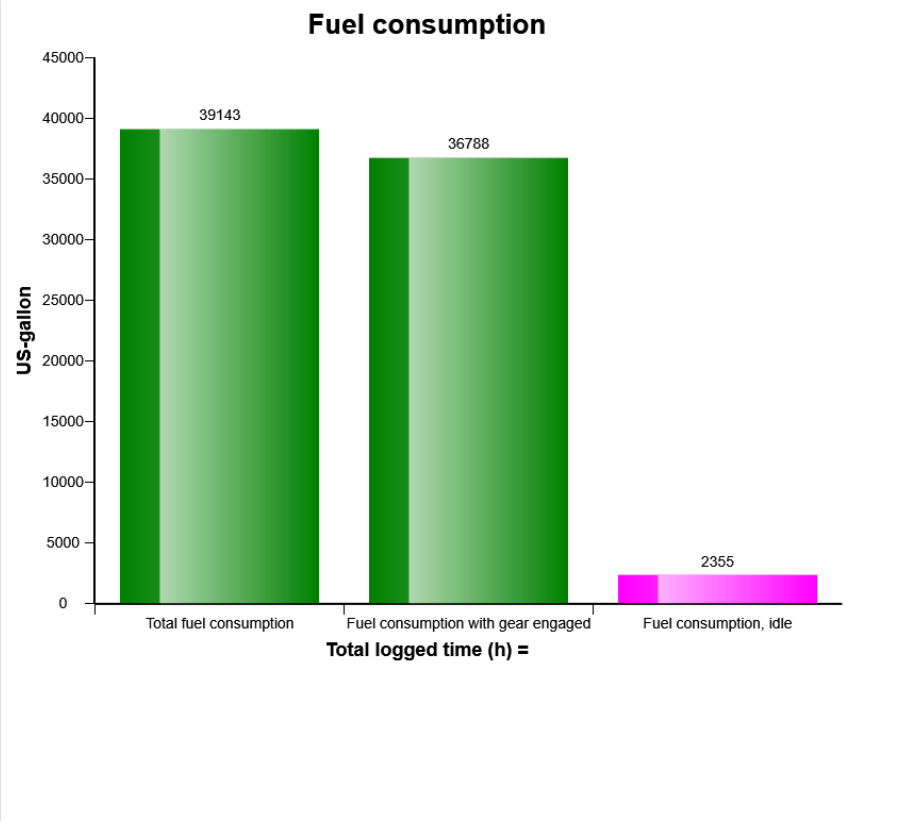

The diagram shows the total fuel consumption, fuel consumption with gear engaged and fuel consumption during idle.

High fuel consumption during idle can indicate that the machine is not fully utilized.

Machine model	SerialNo	Operating Hours	Reading Date
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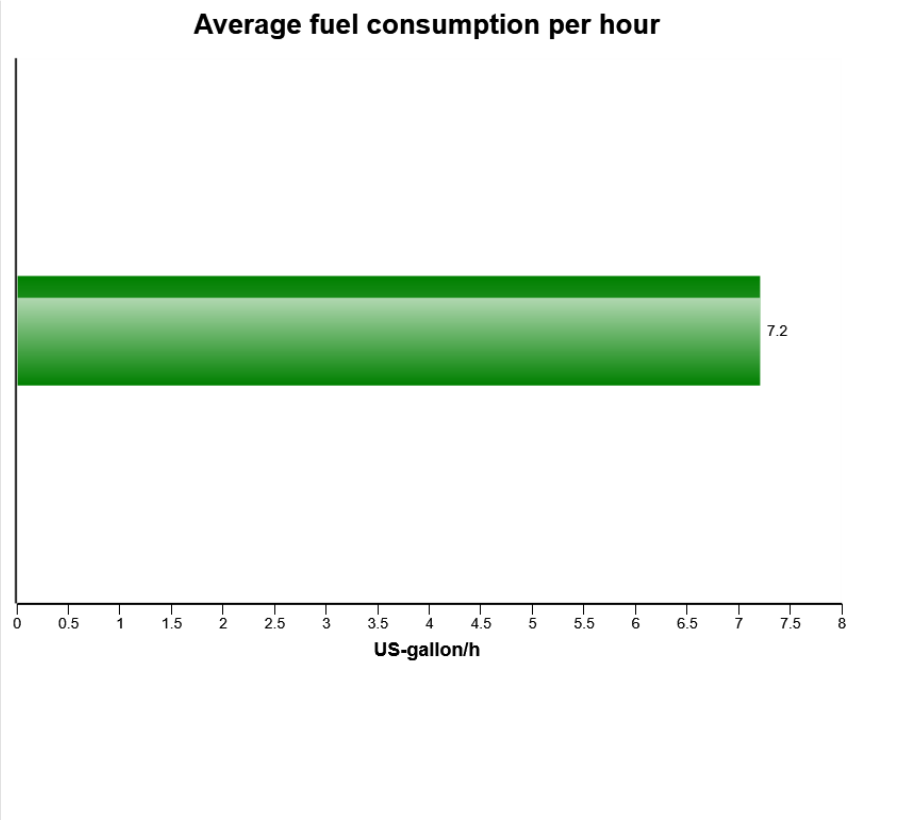

The diagram shows the average fuel consumption based on total operating hours

Machine model	SerialNo	Operating Hours	Reading Date
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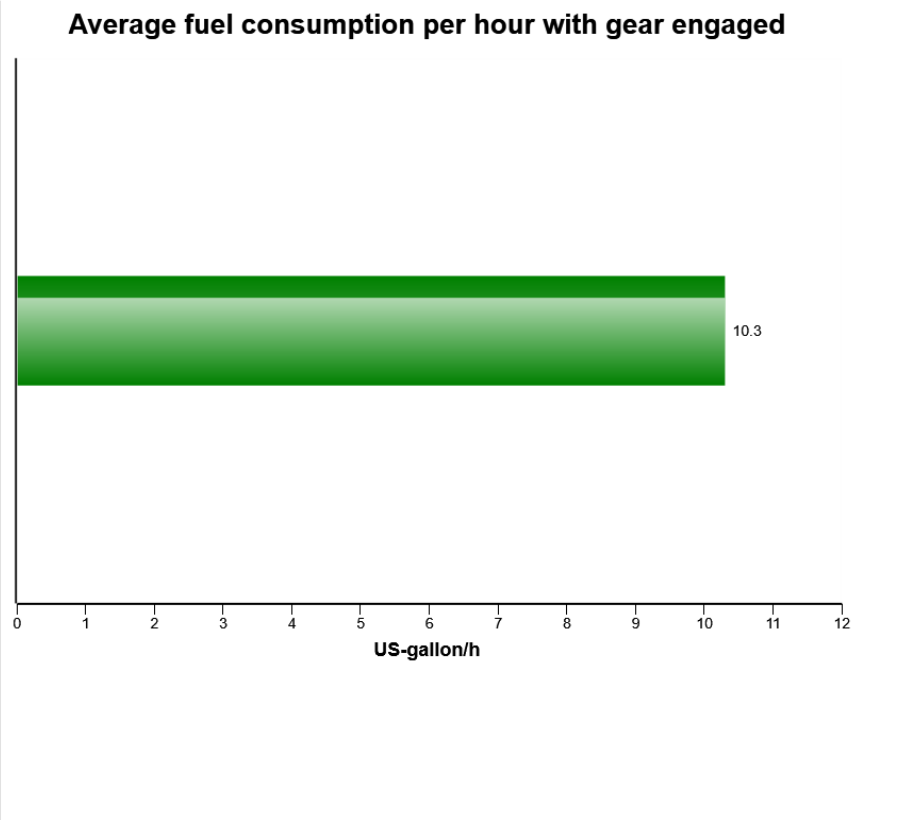
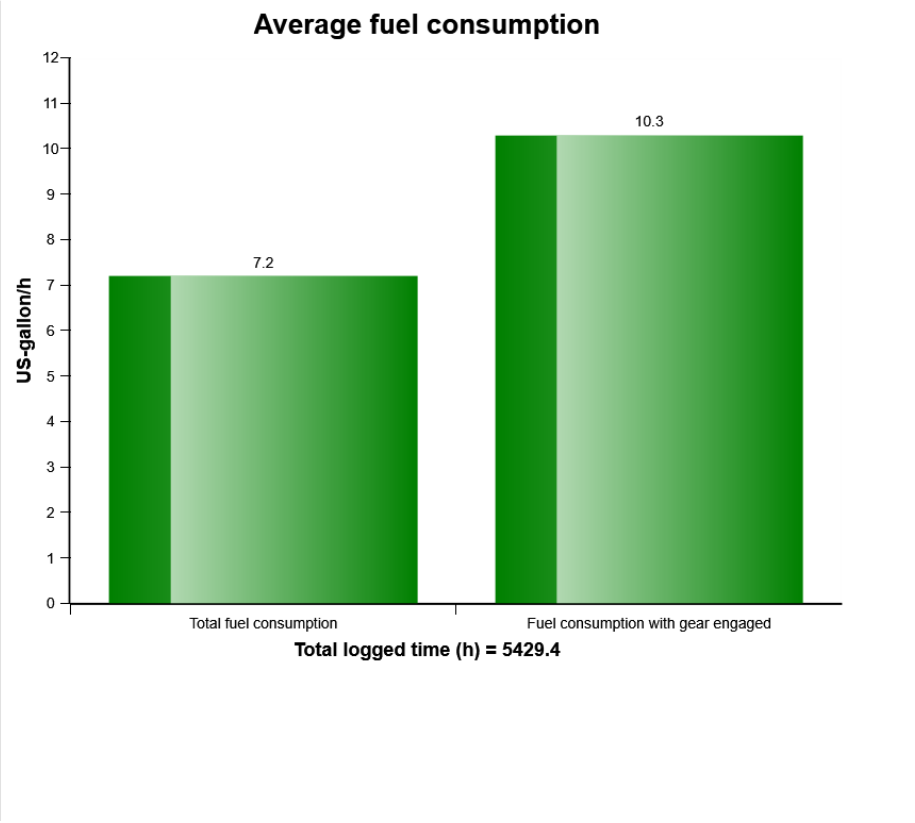


The diagram shows the average fuel consumption based on operating hours with gear engaged

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the total average fuel consumption versus average fuel consumption with gear engaged.

Big difference between the bars can indicate that the machine is not fully utilized, high idle lowers the total average fuel consumption.

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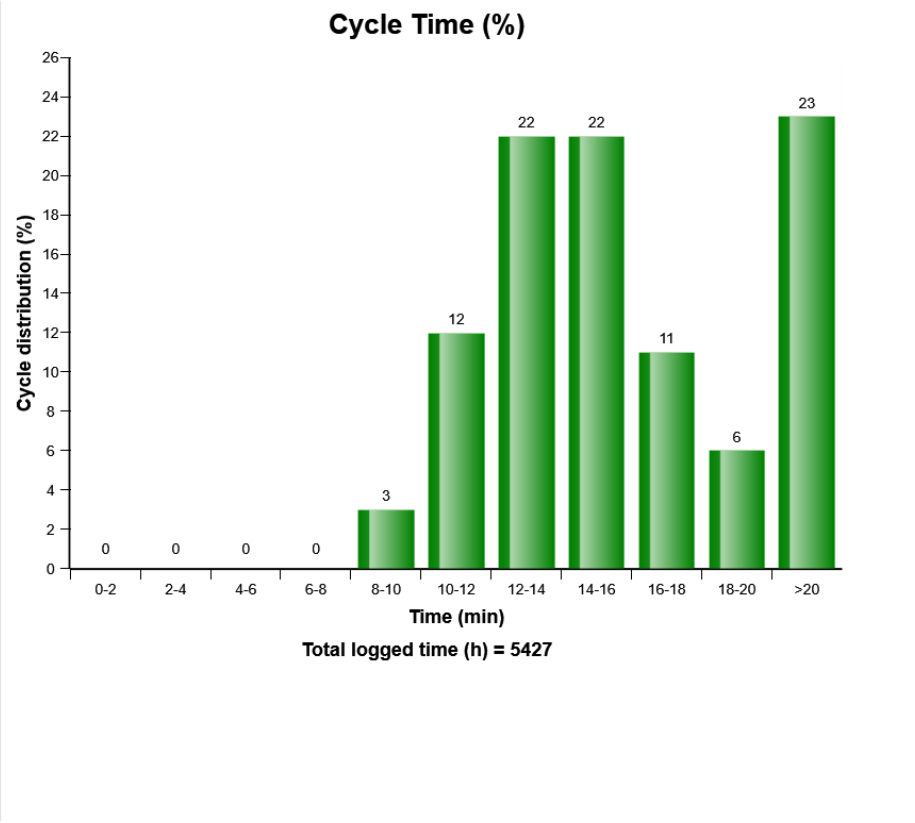

The diagram shows the distribution of the working cycle time. The time between 2 valid cycle registrations is registered. Time starts from lifting the body.

Machine model	SerialNo	Operating Hours	Reading Date
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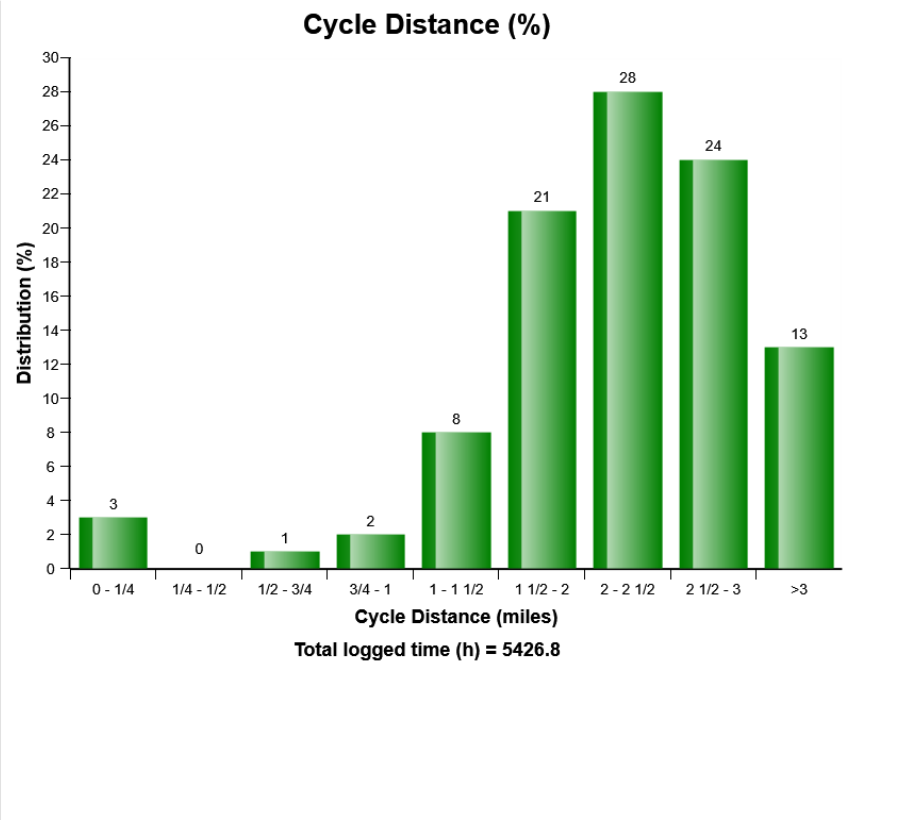
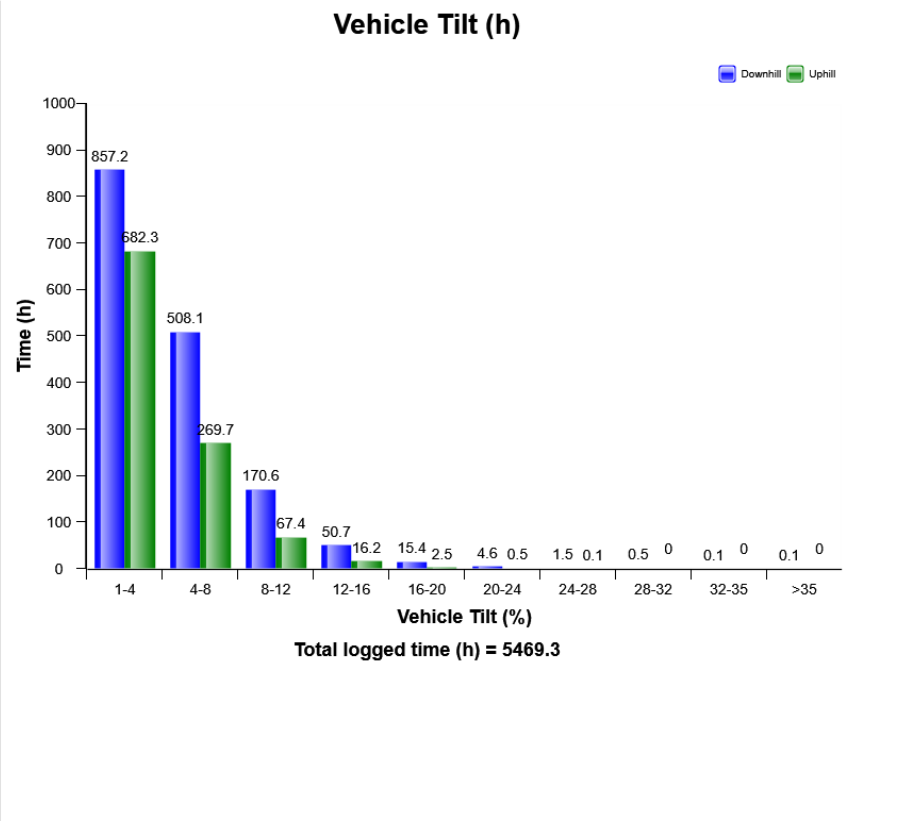


The diagram shows the distribution of the working cycle distance. The distance driven between 2 valid cycle registrations.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the distribution of the longitudinal tilt in percent (not degrees), the criteria to get registrations is that the vehicle speed exceeds 1km/h (0,62mph) and that the engine is on.

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

Total logged time (h) =
Fuel consumption (US-gallons)
Production (ton,US)
Ton/h
Ton/gal
Fuel efficiency (US Gal/ton)
Number of cycles
Cycles overloaded (%)
Load utilisation / cycle (%)

The table shows the accumulated values for respectively area stated in the table.

Values are saved over the life of the machine only when the engine is running.

5469.3
39154
370716
67.8
9.5
0.11
9685
1
89

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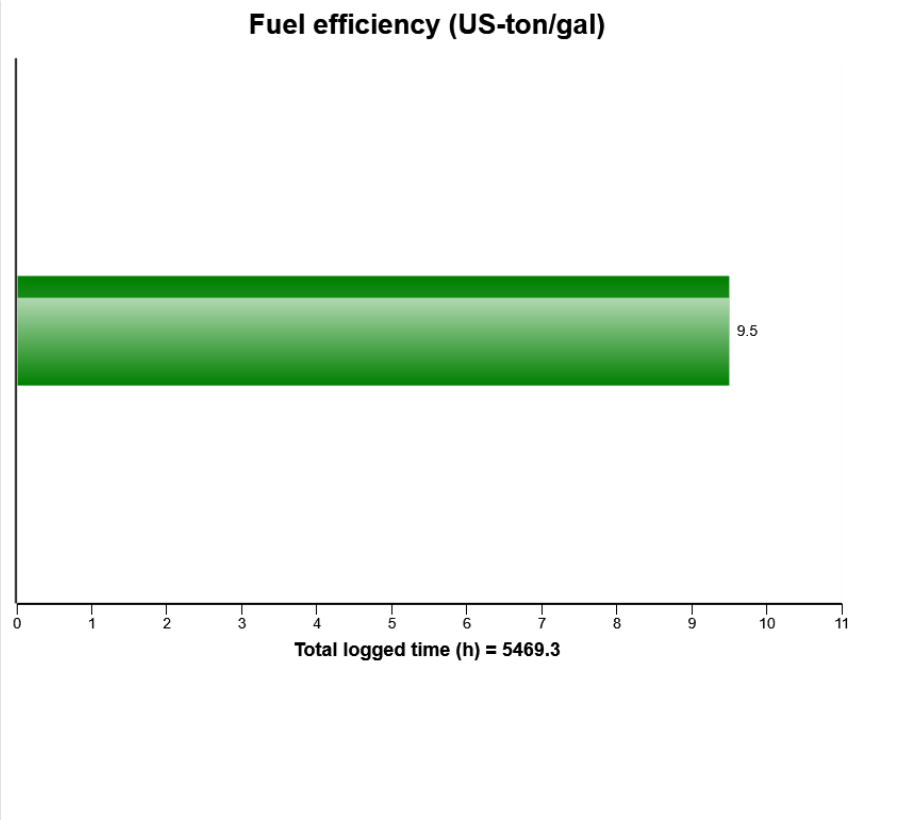

The presentation display the average produced tonne per fuel unit over the machines lifetime

Machine model	SerialNo	Operating Hours	Reading Date
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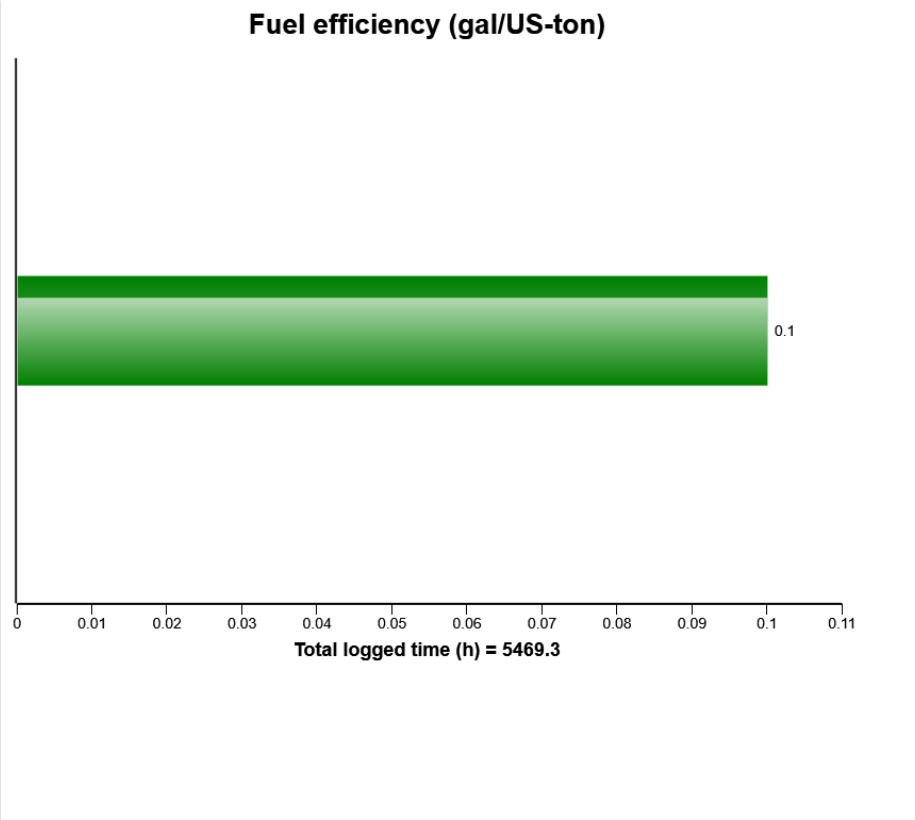
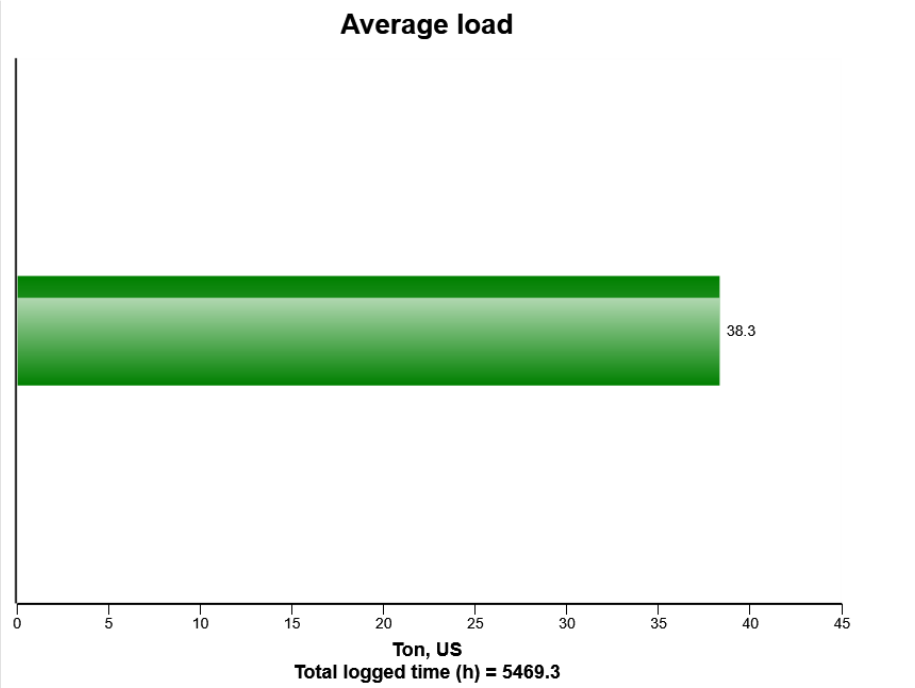


The presentation shows the average fuel consumption per tonne over the machines lifetime

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



An error has occurred while processing HtmlTextBox 'htmlTextBox1':
'WordSection1' is an unexpected token. The expected token is "" or "'". Line 1, position 18.

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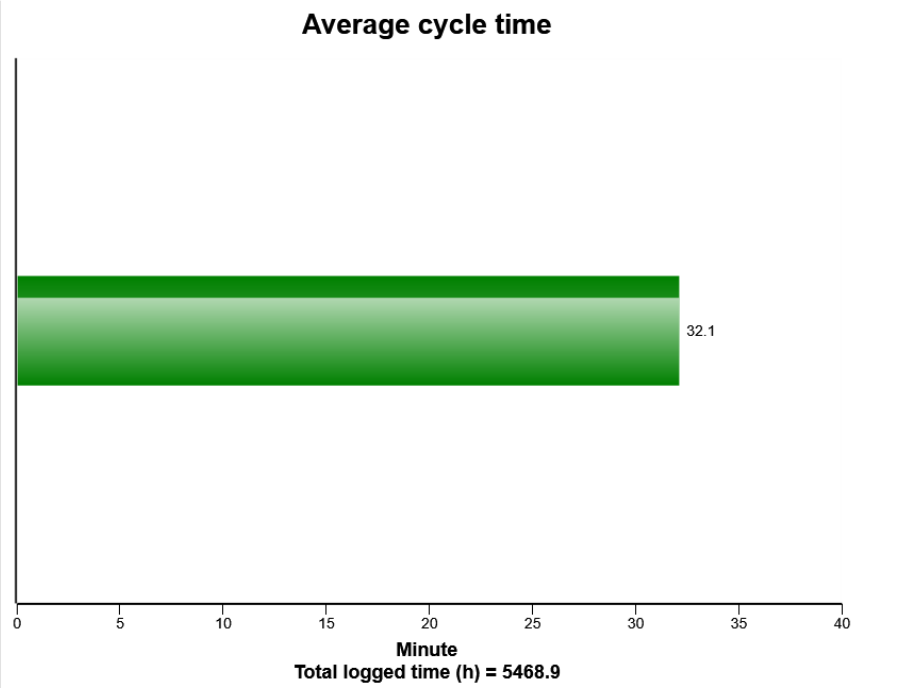

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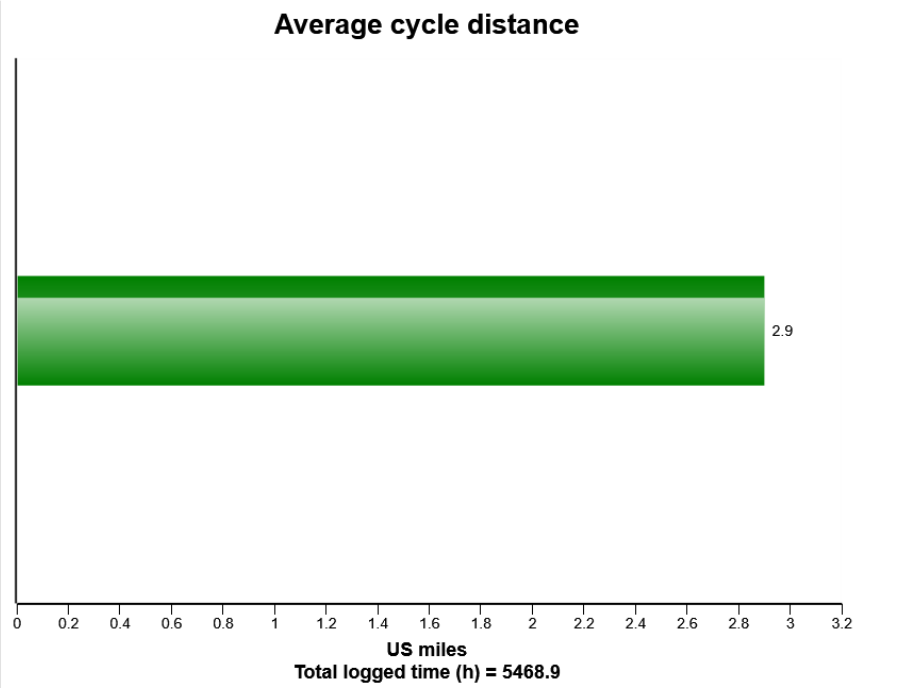

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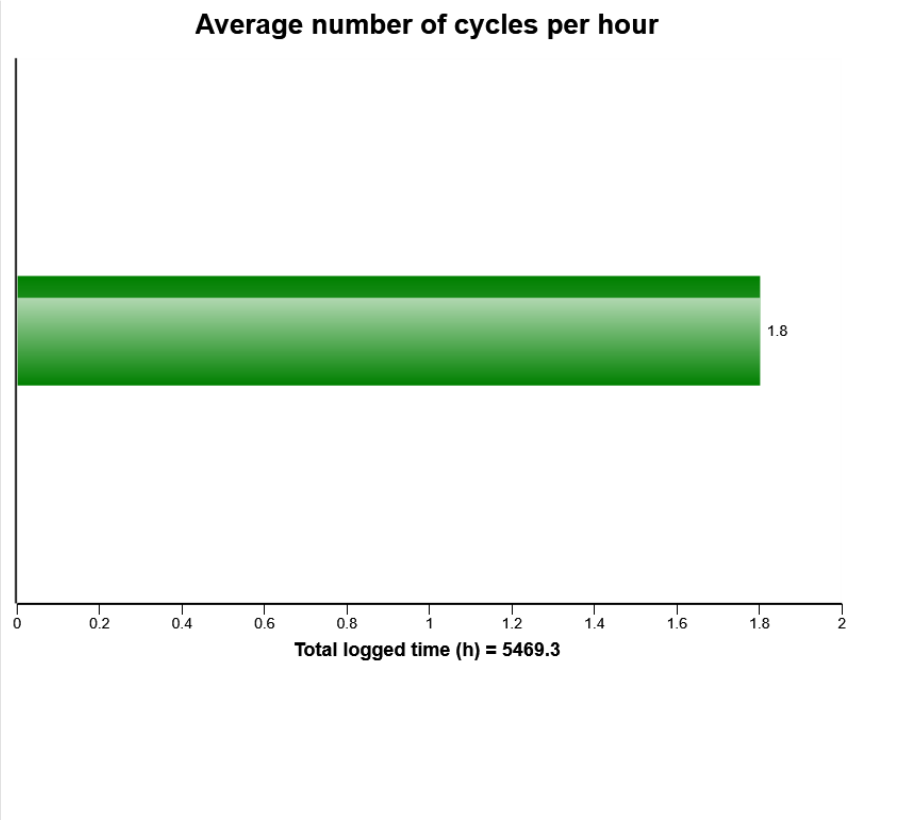

The presentation shows the average number of cycles per hour over the machines lifetime.

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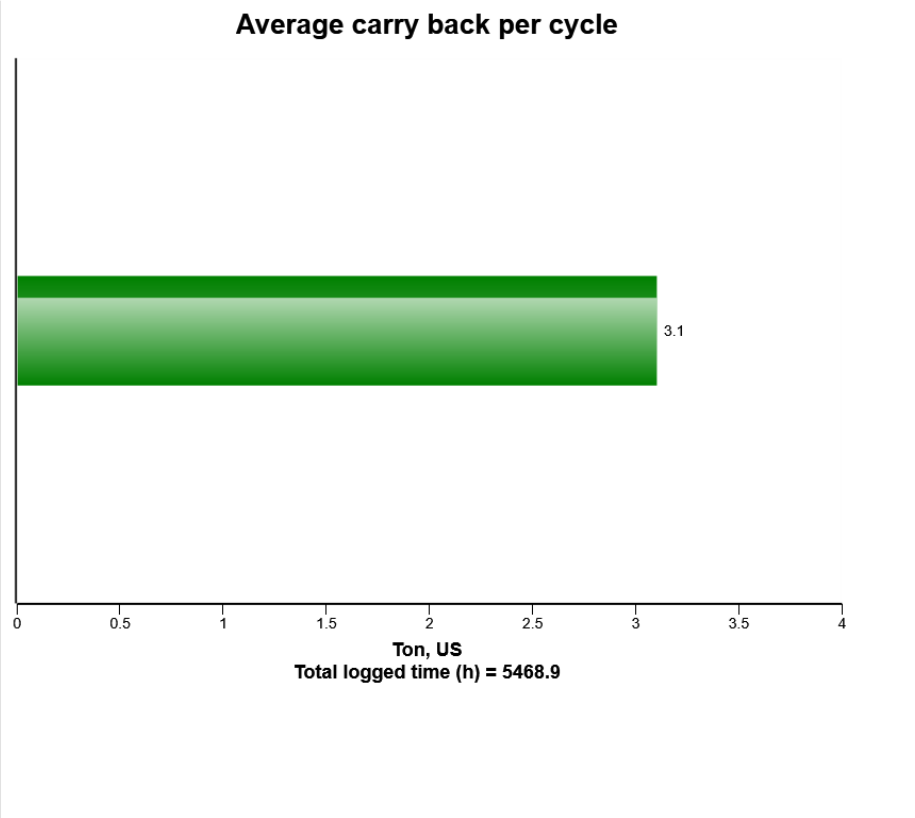

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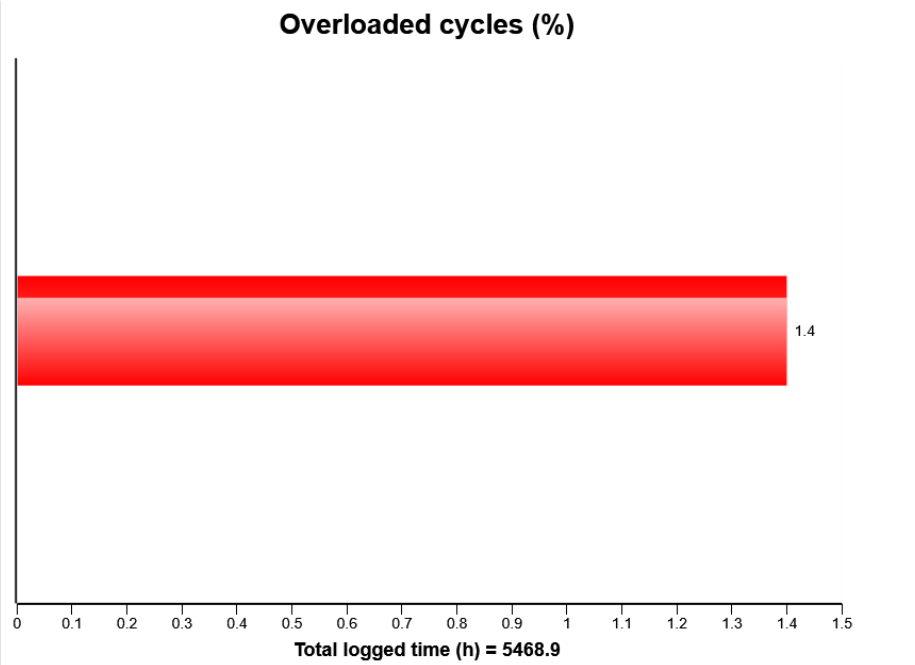

An error has occurred while processing HtmlTextBox 'htmlTextBox1':
The ':' character, hexadecimal value 0x3A, cannot be included in a name. Line 1, position 656.

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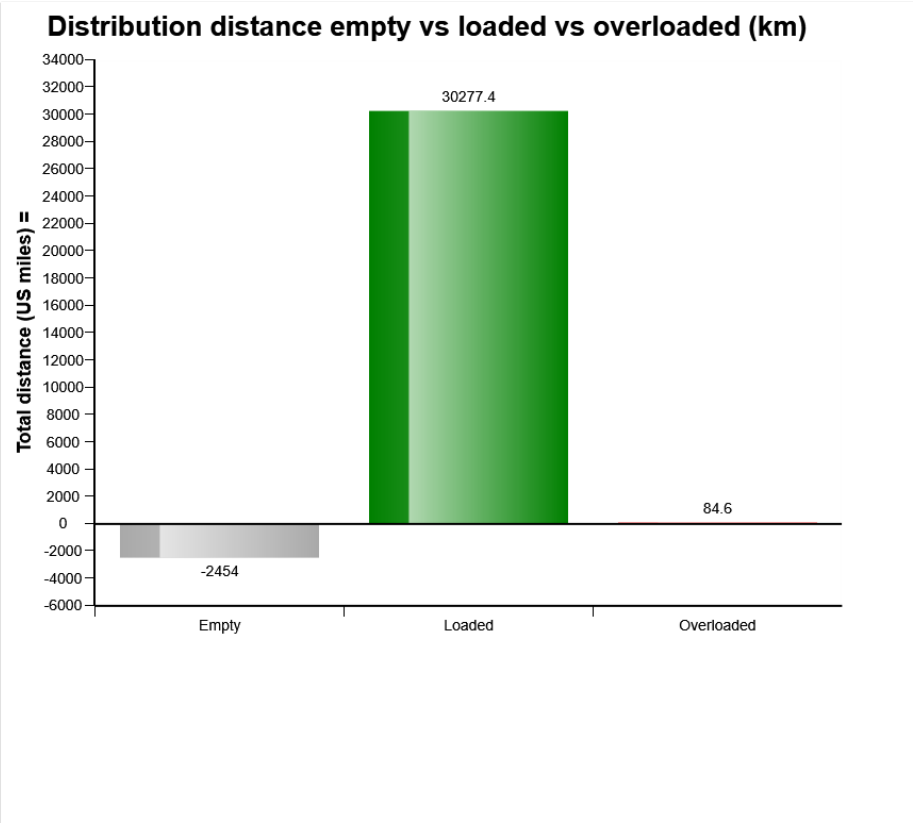

Much time operated with overload puts unnessesery stress to the machine which could lead to shorter machine life and higher repair and maintenance cost.

Much time operated empty could indicate that the machine has been operated a lot when not in production.

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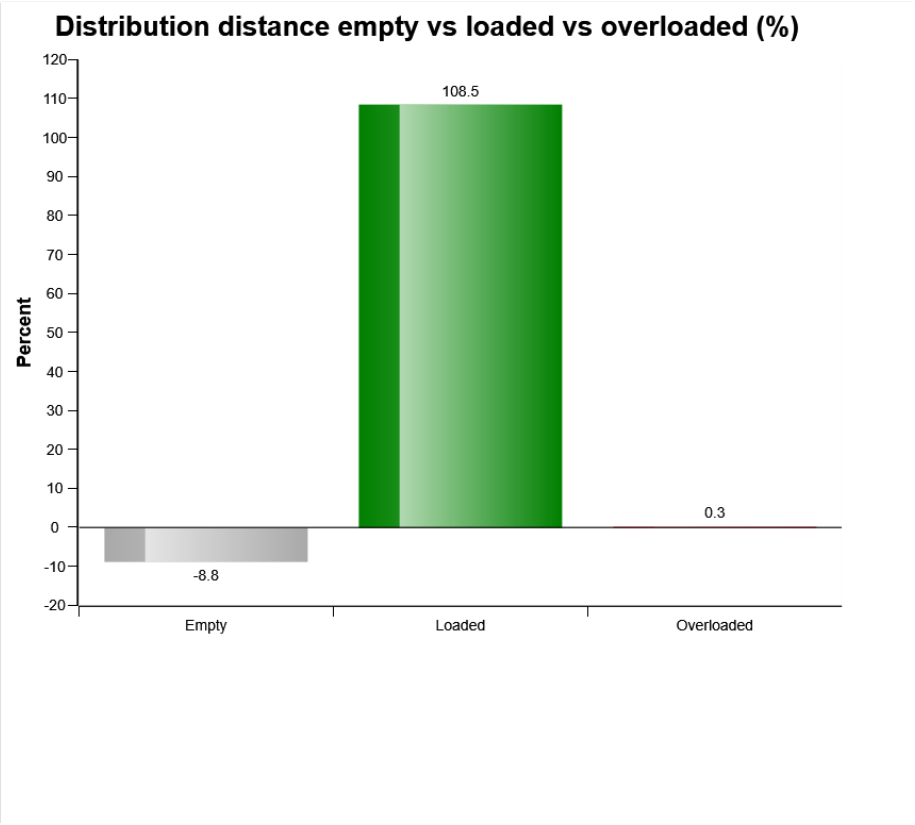

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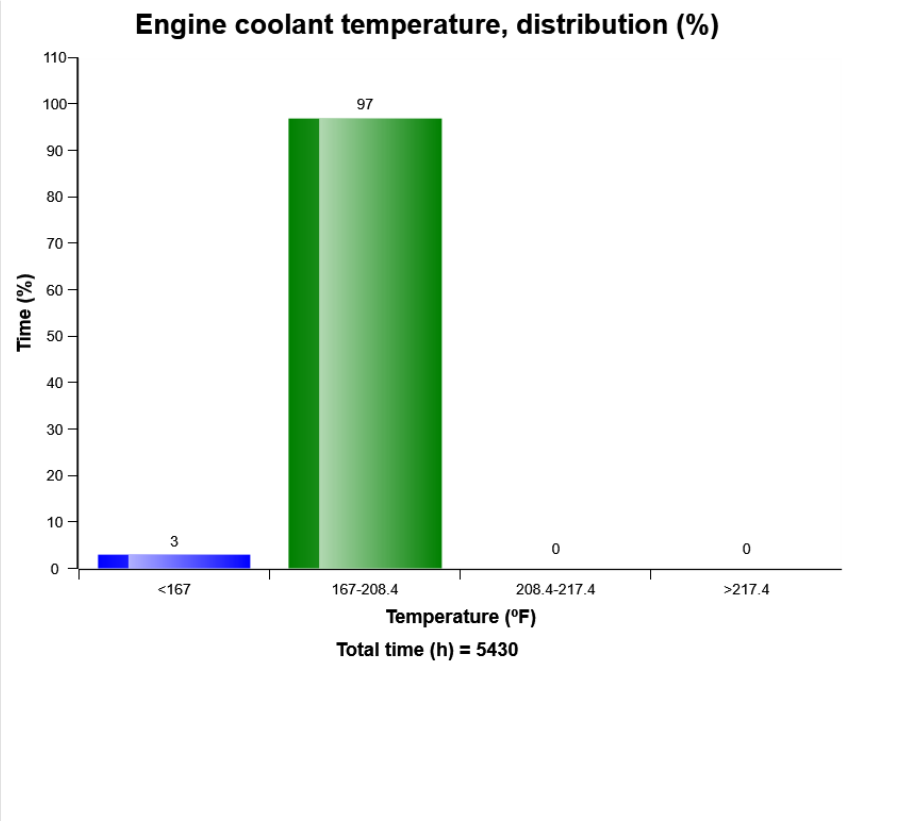

Definition:

The graph shows the time distribution of the temperature, while engine running.

Explanation:

Y-axis: Time

X-axis: Temperature distribution in classes.

Blue bar = Warm-up phase.

During the engine warm-up phase, this temperature region is passed.

It is normal to have registrations in this region.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Green bar = Normal working temperature. The Major part of the registrations shall be in this region.

Yellow bar = High working temperature. It is normal to have some registrations in this region.

Red bar = Alarm.

Registrations in this region is not normal, running in this region may cause severe damage.

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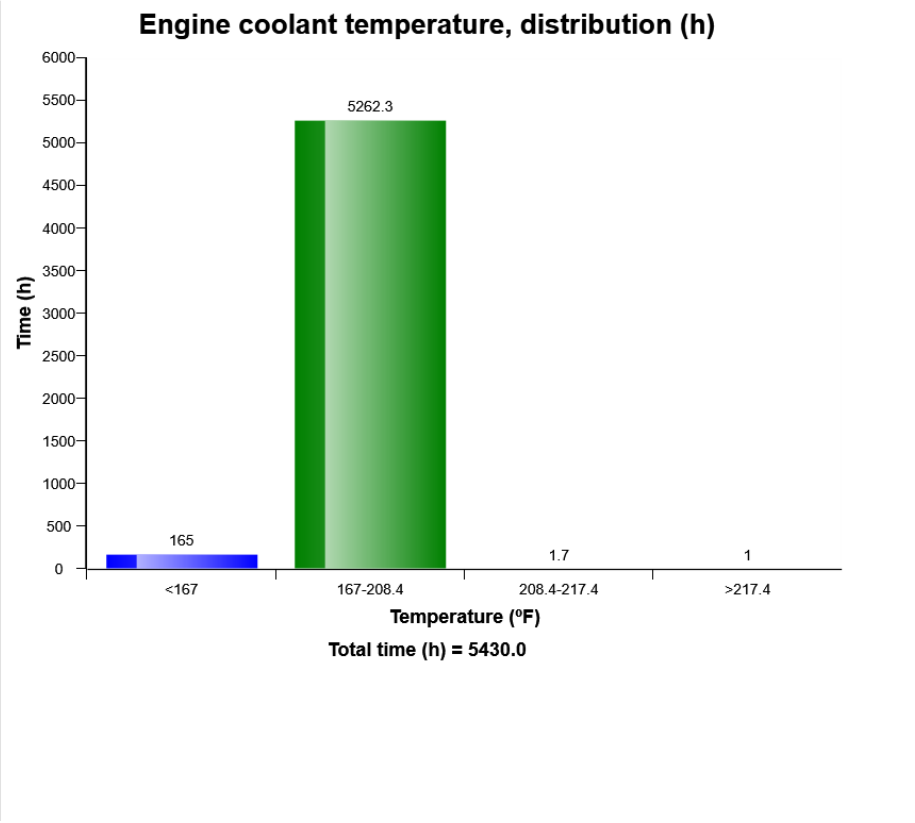

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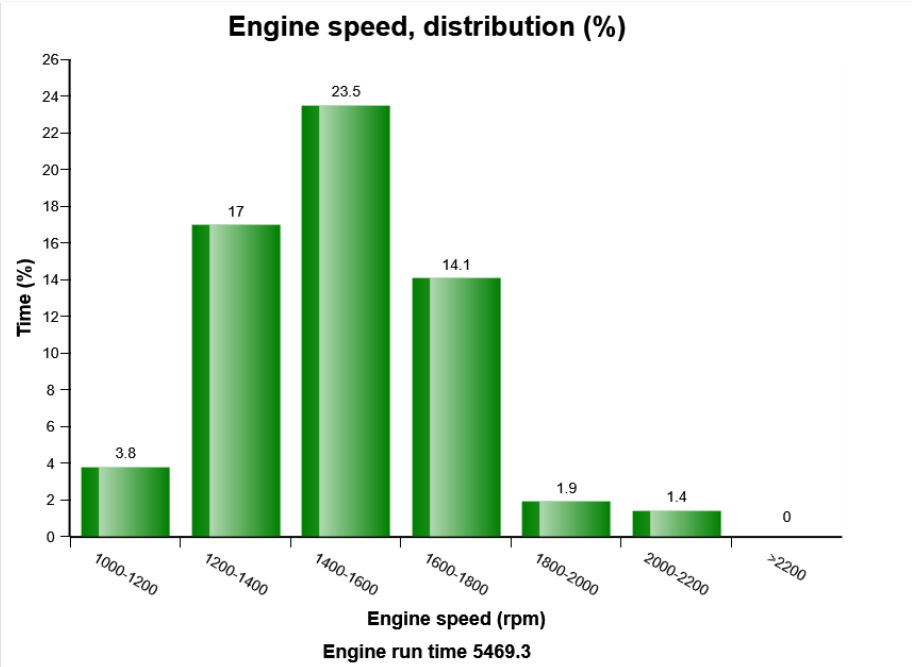

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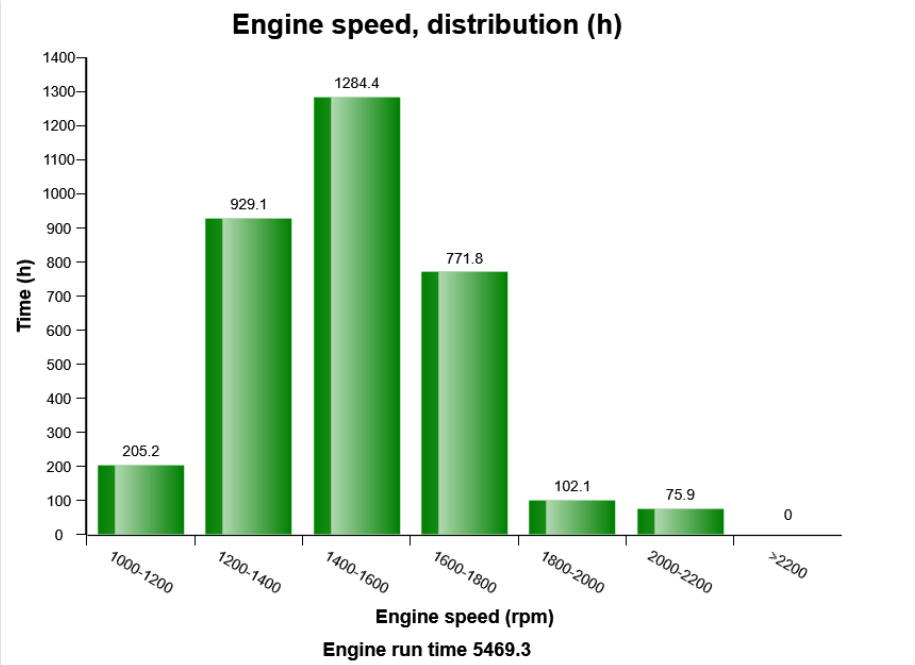

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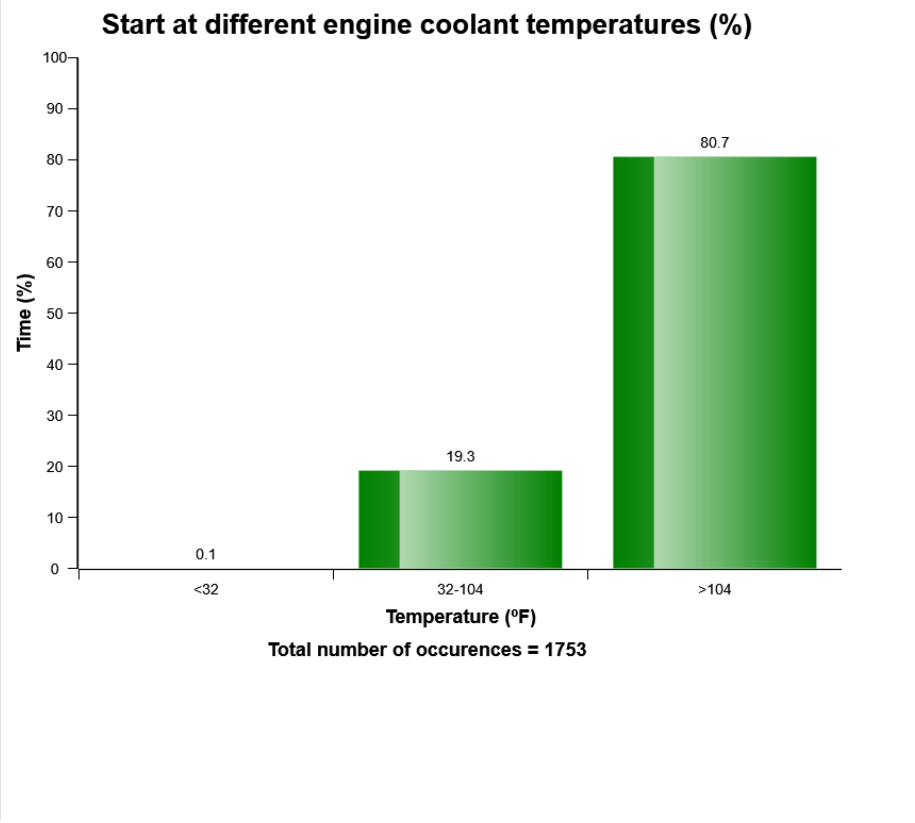

Definition:

The graph shows the distribution of engine coolant temperature, at the starting moment.

Explanation:

Y-axis: Number of engine starts

X-axis: Engine coolant temperature.

A great proportion of engine wear is due to cold starts. Try to avoid extremely cold starts. Try using an electric coolant heater.

Under the graph the total number of engine starts is displayed.

Also see " *Number of starts / hour*" to get a complete picture of engine starting.

Machine model	SerialNo	Operating Hours	Reading Date
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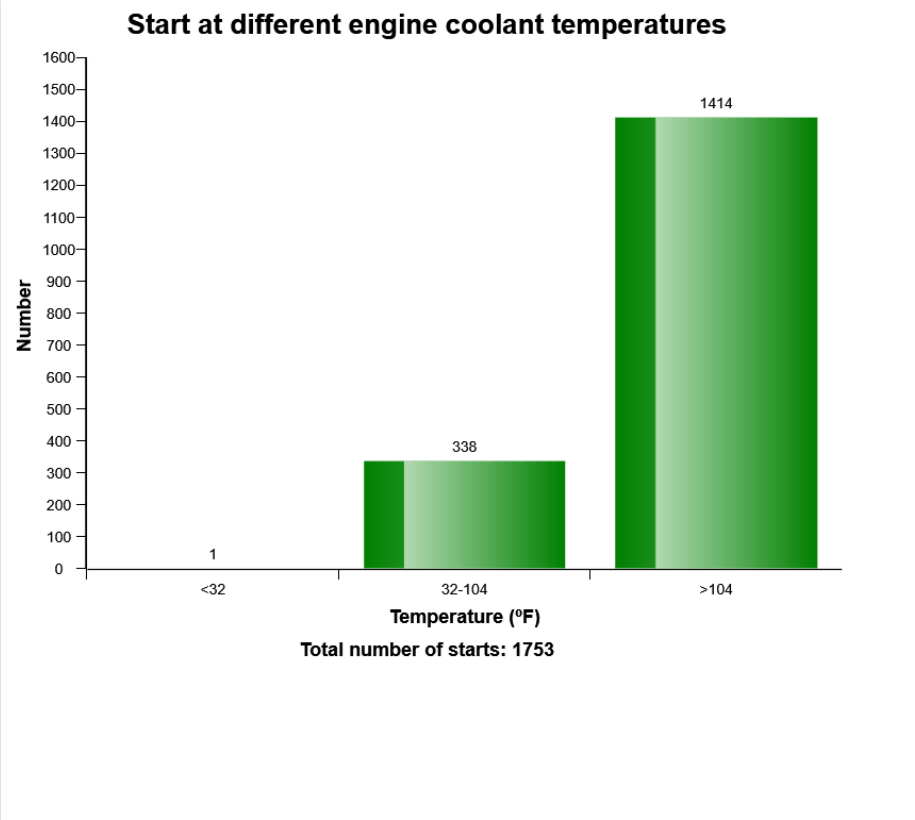

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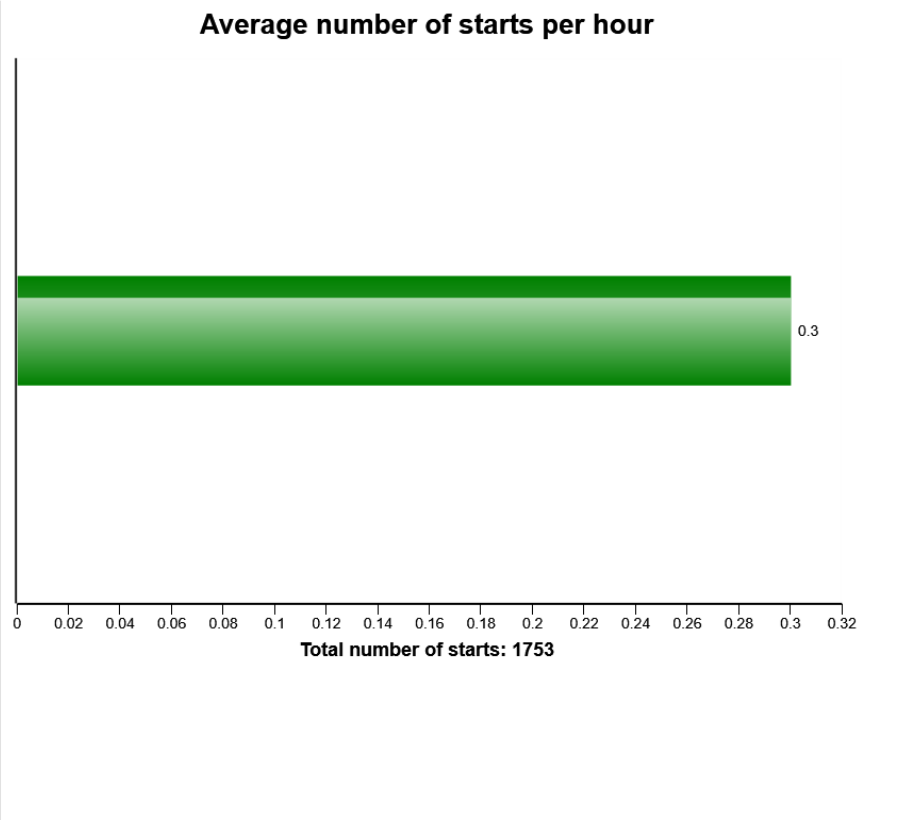


Definition:

The graph describes the average number of engine starts per engine running hour.

Explanation:

X-axis: Number of average starts per hour.

The actual time used for calculation, is time with engine on

If the fuel consumption is high one reason may be that the engine is not turned off often enough, perhaps machine is left idling for long periods. Check " Machine utilization".

The value can vary a lot depending on in which application the machine is used.

To see at which different temperatures engine is started see" Start at different engine temperatures."

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Green bar = Number of average starts per hour

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

High engine coolant temperature
Total number of occurences = 19

	Op hours	Year	Month	Day	Hour	Minute	Duration (sec)
J	1232	2017	6	19	15	25	265
A	1270	2017	6	27	15	7	29
B	1290	2017	6	29	15	26	15
C	1290	2017	6	29	15	27	22
D	1290	2017	6	29	15	32	22
E	1290	2017	6	29	15	39	2
F	1313	2017	7	14	15	51	26
G	1313	2017	7	14	16	3	1
H	1896	2017	9	20	19	9	15
I	1896	2017	9	20	19	23	7

Definition :

This type of table shows the latest occasions when a specific event has occurred. When a specified criteria is fulfilled a registration is made. Each table row corresponds to one occasion. Operating hours is displayed in the first column, followed by year, month, day, hour and minute to show when an event has occurred.

The rows are not ordered chronological (The latest event may be in the middle).

Only one event per minute is registered.

Over the table the total number of events is displayed.

Duration :

The duration of each event is shown after the timestamp of the event.

The duration is counted as long as the criteria is fulfilled.

Extreme value :

The extreme value column displays the most extreme value during the event.

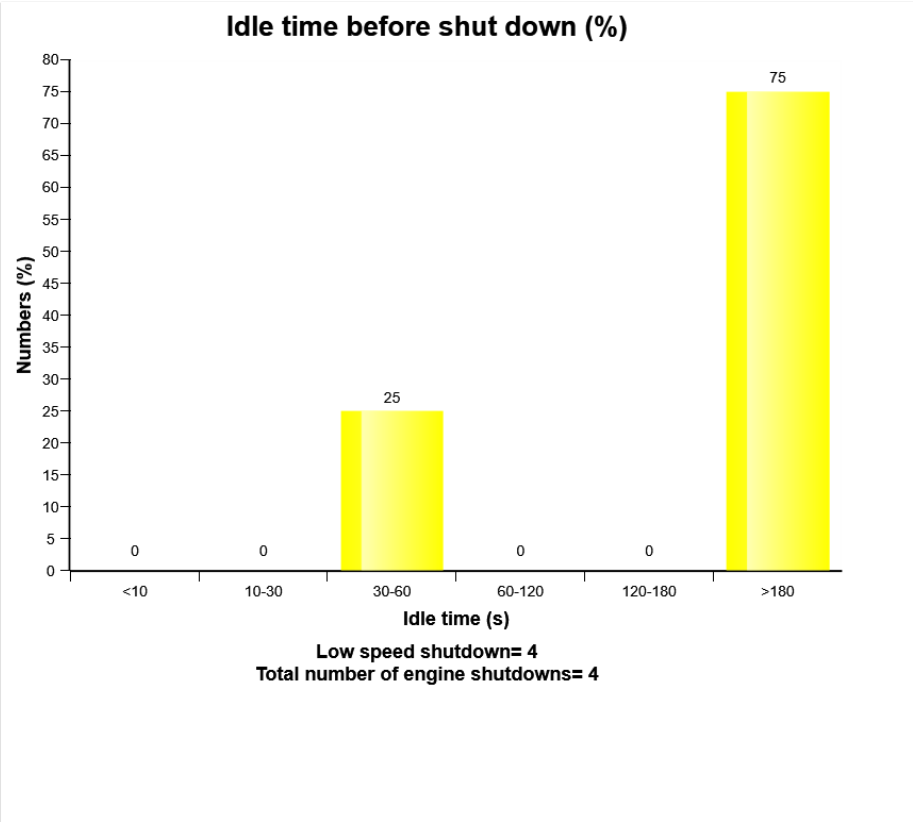
Extreme (° F)
244
224
224
224
224
217
224
215
224
221

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Criteria :

The criteria to get an registration, is that the alarm signal for high engine coolant temperature is active and that the diesel engine is running.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Definition:

This graph shows the distribution of delayed time at low idle speed until the engine is turned off.

The delayed time distribution for each bar is shown on top of its column in percentage.

The sum of bars is 100%.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

High engine oil temperature
Total number of occurences = 2

	Op hours	Year	Month	Day	Hour	Minute	Duration (sec)
C	0	2000	0	0	0	0	0
D	0	2000	0	0	0	0	0
E	0	2000	0	0	0	0	0
F	0	2000	0	0	0	0	0
G	0	2000	0	0	0	0	0
H	0	2000	0	0	0	0	0
I	0	2000	0	0	0	0	0
J	0	2000	0	0	0	0	0
A	1225	2017	6	18	15	8	224
B	1226	2017	6	18	15	32	328

Definition :

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Over the table the total number of events is displayed

Duration :

The duration of each event is shown after the timestamp of the event.

The duration is counted as long as the criteria is fulfilled.

Extreme value :

The extreme value column displays the most extreme value during the event.

Extreme (° F)
32
32
32
32
32
32
32
32
266
269

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Criteria :

The criteria to get an registration, is that the alarm signal for high engine oil temperature is active and that the diesel engine is running.

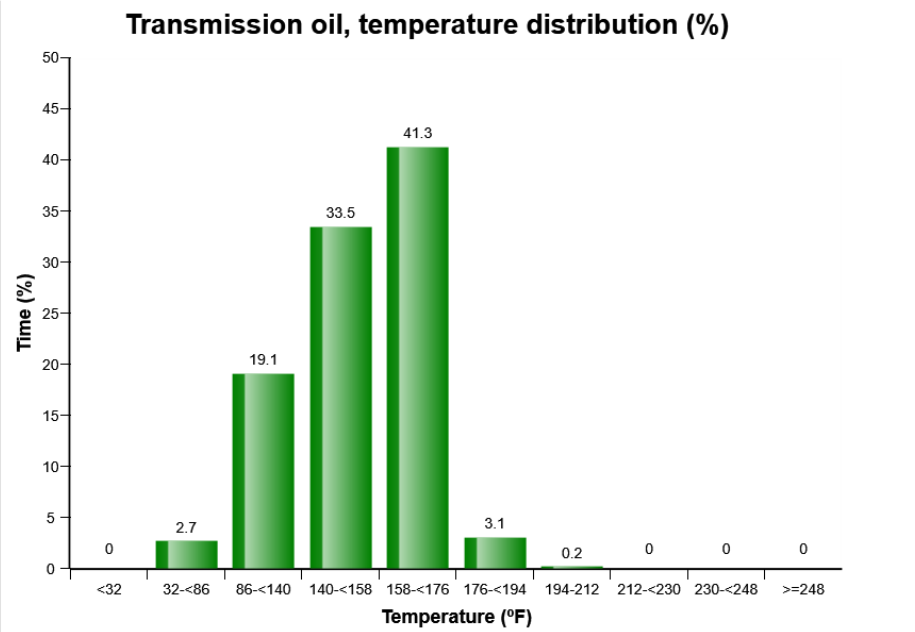
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Regeneration duration
Total number of occurences = 31

Op hours	Year	Month	Day	Hour	Minute	Duration (min)
2714	2017	11	30	12	52	45
2773	2017	12	15	22	35	45
2848	2017	12	21	11	19	48
2928	2017	12	28	22	58	50
2991	2018	1	1	11	49	46
3049	2018	1	7	8	48	60
3146	2018	1	15	19	25	51
3228	2018	1	20	18	5	46
3304	2018	1	24	20	52	48
3368	2018	1	28	8	2	52
3450	2018	2	3	20	15	50
3535	2018	2	9	10	56	49
3711	2018	2	19	16	35	48
3863	2018	2	27	20	45	56
3941	2018	3	6	6	23	52
4027	2018	3	13	23	53	57
4529	2018	5	16	8	10	53
4984	2018	6	20	12	7	60
5417	2018	8	16	10	24	49
5422	2018	8	16	15	18	43

An error has occurred while processing HtmlTextBox 'ExplanationTxb':
The 'span' start tag on line 1 position 43 does not match the end tag of 'BR'. Line 1, position 153.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the transmission oil temperature in various temperature ranges. The time is displayed in the following ten temperature ranges:

<32ºF Temperatures below 32ºF

32-<86ºF Temperatures from 32ºF until 86ºF

86-<140ºF Temperatures from 86ºF until 140ºF

140-<158ºF Temperatures from 140ºF until 158ºF

158-<176ºF Temperatures from 158ºF until 176ºF

176-<194ºF Temperatures from 176ºF until 194ºF

194-<212ºF Temperatures from 194ºF until 212ºF

212-<230ºF Temperatures from 212ºF until 230ºF

230-<248ºF Temperatures from 230ºF until 248ºF

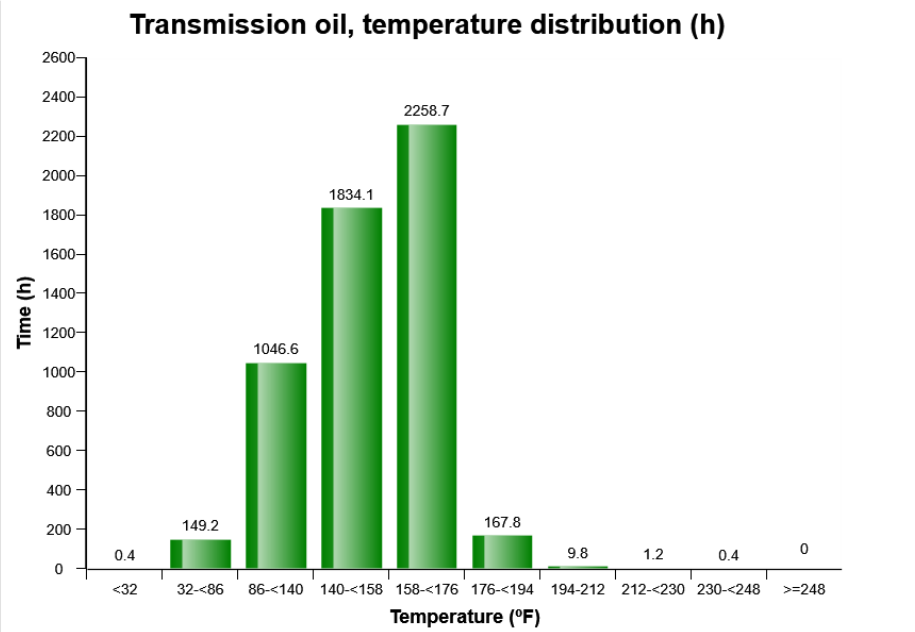
>248ºF Temperatures over 248ºF

The bar that describes temperatures from 230ºF until 248ºF is yellow and means that the oil has began to be overheated. Driver has been given orange central warning

The bar that describes >248ºF is red and means that the oil has been overheated. Driver has been given red central warning.

Oil temperatures exceeding 230ºF must be avoided since the properties of the oil are degraded

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the transmission oil temperature in various temperature ranges. The time is displayed in the following ten temperature ranges:

<32ºF Temperatures below 32ºF

32-<86ºF Temperatures from 32ºF until 86ºF

86-<140ºF Temperatures from 86ºF until 140ºF

140-<158ºF Temperatures from 140ºF until 158ºF

158-<176ºF Temperatures from 158ºF until 176ºF

176-<194ºF Temperatures from 176ºF until 194ºF

194-<212ºF Temperatures from 194ºF until 212ºF

212-<230ºF Temperatures from 212ºF until 230ºF

230-<248ºF Temperatures from 230ºF until 248ºF

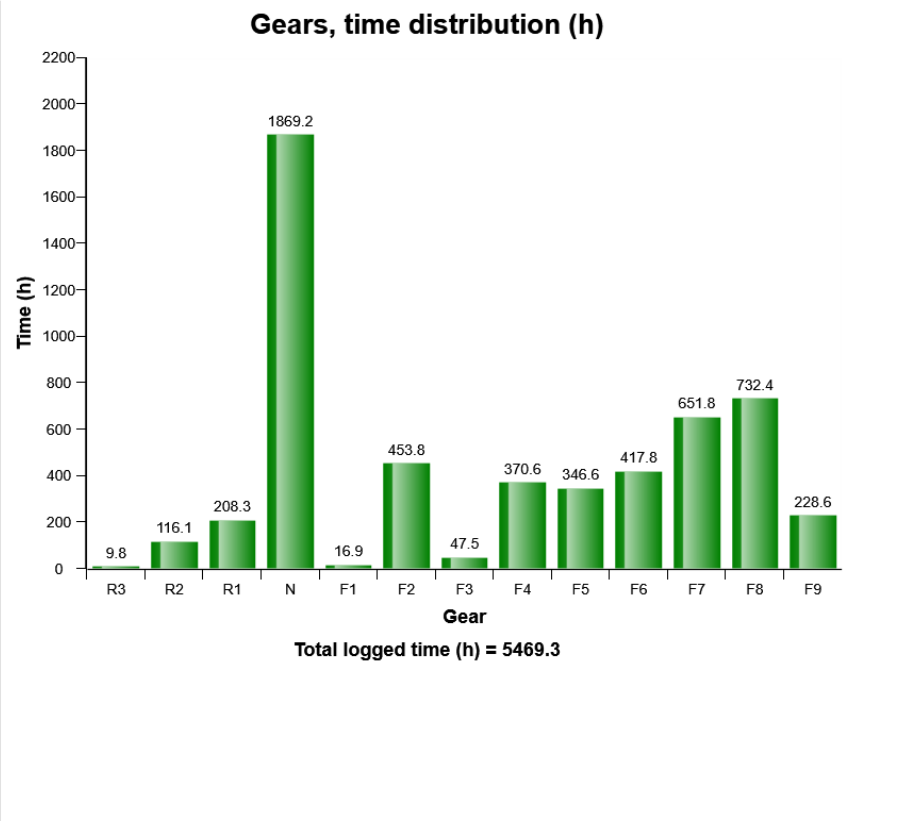
>248ºF Temperatures over 248ºF

The bar that describes temperatures from 230ºF until 248ºF is yellow and means that the oil has began to be overheated. Driver has been given orange central warning

The bar that describes >248ºF is red and means that the oil has been overheated. Driver has been given red central warning.

Oil temperatures exceeding 230ºF must be avoided since the properties of the oil are degraded

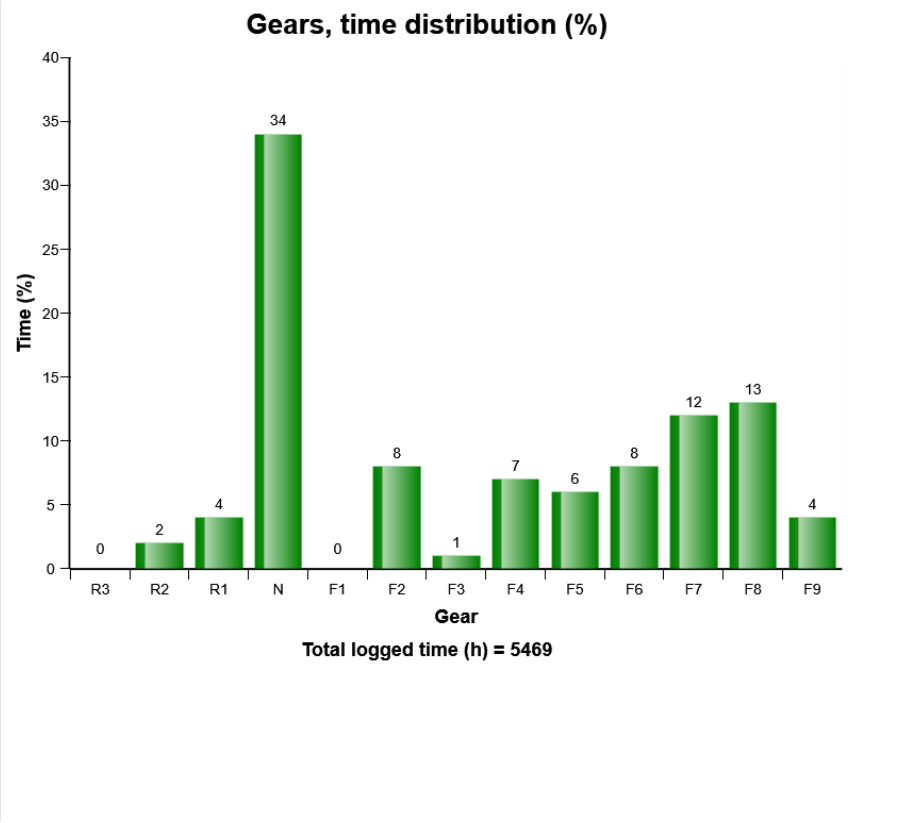
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the time for each gear. Each bar represents a gear.

How the time is distributed between the gears depends on the operating conditions.

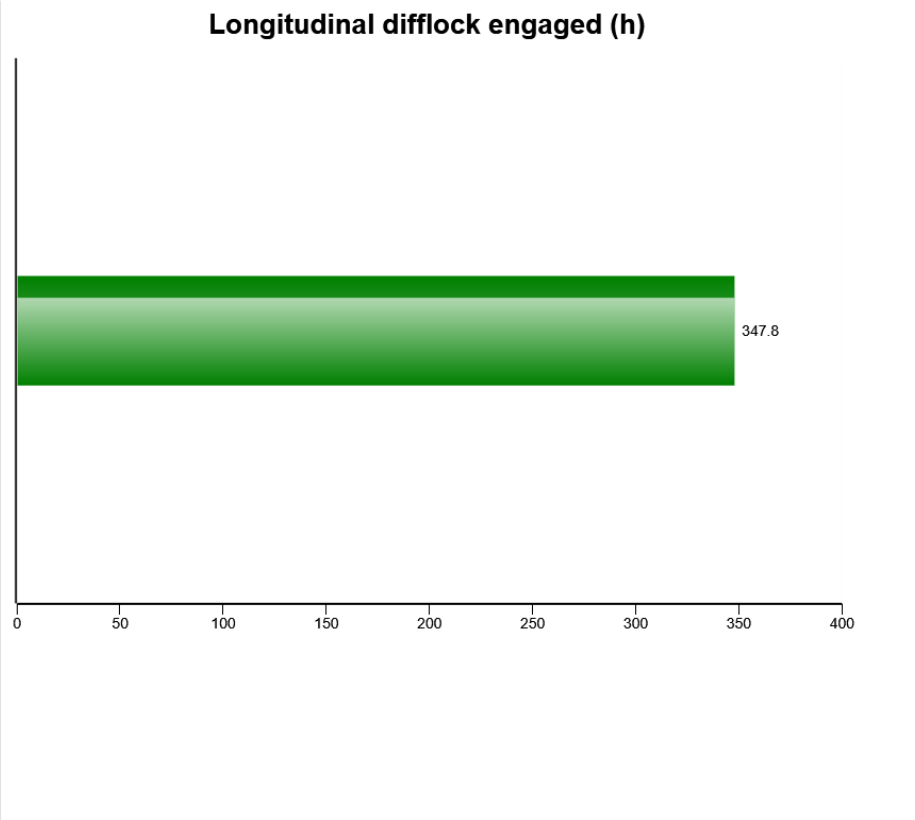
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the time for each gear. Each bar represents a gear.

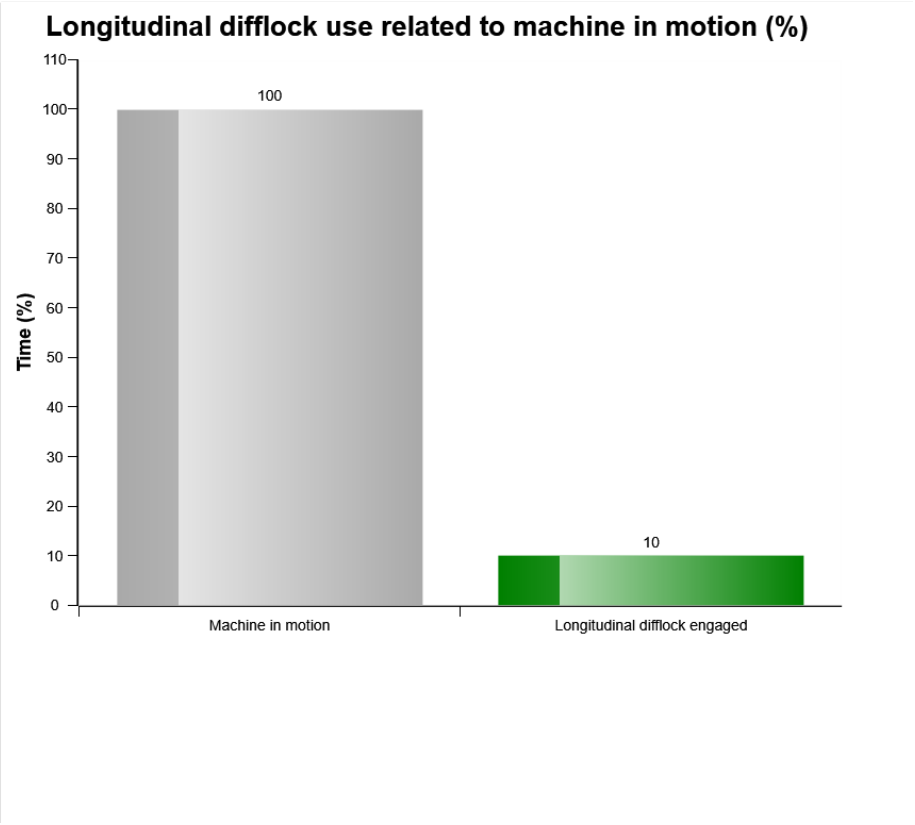
How the time is distributed between the gears depends on the operating conditions.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows how long time in hours the longitudinal difflock has been engaged. The presentation only shows time when the machine is moving as this is when the wear on the difflock occurs. The difflock should always be disengage when not needed to avoid unnecessary wear.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the percentage of engaged longitudinal difflock in relation to machine in motion.

The longitudinal difflock should always be disengaged when not needed to reduce wear.

The normal use of the longitudinal difflock in relation to the time that the machine has been operated depends on the operating conditions. Generally, the more offroad applications the machine operates in, the higher the longitudinal difflock use shall be in relation to the time that the machine has been operated. Also operating in uphill conditions on slippery surface can require longitudinal difflock.

Also check " Longitudinal difflock engaged (h)"

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Transmission oil pressure low
Total number of occurences = 1

Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (psi)
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
0	2000	0	0	0	0	0	0
4596	2018	5	19	17	12	0	1360

Definition :

This type of table shows the latest occasions when a specific event has occurred. When a specified criteria is fulfilled a registration is made. Each table row corresponds to one occasion. Operating hours is displayed in the first column, followed by year, month, day, hour and minute to show when an

event has occurred.

The rows are not ordered chronological (The latest event may be in the middle).

Only one event per minute is registered.

Over the table the total number of events is displayed.

Duration :

The duration of each event is shown after the timestamp of the event.

The duration is counted as long as the criteria is fulfilled.

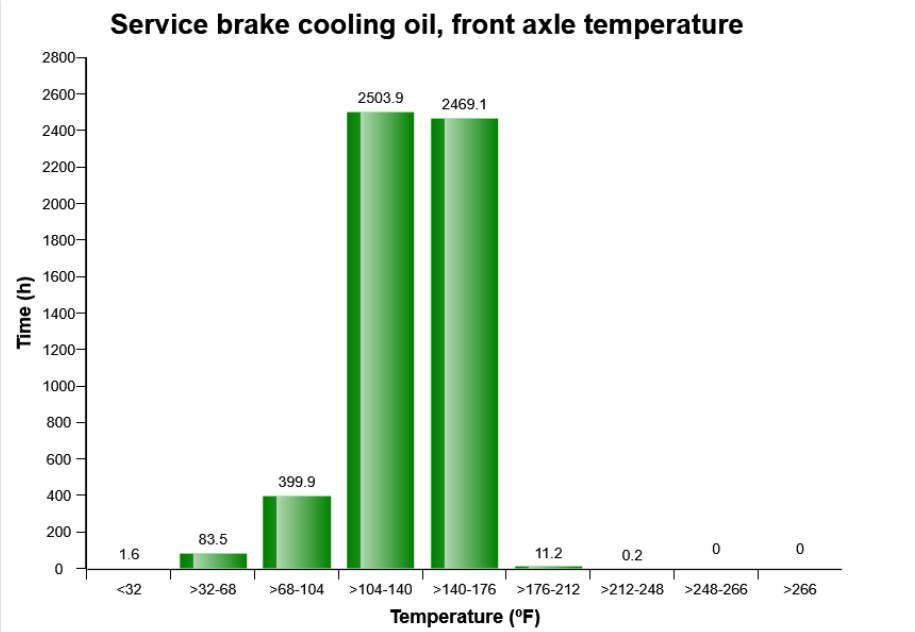
Extreme value :

The extreme value column displays the most extreme value during the event.

Criteria :

In order for an occurrence of low transmission oil pressure to be recorded in a data point and the count to increment by 1, the transmission oil pressure state must change from “normal” or “error” to “low.” The event of low transmission oil pressure will end when the status changes from “low” back to “normal” or “error.”

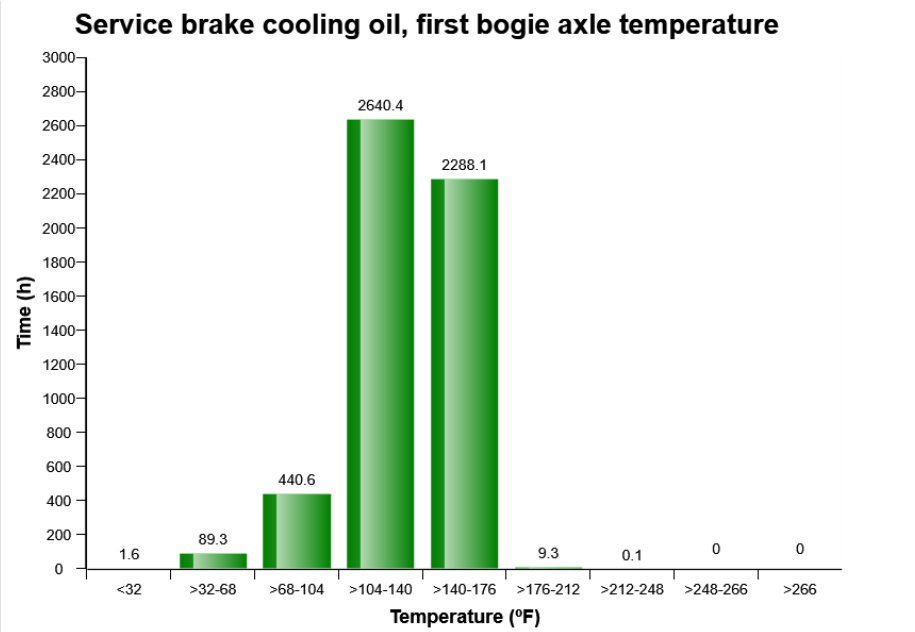
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the front axle brake cooling oil temperature. The temperatures are divided into ranges, yellow bar (>248-266ºF) and red bar (>266ºF) shows abnormal temperatures. The temperature is registered in the line from the front axle to the oil cooler, that is, the warmest oil in the circuit.

The temperature shown by yellow and red bars degrade the properties of the cooling oil, and may be the result of incorrect and hard operation of the machine. Check the brake pressure distribution in the diagram "Service brake pressure, distribution (%)". If the brake cooling oil temperature is high despite normal distribution of service brake pressure, there is probably a malfunction in the brake cooling circuit

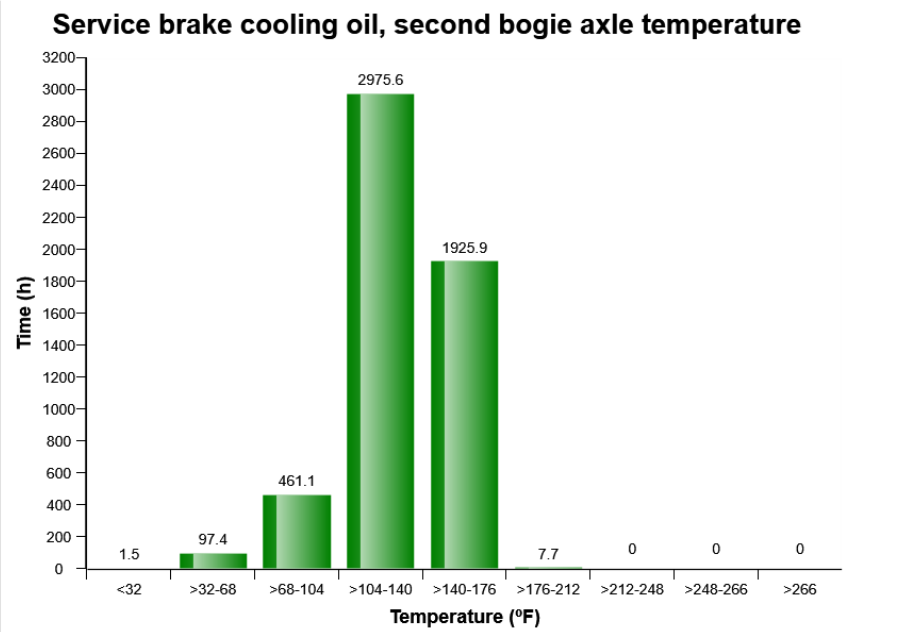
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the first bogie axle brake cooling oil temperature. The temperatures are divided into ranges, yellow bar (>248-266ºF) and red bar (>266ºF) shows abnormal temperatures. The temperature is registered in the line from the first bogie axle to the oil cooler, that is, the warmest oil in the circuit.

The temperature shown by yellow and red bars degrade the properties of the cooling oil, and may be the result of incorrect and hard operation of the machine. Check the brake pressure distribution in the diagram "Service brake pressure, distribution (%)". If the brake cooling oil temperature is high despite normal distribution of service brake pressure, there is probably a malfunction in the brake cooling circuit.

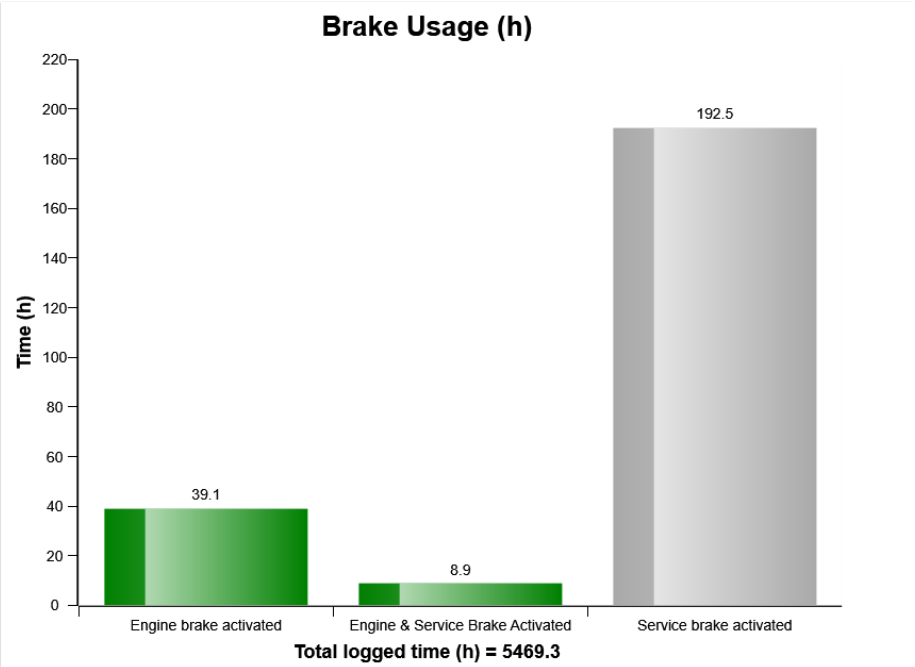
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



The diagram shows the front axle brake cooling oil temperature. The temperatures are divided into ranges, yellow bar (>248-266ºF) and red bar (>266ºF) shows abnormal temperatures. The temperature is registered in the line from the second bogie axle to the oil cooler, that is, the warmest oil in the circuit.

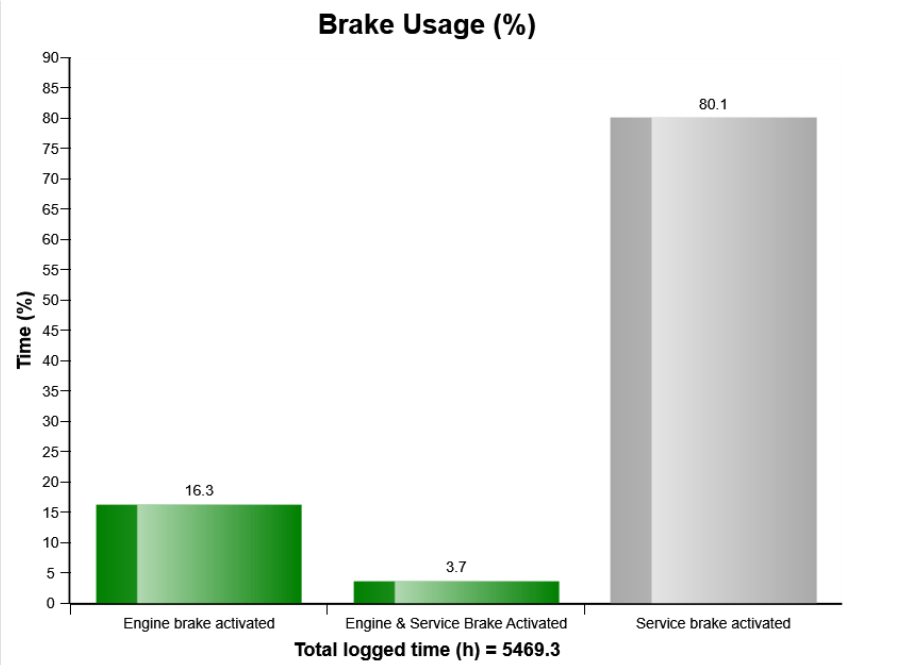
The temperature shown by yellow and red bars degrade the properties of the cooling oil, and may be the result of incorrect and hard operation of the machine. Check the brake pressure distribution in the diagram "Service brake pressure, distribution (%)". If the brake cooling oil temperature is high despite normal distribution of service brake pressure, there is probably a malfunction in the brake cooling circuit.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



An error has occurred while processing HtmlTextBox 'htmlTextBox1':
'WordSection1' is an unexpected token. The expected token is "" or "'. Line 1, position 18.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



An error has occurred while processing HtmlTextBox 'htmlTextBox1':
'WordSection1' is an unexpected token. The expected token is "" or "'. Line 1, position 18.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Low Brake Servo Pressure
Total number of occurences = 1

	Op hours	Year	Month	Day	Hour	Minute	Duration (sec)
B	0	2000	0	0	0	0	0
C	0	2000	0	0	0	0	0
D	0	2000	0	0	0	0	0
E	0	2000	0	0	0	0	0
F	0	2000	0	0	0	0	0
G	0	2000	0	0	0	0	0
H	0	2000	0	0	0	0	0
I	0	2000	0	0	0	0	0
J	0	2000	0	0	0	0	0
A	2406	2017	11	10	16	42	10

Definition :

This type of table shows the latest occasions when a specific event has occurred. When a specified criteria is fulfilled a registration is made. Each table row corresponds to one occasion. Operating hours is displayed in the first column, followed by year, month, day, hour and minute to show when an event has occurred.

The rows are not ordered chronological (The latest event may be in the middle).

Only one event per minute is registered.

Over the table the total number of events is displayed

Duration :

The duration of each event is shown after the timestamp of the event.

The duration is counted as long as the criteria is fulfilled.

Extreme value :

The extreme value column displays the most extreme value during the event.

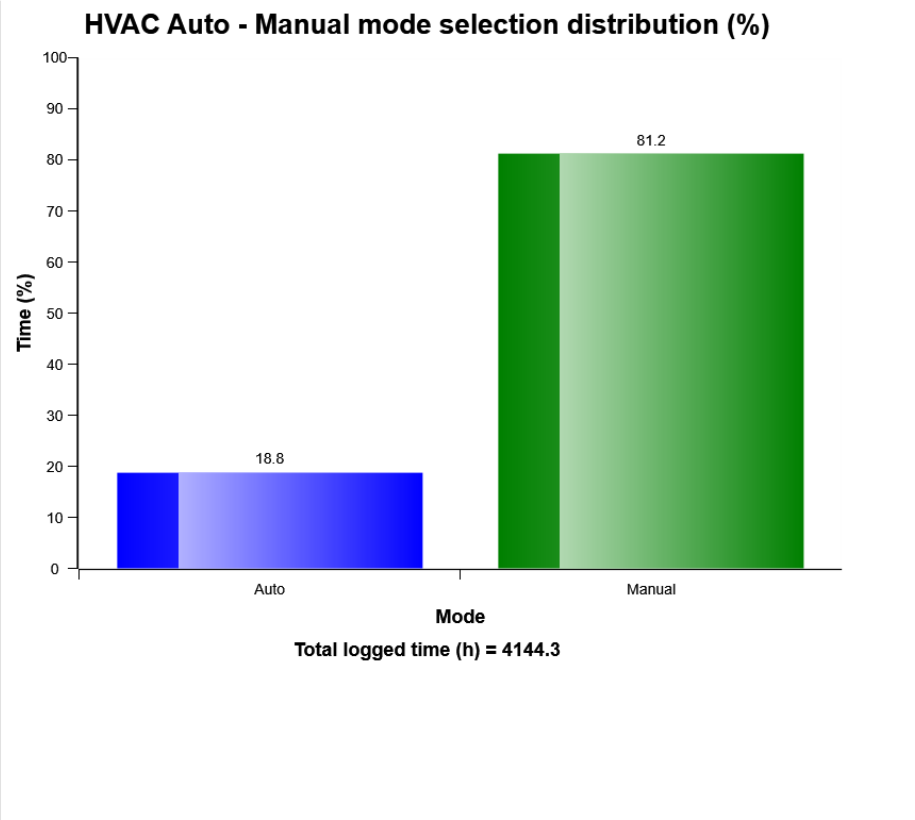
Extreme (psi)
0
0
0
0
0
0
0
0
0
1661

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Criteria :

In order for an occurrence of low brake servo pressure to be recorded in a data point and the count to increment by 1, the low brake servo pressure state must be alarm. Gear not in Neutral and engine must be on.

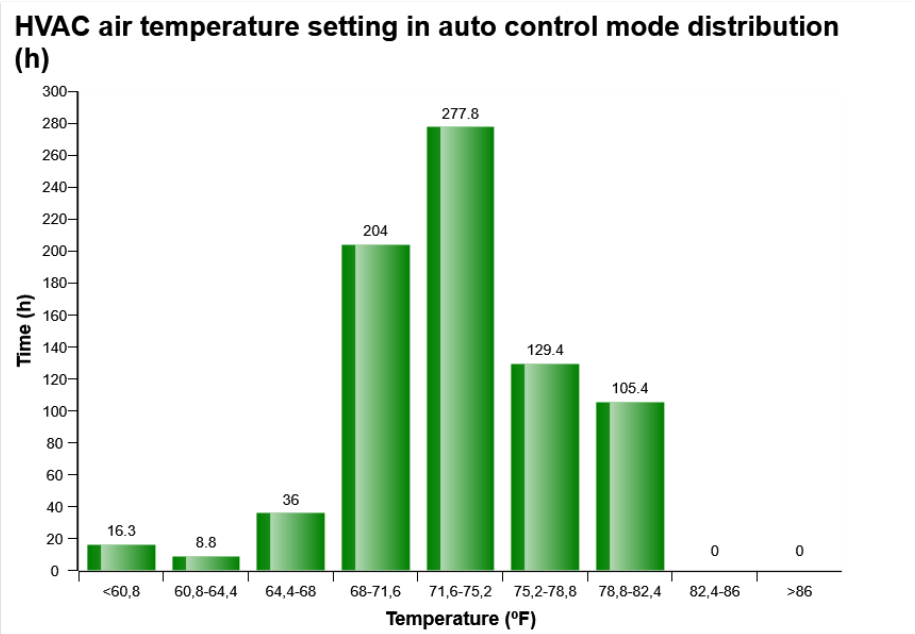
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Definition:

The diagram describes auto-manual mode sele ction distribution of HVAC system in machine while it Works. The share of each mode compared to Total time of HVAC operation is displayed.

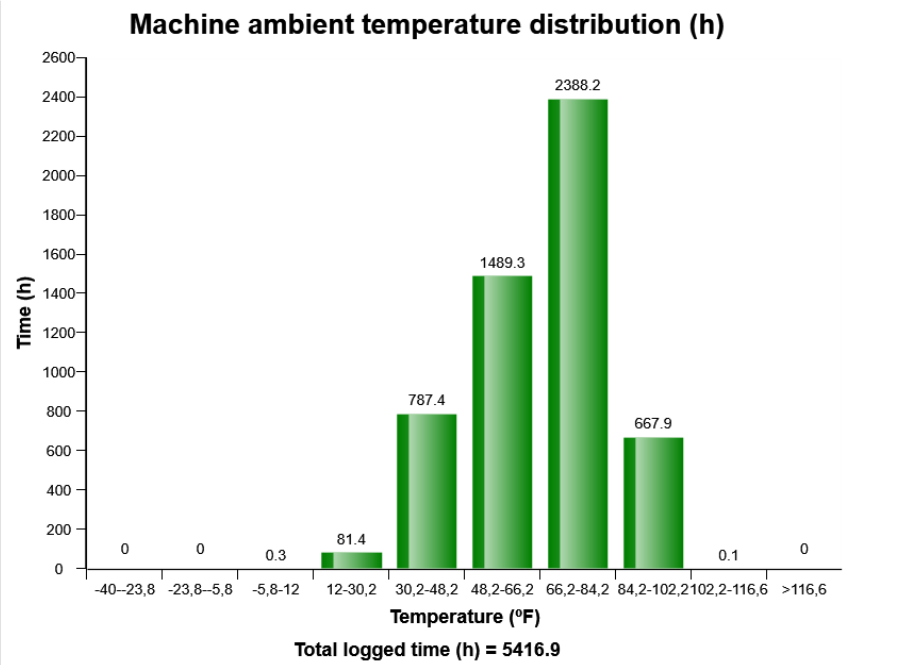
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



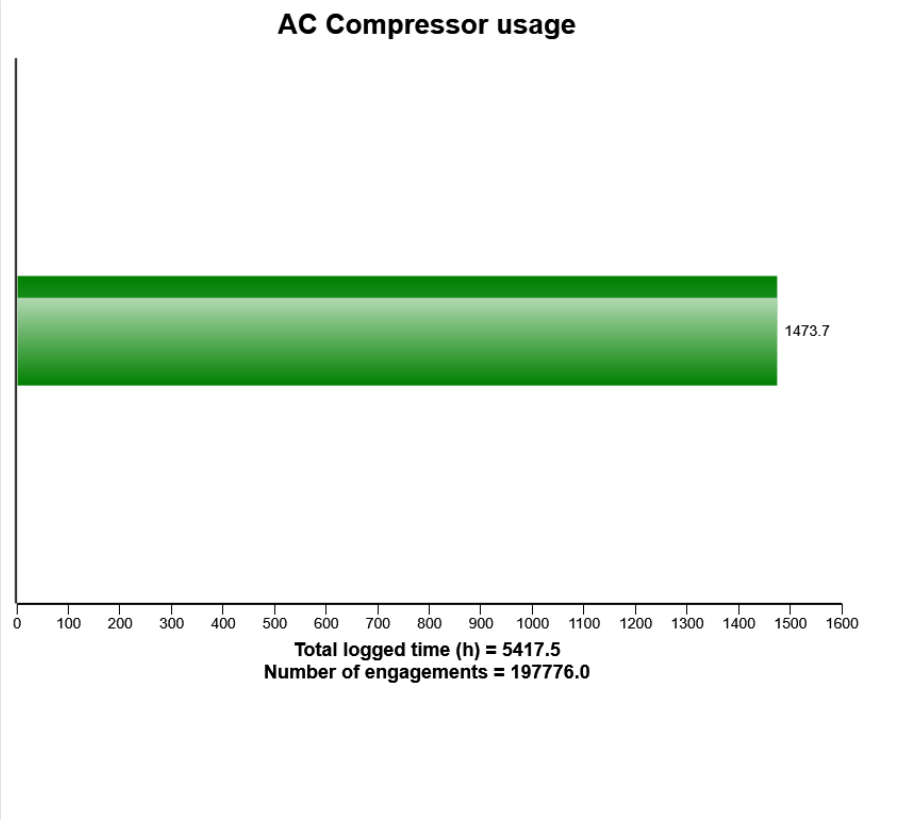
Definition:

The diagram describes air temperature setting distribution for HVAC auto control mode established by operator in Cabin

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Definition:

The graph shows the total time of AC compressor engagement.

Explanation:

Green bar: Total time in hours, AC compressor has been engaged.

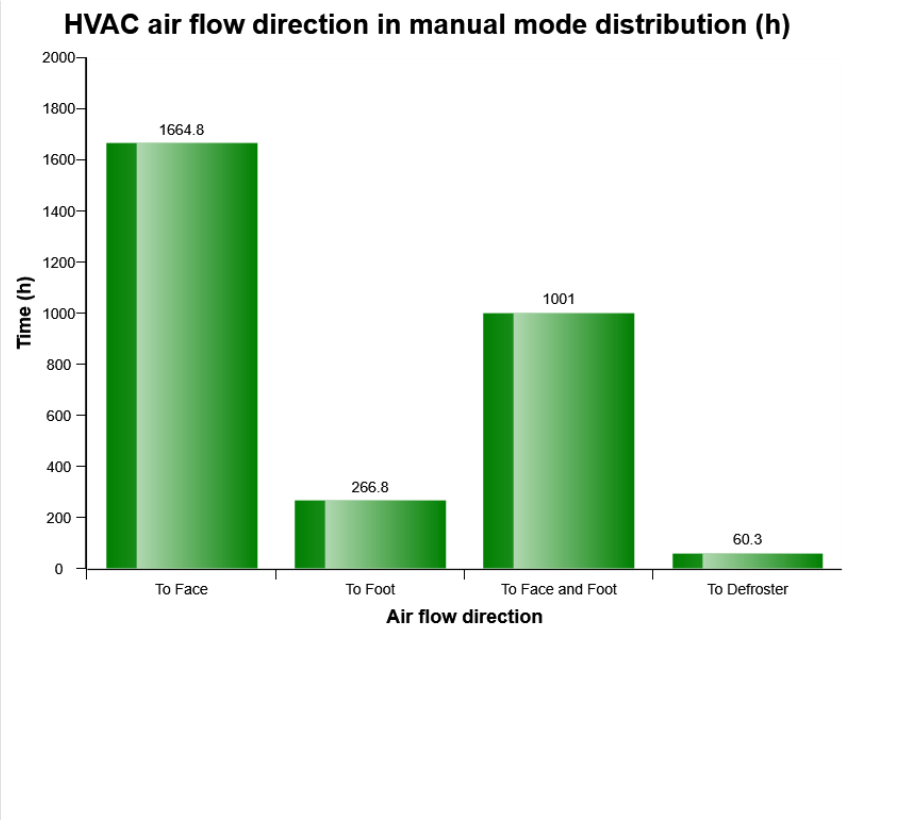
Under the graph the total engine running time (in hours) is displayed.

Total number of AC compressor activations is also displayed.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

-

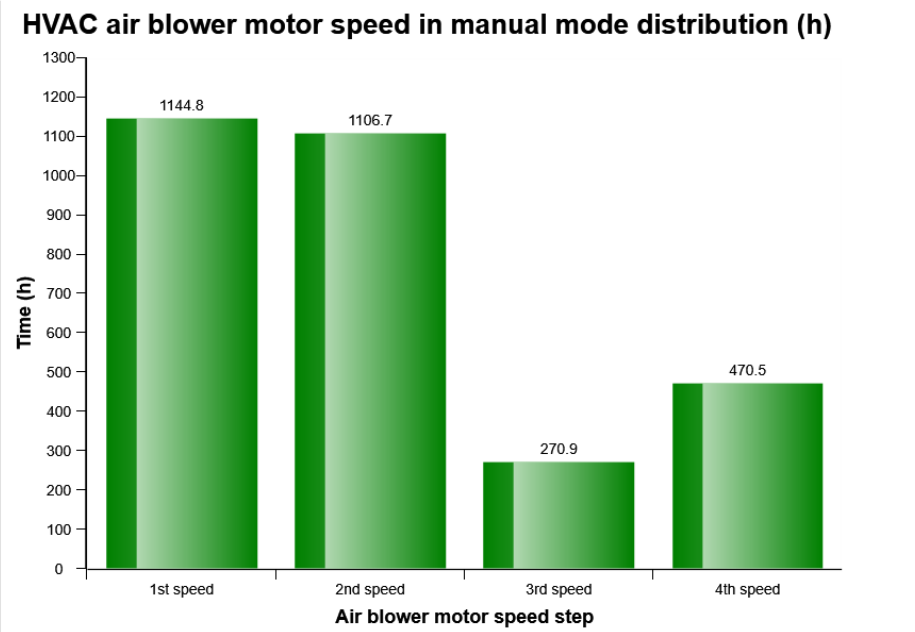
Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Definition:

The diagram describes air flow direction distribution for HVAC manual control mode established by operator in Cabin.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Definition:

The diagram describes air blower motor speed distribution for HVAC manual control mode established by operator in Cabin.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

AC High Pressure
Total number of occurences = 373

Op hours	Year	Month	Day	Hours	Minute	Duration (sec)	Extreme (° F)
1396	2017	8	17	15	22	18	91
1396	2017	8	17	15	11	39	91
1397	2017	8	17	16	26	22	93
1398	2017	8	17	18	2	63	90
1398	2017	8	17	18	0	10	90
1398	2017	8	17	18	9	56	90
1399	2017	8	17	18	33	86	88
1400	2017	8	17	19	39	97	86
1412	2017	8	18	11	41	21	97
1412	2017	8	18	11	30	84	95
1413	2017	8	18	13	16	23	99
1414	2017	8	18	14	18	32	95
1414	2017	8	18	13	43	31	97
1414	2017	8	18	13	31	24	97
1428	2017	8	19	13	2	15	93
1429	2017	8	19	13	31	12	93
1429	2017	8	19	14	17	71	93
1909	2017	9	20	16	24	14	90
1911	2017	9	20	18	14	15	88
1911	2017	9	20	18	50	45	86

Definition :

This type of table shows the latest occasions when a specific event has occurred. When a specified criteria is fulfilled a registration is made. Each table row corresponds to one occasion. Operating hours is displayed in the first column, followed by year, month，day，hour and minute to show when

an event has occurred.

The rows are not ordered chronological (The latest event may be in the middle).

Only one event per minute is registered.

Over the table the total number of events is displayed

Duration :

The duration of each event is shown after the timestamp of the event.

The duration is counted as long as the criteria is fulfilled.

Extreme value :

The extreme value column displays the most extreme value during the event.

Criteria :

Logging is performed when, High AC Pressure signal is active. Ambient temp is viewed.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

AC Boiling Protection
Number of engagements = 0

Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (° F)
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32
0	2000	0	0	0	0	0	32

Definition :

This type of table shows the latest occasions when a specific event has occurred. When a specified criteria is fulfilled a registration is made. Each table row corresponds to one occasion. Operating hours is displayed in the first column, followed by year, month，day，hour and minute to show when

an event has occurred.

The rows are not ordered chronological (The latest event may be in the middle).

Only one event per minute is registered.

Over the table the total number of events is displayed

Duration :

The duration of each event is shown after the timestamp of the event.

The duration is counted as long as the criteria is fulfilled.

Extreme value :

The extreme value column displays the most extreme value during the event.

Criteria :

Logging is performed when, Boiling protection signal is active. Ambient temp is viewed.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

AC System Cut Out Pressure
Total number of occurences = 296

Op hours	Year	Month	Day	Hour	Minute	Duration (sec)	Extreme (° F)
4477	2018	5	8	16	13	4598	68
4478	2018	5	8	17	35	97193	68
4487	2018	5	9	6	11	8775	57
4489	2018	5	9	8	42	-41103	63
4496	2018	5	9	16	16	11438	72
4499	2018	5	9	19	31	81771	70
4504	2018	5	10	0	6	8401	63
4506	2018	5	10	5	53	-48705	61
4511	2018	5	10	16	12	1476	73
4511	2018	5	10	10	37	494	73
4512	2018	5	10	17	7	10452	86
4515	2018	5	10	20	6	11759	77
4518	2018	5	10	23	26	352	72
4518	2018	5	11	10	30	4071	32
4518	2018	5	11	9	13	49	73
4519	2018	5	11	17	19	1424	86
4520	2018	5	13	16	1	19078	90
4525	2018	5	13	21	22	83892	77
4530	2018	5	14	5	59	91	75
4530	2018	5	14	10	12	178	72

Definition :

This type of table shows the latest occasions when a specific event has occurred. When a specified criteria is fulfilled a registration is made. Each table row corresponds to one occasion. Operating hours is displayed in the first column, followed by year, month，day，hour and minute to show when

an event has occurred.

The rows are not ordered chronological (The latest event may be in the middle).

Only one event per minute is registered.

Over the table the total number of events is displayed

Duration :

The duration of each event is shown after the timestamp of the event.

The duration is counted as long as the criteria is fulfilled.

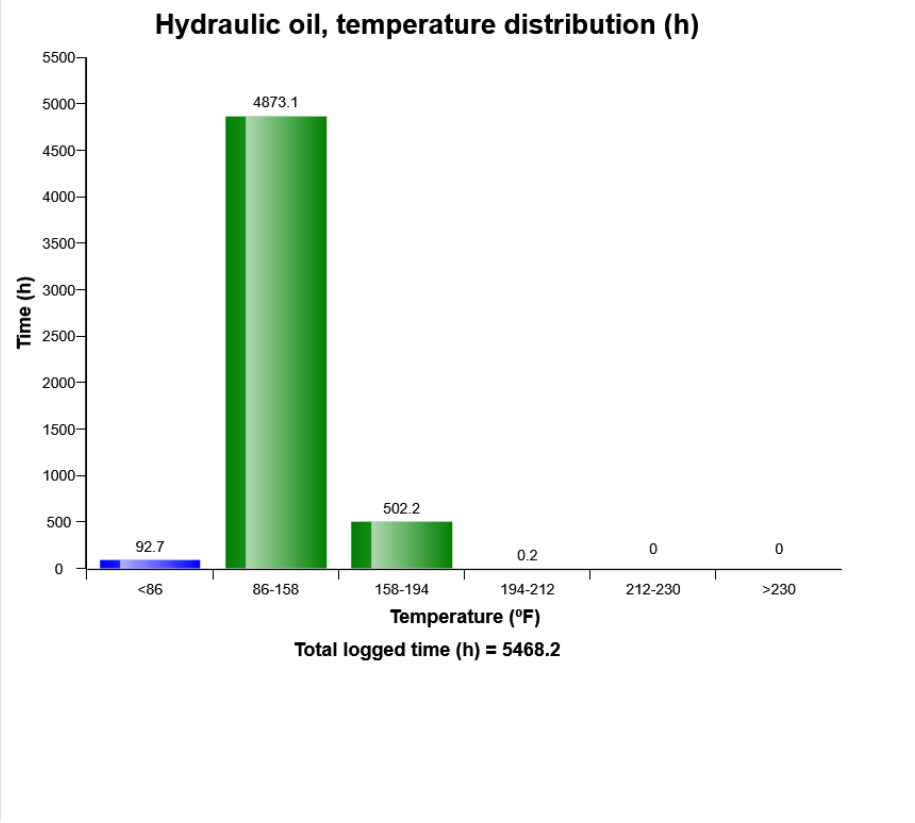
Extreme value :

The extreme value column displays the most extreme value during the event.

Criteria :

Logging is performed when, AC cut out pressure signal is active. Ambient temp is viewed.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Definition:

The graph shows the time distribution of the temperature, while engine running.

Explanation:

Y-axis: Time

X-axis: Temperature distribution in classes.

Blue bar = Warm-up phase.

During the engine warm-up phase, this temperature region is passed.

It is normal to have registrations in this region.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

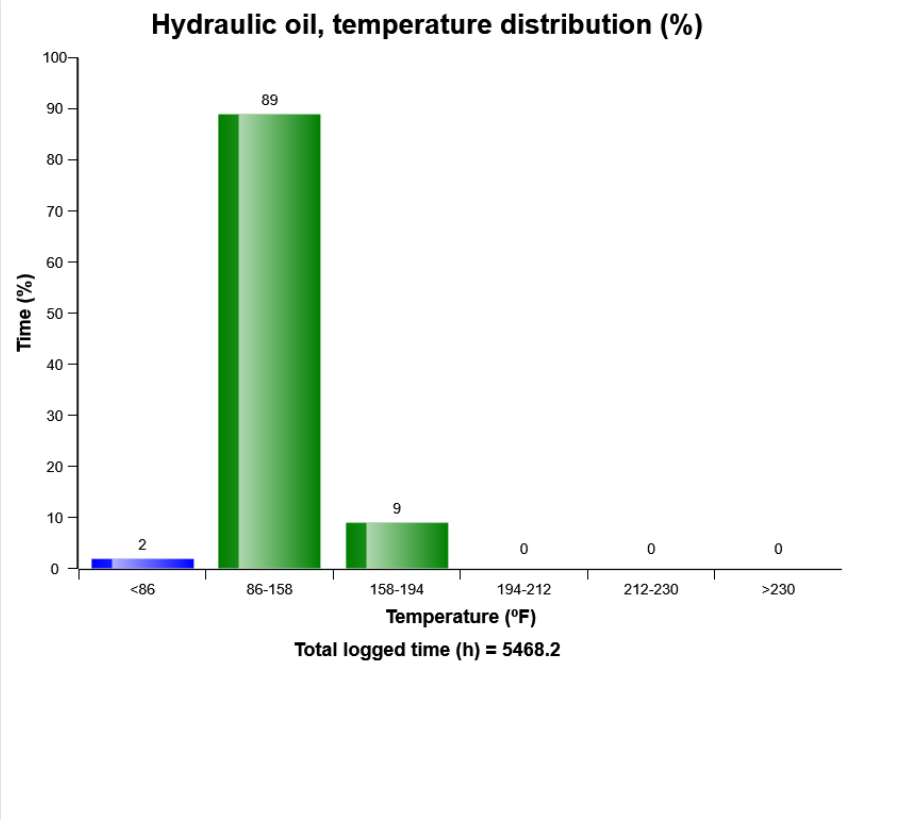
Green bar = Normal working temperature. The Major part of the registrations shall be in this region.

Yellow bar = High working temperature. It is normal to have some registrations in this region.

Red bar = Alarm.

Registrations in this region is not normal, running in this region may cause severe damage.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019



Definition:

The graph shows the time distribution of the temperature, while engine running.

Explanation:

Y-axis: Time

X-axis: Temperature distribution in classes.

Blue bar = Warm-up phase.

During the engine warm-up phase, this temperature region is passed.

It is normal to have registrations in this region.

Machine model	SerialNo	Operating Hours	Reading Date
A40G	341432	5469	27/09/2019

Green bar = Normal working temperature. The Major part of the registrations shall be in this region.

Yellow bar = High working temperature. It is normal to have some registrations in this region.

Red bar = Alarm.

Registrations in this region is not normal, running in this region may cause severe damage.