VOLVO CONSTRUCTION EQUIPMENT

# MATRIS REPORT

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

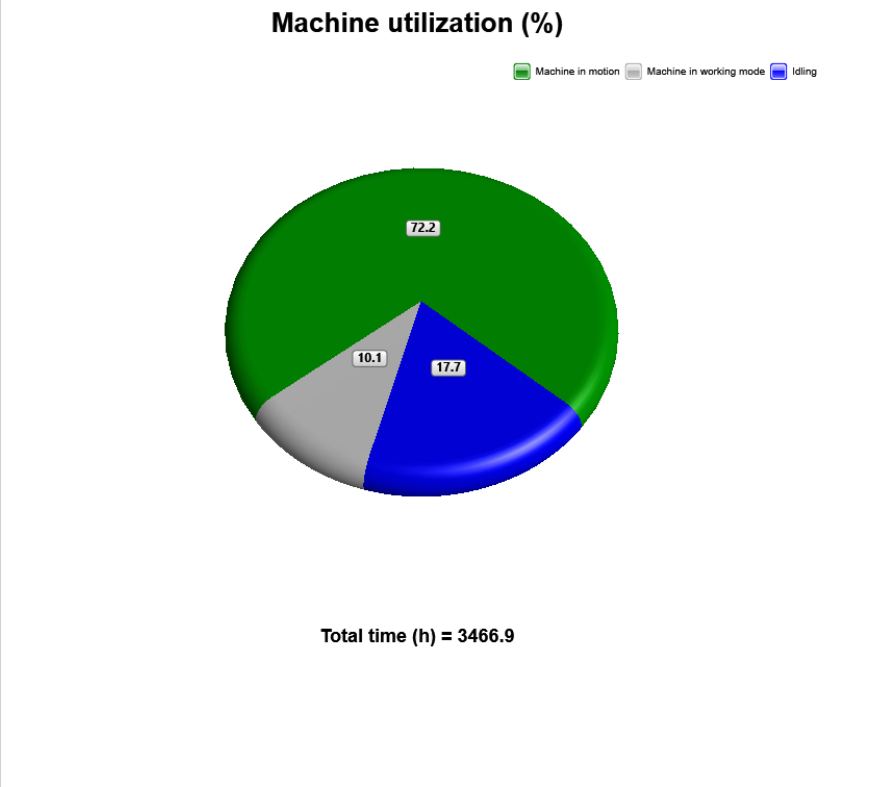
| Company name | Dealer | Report Issuer |
|---|---|---|
| Arnold Machinery | | |
| **Contact name** | **Technician** | **Primary Application** |
| | James Wilcox | Light material handling |
| **Site** | **Workorder** | **Ground Condition** |
| | | |

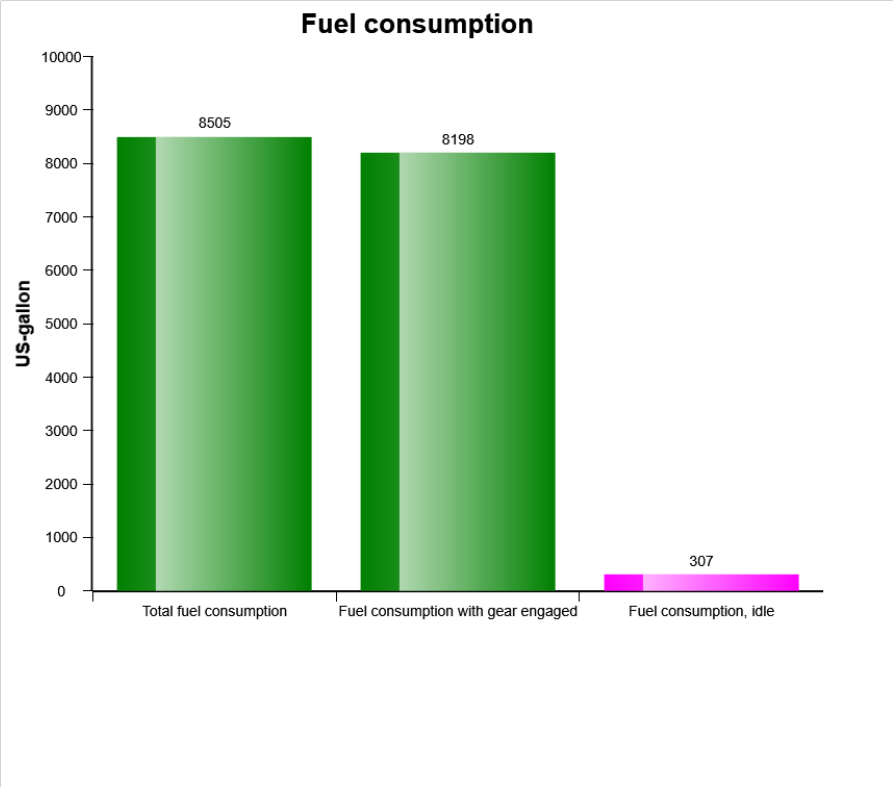
MATRIS Reading, Summary / Recommendation

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

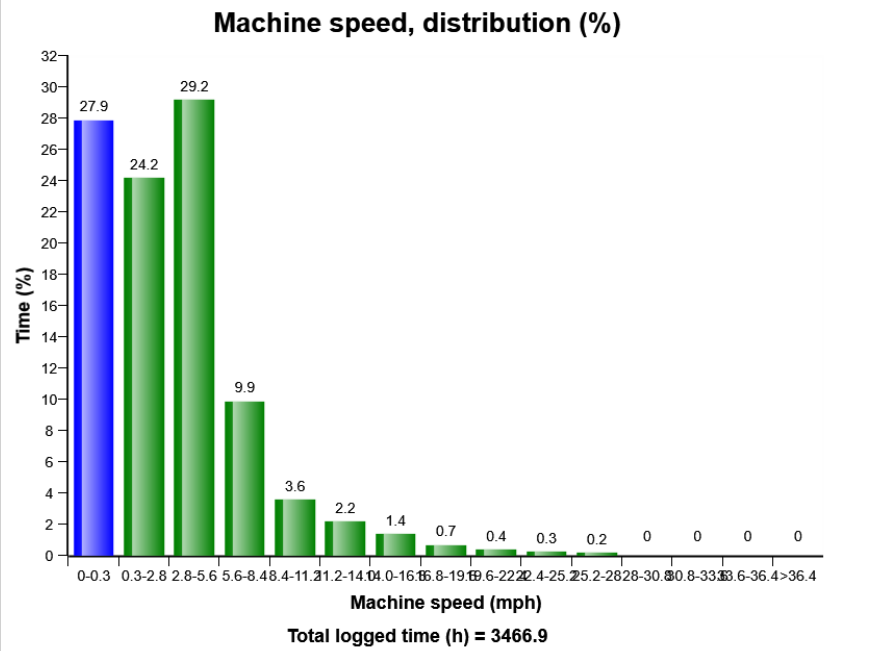
| Main equipment | Type | Equipment |
|---|---|---|
| | Tyre size/class | |
| | Main Attachment | |
| | Extra Counterweight | |
| | Ballast | |
| | Chains | |
| | Boom Suspension System | |
| | Attachment Interface | |
| | Volume m3 (yd3) / Area m2 (ft2) | |
| | Attachment make | |

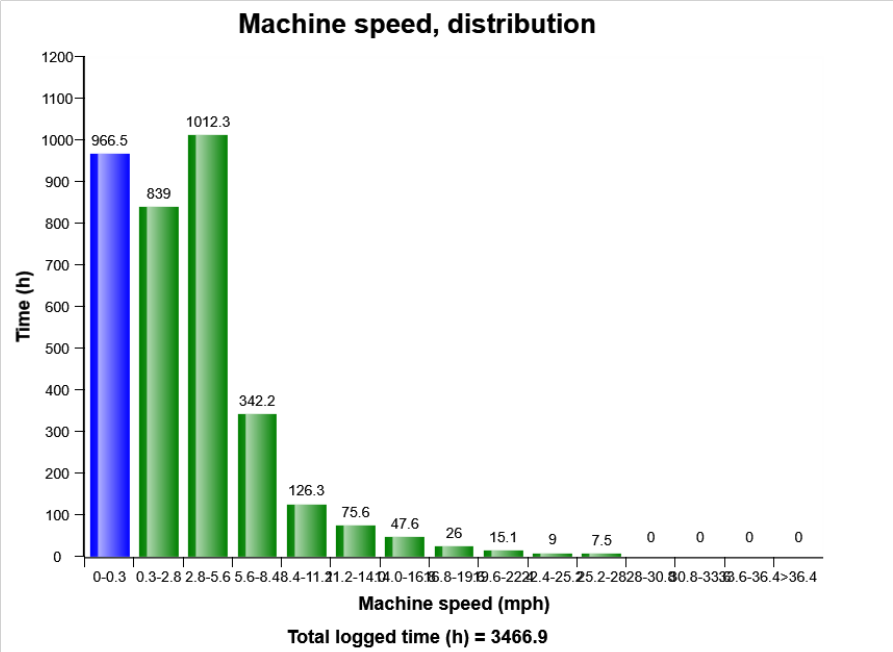
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



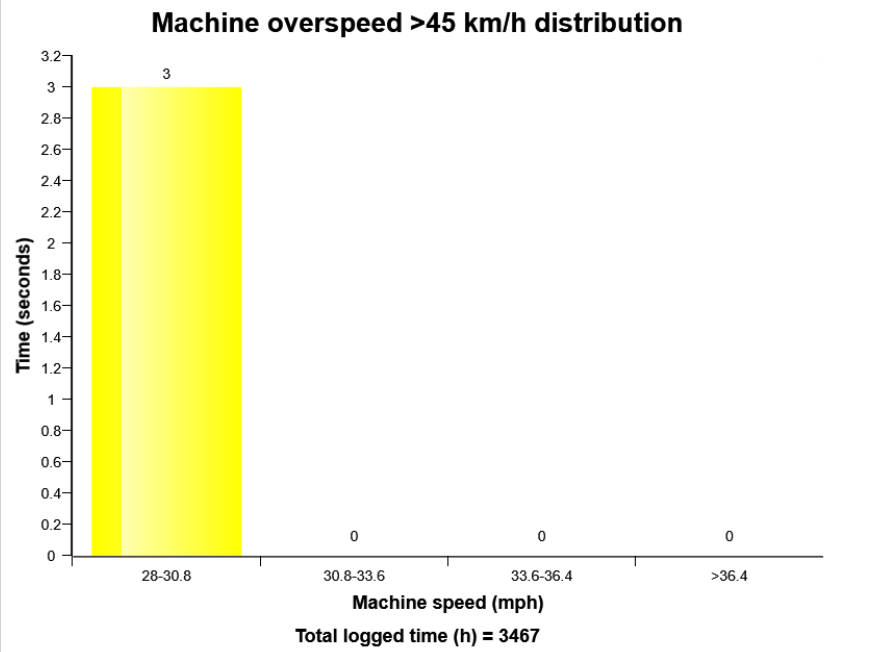



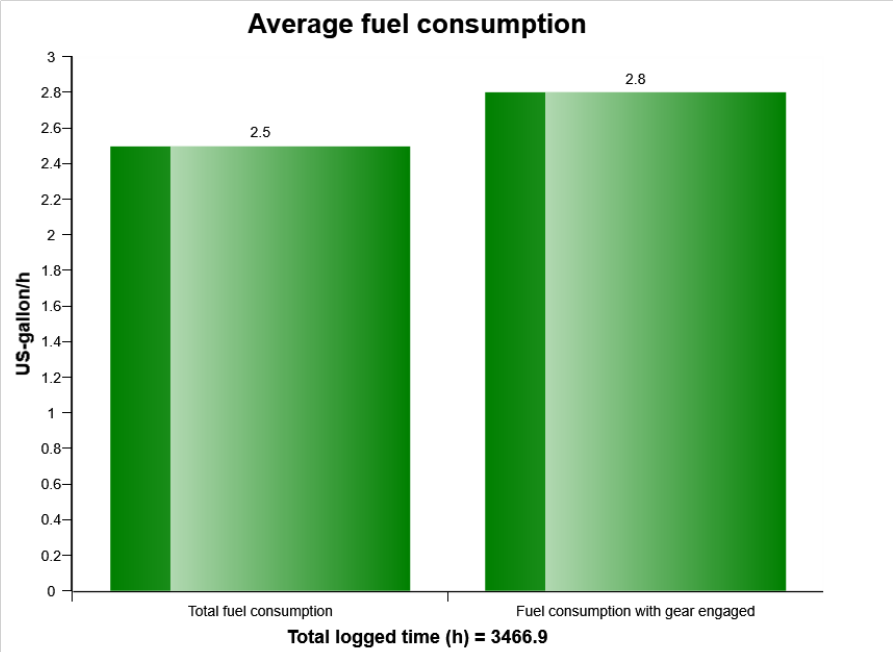
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



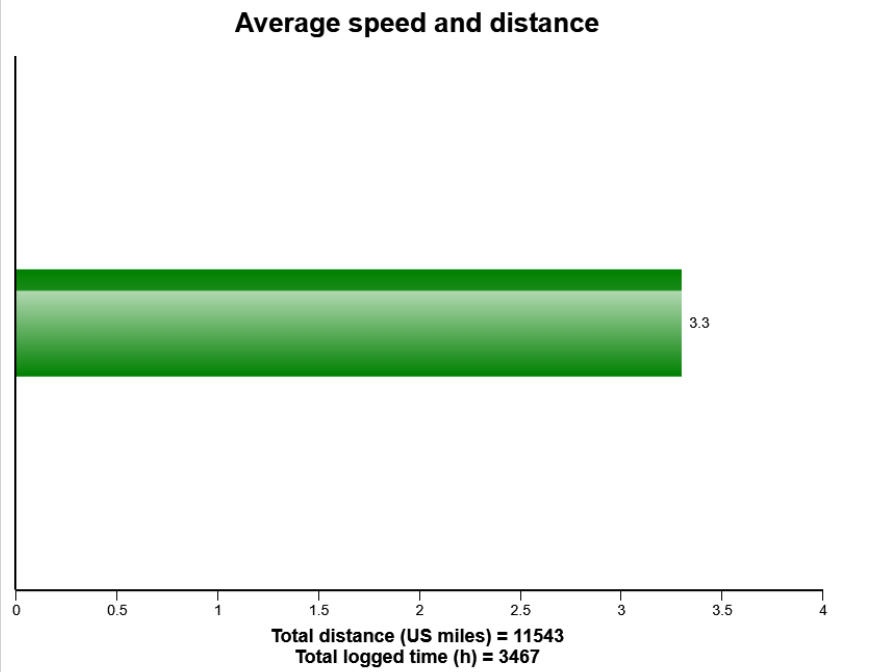



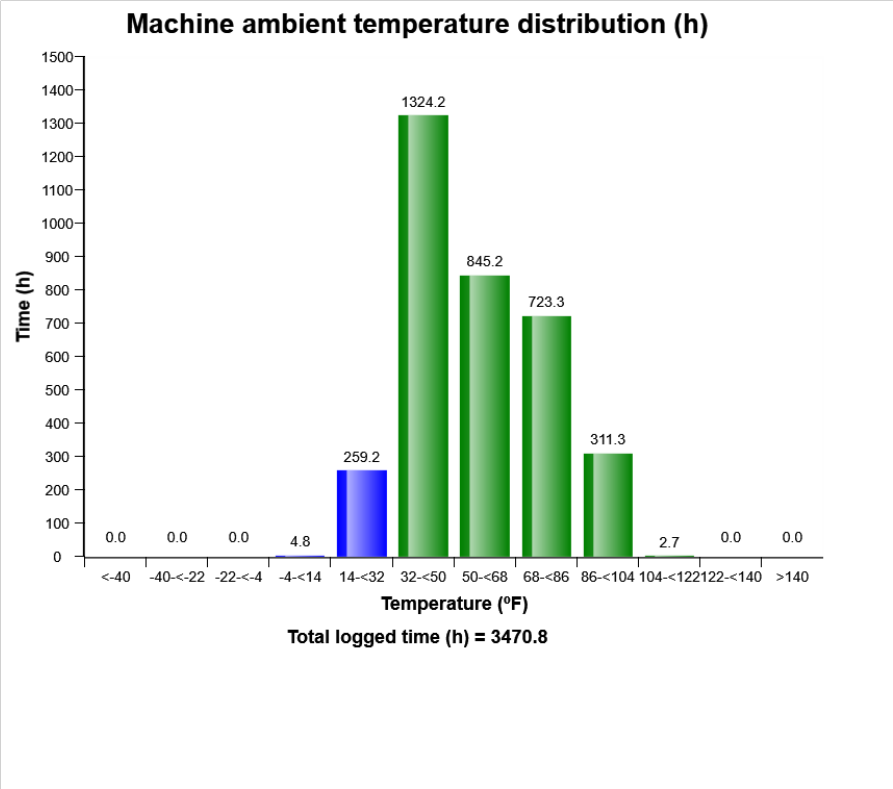
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



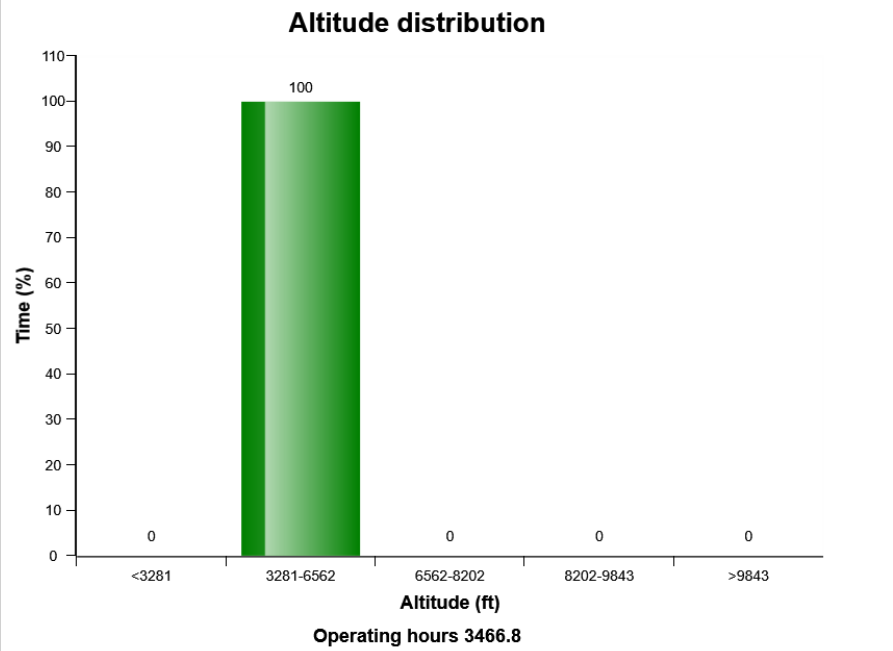



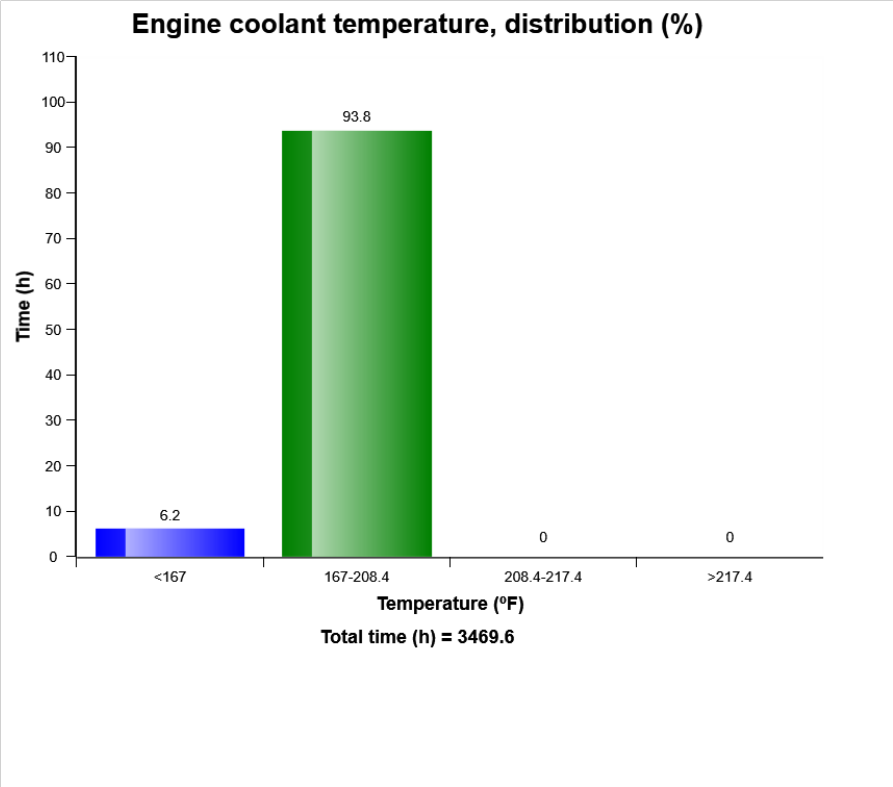
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



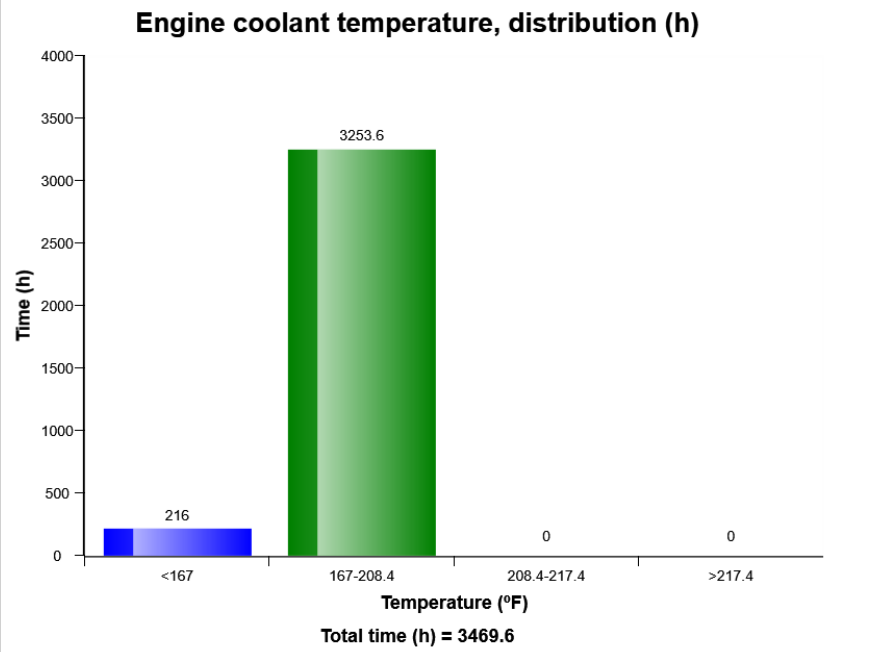



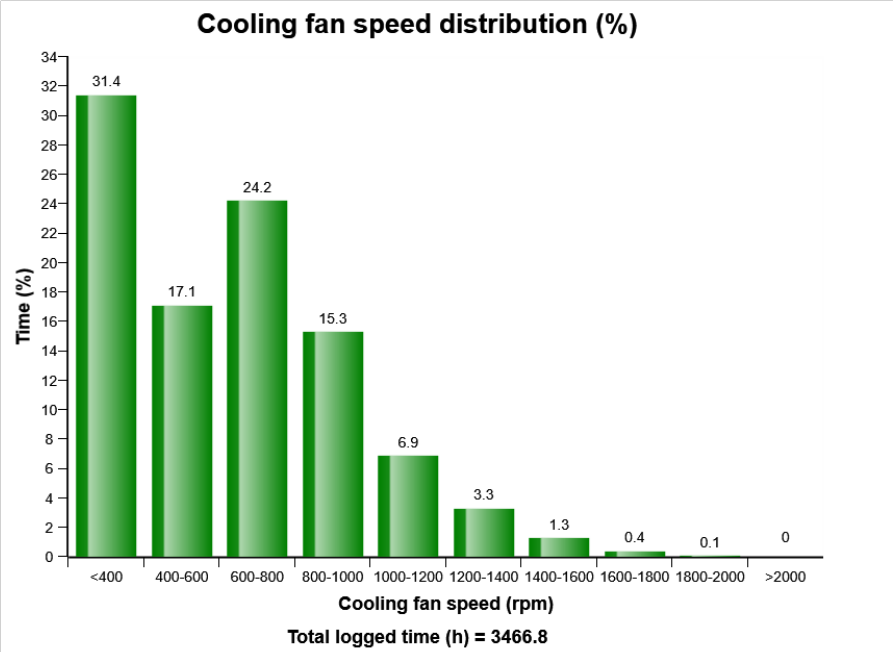
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



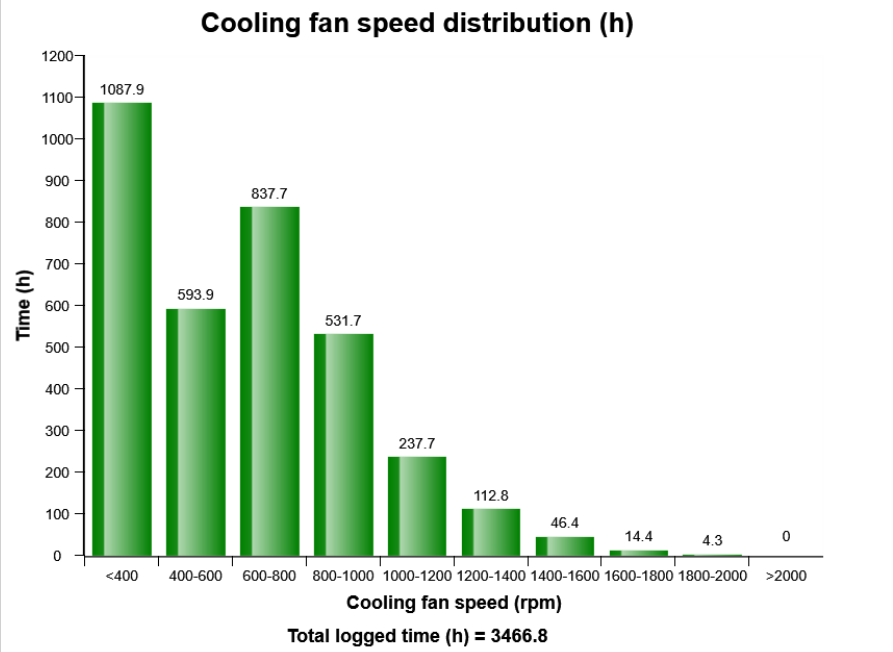



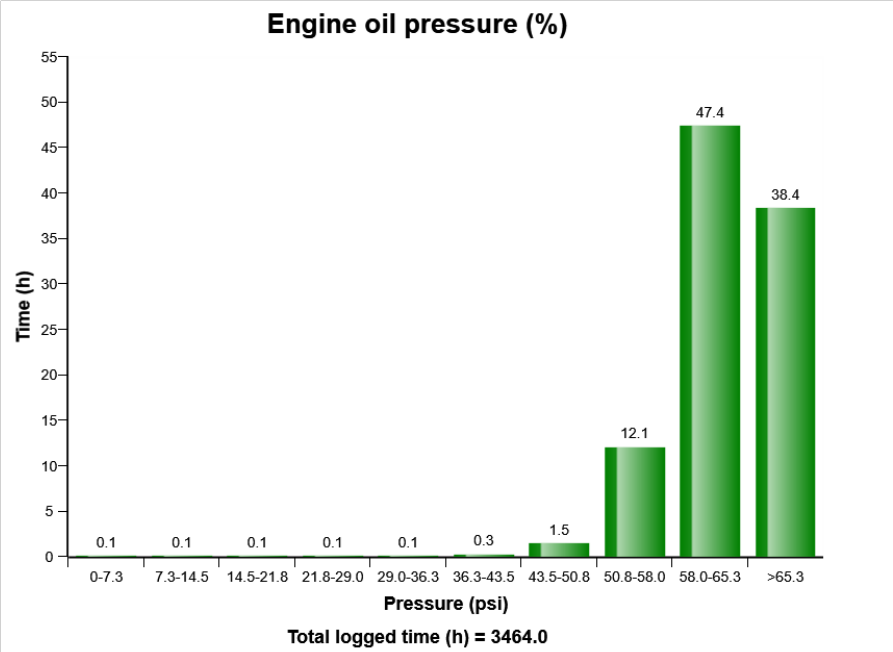
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



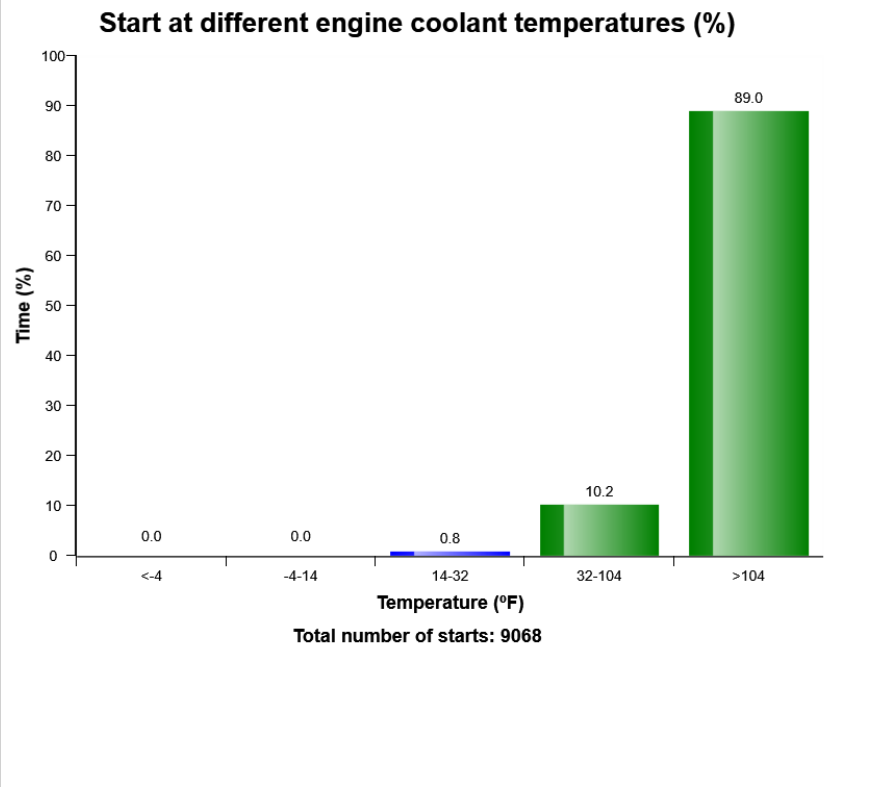



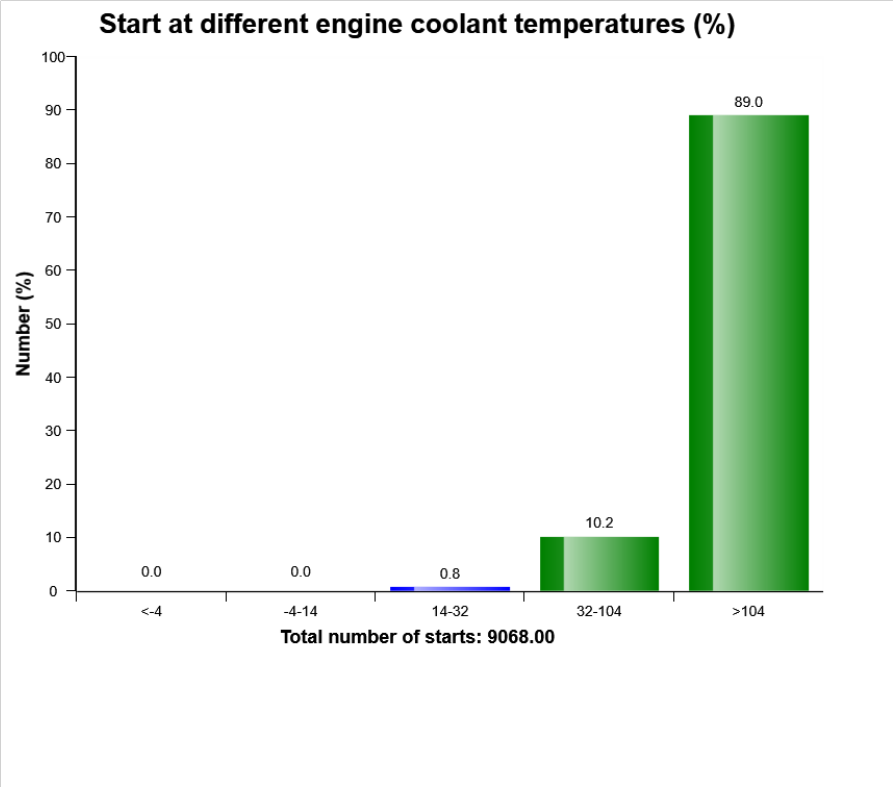
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



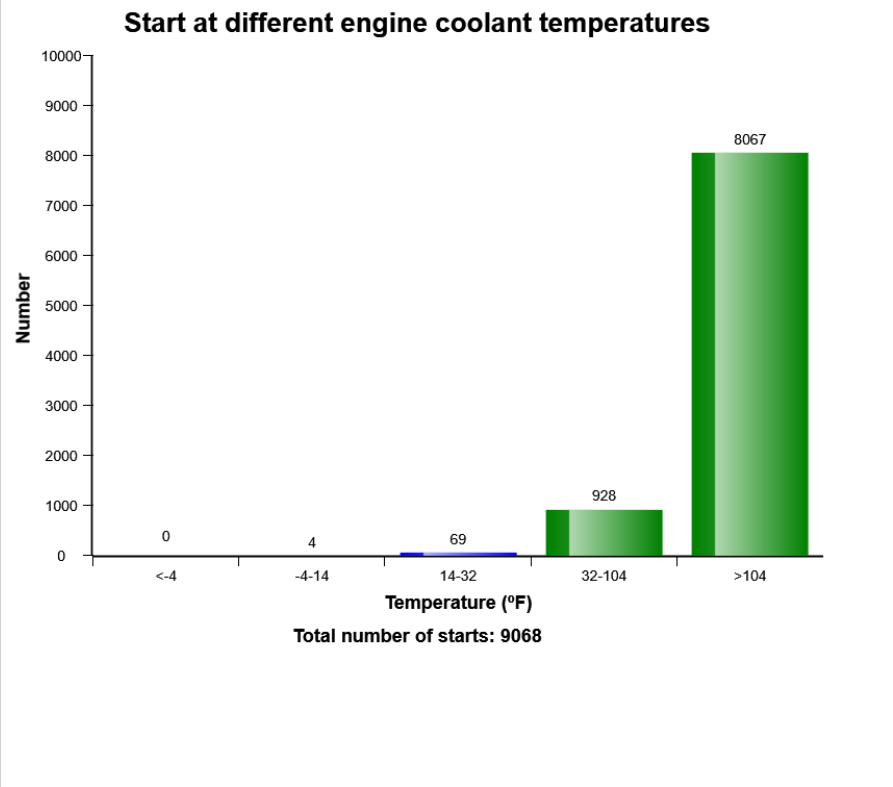



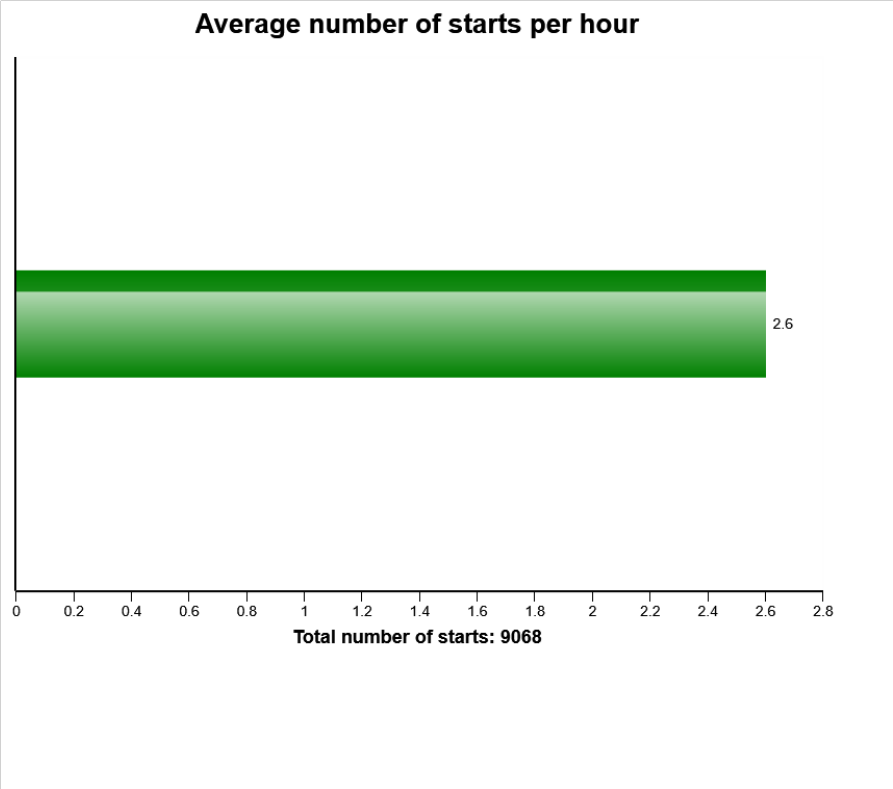
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



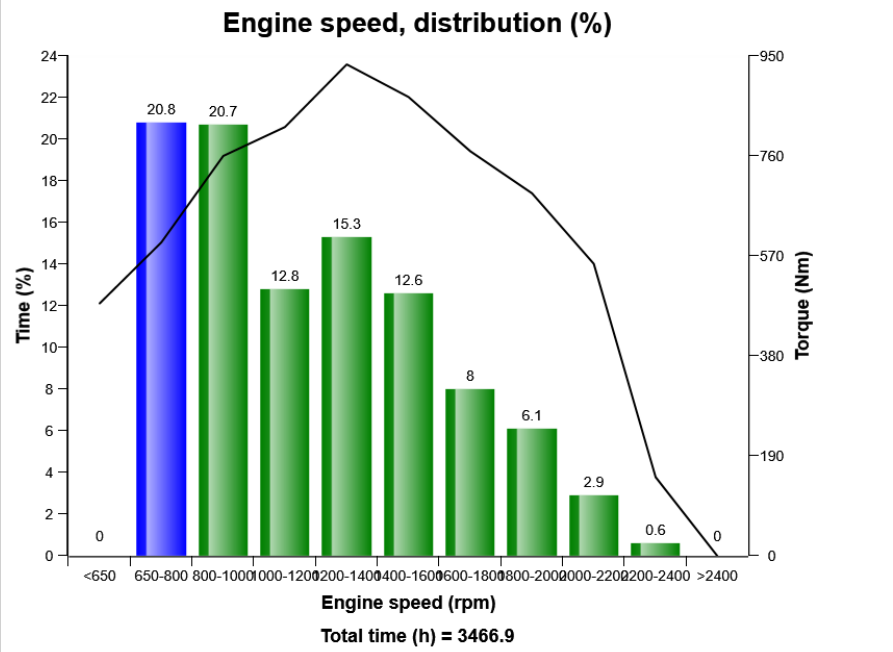



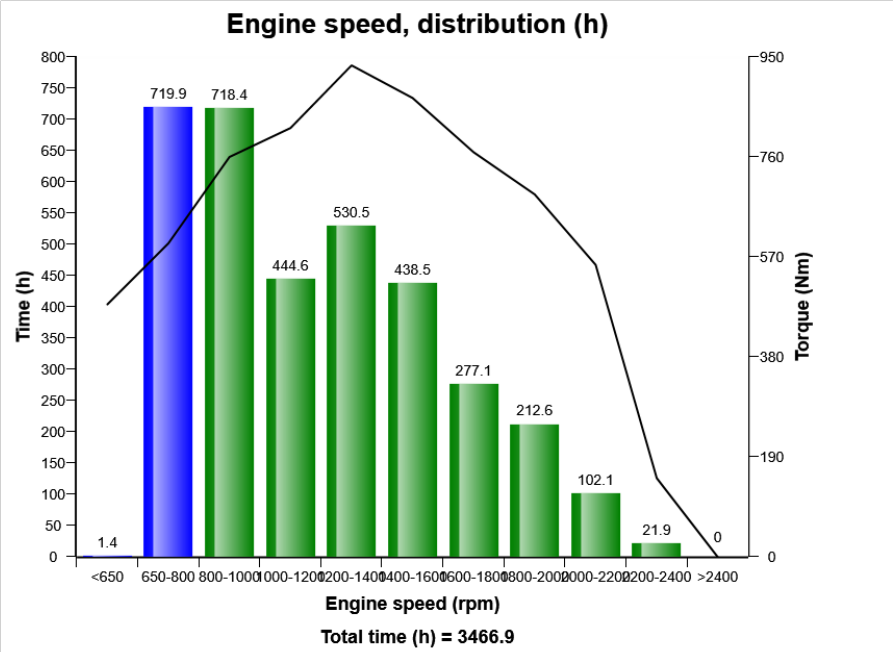
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Starter overheating
## Total number of occurences = 7

| Op hours | Year | Month | Day | Hour | Minute |
|---|---|---|---|---|---|
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 |
| 1408 | 2018 | 5 | 21 | 16 | 46 |
| 1408 | 2018 | 5 | 21 | 16 | 45 |
| 1408 | 2018 | 5 | 21 | 16 | 43 |
| 1408 | 2018 | 5 | 21 | 16 | 43 |
| 1499 | 2018 | 6 | 22 | 20 | 31 |
| 1499 | 2018 | 6 | 22 | 20 | 30 |
| 1499 | 2018 | 6 | 22 | 20 | 30 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Low engine oil level at start
## Total number of occurences = 0

| | Op hours | Year | Month | Day | Hour | Minute |
|---|---|---|---|---|---|---|
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |
| * | 0 | 2000 | 0 | 0 | 0 | 0 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Low Engine Oil Pressure
## Total number of occurences = 0

| | Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | 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 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Low Air filter pressure
## Total number of occurences = 0

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) |
|---|---|---|---|---|---|---|
| 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 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Engine overspeed, duration
## Total number of occurences = 0

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | Extreme value |
|---|---|---|---|---|---|---|---|
| 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 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Regeneration aborted
## Total number of occurences = 1

| | Op hours | Year | Month | Day | Hour | Minute | Reason |
|---|---|---|---|---|---|---|---|
| * | 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 |
| * | 562 | 2018 | 1 | 5 | 14 | 17 | 2 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Regeneration ignored
## Total number of occurences = 103

| | Op hours | Year | Month | Day | Hour | Minute | Duration (min) |
|---|---|---|---|---|---|---|---|
| * | 2836 | 2019 | 4 | 8 | 8 | 14 | 14 |
| * | 2836 | 2019 | 4 | 8 | 8 | 34 | 20 |
| * | 2837 | 2019 | 4 | 8 | 9 | 16 | 24 |
| * | 2837 | 2019 | 4 | 8 | 9 | 45 | 2 |
| * | 2837 | 2019 | 4 | 8 | 10 | 10 | 47 |
| * | 2838 | 2019 | 4 | 8 | 11 | 29 | 27 |
| * | 2838 | 2019 | 4 | 8 | 10 | 59 | 9 |
| * | 2839 | 2019 | 4 | 8 | 13 | 17 | 24 |
| * | 2839 | 2019 | 4 | 8 | 14 | 2 | 151 |
| * | 2842 | 2019 | 4 | 8 | 17 | 0 | 52 |
| * | 2843 | 2019 | 4 | 9 | 8 | 4 | 39 |
| * | 2844 | 2019 | 4 | 9 | 9 | 57 | 44 |
| * | 2844 | 2019 | 4 | 9 | 8 | 45 | 7 |
| * | 2844 | 2019 | 4 | 9 | 9 | 15 | 18 |
| * | 2845 | 2019 | 4 | 9 | 10 | 47 | 8 |
| * | 2845 | 2019 | 4 | 9 | 11 | 17 | 14 |
| * | 2846 | 2019 | 4 | 9 | 12 | 21 | 0 |
| * | 3407 | 2019 | 8 | 26 | 8 | 10 | 63 |
| * | 3407 | 2019 | 8 | 26 | 7 | 57 | 1 |
| * | 3408 | 2019 | 8 | 26 | 9 | 19 | 6 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Regeneration duration
## Total number of occurences = 11

| | 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 |
| * | 562 | 2018 | 1 | 5 | 14 | 1 | 16 |
| * | 562 | 2018 | 1 | 5 | 14 | 49 | 49 |
| * | 1125 | 2018 | 4 | 7 | 7 | 32 | 51 |
| * | 1695 | 2018 | 8 | 18 | 7 | 13 | 49 |
| * | 2257 | 2019 | 1 | 9 | 14 | 28 | 50 |
| * | 2824 | 2019 | 4 | 5 | 14 | 32 | 1 |
| * | 2825 | 2019 | 4 | 5 | 15 | 14 | 24 |
| * | 2842 | 2019 | 4 | 8 | 16 | 33 | 27 |
| * | 2845 | 2019 | 4 | 9 | 11 | 31 | 50 |
| * | 3407 | 2019 | 8 | 26 | 7 | 58 | 12 |
| * | 3408 | 2019 | 8 | 26 | 9 | 25 | 49 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## High engine coolant temperature
## Total number of occurences = 0

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | 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 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Water level warning in water separator
## Total number of occurences = 0

| | 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 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## High voltage
## Total number of occurences = 0

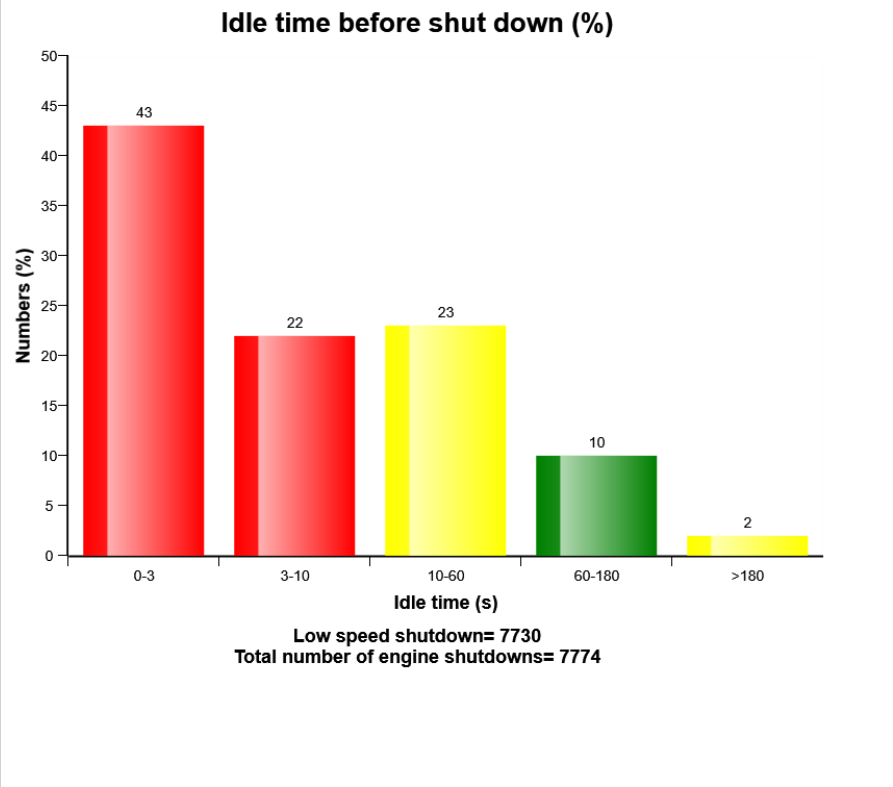
| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | Extreme value |
|---|---|---|---|---|---|---|---|
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 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 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |

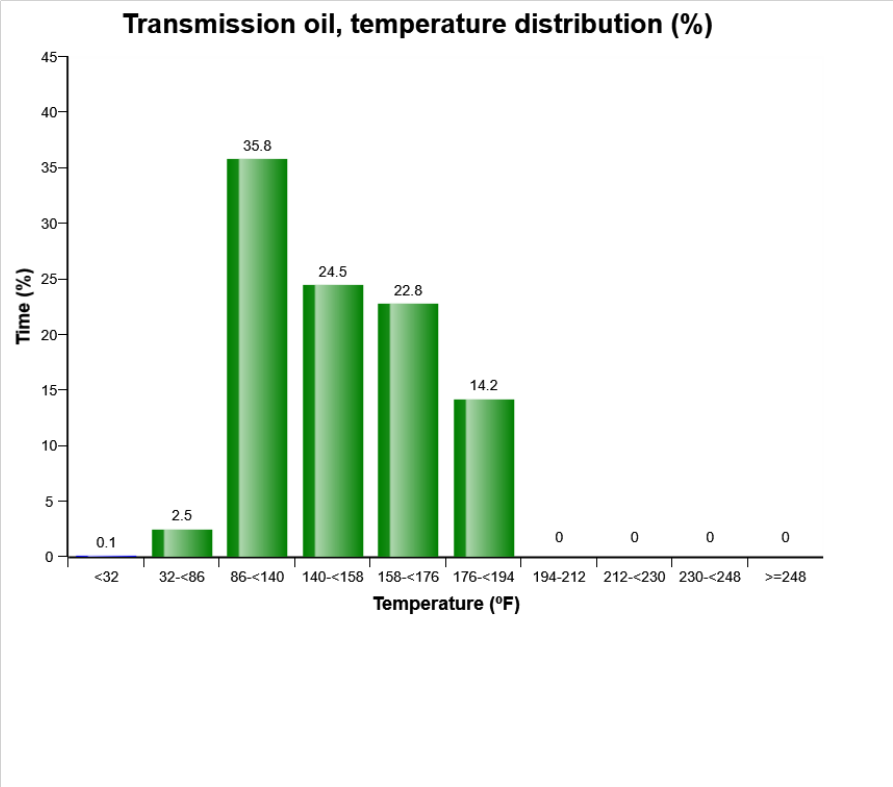
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Low voltage
## Total number of occurences = 0

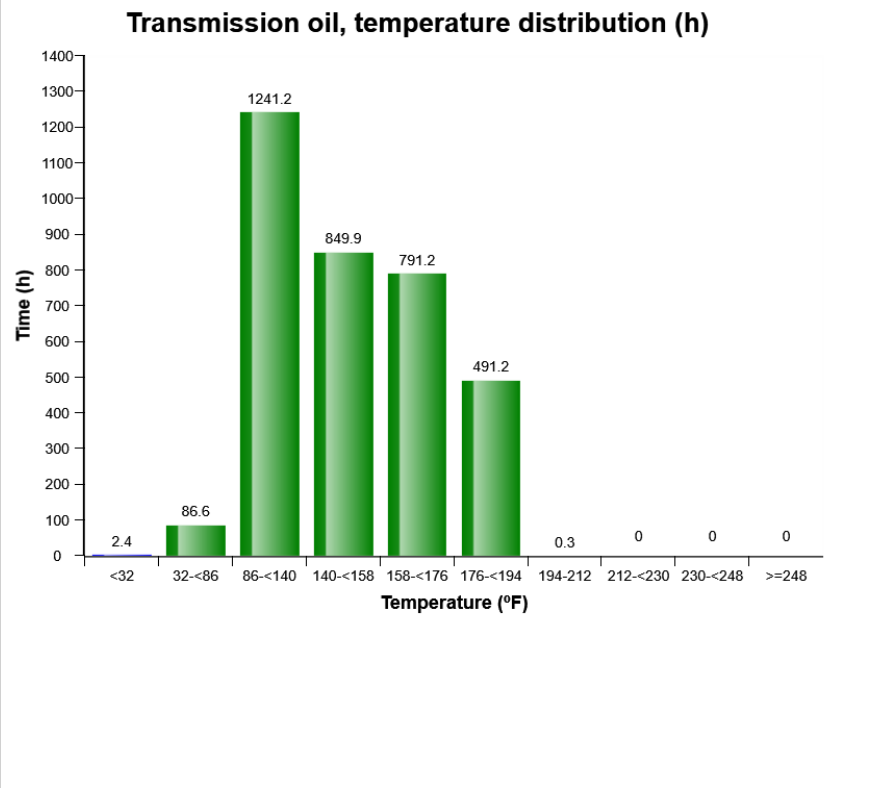
| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | Extreme value |
|---|---|---|---|---|---|---|---|
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 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 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |

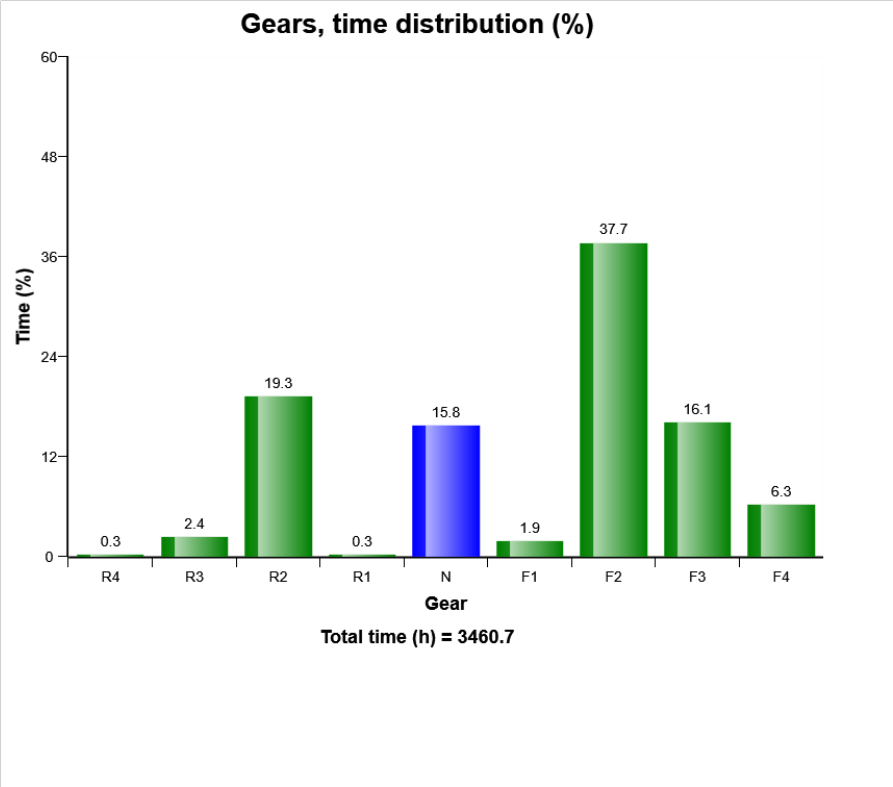
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



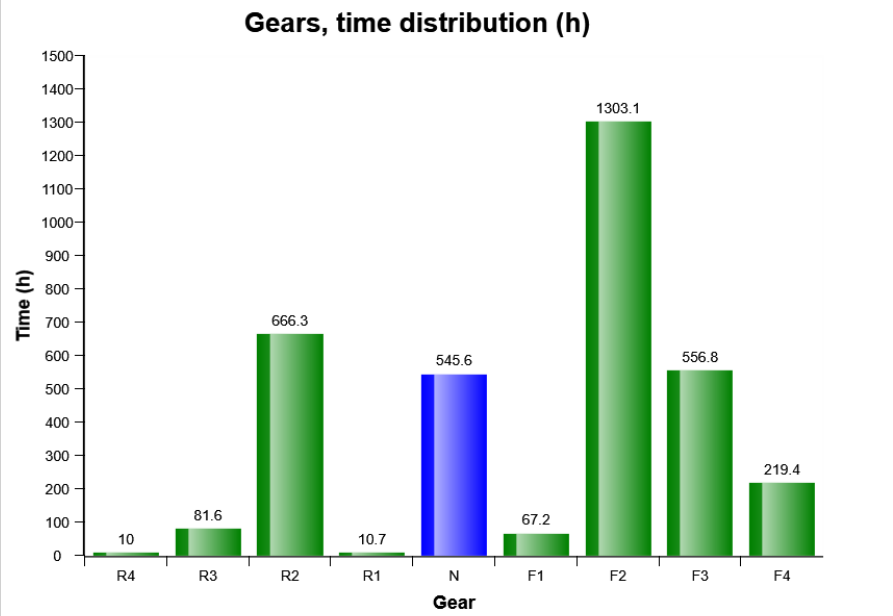



| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

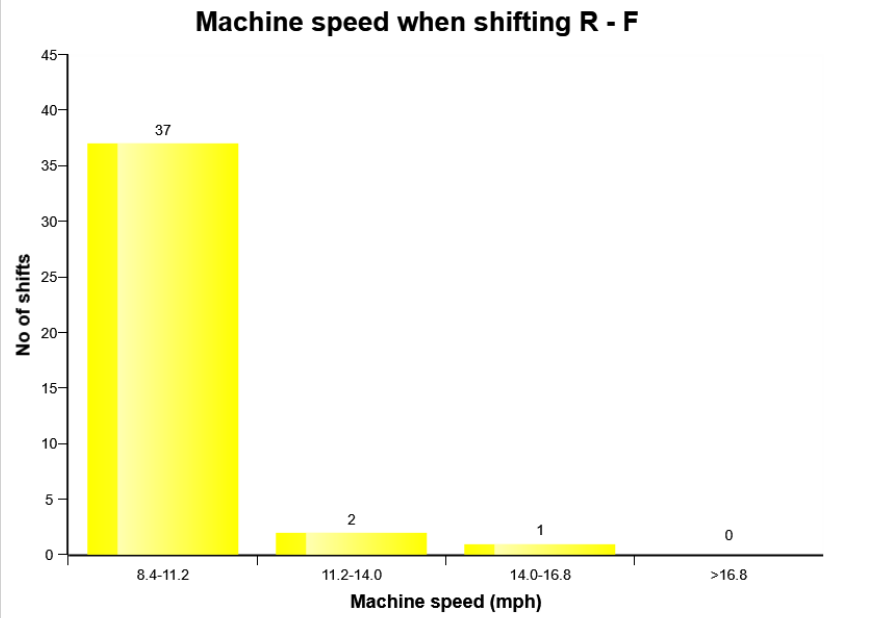


| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |




Total time (h) = 3460.7



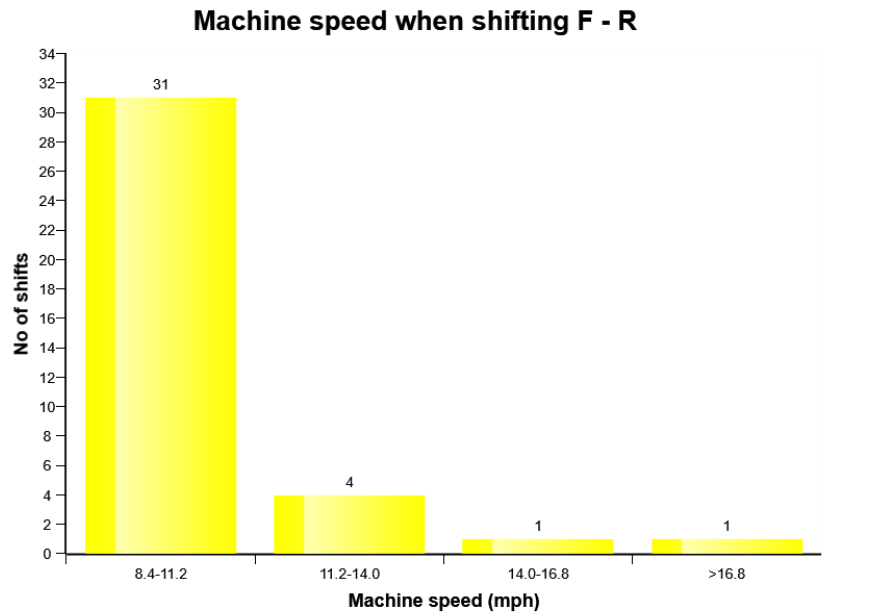

Number of shifts R-F below 8.4 mph = 265896

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

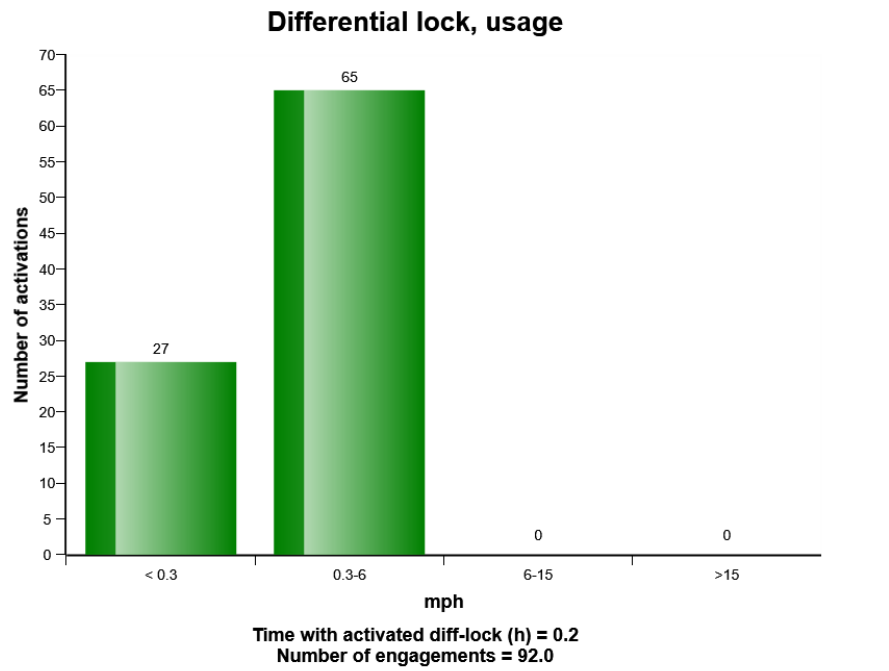
## Transmission oil temperature high
## Total number of occurences = 0

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | 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 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

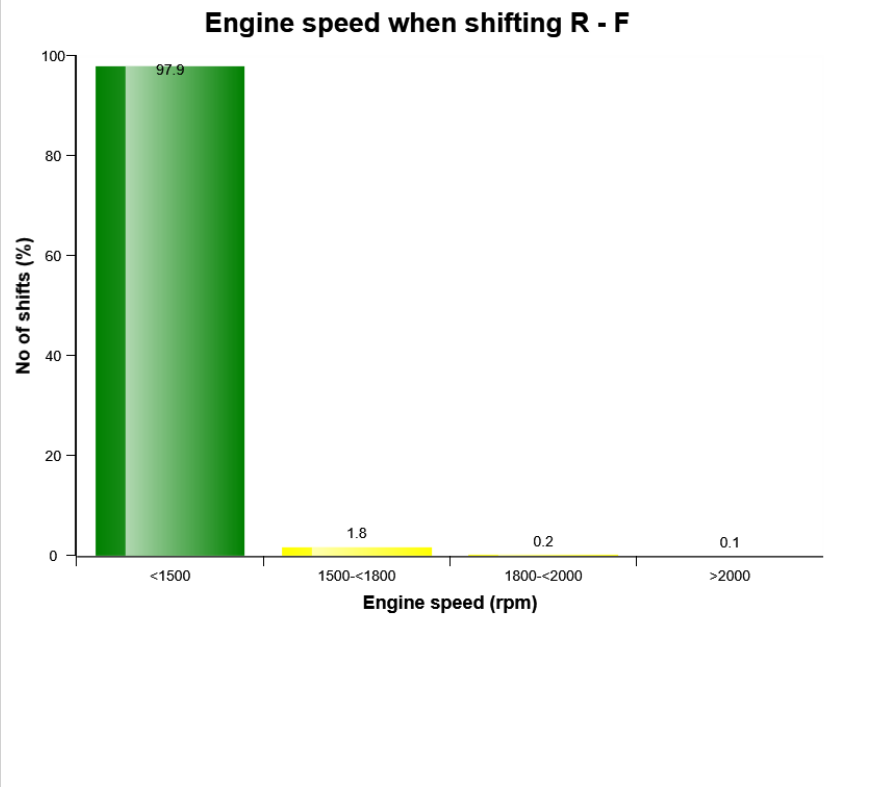


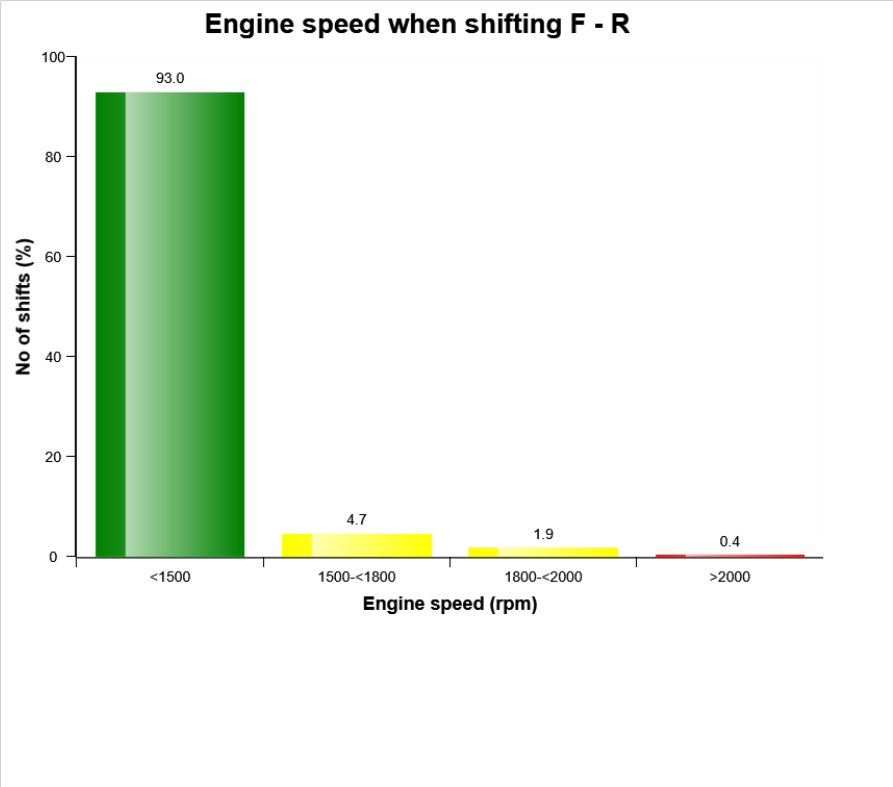

Number of shifts R-F below 8.4 mph = 258499



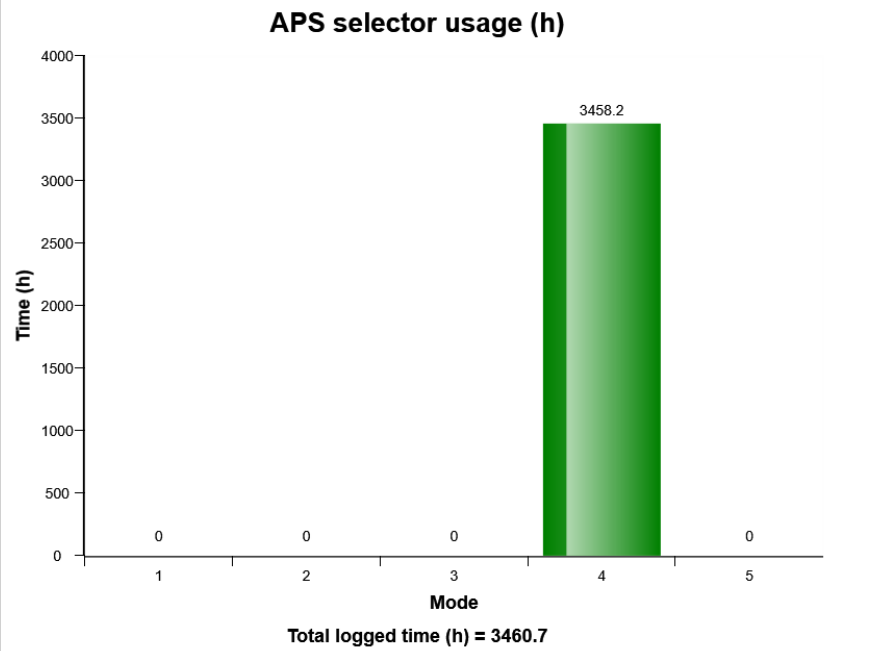

Time with activated diff-lock (h) = 0.2
Number of engagements = 92.0

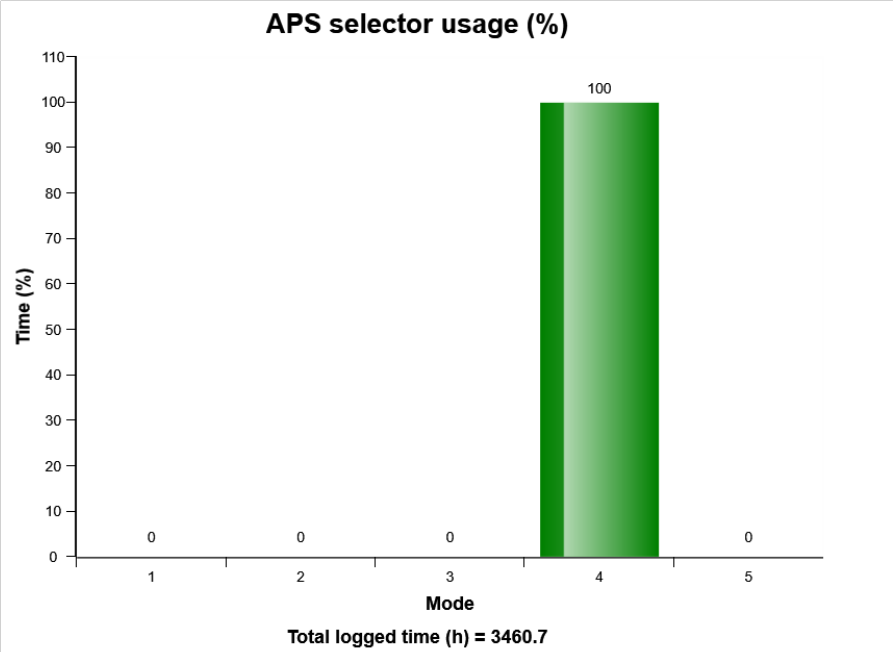
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



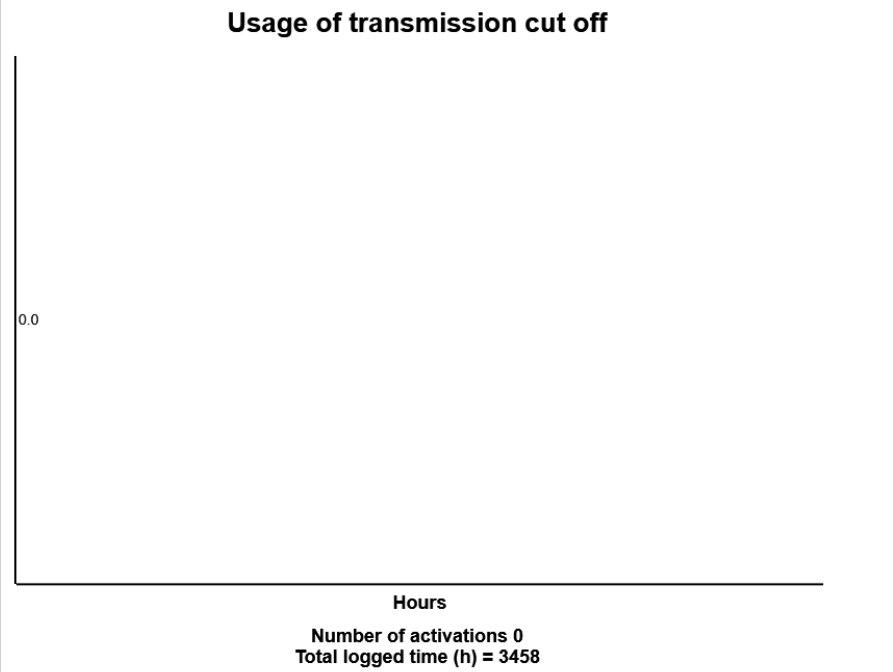



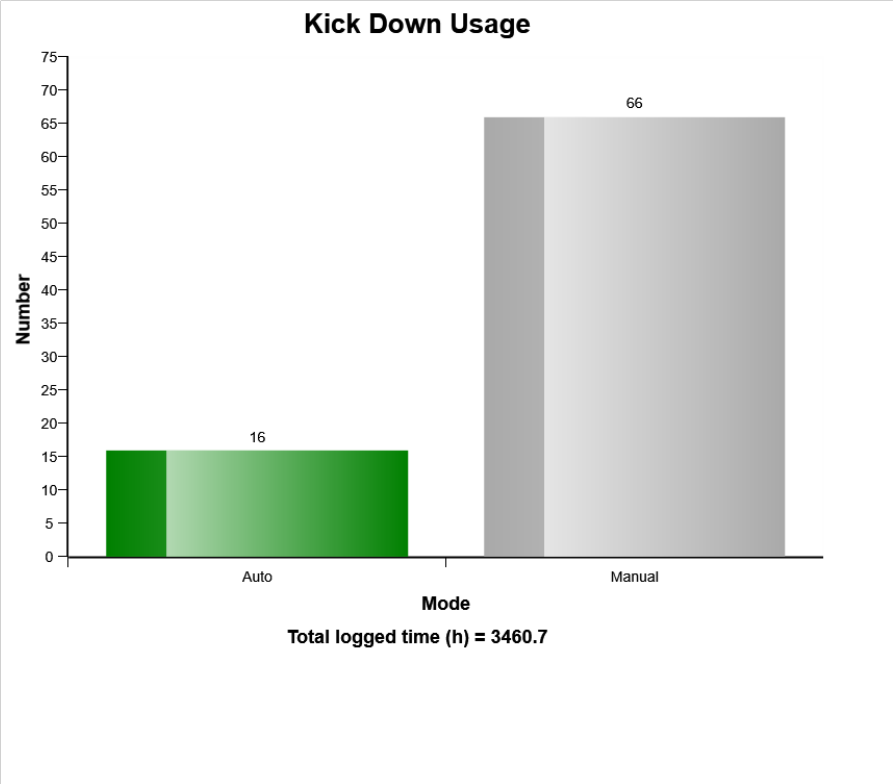
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Transmission oil pressure low
## Total number of occurences = 0

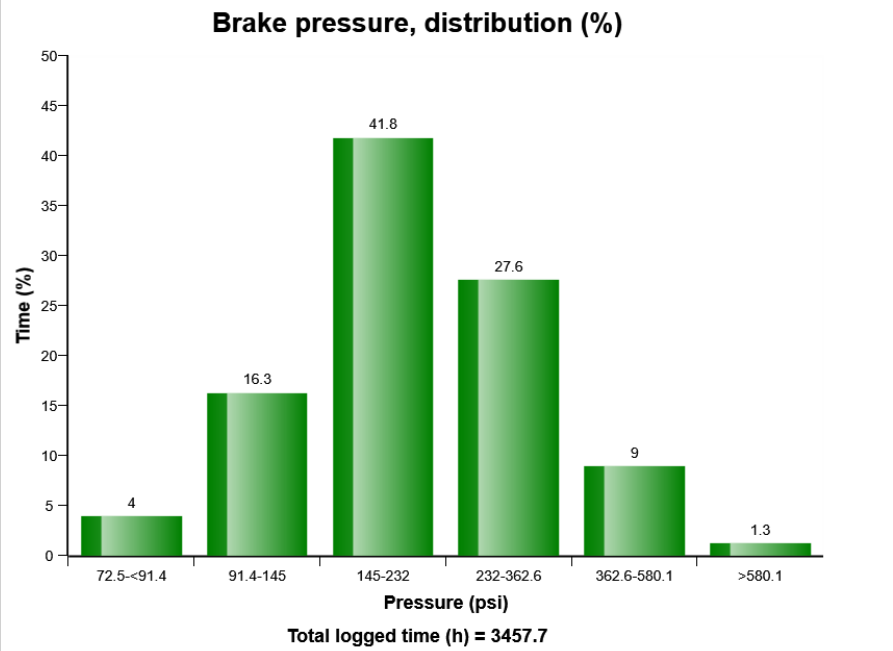
| 0 | Year | Month | Day | Hour | Minute | Duration (seconds) | Extreme (psi) |
|---|---|---|---|---|---|---|---|
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |

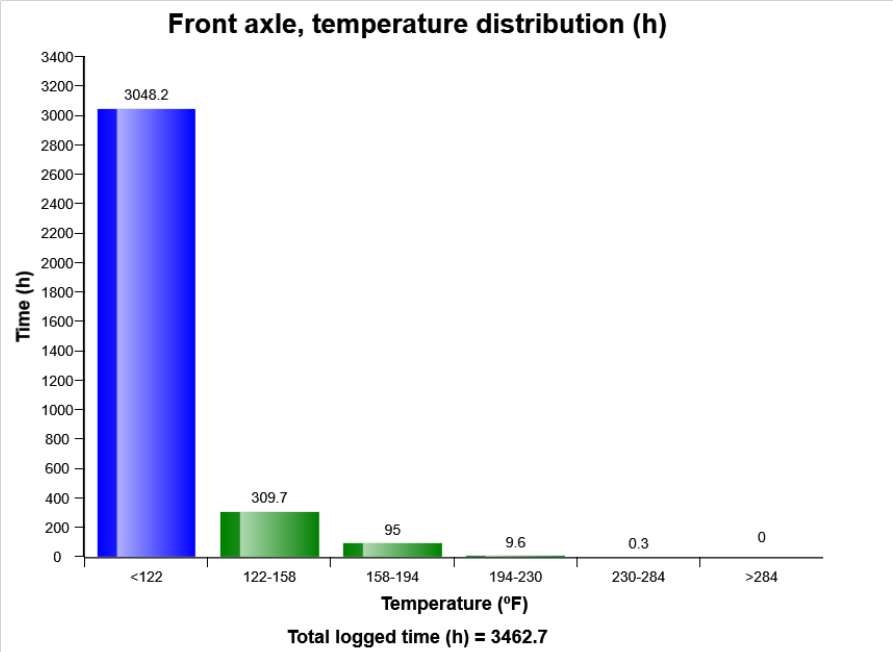
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



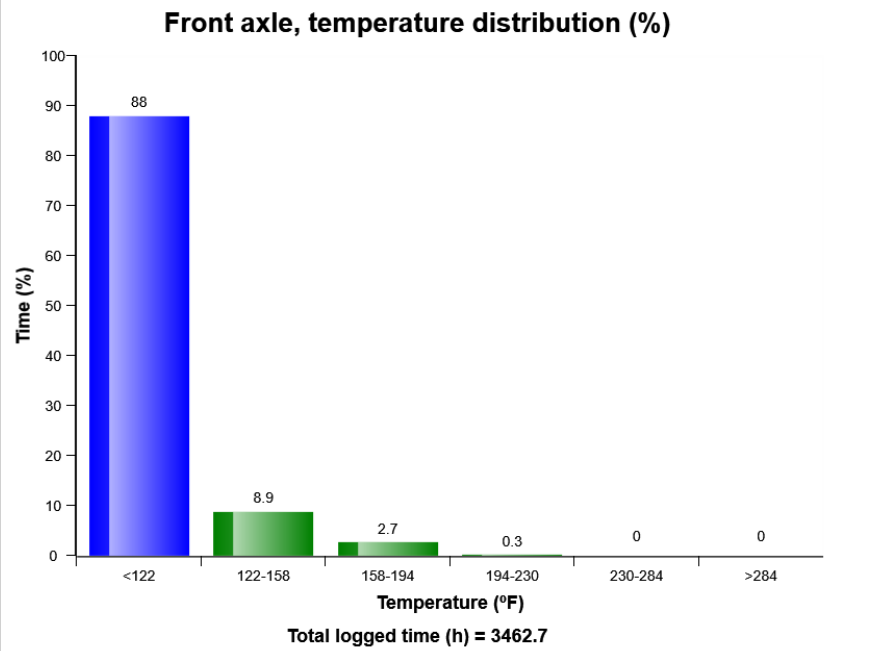



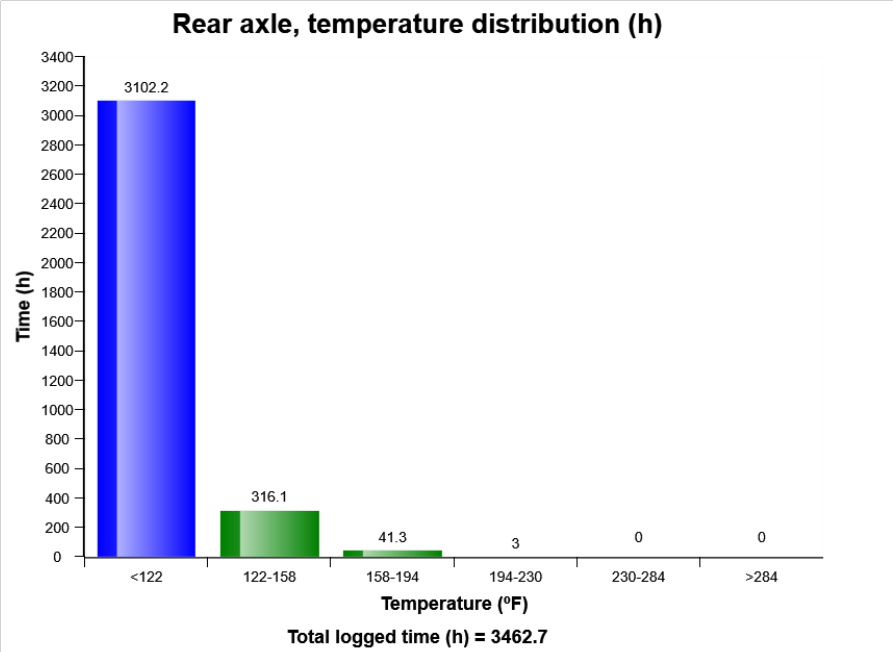
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Parking brake usage
## Total number of occurences = 17798

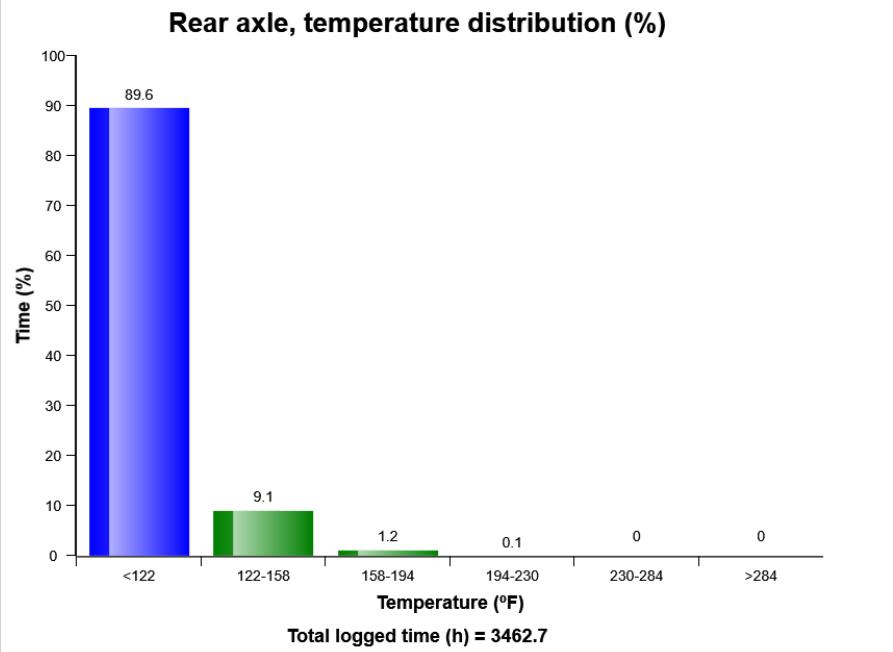
| Op hours | Year | Month | Day | Hour | Minute | Duration (minutes) |
|---|---|---|---|---|---|---|
| 0 | 2019 | 9 | 6 | 7 | 3 | 0 |
| 0 | 2019 | 9 | 10 | 10 | 41 | 0 |
| 0 | 2019 | 9 | 10 | 10 | 39 | 0 |
| 0 | 2019 | 9 | 10 | 10 | 33 | 1 |
| 0 | 2019 | 9 | 10 | 10 | 23 | 7 |
| 0 | 2019 | 9 | 6 | 11 | 59 | 1 |
| 0 | 2019 | 9 | 6 | 9 | 58 | 4 |
| 0 | 2019 | 9 | 6 | 9 | 54 | 0 |
| 0 | 2019 | 9 | 6 | 9 | 51 | 1 |
| 0 | 2019 | 9 | 6 | 9 | 26 | 0 |
| 0 | 2019 | 9 | 6 | 9 | 24 | 0 |
| 0 | 2019 | 9 | 6 | 9 | 14 | 3 |
| 0 | 2019 | 9 | 6 | 8 | 56 | 0 |
| 0 | 2019 | 9 | 6 | 8 | 43 | 0 |
| 0 | 2019 | 9 | 6 | 8 | 11 | 2 |
| 0 | 2019 | 9 | 6 | 7 | 43 | 0 |
| 0 | 2019 | 9 | 6 | 7 | 29 | 0 |
| 0 | 2019 | 9 | 6 | 7 | 22 | 1 |
| 0 | 2019 | 9 | 6 | 6 | 44 | 0 |
| 0 | 2019 | 9 | 6 | 7 | 1 | 0 |

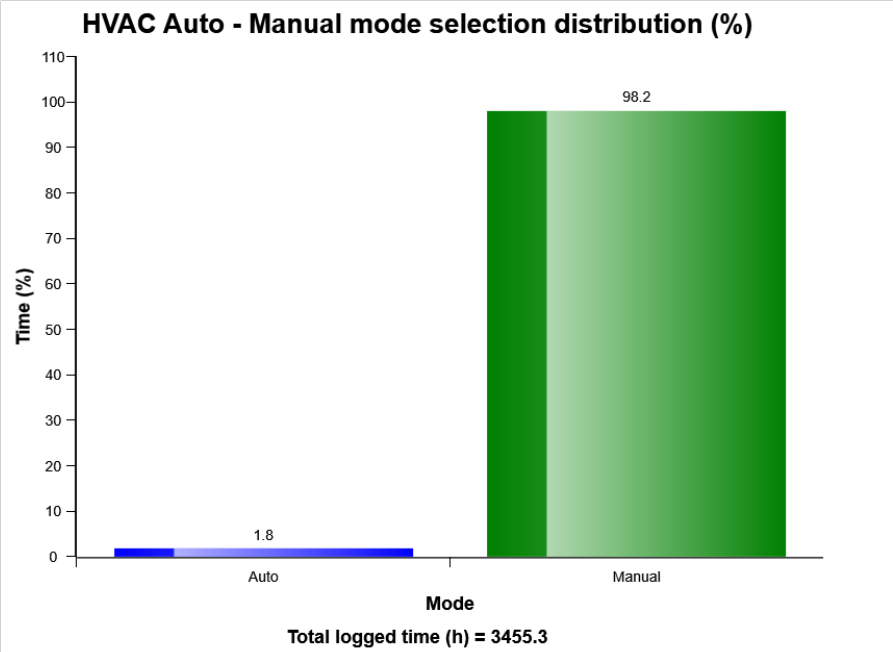
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Parking brake abuse
## Total number of occurences = 3

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | Extreme (km/h) |
|---|---|---|---|---|---|---|---|
| 0 | 2017 | 12 | 10 | 18 | 24 | 0 | 5 |
| 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 | 2018 | 8 | 11 | 10 | 7 | 0 | 5 |
| 0 | 2018 | 3 | 19 | 19 | 18 | 0 | 4 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 0 |

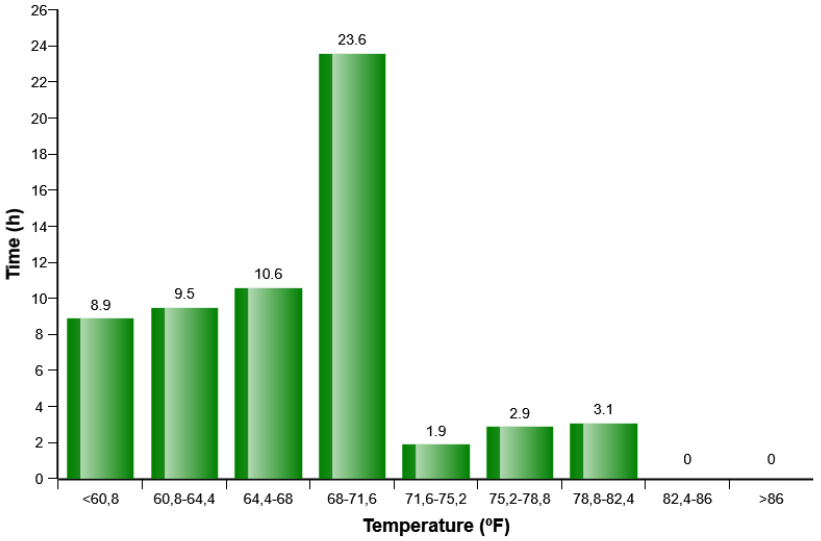
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



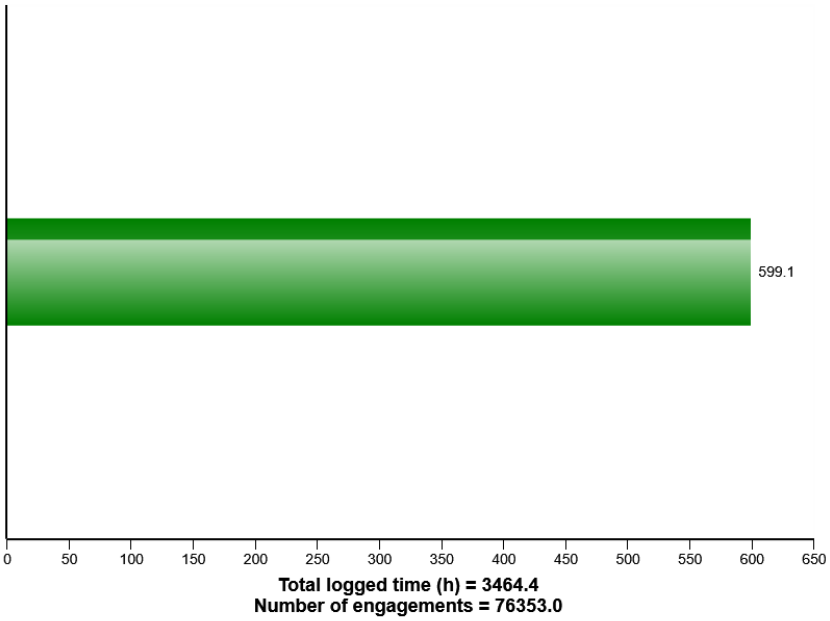



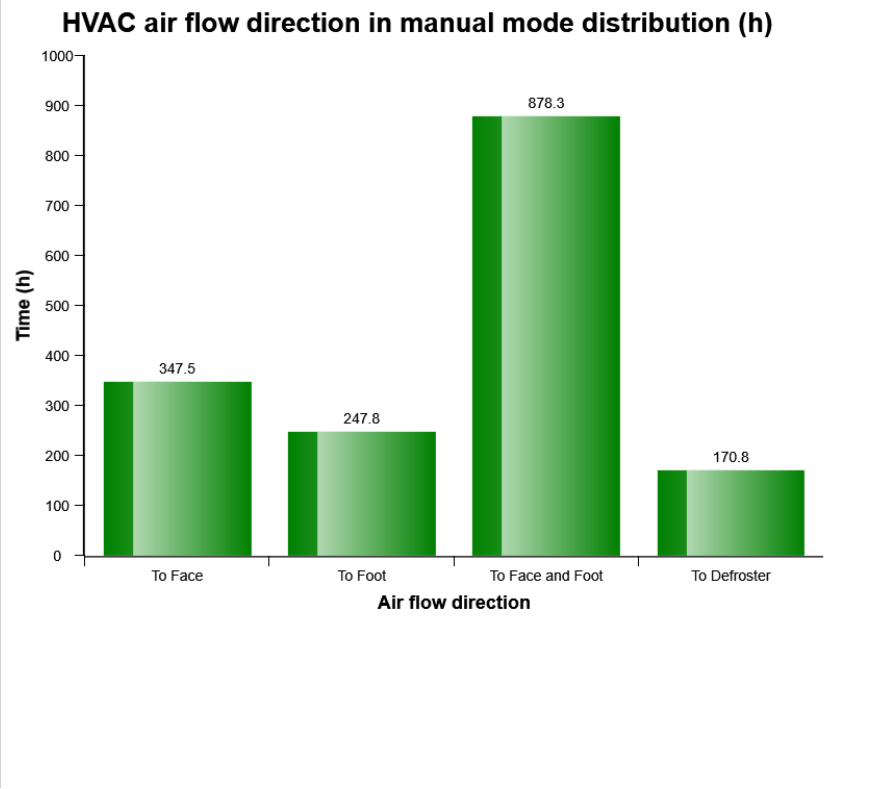
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

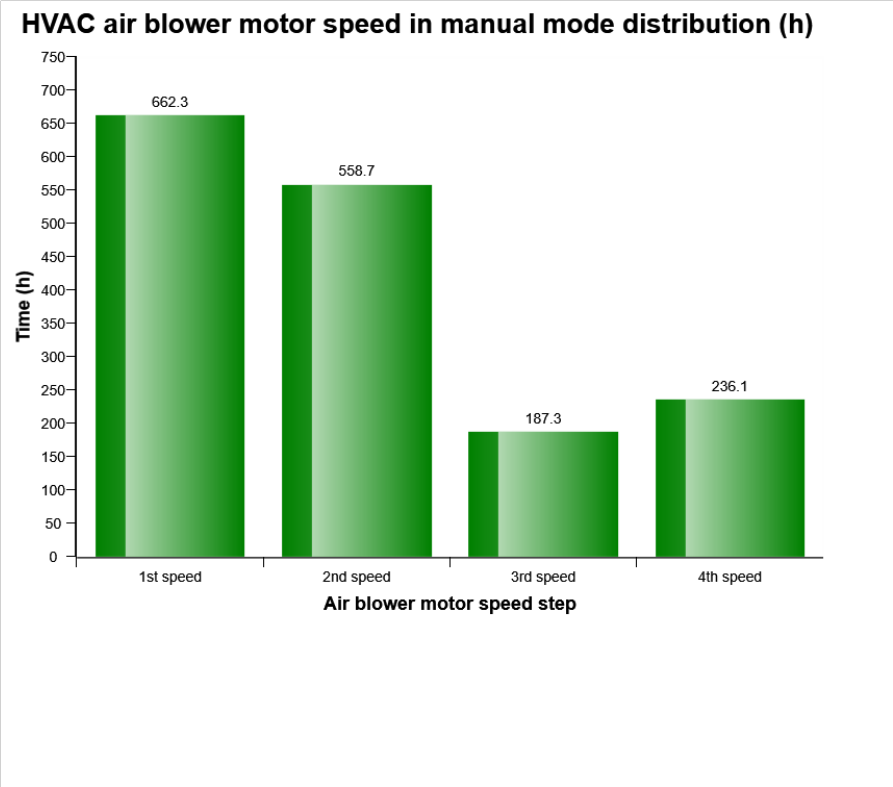
## HVAC air temperature setting in auto control mode distribution (h)




## AC Compressor usage




HVAC air flow direction in manual mode distribution (h)
Time (h)
1000
900
800
700
600
500
400
300
200
100
0
347.5
247.8
878.3
170.8
To Face
To Foot
To Face and Foot
To Defroster
Air flow direction

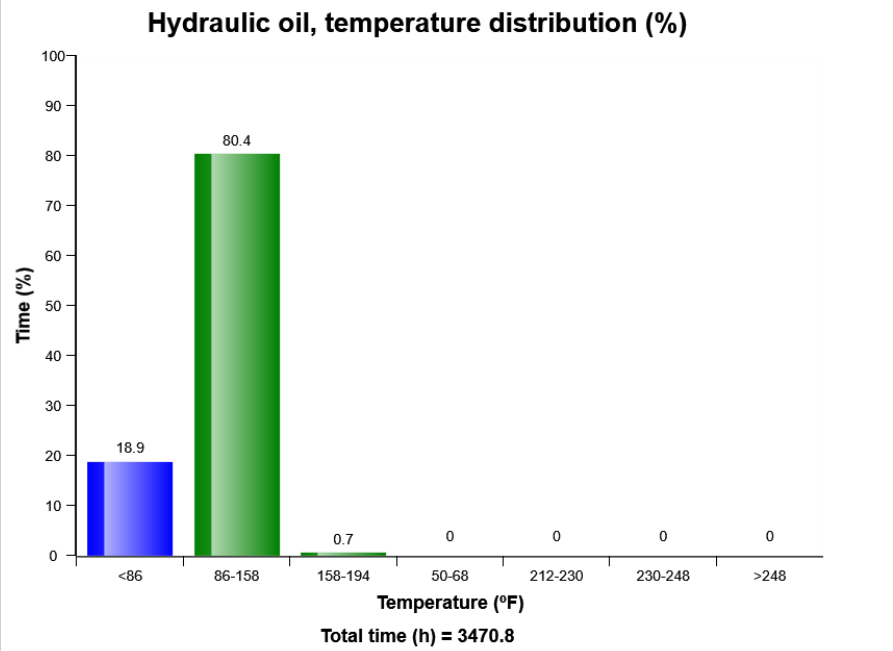

HVAC air blower motor speed in manual mode distribution (h)
Time (h)
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
662.3
558.7
187.3
236.1
1st speed
2nd speed
3rd speed
4th speed
Air blower motor speed step

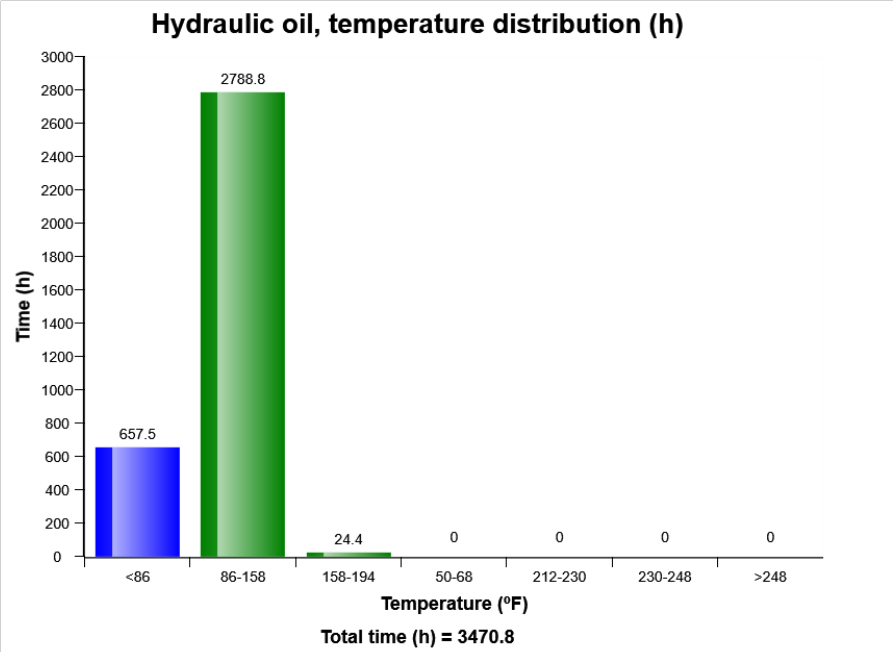
| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## AC High Pressure
## Total number of occurences = 0

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | Ambient temperature (°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 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |



| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## High hydraulic oil temperature
## Total number of occurences = 0

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) | 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 |

| Machine model | SerialNo | Operating Hours | Reading Date |
|---|---|---|---|
| L90H | 624058 | 3464.5 | 10/09/2019 |

## Low Hydraulic Oil Level
## Total number of occurences = 0

| Op hours | Year | Month | Day | Hour | Minute | Duration (seconds) |
|---|---|---|---|---|---|---|
| 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 |