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ITMD 513 Open Source Programming

Professor Dr. Sam

Hw2

1-30-19

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1  '''
2  Deborah Barndt
3  1-30-19
4  DieselEngineTroubleshooting.py
5  hw1: Diesel Engine Troubleshooting
6
7  This program will ask the user for input on how to troubleshoot their diesel
8  engine via a troubleshooting chart, and display a solution to their problem.
9
10 Written by Deborah Barndt.
11 '''
12
13 # Give a welcome message to the user.
14 print('Welcome to the Diesel Engine Troubleshooting Program.\n')
15
16 # Ask the user what color their status lights are.
17 light_status = input('What color are the status lights? [green, red, or amber] ')
18
19 # Create if/else statements to flow through the troubleshooting chart.
20 # Display the result if light status is green.
21 if (light_status == 'green'):
22     print('Do a restart procedure.')
23     print('\nThank you for using the Diesel Engine Troubleshooting Program.')
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24
25 # Display the result if light status is amber.
26 elif (light_status == 'amber'):
27     print('Check the fuel line service routine.')
28     print('\nThank you for using the Diesel Engine Troubleshooting Program.')
29
30 # Display the result if the light status is red.
31 elif (light_status == 'red'):
32     print('Shut off all input lines, then check meter #3.')
33
34     # Ask the user if meter #3 is less than 50 or greater than or equal to 50.
35     meter3 = int(input('\nWhat number does meter #3 display? '))
36
37     # Display the result if meter #3 is less than 50.
38     if (meter3 < 50):
39         print('Check the main line for test pressure.')
40
41         # Ask the user what the test pressure is.
42         test_pressure = input(
43             '\nWhat is the test pressure on the main line? [normal, high, or low] ')
44
45         # Display result if the test pressure is normal.
46         if (test_pressure == 'normal'):
47             print('Refer to the motor service manual.')
48             print('\nThank you for using the Diesel Engine Troubleshooting Program.')
49
50         # Display the result if the test pressure is high or low.
51         elif (test_pressure == 'high' or test_pressure == 'low'):
52             print('Refer to the main line manual.')
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53     print('\nThank you for using the Diesel Engine Troubleshooting Program.')
54
55     else:
56         print('Please enter the correct input.')
57         print('Please try again.')
58
59     # Display the result if meter #3 is greater than or equal to 50.
60     elif (meter2 >= 50):
61         print('Measure the flow velocity at inlet 2-B.')
62
63         # Ask the user what is the flow velocity of inlet 2-B.
64         flow_velocity = input(
65             '\nWhat is the flow velocity of inlet 2-B? [high, low, or normal] ')
66
67         # Display the result if the flow velocity is high or low.
68         if (flow_velocity == 'high' or flow_velocity == 'low'):
69             print('Refer the diesel engine unit for factory service.')
70             print('\nThank you for using the Diesel Engine Troubleshooting Program.')
71
72         # Display the result if the flow velocity is normal.
73         elif (flow_velocity == 'normal'):
74             print('Refer to the inlet service manual.')
75             print('\nThank you for using the Diesel Engine Troubleshooting Program.')
76
77     else:
78         print('Please enter the correct input.')
79         print('Please try again.')
80
81     else:
```

82 print('Please enter the correct input.')

83 print('Please try again.')

84

85 Output Results:

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] green
Do a restart procedure.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>
RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] amber
Check the fuel line service routine.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>
RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] red
Shut off all input lines, then check meter #3.

What number does meter #3 display? 30
Check the main line for test pressure.

What is the test pressure on the main line? [normal, high, or low] normal
Refer to the motor service manual.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>
RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.
```

Ln: 103 Col: 4

86

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Thank you for using the Diesel Engine Troubleshooting Program.
>>>
| RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] red
Shut off all input lines, then check meter #3.

What number does meter #3 display? 30
Check the main line for test pressure.

What is the test pressure on the main line? [normal, high, or low] high
Refer to the main line manual.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>
| RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] red
Shut off all input lines, then check meter #3.

What number does meter #3 display? 30
Check the main line for test pressure.

What is the test pressure on the main line? [normal, high, or low] low
Refer to the main line manual.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>
| RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] red
Shut off all input lines, then check meter #3.

What number does meter #3 display? 50
```

Ln: 34 Col: 0

```

Shut off all input lines, then check meter #3.

What number does meter #3 display? 50
Measure the flow velocity at inlet 2-B.

What is the flow velocity of inlet 2-B? [high, low, or normal] high
Refer the diesel engine unit for factory service.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>
RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] red
Shut off all input lines, then check meter #3.

What number does meter #3 display? 55
Measure the flow velocity at inlet 2-B.

What is the flow velocity of inlet 2-B? [high, low, or normal] low
Refer the diesel engine unit for factory service.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>
RESTART: E:/ITMD 513 Open Source Programming Python/hw2/DieselEngineTroubleshoo
ting.py
Welcome to the Diesel Engine Troubleshooting Program.

What color are the status lights? [green, red, or amber] red
Shut off all input lines, then check meter #3.

What number does meter #3 display? 60
Measure the flow velocity at inlet 2-B.

What is the flow velocity of inlet 2-B? [high, low, or normal] normal
Refer to the inlet service manual.

Thank you for using the Diesel Engine Troubleshooting Program.
>>>

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Ln: 34 Col: 0