**ENGINE # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PERMIT/ PEER # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CALENDAR YEAR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**LAMBDA MANAGEMENT SYSTEM (LMS) –**

**ENGINE RECORDKEEPING FORM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **DATE &****TIME** | **HOUR****METER** | **DID ENGINE OPERATE THIS MONTH?** | **INITIAL LAMBDA CONTROLLER LIGHT COLOR** | **DESCRIBE ADJUSTMENTS MADE TO ENGINE****AND/OR LMS TO RETURN LMS TO GREEN LIGHT STATUS** | **ENGINE****INSPECTION****PERFORMED** | **LMS****INSPECTION****PERFORMED** | **INITALS OF RESPONSIBLE PERSON** |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |
|  |  | **[ ]  YES****[ ]  NO** | **[ ]  GREEN LIGHT****[ ]  YELLOW LIGHT** **[ ]  RED LIGHT****[ ]  OFF/ NO LIGHT** | **LIGHT COLOR AFTER ADJUSTMENT:****DATE & TIME COMPLETED:** | **[ ]  YES****[ ]  NO** | **[ ]  OXYGEN SENSOR- replaced every 2,000 hours****[ ]  CATALYST- washed or replaced every 8,000 hours** |  |

**TOTAL HOURS ENGINE OPERATED FOR THE CALENDAR YEAR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ FUEL TYPE: [ ]  PUC NATURAL GAS [ ]  OTHER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\* Form instructions on back of page.**

FORM INSTRUCTIONS:

TOP RIGHT CORNER OF THE FORM: RECORD THE ENGINE NUMBER (THIS MAY BE AN ENGINE SERIAL NUMBER), THE PERMIT OR PEER NUMBER, AND THE CALENDAR YEAR.

COLUMN 1: ENTER THE DATE AND TIME

COLUMN 2: ENTER THE HOUR METER READING

COLUMN 3: CHECK THE APPROPRIATE BOX TO INDICATE IF THE ENGINE OPERATED DURING THE MONTH.

COLUMN 4: CHECK THE APPROPRIATE BOX TO INDICATE THE LIGHT COLOR OF THE LAMBDA MANAGEMENT CONTROLLER. THE TOP THREE LIGHTS ARE RED, GREEN, AND YELLOW:

* RED INDICATES A RICH FUEL CONDITION
* GREEN INDICATES EMISSIONS COMPLIANCE
* YELLOW INDICATES A LEAN FUEL CONDITION

THE BOTTOM TWO LIGHTS ARE GREEN AND RED:

* THE GREEN LIGHT INDICATES SYSTEM POWER IS ON.
* THE RED LIGHT INDICATES THE O2 SENSOR POWER IS ON.

COLUMN 5: IF THE TOP LIGHTS ARE EITHER RED OR YELLOW, MAKE ADJUSTMENTS TO THE LAMBDA MANAGEMENT CONTROLLER AND/OR ENGINE. DESCRIBE THE ADJUSTMENT(S) MADE IN THE SPACE PROVIDED. ADDITIONAL NOTES MAY BE ENTERED ON THE BOTTOM OF THIS PAGE. RECORD THE LIGHT COLOR AFTER THE ADJUSTMENT(S) IN THE SPACE PROVIDED. IF THE LIGHT CANNOT BE RETURNED TO A GREEN STATUS AFTER 8 HOURS, CONTACT THE DISTRICT AND SHUT THE ENGINE DOWN WITHIN THE FOLLOWING HOUR. DO NOT OPERATE THE ENGINE UNTIL AFTER MAKING ALL NECESSARY REPAIRS TO RETURN THE SYSTEM TO GREEN LIGHT STATUS. ENTER THE DATE AND TIME THE ADJUSTMENT WAS SUCCESSFUL OR WHEN THE ENGINE WAS SHUT DOWN.

COLUMN 6: CHECK THE APPROPRIATE BOX TO INDICATE IF ENGINE MAINTNANCE INSPECTION WAS PERFORMED AS RECOMMENDED BY THE MANUFACTURER OR EMISSIONS CONTROL SYSTEM SUPPLIER. FOR EXAMPLE: CHECK ENGINE FLUID LEVELS, BATERY, CABLES AND CONNECTIONS; CHANGE ENGINE OIL FILTERS; REPLACE ENGINE COOLANT; AND/OR OTHER OPERATIONAL CHARACTERISTICS AS RECOMMENDED BY THE MANUFACTURER OR SUPPLIER. KEEP ALL DOCUMENTATION FOR A MINIMUM OF 5 YEARS.

COLUMN 7: CHECK THE OXYGEN SENSOR BOX IF THE OXYGEN SENOR WAS REPLACED DURING THE MONTH. OXYGEN SENSOR REPLACEMENT IS REQUIRED AT LEAST EVERY 2,000 HOURS OF OPERATION. CHECK THE CATALYST BOX IF THE CATALYST WAS WASHED OR REPLACED DURING THE MONTH. CATALYST WASHING OR REPLACEMENT, AS NECESSARY, IS REQUIRED AT LEAST ONCE EVERY 8,000 HOURS OF OPERATION. KEEP ALL RECORDS OF OXYGEN SENSOR REPLACEMENT AND CATALYST WASHING OR REPLACEMENT FOR A MINIMUM OF 5 YEARS.

COLUMN 8: ENTER THE INITIALS OF THE PERSON RESPONSIBLE FOR THE MAINTENANCE AND RECORD KEEPING OF THE ENGINE AND LAMBDA MANAGEMENT SYSTEM.

BOTTOM OF FORM: RECORD THE TOTAL HOURS THE ENGINE OPERATED DURING THE CALENDAR YEAR. CHECK THE BOX FOR THE TYPE OF FUEL USED. KEEP RECORDS OF FUEL PURCHASE RECEIPTS AND/OR BILLING STATEMENTS FOR A MINIMUM OF 5 YEARS.

***\*\*\*EMISSIONS MONITORING REQUIREMENT: CONDITIONALLY CERTIFIED LAMBDA MANAGEMENT SYSTEM ENGINES ARE REQUIRED TO COMPLETE INITIAL PORTABLE ANALYZER MONITORING FOR NOx & CO BY JULY 1, 2015. ONGOING PORTABLE ANLYZER MONITORING IS REQUIRED AT LEAST ONCE EVERY 60 MONTHS. SEE PERMIT OR PEER FOR MONITORING SPECIFICS.***

***\*\*\*\*TESTING REQUIREMENT: NON-CERTIFIED LAMBDA MANAGEMENT SYSTEM ENGINES ARE REQUIRED TO HAVE AN INITIAL SOURCE TEST FOR NOx, CO & VOC BY JULY 1, 2015. RECURRING SOURCE TESTING FOR NOx, CO & VOC IS REQUIRED EVERY 60 MONTHS AFTER THE INITIAL SOURCE TEST DATE. PORTABLE ANALYZER MONITORING FOR NOx & CO MUST BE CONDUCTED AT LEAST ONCE EVERY 3 MONTHS EXCEPT WHEN A SOURCE TEST IS CONDUCTED. SEE PERMIT OR PEER FOR MONITORING SPECIFICS.***

------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ADDITIONAL NOTES:

DATE NOTES

\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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