

# QUESTION BANK ON DIESEL LOCOMOTIVES

1. HHP Locomotive is also known as –
  - a) EMD Locomotive,
  - b) GM Locomotive,
  - c) G4/P4 Locomotive,
  - d) All of the above.

**Answer - d**
  
2. WDG4D is specially design for –
  - a) Passenger Service,
  - b) Goods Service,
  - c) Mixed Service,
  - d) None of the above.

**Answer - b**
  
3. WDG4 is a –
  - a) Single Cab Loco,
  - b) Dual Cab Loco,
  - c) Dual Cab Loco with Disc Brake,
  - d) Dual Cab Loco with Hotel Load.

**Answer - a**
  
4. How many teeth are in HHP Locomotive Crank Shaft Gear?
  - a) 58,
  - b) 64,
  - c) 79,
  - d) 113.

**Answer - c**
  
5. Left Side Cam Gear is driven by –
  - a) Right Side Cam Gear,
  - b) No. 1 Idler Gear,
  - c) No. 2 Idler Gear,
  - d) Crank Shaft Gear.

**Answer - c**
  
6. Maximum speed of WDG4D Locomotive over Central Railway is –
  - a) 100 kmph,
  - b) 105 kmph,
  - c) 135 kmph,
  - d) 160 kmph.

**Answer - a**
  
7. How many cylinders are in HHP Loco Engine?
  - a) 8,
  - b) 12,
  - c) 16,
  - d) None of the above.

**Answer - c**
  
8. Torsional Damper is fitted on the –
  - a) Front End of the Engine,
  - b) Rear End of the Engine,
  - c) Front and Rear End of the Engine,
  - d) None of the above.

**Answer - a**
  
9. Don't pour \_\_\_\_\_ in the HHP Loco.
  - a) DM Water,
  - b) Raw Water,
  - c) Distilled Water,
  - d) All of the above.

**Answer - b**
  
10. TRD Timing of 710G3 TSC is –
  - a) Minimum 30 seconds,
  - b) Minimum 50 seconds,
  - c) Minimum 60 seconds,
  - d) Minimum 180 seconds.

**Answer - b**
  
11. Crank Shaft to TSC Speed ration is –
  - a) 16.7:1, b) 17:77, c) 17:90, d) None of the above.

**Answer - d**
  
12. Vibration Damper is rotate in each direction about –
  - a) 23 Degree, b) 10 Degree, c) 180 Degree, d) 360 Degree.

**Answer – b**

13. How many rollers are fitted in the clutch assembly?  
 a) 8, b) 12, c) 16, d) 18. **Answer - c**
14. Modified Water Pump has –  
 a) Taper bearing,  
 b) Ball bearing, **Answer - b**  
 c) Both taper as well as ball bearing,  
 d) None of the above.
15. To operate sander, air supply is received from –  
 a) MR-1 Pressure,  
 b) MR-2 Pressure, **Answer - a**  
 c) BP Pressure,  
 d) B.C. Pressure.
16. During setting of TDC Pointer, which Power Assembly is kept at BDC?  
 a) No-1, b) No-16, c) No-8, d) No-9 **Answer - a**
17. In HHP Loco, exhaust manifolds have following nos. of chamber assembly –  
 a) 4, b) 7, c) 8, d) 5 **Answer - a**
18. Low viscosity indicates –  
 a) Mixing of water in lube,  
 b) Mixing of fuel in lube oil, **Answer - b**  
 c) Mixing of carbon contents in lube oil,  
 d) None of these.
19. In HHP Locomotive bail of ring is provided on –  
 a) Auto Brake Handle,  
 b) Driver's backup valve handle, **Answer - c**  
 c) Direct brake handle,  
 d) None of the above.
20. Accessory Drive coupling retaining bolt is torque at –  
 a) 450 ft-lbs, b) 650 ft-lbs, c) 250 ft-lbs, d) 750 ft-lbs. **Answer - b**
21. Exhaust valve open at –  
 a) 23 Degree after TDC,  
 b) 109 Degree after TDC, **Answer - b**  
 c) 180 Degree after TDC,  
 d) 43 Degree before BDC.
22. What is the full form of EMDEC?  
 a) Electro-Motive Diesel Engine Control,  
 b) Electro-Motive Division of Engine Control, **Answer - a**  
 c) Electro-Motive Diesel and Electric Control,  
 d) None of the above.
23. Length of WDG4D Locomotive is –  
 a) 22.98 meters,  
 b) 21.24 meters, **Answer - a**  
 c) 21.7 meters,  
 d) None of the above.
24. To operate MVCC, Air Supply is received from –  
 a) MR-1 Pressure,  
 b) MR-2 Pressure, **Answer - a**  
 c) BP Pressure,  
 d) B.C Pressure.
25. After changing of power assembly which of the following operation is not performed?  
 a) Injector Timing,  
 b) "Pee" pipe alignment, **Answer - d**  
 c) Lead wire test,  
 d) None of the above.
26. In HHP Locomotive mainly which Governor is fitted –

- a) Woodward Governor,  
 b) MCBG, **Answer - a**  
 c) EH Governor,  
 d) None of the above.
27. HHP Locomotive has a –  
 a) Two stroke engine,  
 b) Four stroke engine, **Answer - a**  
 c) Multi stroke engine,  
 d) None of the above.
28. In HHP Locomotive, TSC is fitted in the –  
 a) Front end of the engine,  
 b) Rear end of the engine, **Answer - b**  
 c) Front or Rear of the engine,  
 d) None of the above.
29. During EPD testing at idle engine normally shut down in –  
 a) 120 second, b) 40 second, c) 60 second, d) 35 second. **Answer - c**
30. EPU Fitted on –  
 a) Harmonic damper,  
 b) Starter motor bracket, **Answer - b**  
 c) Main alternator,  
 d) Companion alternator.
31. No. of Radiator fitted in WDP4D Locomotive is –  
 a) 1, b) 2, c) 4, d) None of the above. **Answer - b**
32. Radiator fan mounting bolt is torque at –  
 a) 450 ft-lbs, b) 100 ft-lbs, c) 250 ft-lbs, d) 50 ft-lbs. **Answer - b**
33. During injector rack setting governor rack should be kept at –  
 a) 1.00", b) 1.02", c) 1.96", d) 0.62". **Answer - a**
34. Power assembly is consisting of –  
 a) Cylinder liner,  
 b) Cylinder head, **Answer - d**  
 c) Piston, ring, carrier & con rod assembly,  
 d) All of the above.
35. Liner of HHP Locomotive made of –  
 a) Cast iron with brazed on outer sleeves,  
 b) Cast iron alloy with tin plating, **Answer - a**  
 c) Stainless steel with chrome plated,  
 d) Cast iron.
36. Which type of CBC is fitted in WDG4D Locomotive?  
 a) E-type, b) F-type, c) H-type, d) None of the above. **Answer - a**
37. At present, which of the following crankcase oils are approved for application in HHP Diesel Engines?  
 a) Servo RR 520 MG of M/s IOC,  
 b) MAX RR 517 M of M/s BPC, **Answer - d**  
 c) HP RR 817 M of M/s HPC,  
 d) All of the above.
38. Scavenging pump is a –  
 a) Reciprocating pump,  
 b) Centrifugal pump, **Answer - c**  
 c) Positive displacement with helical gear type pump,  
 d) None of the above.
39. No. of starter motor fitted in WDP4D Locomotive is –  
 a) 1, b) 2, c) 4, d) None of the above. **Answer - b**
40. Starter Motors of HHP Locomotive is –  
 a) AC Motor,

- b) DC Series Motor,  
c) 3 phase AC Motor, **Answer - b**  
d) None of the above.
41. Starter motors of HHP Locomotive is connected in –  
a) Series, b) Parallel, c) Series-parallel, d) None of the above. **Answer - b**
42. Starter motor used in HHP Locomotive is –  
a) 32 volt motors, b) 64 volt motors, **Answer - b**  
c) 72 volts motors, d) None of the above.
43. For starting of HHP Locomotive –  
a) Single electric motor is used,  
b) Dual electric motor is used, **Answer - b**  
c) Dual air starting motor is used,  
d) None of the above.
44. Rating of starting fuse is –  
a) 400A, b) 800A, c) 500A, d) None of the above. **Answer - b**
45. Starting fuse is used –  
a) Only during engine starting,  
b) Only during engine running, **Answer - a**  
c) Only during engine shutdown,  
d) None of the above.
46. How many piston rings are fitted in the HHP Engine Piston?  
a) 2, b) 4, c) 5, d) 6. **Answer - d**
47. In MEDHA Control System if starting fuse is removed during running then -  
a) Engine will shut down,  
b) Engine will come to idle, **Answer - d**  
c) TE will come to Zero,  
d) There will be no effect on engine.
48. Purpose of starting fuse is –  
a) To protect the LV (Low voltage) control circuit,  
b) To protect the HV (High voltage) control circuit, **Answer - c**  
c) To protect the starter motors from current overload,  
d) All of the above.
49. Black light test is related to –  
a) Power assembly,  
b) Fuel system, **Answer - b**  
c) Turbo supercharger,  
d) Lube oil system.
50. No of teeth in starter motor pinion is –  
a) 10, b) 15, c) 11, d) None of the above. **Answer - c**
51. During engine starting, do not hold the fuel prime/engine start switch (FP/ES) to ENGINE START position for more than –  
a) 20 seconds, b) 30 seconds,  
c) 60 seconds, d) None of the above. **Answer - a**
52. Backlash to be maintained in between ring gear and starter motor pinion is –  
a) 0.008"-0.016", b) 0.007"-0.025",  
c) 0.015"-0.040", d) 0.020"-0.030" **Answer - c**
53. Compressor of HHP Locomotive is –  
a) Electrical driven,  
b) Mechanical driven, **Answer - b**  
c) Electromagnetic driven,  
d) None of the above.
54. What is the meaning of starting abutment?  
a) It means starting motor pinion not coming out,  
b) It means starting motor pinion not-disengaging with ring gear, **Answer - a**

- c) It means starting motor pinion not rotating,
- d) All of the above.

55. Starting abutment message will come on display if – **Answer - a**
- a) STA contactor not pick up within 0.3 seconds after starting is initiated,
  - b) STA contactor not pick up within 0.5 seconds after starting is initiated,
  - c) STA contactor not pick up within 3.0 seconds after starting is initiated,
  - d) None of the above.
56. Which logic is implemented for starter motor drop out? **Answer - d**
- a) After releasing of Engine Start (FP/ES) switch from Engine Start position, starter motors will drop,
  - b) After reaching engine rpm of 200 rpm, starter motor will drop,
  - c) If Engine Start switch kept more than 20 seconds in start position then starter motor will drop,
  - d) All of the above. .
57. Starter motor will not drop – **Answer - b**
- a) If Engine Start switch kept more than 20 seconds in start position,
  - b) If STA & ST contactor tip is weld,
  - c) Until Engine not crank,
  - d) All of the above.
58. Full Form of STA – **Answer - b**
- a) Starting Contactor,
  - b) Starting Auxiliary Contactor,
  - c) Starting Relay,
  - d) None.
59. Full Form of ST – **Answer - a**
- a) Starting Contactor,
  - b) Starting Auxiliary Contactor,
  - c) Starting Relay,
  - d) None.
60. During starting which contactor is picking up at first? **Answer - b**
- a) ST,
  - b) STA,
  - c) Depend upon the last sequence of pick up,
  - d) Any One.
61. Full Form of SM1&2 – **Answer - c**
- a) Starting Motor Contactor 1&2,
  - b) Starting Module 1 & 2,
  - c) Starting Motor 1 & 2,
  - d) None.
62. Each Starting Motor solenoid assembly has – **Answer - d**
- a) A pickup coil (PU),
  - b) a hold-in coil (HOLD),
  - c) a set of contacts (SM),
  - d) All of the above.
63. Compressor efficiency test is checked with – **Answer - a**
- a) 7.14 mm choke, b) 7.50 mm choke,
  - c) 7.91 mm choke, d) None.
64. In HHP Locomotive Inlet port close at – **Answer - b**
- a) 43.5 Degree before BDC,
  - b) 43.5 Degree after BDC,
  - c) 107.5 Degree after TDC,
  - d) 67 Degree after BDC.
65. Setting of Water pressurized cap of HHP Locomotive is – **Answer - a**
- a) 7 psi, b) 12 psi, c) 15 psi, d) 20 psi.
66. In CCB System, Air supply is received from – **Answer - b**
- a) MR-1, b) MR-2, c) MR-4, d) None.

67. During pre & post lubrication –  
 a) Only main bearing and con rod bearing is lubricated,  
 b) Only TSC bearing and gear train is lubricated, **Answer - c**  
 c) Only TSC bearing and gear train is lubricated,  
 d) All of the above.
68. Fuel oil primary filter conditioning gauge having –  
 a) Green Zone, b) Yellow Zone, c) Red Zone, d) All. **Answer - d**
69. DBI Testing of MR Tank of HHP Locomotive is done on interval of –  
 a) 24 months, b) 36 months, c) 48 months, d) 06 years. **Answer - c**
70. In HHP Locomotive, TSC Spin on filter is fitted on –  
 a) Right Side, Front End of the Engine,  
 b) Right Side, Rear End of the Engine, **Answer - b**  
 c) Left Side, Front End of the Engine,  
 d) None.
71. In HHP Locomotive, BP Pressure is set at –  
 a)  $5.0 \pm 0.1 \text{ kg/cm}^2$ , b)  $5.1 \pm 0.1 \text{ kg/cm}^2$ ,  
 c)  $5.2 \pm 0.1 \text{ kg/cm}^2$ , d) None. **Answer - a**
72. In HHP Locomotive compressor oil to be checked at –  
 a) Engine run and idle condition,  
 b) Engine shutdown condition, **Answer - a**  
 c) Engine run and 8<sup>th</sup> Notch condition,  
 d) Any of the above.
73. In HHP Locomotive lube oil level to be checked at –  
 a) Engine run and idle condition,  
 b) Engine shutdown condition, **Answer - a**  
 c) Engine run and 8<sup>th</sup> Notch condition,  
 d) Any one of the above.
74. In HHP Locomotive Epicyclic gear train is found in –  
 a) Turbocharger,  
 b) Accessory drive gear train, **Answer - a**  
 c) Camshaft drive gear train,  
 d) None.
75. WDP4D Locomotive fitted with \_\_\_\_\_ rotating engine –  
 a) Left Hand,  
 b) Right Hand, **Answer - a**  
 c) Both Left hand as well as Right Hand,  
 d) None.
76. Injector hand control lever is also known as –  
 a) Lay shaft,  
 b) Jacking shaft, **Answer - a**  
 c) Power shaft,  
 d) None.
77. How many main bearings are in HHP Locomotive?  
 a) 8, b) 9, c) 10, d) 16. **Answer - c**
78. Upto which notch HHP Locomotive can be raised without load (GF Off condition) –  
 a) 4<sup>th</sup> Notch, b) 5<sup>th</sup> Notch, c) 6<sup>th</sup> Notch, d) 7<sup>th</sup> Notch. **Answer - a**
79. MR Efficiency test is related to –  
 a) Power assembly,  
 b) MR Tank, **Answer - d**  
 c) Turbo Supercharger,  
 d) Compressor.
80. Marking range on governor terminal shaft scale is –  
 a) 1.96"-0.62", b) 1.00"-0.62", c) 1.02"-1.96", d) 1.02"-0.62". **Answer - a**

81. No. 9 -16 Power Assembly are –  
 a) Fork Type,  
 b) Blade Type, **Answer - a**  
 c) Fork and Blade both are in mixed arrangement,  
 d) None.
82. No. 1-8 Power Assembly are –  
 a) Type,  
 b) Blade Type, **Answer - b**  
 c) Fork and Blade both are in mixed arrangement,  
 d) None.
83. In HHP Locomotive Aux. Gen. drive gear is driven by –  
 a) Right side cam gear,  
 b) Left side cam gear, **Answer - a**  
 c) No. 2 idler gear,  
 d) None.
84. How many compression rings are fitted in the HHP Engine Piston?  
 a) 1, b) 2, c) 3, d) 4. **Answer - d**
85. In HHP Locomotive pinion end TM bearing are lubricated by –  
 a) RR460, b) Grease c) Cardium compound, d) None. **Answer - a**
86. In HHP Locomotive both side cam gear rotate –  
 a) In the same direction,  
 b) In the opposite direction, **Answer - b**  
 c) In same as crankshaft rotation direction,  
 d) None.
87. In HHP Locomotive, what is the relation between crankshaft & camshaft rpm?  
 a) Due to two stroke engine, rpm of camshaft = rpm of crankshaft. **Answer -a**  
 b) Due to two stroke engine, rpm of camshaft =  $\frac{1}{2}$  of the rpm of crankshaft.  
 c) Due to four stroke engine, rpm of camshaft =  $\frac{1}{2}$  of the rpm of right crankshaft.  
 d) None.
88. No. of critical main bearing in HHP Locomotive are –  
 a) 2, b) 4, c) 5, d) 6. **Answer - b**
89. Water drain cock is located in –  
 a) Accessory room,  
 b) Under truck at loco right side, **Answer - a**  
 c) Under truck at loco right side,  
 d) None.
90. HHP Locomotive is a –  
 a) Left Hand Driven Locomotive.  
 b) Right Hand Driven Locomotive. **Answer - a**  
 c) Both Hand Driven Locomotive.  
 d) None of the above.
91. ECC – 4 is found in –  
 a) WDP4, b) WDG4, c) WDP4B, d) WDG4D. **Answer - d**
92. Torque valve of Alternator mounting bolt is –  
 a) 295 ft-lbs, b) 650 ft-lbs, c) 1400 ft-lbs, d) 2400 ft-lbs. **Answer - c**
93. Which Oil is filled in HHP Loco Fuel Tank?  
 a) High Speed Diesel Oil,  
 b) Arctic Diesel Oil, **Answer - a**  
 c) Synthetic Diesel Oil,  
 d) All.
94. What is the height of Rail Guard of HHP Locomotive from Rail Level?  
 a)  $4\frac{1}{2}$ " , b)  $5\frac{1}{2}$ " , c)  $6\frac{1}{2}$ " , d) None. **Answer - a**
95. How many Air Inlet Ports are in a power assembly?

- a) 8, b) 12, c) 16, d) 18. **Answer - d**
96. Compressor of HHP Locomotive is a –  
 a) Rotary compressor,  
 b) Reciprocating compressor, **Answer - b**  
 c) Centrifugal compressor,  
 d) Any one of the above.
97. OSTA Operation of HHP Locomotive is checked in which schedule?  
 a) T-30 & above,  
 b) T-90 & above, **Answer - b**  
 c) T-180 & above,  
 d) T-Yearly & above.
98. What is the purpose of torsional damper in HHP Locomotive?  
 a) To absorb crank shaft torsional vibration.  
 b) To absorb vibration of the locomotive. **Answer - a**  
 c) To absorb vibration of the main alternator.  
 d) None of the above.
99. No. of teeth in Sun Gear is –  
 a) 37, b) 26, c) 58, d) 131. **Answer - a**
100. How many Lube Oil by-pass valves are fitted in HHP Locomotive Lube Oil System?  
 a) 1, b) 2, c) 3, d) None. **Answer - c**
101. What is the limit of crush height?  
 a) 0.007"-0.025", b) 0.008"-0.017",  
 c) 0.016"-0.039", d) 0.006"-0.018". **Answer - b**
102. What is the height of WDP4 Locomotive (over horn)?  
 a) 4.22 meters, b) 4.25 meters, c) 4.20 meters, d) None. **Answer - a**
103. In HHP Locomotive exhaust valve dropping at 107.5° after TDC is –  
 a) 0.020", b) 0.023", c) 0.026", d) 0.032". **Answer - c**
104. How many inlet valves are fitted in a power assembly?  
 a) 2, b) 3, c) 4, d) None. **Answer - d**
105. What is the compression ratio of HHP Locomotive?  
 a) 11.5:1, b) 12.5:1, c) 16:1, d) None. **Answer - c**
106. EPD Operation of HHP Locomotive is checked in which schedule?  
 a) T-30 & above,  
 b) T-90 & above, **Answer - a**  
 c) T-180 & above,  
 d) T-Yearly & above.
107. In HHP Locomotive fuel injection start at –  
 a) 47° before the BDC,  
 b) 0.8° after the BDC,  
 c) 15.8° before the BDC, **Answer - c**  
 d) 16.6° before the BDC.
108. Companion alternator nominal output voltage is –  
 a) 230 V AC, b) 315 V AC, c) 415 V AC, d) None. **Answer - a**
109. How many lube oil pumps are fitted in HHP Locomotive?  
 a) 1, b) 2, c) 3, d) 4. **Answer - d**
110. Full Form of BL Key is –  
 a) Button Lever Key,  
 b) Block Lever Key, **Answer - a**  
 c) Bench Lock Key,  
 d) None.



111. TE Limit Value is –  
 a) 200 KN, b) 250 KN, c) 294 KN, d) None. **Answer - c**
112. Blades of dynamic brake grid fan is made of –  
 a) Iron, b) Aluminum, c) Steel, d) Magnalium. **Answer - b**
113. Distance between two side buffers is –  
 a) 1435 mm, b) 1676 mm, c) 1956 mm, d) None of these. **Answer - c**
114. Fuel Oil suction strainer is located in the -  
 a) Loco Left Side,  
 b) Loco Right Side, **Answer - a**  
 c) Engine Left Side,  
 d) None of these.
115. Normal LR dropping permitted up to –  
 a) 0.75, b) 0.85, c) 0.95, d) None of these. **Answer - b**
116. Initial torque value of Crab Nut is –  
 a) 480 ft-lbs, b) 400 ft-lbs, c) 165 ft-lbs, d) 210 ft-lbs. **Answer - b**
117. Piston Thrust Washer minimum permissible Thickness is –  
 a) 4.67 mm, b) 4.44 mm, c) 1.73 mm, d) None of these. **Answer - b**
118. In HHP Locomotive, maximum percentage of total no. of radiator tubes make dummy is –  
 a) 0.02, b) 0.04, c) 0.05, d) 0.1. **Answer - a**
119. In spectrographic analysis of engine lube oil normal range of Sodium (Na) is –  
 a) 0 – 75 ppm, b) 0 – 50 ppm, c) 0 -30 ppm, d) 0 – 20 ppm. **Answer - c**
120. In HHP Locomotive which model compressor is used –  
 a) WLN, b) WLG, c) WBG, d) WBO. **Answer - a**
121. Which model diesel engine is fitted in HHP Locomotive?  
 a) 645 G3B, b) 710 G3B, c) 710 G3C, d) None of these. **Answer - b**
122. “Finger tightness check” is related to –  
 a) Power assembly,  
 b) Fuel system, **Answer - a**  
 c) Turbo Supercharger,  
 d) Lube Oil System.
123. In HHP Locomotive, handbrake apply in which wheel?  
 a) R1 & R2, b) R4 & R5, c) L1 & L2, d) L4 & L5. **Answer - b**
124. WLN model compressor has –  
 a) 3 cylinders, b) 4 cylinders, c) 6 cylinders, d) None of these. **Answer - a**
125. WLN model compressor has –  
 a) Two low pressure and one high pressure cylinder,  
 b) Two high pressure and one low pressure cylinder, **Answer - a**  
 c) Four low pressure and two high pressure cylinder,  
 d) Four high pressure and two low pressure cylinder.
126. How many “labyrinth” seals are used in HHP TSC?  
 a) 1, b) 2, c) 3, d) 4. **Answer - c**
127. How many spin on filters are fitted in HHP Locomotive?  
 a) 1, b) 2, c) 3, d) 3 or 4. **Answer - d**
128. Roller clutch test is done at –  
 a) 269 rpm, b) 400 rpm, c) 700 rpm, d) 904 rpm. **Answer - c**
129. TSC of HHP Locomotive is cooled by –  
 a) Water, b) Lube oil, c) Air, d) Natural Cool. **Answer - b**
130. How many brake cylinders are fitted in HHP Locomotive?  
 a) 4, b) 6, c) 8, d) 16. **Answer - c**

131. How many 10" expansion joint are fitted in HHP Locomotive?  
 a) 1, b) 3, c) 4, d) None of these. **Answer - a**
132. HOD operates when –  
 a) Cooling water temp rises to 121° - 126° c.  
 b) Lube Oil temp rises to 121°c – 126°c. **Answer - b**  
 c) Fuel Oil temp rises to 121°c - 126°c.  
 d) None of the above.
133. How many dowels are in fork rod and basket assembly?  
 a) 1, b) 2, c) 3, d) 4. **Answer - d**
134. Fork rod power assembly is located in which side of engine?  
 a) Left side, b) Right side, c) Both side, d) None of these. **Answer - a**
135. Blade rod power assembly is located in which side of engine?  
 a) Left side, b) Right side, c) Both side, d) None of these. **Answer - b**
136. What is the pick-up time between one radiator fan to another?  
 a) 10 seconds, b) 20 seconds, c) 30 seconds, d) None of these. **Answer - b**
137. Which one is not required for injector rack setting?  
 a) Concerned power assembly to be kept at TDC.  
 b) Governor rack to be locked at 1". **Answer - a**  
 c) Rack setting tool to be required.  
 d) Rotate injector rack adjusting lock nut clockwise direction to lose it.
138. Which type of water pump is fitted in HHP Locomotive?  
 a) Centrifugal type,  
 b) Reciprocating type, **Answer - a**  
 c) positive displacement type,  
 d) None of these.
139. Oil separator of HHP Locomotive is cleaned in which schedule?  
 a) T-30 & above,  
 b) T-90 & above, **Answer - b**  
 c) T-180 & above,  
 d) T-Yearly & above.
140. How many oil control rings are fitted in the HHP Engine piston?  
 a) 1, b) 2, c) 3, d) 4. **Answer - b**
141. What is the discharge capacity of FPM?  
 a) 5 GPM, b) 7 GPM, c) 10 GPM, d) None of these. **Answer - b**
142. Maximum permissible height of Diesel Locomotive over Mumbai division is –  
 a) 4270 mm, b) 4280 mm, c) 4290mm, d) None of these. **Answer - a**
143. Minimum engine cranking speed needed for starting is –  
 a) 45 – 50 rpm, b) 60 – 75 rpm, c) 75 – 90 rpm, d) 100 – 120 rpm. **Answer - a**
144. Maximum speed of WDP4 Locomotive is –  
 a) 100kmph, b) 105kmph, c) 135kmph, d) 160kmph. **Answer - d**
145. What is the value of backlash between water pump and governor drive gear?  
 a) 0.007" – 0.025",  
 b) 0.008" – 0.016", **Answer - b**  
 c) 0.010" - 0.025",  
 d) 0.006: - 0.018".
146. What is the minimum engine lube oil viscosity (KV) of HHP Locomotive?  
 a) 12.8 cst at 100°c,  
 b) 13.0 cst at 100°c, **Answer - b**  
 c) 18.8 cst at 100°c,  
 d) None of these.

147. TRD is related to –  
 a) Lube oil cooler, b) Radiator, **Answer - c**  
 c) Turbo supercharger, d) Compressor.
148. What is the value of back lash between auxiliary generator drive gears and cam gear?  
 a) 0.007" – 0.025",  
 b) 0.006" – 0.016", **Answer - c**  
 c) 0.010" – 0.025",  
 d) 0.006" – 0.018".
149. Top con-rod bearing shell is changed after –  
 a) 2 years, b) 3 years, c) 6 years, d) None of these. **Answer - b**
150. How many 14" expansion joint is fitted in HHP Locomotive?  
 a) 1, b) 3, c) 4, d) None of these. **Answer - b**
151. Thrust collar are fitted in –  
 a) No. 5 & 6 main bearing,  
 b) No. 1 & 9 main bearing, **Answer - a**  
 c) No. 1 & 10 main bearing,  
 d) None.
152. Turbine inlet scroll is –  
 a) Welded assembly made from "chrome – moly" plate.  
 b) Forged assembly made from "chrome – moly" plate. **Answer - a**  
 c) Welded assembly made from C.R.C.S.  
 d) None of the above.
153. In HHP Locomotive Lube Oil level to be checked at –  
 a) 72°C temperature,  
 b) 52°C temperature, **Answer - a**  
 c) 62°C temperature,  
 d) None of these.
154. In HHP Locomotive, maximum fuel is injected at –  
 a) 9.6° before the TDC,  
 b) 0.8° after the TDC, **Answer - a**  
 c) 15.8° before the TDC,  
 d) 16.6° before TD
155. How many EBT are fitted in HHP Locomotive?  
 a) 1, b) 2, c) 3, d) 4. **Answer - a**
156. In HHP Locomotive, compressor overhaul on –  
 a) T – 360 schedules,  
 b) T – 720 schedules, **Answer - d**  
 c) 3 yearly schedules,  
 d) 6 yearly schedules.
157. Fireman emergency brake handle is located at –  
 a) Both control console / desk,  
 b) Behind LP seat, **Answer - a**  
 c) Behind ALP seat,  
 d) None of these.
158. Fuel Tank of HHP Locomotive is –  
 a) Detachable,  
 b) Non-detachable, **Answer - a**  
 c) Both detachable & non-detachable,  
 d) None.
159. In HHP Locomotive fuel injection end at –  
 a) 47° before the BDC, b) 0.8° after the TDC,  
 c) 15.8° before the TDC, d) 16.8° before the TDC. **Answer – b**

160. What is the low idle RPM of the WDP4D Locomotive engine?  
 a) 200, b) 269, c) 350, d) 904 **Answer - a**
161. What is the height of cattle guard of HHP Locomotive from rail level?  
 a) 4 1/2", b) 5 1/2", c) 6 1/2", d) None of these. **Answer - c**
162. How many after cooler are fitted in HHP Locomotive?  
 a) 1, b) 2, c) 4, d) None of these. **Answer - b**
163. What is the delivery rate of soak pump in HHP engine?  
 a) 27 LPM, b) 57 LPM, c) 75 LPM, d) None of these. **Answer - b**
164. Weight of WDG4D Locomotive is –  
 a) 126 T, b) 123 T, c) 121.2 T, d) 130.2 T. **Answer - d**
165. Which oil is fitted in HHP Locomotive compressor?  
 a) RR 460, b) SP 100, c) RR 606, d) SP 57. **Answer - b**
166. POP Test is related to –  
 a) Power assembly,  
 b) Fuel system, **Answer - b**  
 c) Turbo supercharger,  
 d) Lube oil system.
167. No. of teeth in No. 1 idler Gear is –  
 a) 58, b) 64, c) 69, d) 79. **Answer - b**
168. In HHP Locomotive compressor is cooled by –  
 a) Water, b) Lube oil, c) Air, d) Natural cool. **Answer - a**
169. Pre-lubrication is related to –  
 a) Power assembly,  
 b) Fuel system, **Answer - d**  
 c) Turbo supercharger,  
 d) Lube oil system.
170. Crush height is measured by –  
 a) Vernier caliper,  
 b) Outside micrometer, **Answer - c**  
 c) Filler gauge,  
 d) Height gauge.
171. In HHP Locomotive specified limit of exhaust gas temperature is –  
 a) 315°C - 400°C, b) 435°C - 535°C,  
 c) 490°C - 590°C, d) None of these. **Answer - a**
172. Torque value of Exhaust manifold to expansion joint bolts is –  
 a) 50 ft-lbs, b) 75 ft-lbs, c) 80 ft-lbs, d) 190 ft-lbs. **Answer - c**
173. In spectrographic analysis of engine lube oil, high range of Copper (Cu) indicates –  
 a) Internal water leakage,  
 b) inefficient air filtration, **Answer - d**  
 c) cylinder liner wear,  
 d) bush & bearing wear.
174. Kinematic viscosity is checked at –  
 a) 40°C temp, b) 100°C temp, c) 40°F temp, d) both a & b. **Answer - d**
175. Unit of Kinematic viscosity is –  
 a) CST, b) UST, c) MST, d) PPM. **Answer - a**
176. In HHP Locomotive compressor lube oil pump is –  
 a) Belt driven,  
 b) Gear driven, **Answer - b**  
 c) Chain and sprocket driven,  
 d) All of these.

177. What is the idle notch RPM of the WDP4D Locomotive engine?  
 a) 269, b) 904, c) 954, d) 1050. **Answer - a**
178. How many marks are in HHP Loco Compressor oil dipstick (modified) gauge?  
 a) 2, b) 3, c) 4, d) None of these. **Answer - b**
179. Off load condition TSC is driven up to \_\_\_\_\_ through gear train.  
 a) 5<sup>th</sup> Notch, b) 6<sup>th</sup> Notch, c) 7<sup>th</sup> Notch, d) 8<sup>th</sup> Notch. **Answer - d**
180. Which control system is used in HHP Locomotive?  
 a) EMD Control System,  
 b) Medha Control System, **Answer - d**  
 c) Siemens Control System,  
 d) All.
181. Shot peening process is done ins piston ring to improve –  
 a) Fatigue strength,  
 b) Tensile strength, **Answer - a**  
 c) Compressive strength,  
 d) None of the above.
182. In MEDHA control system, during pre-lubrication TLPM run for –  
 a) 120 seconds, b) 900 seconds,  
 c) 2100 seconds, d) None of these. **Answer - b**
183. Gear case oil capacity of WDP4D Locomotive is –  
 a) 7.5 ltrs, b) 8.5 ltrs, c) 9.5 ltrs, d) 9.8 ltrs. **Answer - b**
184. Gear case oil capacity of WDG4D Loco is –  
 a) 7.5 ltrs, b) 8.5 ltrs, c) 9.5 ltrs, d) 9.8 ltrs. **Answer - a**
185. In HHP Locomotive value of cylinder head valve seat angle is –  
 a) 30°00'-30°15',  
 b) 45°00'-45°15', **Answer - a**  
 c) 60°00'-60°15',  
 d) None of the above.
186. POP Test is conducted to –  
 a) Check the performance of injector.  
 b) Check the performance of TSC. **Answer - a**  
 c) Check the performance of lash adjuster.  
 d) Check the performance of air dryer.
187. Water leakage from air box drain pipe indicates –  
 a) Water inlet tube may be cracked.  
 b) Cylinder head / liner may be cracked. **Answer - d**  
 c) After cooler tube may be punctured.  
 d) All of the above.
188. VCD Cycle consists of –  
 a) T0 – Vigilance cycle.  
 b) T1 & T2 – Warning cycle. **Answer - d**  
 c) T3 & T4 – Penalty brake cycle & Penalty brake reset.  
 d) All of the above.
189. Minimum lube oil level of HHP Loco compressor is –  
 a) 5 ltrs, b) 6 ltrs, c) 8 ltrs, d) 9.8 ltrs. **Answer - b**
190. T0 – VCD cycle is called –  
 a) Vigilance cycle,  
 b) Warning cycle, **Answer - a**  
 c) Penalty brake cycle,  
 d) All of these.
191. T1 – VCD cycle is called –  
 a) Vigilance cycle,

- b) Warning cycle,  
c) Penalty brake cycle, **Answer - b**  
d) All of these.
192. T2 – VCD cycle is called –  
a) Vigilance cycle,  
b) Warning cycle, **Answer - b**  
c) Penalty brake cycle,  
d) All of these.
193. T3 – VCD cycle is called –  
a) Vigilance cycle,  
b) Warning cycle, **Answer - c**  
c) Penalty brake cycle,  
d) All of these.
194. T4 – VCD cycle is called –  
a) Vigilance cycle,  
b) Warning cycle, **Answer - c**  
c) Penalty brake reset cycle,  
d) All of these.
195. Duration of T0 Cycle is –  
a) 60 second, b)  $8 \pm 2$  second,  
c)  $34 \pm 2$  second, d) None of these. **Answer - a**
196. Duration of T1 Cycle is –  
a) 60 second, b)  $8 \pm 2$  second,  
c)  $34 \pm 2$  second, d) None of these. **Answer - b**
197. Duration of T3 Cycle is –  
a) 60 second, b)  $8 \pm 2$  second,  
c)  $34 \pm 2$  second, d) None of these. **Answer - b**
198. At present, which of the following crankcase oils are approved for application in HHP Diesel engines?  
a) Servo RR 520 MG & RR 606 MG Plus II of M/s IOC,  
b) MAX RR 517 M of M/s BPC, **Answer - d**  
c) HP RR 817 M of M/s HPC,  
d) All of these.
199. In HHP Locomotive duration of suction period is –  
a)  $87^\circ$ , b)  $113^\circ$ , c)  $16.6^\circ$ , d)  $138^\circ$ . **Answer - a**
200. FPM of HHP Locomotive is a –  
a) AC Motor,  
b) DC Series Motor, **Answer - c**  
c) 3 phase AC Motor,  
d) None of these.
201. Air dryer is fitted -  
a) Before MR1 Reservoir,  
b) Between MR1 & MR2 Reservoir, **Answer - b**  
c) Between MR2 & CCB System,  
d) After MR2 Reservoir.
202. Shot peening is related to –  
a) Lube oil cooler,  
b) Piston ring, **Answer - b**  
c) Turbo supercharger,  
d) Clutch gear assembly.
203. Final torque value of crab nut is -  
a) 250 ft-lbs, b) 400 ft-lbs, c) 450 ft-lbs, d) 2400 ft-lbs. **Answer - d**
204. Crush height is related to –  
a) Power assembly,

- b) Fuel system,  
 c) Turbo supercharger, **Answer - a**  
 d) Lube oil system.
205. In spectrographic analysis of engine lube oil normal range of copper (Cu) is –  
 a) 0 – 75 ppm, b) 0 – 50 ppm, c) 0 – 20 ppm, d) 0 – 15 ppm. **Answer - a**
206. Compressor lube oil dipstick is located on the –  
 a) Left side of the Locomotive.  
 b) Right side of the Locomotive. **Answer - a**  
 c) Both side of the Locomotive.  
 d) None of these.
207. Length of WDP4D Locomotive is –  
 a) 22.98 meters, b) 21.24 meters,  
 c) 21.7 meters, d) None of these. **Answer - a**
208. In HHP Locomotive compressor air intake filter is changed during –  
 a) T-30 & above schedule.  
 b) T-60 & above schedule. **Answer - d**  
 c) T-90 & above schedule.  
 d) T-180 & above schedule.
209. Free air delivery of GD compressor is –  
 a) 4000 LPM, b) 5000 LPM, c) 6000 LPM, d) 9000 LPM. **Answer - c**
210. OSTA of HHP (4500 HP) locomotive is set at –  
 a) 1035-1050 rpm,  
 b) 1035-1075 rpm, **Answer - c**  
 c) 1085-1100 rpm,  
 d) 1185-1220 rpm.
211. OSTA of HHP (4000 HP) locomotive is set at –  
 a) 1035-1050 rpm, b) 1035-1075 rpm,  
 c) 1085-1100 rpm, d) 1185-1220 rpm. **Answer - a**
212. HHP Locomotive brake block is made of –  
 a) Cast Iron, b) Fiber, c) Composite material, d) None of these. **Answer - c**
213. In HHP Locomotive pilot stud of liner is located at –  
 a) 05 o'clock, b) 06 o'clock, c) 12 o'clock, d) 13 o'clock. **Answer - a**
214. Maximum speed of WDG4D Locomotive is –  
 a) 100 kmph, b) 105 kmph, c) 135 kmph, d) 160 kmph. **Answer - b**
215. In HHP Locomotive, when OSTA is set, reset handle rest at –  
 a) 11' O clock position,  
 b) 13' O clock position, **Answer - a**  
 c) 12' O clock position,  
 d) None of these.
216. In HHP Locomotive Lube Oil Strainer is fitted on –  
 a) Right side, Front end of the Engine,  
 b) Right side, Rear end of the Engine. **Answer - a**  
 c) Left side, Front end of the Engine.  
 d) Left side, Rear end of the Engine.
217. In HHP Locomotive, bearing to crankpin maximum clearance is –  
 a) 0.010", b) 0.015", c) 0.020", d) 0.0205". **Answer - b**
218. In HHP Locomotive Brake Cylinder pressure is adjusted at –  
 a) 1.8kg/cm<sup>2</sup>, b) 3.5kg/cm<sup>2</sup>, c) 5.2kg/cm<sup>2</sup>, d) None of these. **Answer - c**
219. In HHP Locomotive compression stroke end at –  
 a) BDC, b) 43.5° after BDC, c) TDC, d) 67° after TDC. **Answer - c**
220. Torque the rocker arm adjusting screw lock nut approximately –

- a) 70 – 75 ft-lbs, b) 75 – 80 ft-lbs,  
c) 80 – 85 ft-lbs, d) 85 – 90 ft-lbs. **Answer - c**
221. POH of HHP Locomotive done after –  
a) 8 years, b) 12 years, c) 15 years, d) 18 years. **Answer - d**
222. Cylinder head seat ring minimum permissible thickness is –  
a) 4.67mm, b) 4.44 mm, c) 1.73mm, d) None of these. **Answer - a**
223. From initial to final torque value, crab nut rotates approximately –  
a)  $120^\circ \pm 35^\circ$ , b)  $200^\circ \pm 35^\circ$ , c)  $250^\circ \pm 35^\circ$ , d)  $360^\circ \pm 35^\circ$ . **Answer - b**
224. Fuel tank capacity of WDP4D Locomotive is –  
a) 5000 ltrs, b) 6000 ltrs, c) 6500 ltrs, d) None of these. **Answer - a**
225. What is the function of the compression ring?  
a) Pull the piston down when cylinder is not firing.  
b) Prevent the compressed air and gases enter into the crankcase.  
c) Prevent the lube oil entering into the air box and combustion chamber.  
d) All of the above. **Answer - b**
226. Maximum permissible limit of fuel dilution in HHP Lube Oil is –  
a) 2 per cent, b) 3 per cent, c) 5 per cent, d) 10 per cent. **Answer - c**
227. Maximum permissible limit of water contamination in HHP Lube Oil is –  
a) 2 per cent, b) 3 per cent, c) 5 per cent, d) 0 per cent. **Answer - d**
228. In HHP Locomotive, the following model Woodward Governor is fitted –  
a) PGR, b) PGEV, c) PGR & PGEV, d) None of these. **Answer - b**
229. Which of the following valve is not fitted in HHP Locomotive compressed air system?  
a) Duplex check valve, b) FT1 Feed Valve,  
c) NRV, d) None of these. **Answer - a**
230. In HHP Locomotive A9 handle is called –  
a) Auto brake handle,  
b) Direct brake handle, **Answer - a**  
c) Bail of ring,  
d) None of these.
231. Fuel oil primary filter conditioning gauge needle in green zone indicates fuel oil –  
a) Differential pressure is  $20 \pm 2$  psi.  
b) Differential pressure is  $25 \pm 2$  psi. **Answer - a**  
c) Differential pressure is  $30 \pm 2$  psi.  
d) None of the above.
232. Thrust washer is made of –  
a) Cast iron with brazed on outer sleeves.  
b) Cast iron alloy with tin plating. **Answer - d**  
c) Stainless steel with chrome plated.  
d) Copper.
233. In HHP Locomotive which type torsional damper is fitted – **Answer - b**  
a) Spring pack type, b) Gear type, c) Viscous type, d) Pendulum type.
234. In HHP Locomotive Inlet port open at –  
a)  $43.5^\circ$  before BDC,  
b)  $107.5^\circ$  after TDC, **Answer - a**  
c)  $180^\circ$  after TDC,  
d)  $67^\circ$  after BDC.
235. To charge feed pipe air supply is received from – **Answer - a**  
a) MR-1 pressure, b) MR-2 pressure, c) BP pressure, d) B.C pressure.
236. No. of teeth in HHP Locomotive Crankshaft gear is –  
a) 58, b) 64, c) 79, d) 113. **Answer - c**



237. How many exhaust valves are in a power assembly?  
 a) 2, b) 3, c) 4, d) None of these. **Answer - c**
238. During engine cranking, Engine Start (FP/ES) switch to be released from Engine Start position when –  
 a) Engine rpm reaches to 35 – 40 rpm.  
 b) Engine rpm reaches to 135 -140 rpm. **Answer - b**  
 c) Engine rpm reaches to 200 – 220 rpm.  
 d) None of these.
239. Codal life of TSC is –  
 a) 6 years, b) 10 years, c) 12 years, d) 18 years. **Answer - c**
240. For quick charging of BP in HHP Locomotive, \_\_\_\_\_ is provided –  
 a) BPSW, b) SP1,  
 c) Bail of ring, d) Release position of Auto brake handle. **Answer - d**
241. Maximum speed of clearing the blocked section with floating / lifting locked axle is –  
 a) 10kmph, b) 15kmph, c) 20kmph, d) 25kmph. **Answer - d**
242. The function of Exhaust diffuser in TSC is –  
 a) Eliminate the turbulence of exhaust gasses.  
 b) Eliminate the turbulence of compressed air. **Answer - a**  
 c) Prevent oil from migrating into exhaust section from the compressor bearing.  
 d) None of these.
243. Breather valve is provided to – **Answer - d**  
 a) Vent the piston ring blow-by air from the compressor crankcase.  
 b) Maintain vacuum inside compressor sump which helps to eliminate carbon build up on the compressor valve.  
 c) Maintain vacuum inside compressor sump which helps to prevent oil from being drawn right piston.  
 d) All of the above.
244. Maximum tractive effort of WDP4D Locomotive is –  
 a) 24 tones, b) 41 tones, c) 53 tones, d) None of these. **Answer - b**
245. Water temperature maintained in cooling system –  
 a) 64°C - 90°C, b) 65°C - 91°C, c) 79°C - 85°C, d) None of these. **Answer - c**
246. What is the torque value of lube oil pump gear nut?  
 a) 80 ft-lbs, b) 265 ft-lbs, c) 340 ft-lbs, d) 580 ft-lbs. **Answer - c**
247. What is the capacity of governor oil of HHP Locomotive?  
 a) 2.25 Lts, b) 3.79 Lts, c) 4.50 Lts, d) None of these. **Answer - a**
248. Full Form of EBT –  
 a) Electronic Blowdown Timer.  
 b) Engine Battery Temperature. **Answer - a**  
 c) Electric Blowing Transducer.  
 d) None of the above.
249. No. of teeth in Carrier Drive Gear is –  
 a) 113, b) 81, c) 80, d) 30. **Answer - d**
250. What is the function of the piston snap ring?  
 a) Pull the piston down when cylinder is not firing. **Answer - a**  
 b) Prevent the compressed air and gases enter into the crankcase.  
 c) Prevent the lube oil entering into the air box and combustion chamber.  
 d) All of the above.
251. Capacity of Water Tank of HHP Locomotive –  
 a) 275 lts, b) 255 Lts, c) 650 Lts, d) 1045 Lts. **Answer - c**
252. How many positions are in L & T switch?  
 a) 2, b) 3, c) 4, d) 5. **Answer - c**
253. What is the brake cylinder piston stock length of HHP Locomotive?  
 a) 2" – 2.5", b) 2" – 4.5", c) 2" – 6.5", d) None of these. **Answer - c**

254. Which oil pan cover is special cover?  
 a) No. 1, b) No. 8, c) No. 9, d) No. 16. **Answer - b**
255. Clutch Test is related to –  
 a) Lube oil cooler,  
 b) Clutch gear assembly, **Answer - b**  
 c) Turbo supercharger,  
 d) Compressor.
256. In HHP Locomotive duration of compression period is –  
 a) 87°, b) 113°, c) 16.6°, d) 138°. **Answer - b**
257. Full Form of EFCO –  
 a) Engine Fuel Cut Out Switch.  
 b) Engine Fuel Conditioning Object. **Answer - c**  
 c) Emergency Fuel Cut Off Switch.  
 d) None of the above.
258. Control stand of HHP locomotive is called –  
 a) Control Cabin, b) Control Desk,  
 c) Control Console, d) None of these. **Answer - c**
259. What is the 8<sup>th</sup> Notch RPM of the WDP4D Locomotive Engine?  
 a) 269, b) 904, c) 954, d) 1000. **Answer - c**
260. LSP – 5 is issued for –  
 a) Spectrographic analysis report of lube oil sample by lab. **Answer - d**  
 b) Spectrographic analysis report of lube oil when shows in normal limit.  
 c) Spectrographic analysis report of lube oil when shows in abnormal limit.  
 d) Spectrographic analysis report of lube oil when shows in Critical Limit (BL).
261. Normal gear case oil consumption of HHP Locomotive should not be more than –  
 a) 1ltrs/month/gear case,  
 b) 2ltrs/month/gear case, **Answer - a**  
 c) 3ltrs/month/gear case,  
 d) 3.5ltrs/month/gear case.
262. LR dropping at higher notch, probable reason of it is –  
 a) Baggie filter may be choked, **Answer - d**  
 b) Booster air pipe connection to governor may be broken/disconnected,  
 c) Defective fuel injector,  
 d) All of the these.
263. Advantages of installation of APU System is –  
 a) Saving fuel oil consumption,  
 b) Reduce emission, **Answer - d**  
 c) Reduce noise pollution,  
 d) All.
264. How many cells are there in a battery of WDP4D Locomotive?  
 a) 4, b) 5, c) 10, d) None of these. **Answer - b**
265. How many cells are there in a battery of WDG4D Locomotive?  
 a) 4, b) 5, c) 8, d) None of these. **Answer - a**
266. Before re-cranking engine, wait for minimum \_\_\_\_\_ minutes to cool starter motor –  
 a) 1, b) 2, c) 3, d) 4. **Answer - c**
267. How many sand boxes are fitted in HHP Locomotive?  
 a) 4, b) 8, c) 12, d) 16. **Answer - b**
268. Minimum Flash Point of RR – 520 is –  
 a) 35°C, b) 194°C, c) 240°C, d) None of these. **Answer - b**
269. To increase OSTA Tripping rpm –  
 a) OSTA adjusting spring tension to be increased.

- b) OSTA adjusting spring tension to be decreased.  
 c) Both a & b. **Answer - a**  
 d) None of the above.
270. Hard starting may be experienced due to –  
 a) Weak Battery,  
 b) Defective Starter Motor, **Answer - d**  
 c) Less Compression Pressure,  
 d) Any One.
271. Maximum speed of traction motor blower of HHP Locomotive is controlled by –  
 a) OSTA, b) EPD, c) LCC, d) HOD. **Answer - a**
272. Maximum consumable HP of HHP compressor during unloading at 200 rpm is –  
 a) 2.2 HP, b) 22 HP, c) 23 HP, d) 70 HP. **Answer - a**
273. FAD of HHP Locomotive compressor should not be less than –  
 a) 567 LPM at 200 rpm,  
 b) 600 LPM at 200 rpm, **Answer - d**  
 c) 700 LPM at 200 rpm,  
 d) 990 LPM at 200 rpm.
274. Turbine Seal is located –  
 a) Directly behind the impeller.  
 b) Between the turbine blades and the compressor bearing.  
 c) Between the turbine blades and the turbine bearing. **Answer - c**  
 d) None of the above.
275. Compressor Seal is located -  
 a) Directly behind the impeller.  
 b) Between the turbine blades and the compressor bearing.  
 c) Between the turbine blades and the turbine bearing. **Answer - b**  
 d) None of the above.
276. In Siemens, Control System during dynamic braking, engine raise to – **Answer - b**  
 a) 2<sup>nd</sup> Notch rpm, b) 4<sup>th</sup> Notch rpm, c) 6<sup>th</sup> Notch rpm, d) None of these.
277. How many planet gears are fitted in HHP TSC?  
 a) 1, b) 2, c) 3, d) 4. **Answer - c**
278. Which of the following operation is performed during “Crush Height Check”?  
 a) Do finger tightness check and tight upper basket bolt to 35 ft-lbs.  
 b) Tight lower basket bolt to 10 ft-lbs. **Answer - d**  
 c) Measure basket flange joint gap with filler gauge. Flange joint gap should be in between 0.008” to 0.017”.  
 d) All of the above.
279. During torqueing of crab nut –  
 a) Torque outboard nuts first then the inboard nut.  
 b) Torque inboard nuts first then the outboard nut. **Answer - a**  
 c) Torque the four crab nuts of power assembly crosswise only.  
 d) All of the above.
280. “Crush Height Check” is done to avoid the failure of –  
 a) Con-rod bearing seizure,  
 b) Main bearing seizure, **Answer - a**  
 c) Thrust collar seizure,  
 d) All.
281. In HHP Locomotive engine cylinders are cooled by –  
 a) Water, b) Air, c) Supercharged air and water, d) Lube oil. **Answer - c**
282. Maximum tractive effort of WDG4 Locomotive is –  
 a) 42 tones, b) 23 tones, c) 53 tones, d) 39 tones. **Answer - c**
283. Cam of HHP Locomotive is checked in which schedule?  
 a) T-30 & above schedule,

- b) T-60 & above schedule,  
 c) T-90 & above schedule, **Answer - a**  
 d) T-180& above schedule.
284. How many Traction Inverters are fitted in HHP Loco (Medha make Traction System)?  
 a) 2, b) 4, c) 6, d) 8. **Answer - c**
285. Which type of Main Generator is fitted in HHP Locomotive?  
 a) DC Generator, b) Single Phase AC Alternator, **Answer - c**  
 c) 3-Phase AC Alternator, d) None of these.
286. Which type of Traction Motors is fitted in HHP Locomotive?  
 a) DC Series Motor,  
 b) Single Phase AC Motor, **Answer - c**  
 c) 3-Phase AC Motor,  
 d) None of these.
287. Full Form of EPD –  
 a) Engine Position Device.  
 b) Engine Parting Device. **Answer - c**  
 c) Engine Protection Device.  
 d) Engine Patrolling Device.
288. In MEDHA, Control System during dynamic braking, engine raise at – **Answer - a**  
 a) 2<sup>nd</sup> Notch rpm, b) 4<sup>th</sup> Notch rpm, c) 6<sup>th</sup> Notch rpm, d) None of these.
289. Air Box drain pipe is located at –  
 a) Under truck near fuel tank,  
 b) Alternator room, **Answer - a**  
 c) Compressor room,  
 d) Clean air compartment.
290. Series of WDP4D is –  
 a) 12, b) 20, c) 40, d) 70. **Answer - c**
291. WDP4DH is a –  
 a) Single Cab, b) Dual Cab,  
 c) Dual Cab with Disc Brake, d) Dual Cab with Hotel Load. **Answer - d**
292. WDP4D is a –  
 a) Single Cab, b) Dual Cab,  
 c) Dual Cab with Disc Brake, d) Dual Cab with Hotel Load. **Answer - b**
293. What is the function of the Oil Control Ring?  
 a) Pull the piston down when cylinder is not firing. **Answer - c**  
 b) Prevent the compressed air and gases and enter into the crankcase.  
 c) Prevent the lube oil entering into the air box and combustion chamber.  
 d) All of the above.
294. Only pour \_\_\_\_\_ in the HHP Loco –  
 a) DM Water, b) Raw Water, c) Tap Water, d) All of these. **Answer - a**
295. Full Form of DM Water –  
 a) Distilled and Mineralized Water, b) De-mineralized Water.  
 c) De-ionized Manufacture Water, d) None of the above. **Answer - b**
296. Don't off \_\_\_\_\_ circuit breaker immediate after engine shut down –  
 a) Computer and TLPM, b) Battery knife switch.  
 c) Local control, d) GBPM. **Answer - a**
297. Don't crank the engine without external pre-lubrication if engine has not been cranked for more than –  
 a) 24 hours, b) 36 hours, c) 48 hours, d) 72 hours. **Answer - c**
298. Don't try to raise the engine before engine coolant temperature has been raised –  
 a) 42°, b) 52°, c) 62°, d) 72°. **Answer - b**
299. Purging cycle of air dryer is – **Answer - c**

- a)  $15 \pm 1$  second, b)  $30 \pm 1$  second, c)  $60 \pm 1$  second, d) None of these.
300. In HHP Locomotive MR Safety Valve is fitted at outlet pipe of – **Answer - a**  
 a) MR1, b) MR2, c) MR3, d) MR4.
301. MR Safety Valve setting is – **Answer - c**  
 a) 9.6kg/cm<sup>2</sup> (140 psi), b) 8.2kg/cm<sup>2</sup> (120 psi),  
 c) 10.6kg/cm<sup>2</sup> (150 psi), d) None.
302. Capacity of main Reservoir is - **Answer - b**  
 a) 452 ltrs, b) 492 ltrs, c) 575 ltrs, d) 600 ltrs.
303. Gear case oil capacity of WDP4 Locomotive is more comparison to WDG4 Locomotive because – **Answer - c**  
 a) Gear case size of WDP4 is larger than the WDG4 Locos.  
 b) Pinion size of WDP4 is larger than the WDG4 Locos.  
 c) Bull gear size of WDP4 is smaller than the WDG4 Locos.  
 d) All of the above.
304. In HHP Locomotive maximum permissible wear step in cylinder head seat ring is – **Answer - a**  
 a) 0.003", b) 0.005", c) 0.008", d) 0.010".
305. Discharge capacity of scavenging lube oil pump is – **Answer - c**  
 a) 867 LPM (229 GPM) at 900 rpm, b) 413 LPM (109 GPM) at 900 rpm.  
 c) 1534 LPM (405 GPM) at 900 rpm, d) None of the above.
306. Discharge capacity of piston cooling oil pump is – **Answer - b**  
 a) 867 LPM (229 GPM) at 900 rpm, b) 413 LPM (109 GPM) at 900 rpm.  
 c) 1534 LPM (405 GPM) at 900 rpm, d) None of the above.
307. Discharge capacity of main lube oil pump is – **Answer - a**  
 a) 867 LPM (229 GPM) at 900 rpm.  
 b) 413 LPM (109 GPM) at 900 rpm.  
 c) 1534 LPM (405 GPM) at 900 rpm.  
 d) None of the above.
308. ECC4 located in – **Answer - b**  
 a) Cab-1, b) Cab-2, c) Under-frame, d) Platform near compressor room.
309. Gear ratio (Pinion Gear : Bull Gear) of WDG4D Locomotive is – **Answer - c**  
 a) 17:77, b) 18:65, c) 17:90, d) None of these.
310. \_\_\_\_\_ is provided in place of CCM in HHP Locomotive. **Answer - d**  
 a) TLPM, b) Scavenging Pump, c) Exhauster, d) Ejector Assembly.
311. In HHP Locomotive cooling coil is located at – **Answer - c**  
 a) Left side of the Locomotive, b) Right side of the locomotive,  
 c) Radiator room, d) Compressor room.
312. Maximum speed of WDP4D Locomotive is 135kmph due to – **Answer - b**  
 a) HTSC Bogie, b) Fabricated Bogie,  
 c) Conventional Bogie, d) None of these.
313. Auxiliary generator is rotated at – **Answer - b**  
 a) Two times of the engine speed, b) Three times of the engine speed,  
 c) Five times of the engine speed, d) None of these.
314. Engine shutdown with White smoke indicating defect may be in – **Answer - d**  
 a) Clutch assembly, b) TSC, c) Bearing, d) All of these.
315. Length of WDG4 Locomotive is – **Answer - b**  
 a) 22.98 meters, b) 21.24 meters, c) 21.7 meters, d) None of these.
316. No. of teeth in TSC Drive Gear is – **Answer - d**  
 a) 47, b) 64, c) 37, d) 81.
317. Maximum starting tractive effort of WDG4D Locomotive is – **Answer - b**  
 a) 400kn, b) 540kn, c) 900kn, d) None of these.

318. 4<sup>th</sup> Notch Engine rpm of WDP4D Locomotive is –  
 a) 269, b) 486, c) 572, d) 675. **Answer - c**
319. How many EFCO Switch are fitted in WDP4D Locomotive?  
 a) 2, b) 3, c) 4, d) None of these. **Answer - c**
320. Lube oil filter element is a –  
 a) Paper type two stage filter element,  
 b) Paper type filter in tin container. **Answer - a**  
 c) Screen type metallic element.  
 d) None of the above.
321. Long life lube oil filter is changed at –  
 a) 60 days, b) 90 days, c) 180 days, d) None of these. **Answer - c**
322. Which type of fuel pump is fitted in HHP Locomotive?  
 a) Centrifugal type, b) Reciprocating type, **Answer - c**  
 c) Positive displacement type, d) None of these.
323. TLPM of HHP Locomotive is a – **Answer - c**  
 a) DC Series Motor, b) AC Motor, c) AC/DC Motor, d) None of these.
324. Soak back filter is fitted –  
 a) Before soak back pump, b) After soak back pump,  
 c) There is no specific location, d) None. **Answer - b**
325. Main function of Auto Drain Valve is –  
 a) Drain the moisture of compressed air,  
 b) Drain the dirt of compressed air. **Answer - d**  
 c) Drain the oil particle of compressed air.  
 d) None of the above.
326. \_\_\_\_\_ is used to convert pneumatic force in to mechanical force.  
 a) Brake cylinder, b) Horn, c) Hand Brake, d) None of these. **Answer - a**
327. Piston stroke of WDP4/4D Engine is –  
 a) 10", b) 10.5", c) 11", d) None of these. **Answer - c**
328. Direction of flow of water inside the water discharge manifold of crankcase is –  
 a) Front end to rear end, b) Rear end to front end,  
 c) Both a & b, d) None of these. **Answer - b**
329. In WDP4/4D Locomotive independent loco brake application time is –  
 a) 7 – 9 seconds, b) 8 – 12 seconds,  
 c) 16 – 30 seconds, d) 15 – 20 seconds. **Answer - a**
330. "TRI - NETRA" is a project related to –  
 a) Introduction of CCTV Camera in Railway platform to monitor passengers activity.  
 b) Introduction of CCTV Camera in Diesel Shed to monitor workmen activity.  
 c) Terrain imaging for locomotive driver. **Answer - c**  
 d) All of the above.
331. How many poles are in HHP Loco TM?  
 a) 4, b) 6, c) 10, d) None of the above. **Answer - a**
332. WDP4D Locomotive is designed to permit for running at \_\_\_\_\_ in a flood water level of 102 mm above rail level.  
 a) 10kmph, b) 15kmph, c) 20kmph, d) 25kmph. **Answer - a**
333. Which of the following sensor are fitted in the traction motor?  
 a) Temperature sensor, b) Voltage sensor,  
 c) Air pressure sensor, d) All of the above. **Answer - a**
334. Black smoke from TSC chimney indicates –  
 a) Incomplete combustion of fuel oil.  
 b) Lube oil burning in combustion chamber. **Answer - a**  
 c) Water ingress in combustion chamber.  
 d) None of the above.

335. Codal life of crankshaft is –  
 a) 6years, b) 10 years, c) 12 years, d) 18 years. **Answer - d**
336. Bevel gear is found in which component of HHP Locomotive?  
 a) Governor drive, b) Sun and planet gear, **Answer - a**  
 c) Scavenging pump, d) None of these.
337. The reason responsible for TSC Failure –  
 a) Failure of soak back pump, b) Blockage in the lubricating passage.  
 c) Interruption in completion of soak back pump time cycle. **Answer - d**  
 d) All of the above.
338. Which transmission is used in HHP Locomotive –  
 a) DC-DC, b) AC-DC, c) AC-AC, d) None of these. **Answer - c**
339. For \_\_\_\_\_ each radiator fan is driven by two sped AC Motor –  
 a) Thermal efficiency, b) Cooling efficiency,  
 c) Fuel efficiency, d) Mechanical efficiency. **Answer - c**
340. Which of the following changes is done during conversion from 4000 HP to 4500 HP?  
 a) 54" radiator fan is introduced instead of 52" radiator fan.  
 b) 8<sup>th</sup> Notch engine rpm is increased from 904 rpm to 954 rpm. **Answer - d**  
 c) OSTA tripping rpm is increased to 1085 rpm from 1035 rpm.  
 d) All of the above.
341. In HHP Locomotive, which of the following valve is not used to convert MR Pressure to 6kg/cm<sup>2</sup> FP Pressure?  
 a) FT-1 Feed Valve, b) F-2 Feed Valve,  
 c) D24B Feed Valve, d) All of these. **Answer - c**
342. No. of teeth in Planet Gear is –  
 a) 47, b) 30, c) 26, d) 37. **Answer - a**
343. Cooling time is related to –  
 a) Lube oil cooler, b) Radiator,  
 c) Turbo Supercharger, d) Compressor. **Answer - b**
344. What is the minimum thickness of air box hand hole collar?  
 a) 3.0 mm, b) 3.9mm, c) 4.5mm, d) 5.1mm. **Answer - b**
345. In HHP Locomotive, speed of radiator fan should be in the range of –  
 a) 260 – 1905, b) 1085 – 1100, c) 1035 – 1050, d) None of these. **Answer - a**
346. Aspirator hole is provided for –  
 a) Draining purpose of clear air compartment.  
 b) Draining purpose of TCC compartment. **Answer - a**  
 c) Draining purpose of compressor compartment.  
 d) All of the above.
347. What is the permissible limit of root wear?  
 a) 3.5mm, b) 6mm, c) 5mm, d) None of these. **Answer - b**
348. The flat tyre limit for WDP4D Locomotive is -  
 a) 50mm, b) 60mm, c) 75mm, d) None of these. **Answer - a**
349. More than 50mm flat tyre, loco should be moved to nearest shed at a speed of –  
 a) 20kmph, b) 25kmph, c) 30kmph, d) 40kmph. **Answer - a**
350. New wheel diameter of WDG4D Locomotive is –  
 a) 1092mm, b) 1095mm, c) 1097mm, d) None of these. **Answer - c**
351. Wooden wedge is a –  
 a) Safety item, b) Safety devices,  
 c) Safety fittings, d) None of these. **Answer - a**
352. In HHP Locomotive, duration of fuel injection period is –  
 a) 87°, b) 113°, c) 16.6°, d) 138°. **Answer - c**

353. Specific gravity of electrolyte of battery is measured by –  
 a) Hydrometer, b) Barometer, c) Hygrometer, d) Voltmeter. **Answer - a**
354. During blended braking –  
 a) Train brake is applied, b) Loco brake is applied,  
 c) Dynamic brake is applied, d) All the above brake is applied. **Answer - d**
355. Gear case joint curing time is –  
 a) 24 hours, b) 36 hours, c) 48 hours, d) None of these. **Answer - a**
356. Reason for OSTA tripping at lower rpm is –  
 a) Injector rack may be jammed,  
 b) Over speed mechanism may be failed, **Answer - d**  
 c) Engine load may be dropped due to electrical malfunctions,  
 d) All of these.
357. Reason for oil throwing from TSC chimney, may be –  
 a) Damage power assembly, b) Turbo labyrinth seal failure, **Answer - d**  
 c) Oil separator screen missing, d) All of these.
358. In HHP Locomotive, yaw damper is also known as –  
 a) Vertical hydraulic shock absorber,  
 b) Horizontal hydraulic shock absorber, **Answer - b**  
 c) Secondary rubber pad,  
 d) None of these.
359. During cranking of engine in cold condition, engine rpm not hold due to –  
 a) Improper adjustment of governor compensation needle valve, **Answer - c**  
 b) Worn out Teflon seal of power piston,  
 c) Both a & b,  
 d) None of these.
360. SFC of Locomotive is depended upon –  
 a) Engine performance, b) Controlling of loco pilot, **Answer - d**  
 c) Condition of carriage and wagon, d) All of these.
361. 1<sup>st</sup> Notch TE of WDP4D Locomotive is –  
 a) 35kn, b) 50kn, c) 15kn, d) 25kn. **Answer - a**
362. Weight of WDP4D Locomotive is –  
 a) 126 T, b) 123 T, c) 121.2 T, d) 117 T. **Answer - b**
363. How many batteries are fitted in WDP4D Locomotive?  
 a) 2, b) 8, c) 10, d) None of these. **Answer - c**
364. The sight glass which is located nearest to engine block is called –  
 a) Return sight glass, b) By-pass glass,  
 c) Empty sight glass, d) None of these. **Answer - a**
365. Which type of Battery is used in WDP4/WDP4D Locomotive?  
 a) Lead acid battery, b) Nickel cadmium (NiCd) battery, **Answer - b**  
 c) Nickel Metal Hydride (NiMH) battery, d) Lithium ion (Li-ion) battery.
366. In HHP Locomotive, for quick firing of engine –  
 a) High Horse Power FPM is fitted, b) TLPM is fitted, **Answer - c**  
 c) GBPM is fitted, d) None of these.
367. What is the condemning limit of composite brake block?  
 a) At 10 mm thickness, b) At 25 mm thickness, **Answer - a**  
 c) At 50 mm thickness, d) At 75 mm thickness.
368. Firing order of HHP Locomotive is –  
 a) 1-8-9-16-3-6-11-14-4-5-12-13-2-7-10-15.  
 b) 1-8-16-9-8-6-14-11-4-5-13-12-2-7-15-10. **Answer - a**  
 c) 1-8-9-16-3-6-11-14—7-10-15-4-5-12-13.  
 d) 1-8-9-16-4-5-1-13-7-6-11-14-2-7-10-15.
369. Auto drain valve operate automatically –



- a) When the compressor is unloading, b) When EBT valve is energized,  
c) Both a & b, d) None of these. **Answer - c**
370. Pick Firing Pressure of HHP Locomotive is –  
a) 350 psi, b) 1150 psi, c) 1750 psi, d) 3500 psi. **Answer - c**
371. BSFC of HHP Locomotive is –  
a) 158.8 Gm/BHP/Hr, b) 156.0 Gm/BHP/Hr,  
c) 152.2 Gm/BHP/Hr, d) 154.2 Gm/BHP/Hr. **Answer - a**
372. No. 1 radiator fan is called that fan which is –  
a) Nearest to compressor, b) furthest from compressor,  
c) there is no specified concept for numbering, d) None of these. **Answer - a**
373. Coil resistance of WW Governor solenoid should be –  
a)  $500\Omega \pm 10\%$  at  $20^\circ\text{C}$ , b)  $600\Omega \pm 10\%$  at  $20^\circ\text{C}$ ,  
c)  $700\Omega \pm 10\%$  at  $20^\circ\text{C}$ , d) None. **Answer - c**
374. Minimum torque value of cylinder liner stud (in liner) is –  
a) 50 ft-lbs, b) 90 ft-lbs, c) 190 ft-lbs, d) 240 ft-lbs. **Answer - a**
375. Expected water temperature drop through radiator is –  
a)  $5.5^\circ\text{C}$ , b)  $7.5^\circ\text{C}$ , c)  $9.5^\circ\text{C}$ , d) None of these. **Answer - c**
376. Tube of lube oil cooler core is made of –  
a) Brass, b) Copper, c) Aluminium, d) None of these. **Answer - a**
377. Inter cooler of compressor is used to improve –  
a) Volumetric efficiency of compressor,  
b) Cooling efficient of compressor,  
c) Both a & b, d) None of these. **Answer - a**
378. In HHP Locomotive compressor breather is replaced in –  
a) Every two years, b) Every three years,  
c) Every six years, d) None of these. **Answer - b**
379. In spectrographic analysis of engine lube oil normal range of Silicon (Si) is –  
a) 0 – 50 ppm, b) 0 – 20 ppm, c) 0 – 15 ppm, d) 0 – 10 ppm. **Answer - c**
380. During TRD Testing, engine should be stopped by –  
a) EFCO, b) OSTA, c) LLOB, d) All of these. **Answer - d**
381. The surface on most HHP TSC Bearing is –  
a) Silver – plated, b) Gold – plated,  
c) Zinc – plated, d) None of these. **Answer - a**
382. Bottom con rod bearing shell is changed after –  
a) 2 years, b) 3 years, c) 6 years, d) None of these. **Answer - c**
383. HHP Locomotive is fitted with –  
a) DURACAM, b) FE Cam, c) Stiffer Unit Cam, d) All of these. **Answer - a**
384. In HHP Locomotive, oil level capacity of gear case is –  
a) Same in WDP4 & WDG4 locomotives,  
b) More in WDP4 Locos as compared to WDG4 locomotive,  
c) More in WDG4 locos as compared to WDP4 locomotive,  
d) None of these. **Answer - b**
385. RPM of governor drive gear is same as –  
a) Crank shaft rpm, b) Main lube oil pump rpm,  
c) Water pump rpm, d) None of these. **Answer - a**
386. To check fuel oil pressure, Gauge to be connected on –  
a) Primary filter housing, b) Secondary filter housing,  
c) Fuel pump motor, d) None. **Answer - b**
387. If due to any reason, value of BAP is exceeded its normal value then loco will be shut down through –  
a) HOD, b) Crank case EPD button,

- c) Low water EPD button, d) None of these. **Answer - c**
388. In HHP Locomotive, Left Side Cam Gear is driven by –  
 a) No. 2 idler gear, b) Crank shaft gear, **Answer - a**  
 c) Right side cam gear, d) None of these.
389. How many bull gears are fitted in WDG4D Locomotive?  
 a) 3, b) 4, c) 6, d) None of these. **Answer - c**
390. How many fuel oil spin on filters are fitted in HHP Locomotive?  
 a) 1, b) 2, c) 3, d) 4. **Answer - b**
391. Where the serial number of crankshaft is written?  
 a) On the web of both the first and last throws.  
 b) Right Side of the main bearing caps, **Answer - a**  
 c) Right side of each end "A" frame.  
 d) All of the above.
392. How many studs are in a power assembly liner?  
 a) 8, b) 12, c) 16, d) 18. **Answer - a**
393. Exhaust screen of HHP Locomotive is inspected in which schedule?  
 a) T-30 & above, b) T-90 & above,  
 c) T-180 & above, d) T-Yearly & above. **Answer - b**
394. What is the purpose of thrust collar in HHP Locomotive? **Answer - a**  
 a) Their purpose is to limit the longitudinal movement of the crankshaft.  
 b) Their purpose is to limit the vertical movement of the crankshaft.  
 c) Their purpose is to limit the vertical movement of the cam.  
 d) None of these.
395. What is the discharge capacity of water pump?  
 a) 867 LPM (229 GPM) at 900 rpm,  
 b) 413 LP (109 GPM) at 900 rpm, **Answer - d**  
 c) 1534 LPM (405 GPM) at 900 rpm,  
 d) 3411 LMP (900 GPM) at 900 rpm.
396. No. of teeth in Water Pump Gear is –  
 a) 37, b) 26, c) 30, d) 69. **Answer - a**
397. Taper stub shaft is fitted on –  
 a) Harmonic damper, b) Camshaft,  
 c) Main Alternator, d) Companion Alternator. **Answer - a**
398. No. of spring in Accessory Drive Gear is –  
 a) 10, b) 12, c) 8, d) 16. **Answer - c**
399. No. of roller in Accessory Drive Coupling is –  
 a) 10, b) 12, c) 8, d) 16. **Answer - a**
400. Value of Impeller Eye Clearance of HHP Turbocharger at 12 O'clock position is –  
 a) 0.012" – 0.025", b) 0.024" – 0.048",  
 c) 0.016" – 0.039", d) 0.010" – 0.018". **Answer - b**
401. The temperature difference between the two consecutive main bearings should not exceed by -  
 a) 5°C, b) 2°C, c) 6°C, d) None of these. **Answer - d**
402. Bubble in return sight glass is checked during –  
 a) Lube oil pressure dropping, b) Booster pressure dropping,  
 c) Fuel pressure dropping, d) Air pressure dropping. **Answer - c**
403. Bubble in return sight glass is checked during –  
 a) Lube oil pressure dropping, b) Booster pressure dropping,  
 c) Fuel pressure dropping, d) Air pressure dropping. **Answer - c**
404. Out of which safety device, engine comes to idle –  
 a) OST, b) EPD, c) HOD, d) PCS. **Answer - d**

405. RTM blower greasing is done in which schedule?  
a) M4, b) M2, c) T, d) M24. **Answer -**
406. How many types of schedule (T1,M2...) is done at howrah/barddhaman diesel shed?  
a) 9. b) 3, c) 5, d) 8 **Answer -**
407. In WDM3A Loco trip schedule is done after how many days?  
a) 30, b) 40, c) 20, d) 7. **Answer -**
408. What is the firing order of WDM3A Locomotive?  
a) 1:7:4:6:8:2:5:3.  
b) 1:4:7:6:8:5:2:3. **Answer -**  
c) 1:6:7:4:8:3:2:5.  
d) 1:4:6:7:8:5:3:2.
409. Amount of cardium compound required in a modified gear case –  
a) 06kg, b) 05kg, c) 09kg, d) 03kg. **Answer -**
410. Modified lube oil sump capacity of WDM3A Locomotive –  
a) 910ltrs, b) 1070ltrs, c) 1270ltrs, d) 1210ltrs. **Answer -**
411. Cooling water capacity of WDM3A Locomotive -  
a) 1110 ltrs, b) 1250ltrs, c) 1210ltrs, d) 1000ltrs. **Answer -**
412. As per RDSO instruction overhauling of additional C2 Relay valve to be done in which schedule?  
a) M4, b) M12, c) M8, d) M24. **Answer -**
413. Brake pipe pressure is maintained as –  
a) 3.5kg/cm<sup>2</sup>, b) 4.0kg/cm<sup>2</sup>, c) 5.0kg/cm<sup>2</sup>, d) 4.5kg/cm<sup>2</sup>. **Answer -**
414. Condemning wheel dia for Goods service is –  
a) 1016mm, b) 1012mm, c) 1008mm, d) 1010mm. **Answer -**
415. Which lubricant is used in crank case of WDM3A?  
a) RR-606, b) SP-150, c) T-78, d) None of these. **Answer -**
416. The colour of Feed Pipe –  
a) Green, b) White, c) Blue, d) Black. **Answer -**
417. M.R. Charging time from 0 to 10kg/cm<sup>2</sup> with engine at idle notch –  
a) 20 seconds, b) 35 seconds, c) 15 seconds, d) 60 seconds. **Answer -**
418. M.R. Charging time from 8 to 10kg/cm<sup>2</sup> with engine at idle notch –  
a) 20 seconds, b) 35 seconds, c) 15 seconds, d) 60 seconds. **Answer -**
419. Clearance between brake block and wheel –  
a) 15mm, b) 10mm, c) 5mm, d) 20mm. **Answer -**
420. What should be Brake Cylinder Piston stroke of all cylinders -  
a) 95-105mm, b) 90-100mm, c) 80-100mm, d) 75-100mm. **Answer -**
421. What should be the Feed Valve Pressure?  
a)  $6 \pm 1$ , b)  $6.5 \pm 1$ , c)  $5.9 \pm 1$ , d)  $6 \pm 1.5$ . **Answer -**
422. As per RDSO instruction during load test what should be the minimum crack case vacuum –  
a) 1 inch, b) ½ inch, c) ¾ inch, d) 2 inch. **Answer -**
423. Fuel tank capacity of WDM3A –  
a) 6000ltrs, b) 5500ltrs, c) 5000ltrs, d) 4500ltrs. **Answer -**
424. In HHP Locomotive, Governor pump is given by –  
a) Governor drive gear, b) No. 1 idler gear, **Answer -**  
c) No. 2 idler gear, d) Cam gear.
425. Rice blasting is related to –  
a) Power assembly, b) Fuel system, **Answer - c**  
c) Turbo supercharger, d) Lube oil system.

426. Accessory drive gear is fitted in the –  
 a) Front end of the engine, b) Rear end of the engine,  
 c) Front and Rear end of the engine, d) None of these. **Answer - a**
427. During EPD Testing at idle engine should not be shut down before –  
 a) 120 second, b) 50 second, c) 60 second, d) 35 second. **Answer - d**
428. TPU fitted on –  
 a) Harmonic damper, b) TSC,  
 c) Main Alternator, d) Companion Alternator. **Answer - b**
429. Crank shaft to TSC speed ratio is (when driven through gear train) –  
 a) 0.0008877314814814815, b) 0.000888888888888888888,  
 c) 0.0009016203703703703, d) None of these. **Answer - a**
430. No. of water pump fitted in WDP4D Locomotive is –  
 a) 1, b) 2, c) 4, d) None of these. **Answer - b**
431. In HHP Locomotive bail of ring is provided –  
 a) To release loco brake, b) To release train brake,  
 c) To release loco brake during conjunction working, d) None of these. **Answer - c**
432. Crank shaft to cam shaft speed ratio is –  
 a) 0.0008877314814814815, b) 17:77, c) 17:90, d) None of these. **Answer - d**
433. Fuel tank capacity of WDG4 Locomotive is –  
 a) 5000 ltrs, b) 6000 ltrs, c) 6500 ltrs, d) None of these. **Answer - b**
434. No. of teeth in No. 2 Idler Gear is –  
 a) 58, b) 64, c) 69, d) 79. **Answer - a**
435. Compressor Drive coupling retainer nut is torque at –  
 a) 450 ft-lbs, b) 500 ft-lbs, c) 250 ft-lbs, d) 650 ft-lbs. **Answer - b**
436. To operate wiper, air supply is received from –  
 a) MR-1 Pressure, b) MR-2 Pressure,  
 c) BP Pressure, d) B.C Pressure. **Answer - a**
437. In HHP Locomotive bail of ring is used for –  
 a) VCD acknowledgement, b) To release train brake,  
 c) To apply train brake, d) None of these. **Answer - a**
438. Presently in HHP Locomotive, which of the following Governor is fitted –  
 a) Woodward Governor, b) MCBG,  
 c) EH Governor, d) Both Woodward and MCBG. **Answer - d**
439. In HHP Locomotive, EPD is fitted in the –  
 a) Right side, Front end of the Engine,  
 b) Right side, Rear end of the Engine,  
 c) Left side, Front end of the Engine,  
 d) None of these. **Answer - c**
440. During EPD Testing (Engine running above 3<sup>rd</sup> Notch), Engine should be shut down in –  
 a) 120 second, b) 40 second, c) 35 second, d) Immediately. **Answer - d**
441. The sight glass which is located furthest from engine block is called –  
 a) Return sight glass, b) By-pass sight glass,  
 c) Empty sight glass, d) None of these. **Answer - b**
442. Flywheel point indicator is fitted on –  
 a) Harmonic damper, b) Starter motor bracket,  
 c) Main alternator, d) Companion alternator. **Answer - b**
443. In HHP Locomotive Crankshaft to cam shaft speed ratio is –  
 a) 1:1, b) 17:77, c) 17:90, d) None of these. **Answer - a**
444. Weight of WDG4 Locomotive is –  
 a) 126 T, b) 123 T, c) 121.2 T, d) 117 T. **Answer - a**

445. Piston of HHP Locomotive is made of –  
 a) Cast iron with brazed on outer sleeves,  
 b) Cast iron alloy with tin plating, **Answer - b**  
 c) Stainless steel with chrome plated,  
 d) Cast iron.
446. No. 1 compression ring of HHP Piston is made of –  
 a) Cast iron with brazed on outer sleeves,  
 b) Cast iron alloy with tin plating, **Answer - c**  
 c) Stainless steel with chrome plated,  
 d) Cast iron.
447. Cylinder head of HHP Locomotive is made of –  
 a) Cast iron with brazed on outer sleeves,  
 b) Cast iron alloy with tin plating, **Answer - d**  
 c) Stainless steel with chrome plated,  
 d) Cast iron.
448. Lower liner insert of HHP Locomotive is made of –  
 a) Cast iron with brazed on outer sleeves,  
 b) Cast iron alloy with tin plating, **Answer - d**  
 c) Stainless steel with chrome plated,  
 d) Cast iron.
449. Head of Exhaust valve of HHP Locomotive is made of –  
 a) Cast iron with brazed on outer sleeves,  
 b) Cast iron alloy with tin plating, **Answer - d**  
 c) Stainless steel with chrome plated,  
 d) Nickel chromium alloy steel.
450. Stem of Exhaust valve of HHP Locomotive is made of –  
 a) Cast iron with brazed on outer sleeves,  
 b) Cast iron alloy with tin plating, **Answer - d**  
 c) Stainless steel with chrome plated,  
 d) Steel.
451. Tin plating is done on HHP Piston to –  
 a) Improve thrust load bearing capacity,  
 b) Reduced liner scuffing,  
 c) Aid in the break in process, **Answer - d**  
 d) All of these.
452. Shot peening process is associated with –  
 a) Cylinder head, b) Cylinder liner, c) Piston ring, d) Piston. **Answer - c**
453. Which oil is used in HHP Locomotive Governor?  
 a) Servo Prime 76, b) Servo Press 100, **Answer - d**  
 c) Servo Prime 57, d) Both a & c.
454. In HHP Locomotive, Governor is fitted on –  
 a) Front end of the engine, b) Rear end of the engine,  
 c) Loco pilot cabin, d) ECC - 1 compartment. **Answer - a**
455. Crank shaft gear damper is checked for free movement during –  
 a) T – 90 schedule, b) T -180 schedule,  
 c) T – 360 schedule, d) 3 yly & above schedule. **Answer - d**
456. A short fuel level sight gauge is provided in both side of the Fuel Tank to –  
 a) Prevent over filling in case of glow rod gauge is defective.  
 b) Prevent over filling in case of fuel filling flowmeter is defective. **Answer - d**  
 c) Prevent over filling in case of wrong set or adjustment in flowmeter by fuel issuer.  
 d) All of the above.
457. In spectrographic analysis of engine lube oil normal range of Zinc (Zn) is –  
 a) 0 – 50 ppm, b) 0 – 20 ppm, c) 0 – 15 ppm, d) 0 – 10 ppm. **Answer – d**

458. Bubbles in the fuel return sight glass during priming indicates –  
 a) Air draw in suction side of the fuel booster pump,  
 b) The leaky fuel injector, **Answer - a**  
 c) Insufficient fuel supply,  
 d) None of these.
459. Bubbles in the fuel return sight glass after cranking the engine indicates –  
 a) Air draw in suction side of the fuel booster pump,  
 b) The leaky fuel injector, **Answer - b**  
 c) Insufficient fuel supply,  
 d) None of these.
460. Bubbles in the fuel return sight glass in higher notch with full load indicates -  
 a) Air draw in suction side of the fuel booster pump,  
 b) The leaky fuel injector, **Answer - c**  
 c) Insufficient fuel supply,  
 d) None of these.
461. To charge feed pipe at 6kg/cm<sup>2</sup> air pressure which valve is fitted –  
 a) F2 Feed Valve, b) FT1 Feed Valve,  
 c) C2N Feed Valve, d) Any one of these. **Answer - d**
462. Auto brake valve handle has –  
 a) 2 positions, b) 3 positions, c) 5 positions, d) None of these. **Answer - c**
463. In HHP Locomotive wheel to brake block clearance is –  
 a) 10 mm, b) Depend upon the location of the wheel,  
 c) Independent on the location of the wheel, d) None of these. **Answer - b**
464. In HHP Locomotive, FP Pressure is set at –  
 a)  $6.0 \pm 0.1 \text{ kg/cm}^2$ , b)  $6.1 \pm 0.1 \text{ kg/cm}^2$ , **Answer - a**  
 c)  $6.2 \pm 0.1 \text{ kg/cm}^2$ , d) None of these.
465. In HHP Locomotive fuel oil spin on filter is fitted on –  
 a) Right side, Front end of the Engine,  
 b) Right side, Rear end of the Engine, **Answer - a**  
 c) Left side, Front end of the Engine,  
 d) None of these.
466. During DBI Testing of MR Tank of HHP Locomotive, hydraulic testing is done at –  
 a) 1 time working pressure,  
 b) 1.5 times working pressure, **Answer - b**  
 c) 2 times working pressure,  
 d) None of these.
467. In HHP Locomotive, exhaust valve close at –  
 a) 43.5° before BDC,  
 b) 43.5° after BDC, **Answer - d**  
 c) 107.5° after TDC,  
 d) 67° after BDC.
468. To operate ABD, air supply is received from –  
 a) MR-1, b) MR-2, c) MR-4, d) None of these. **Answer - a**
469. TM Blower air duct (bellow) is changed at –  
 a) T – 360 schedule, b) T – 720 schedule,  
 c) 3 yearly schedules, d) 6 yearly schedules. **Answer - d**
470. VCD alarm sound during –  
 a) T0 Cycle, b) T1 Cycle, c) T2 cycle, d) T4 cycle. **Answer - c**
471. In which VCD Cycle, yellow flashing light is glow –  
 a) T1 Cycle, c) T2 cycle, d) T3 cycle, d) All of these. **Answer - d**
472. Engine Lube Oil sample analysis is done in –  
 a) T – 30 & above schedule,

- b) T – 90 & above schedule,  
 c) Yearly & above schedule, **Answer - a**  
 d) Three yearly & above schedule.
473. Spectrographic analysis of lube oil is conducted to determine –  
 a) Viscosity of Lube oil,  
 b) PH value of lube oil, **Answer - c**  
 c) Wear metal elements present in lube oil,  
 d) All of these.
474. Drop in flash point of the lube oil indicates –  
 a) Water contamination,  
 b) Fuel contamination, **Answer - b**  
 c) Carbon contamination,  
 d) All of these.
475. A lower flash point & fuel dilution of lube oil may be cause of –  
 a) Crankcase explosions,  
 b) LLOB operation, **Answer - d**  
 c) EPD operation,  
 d) All of these.
476. In “RR 520 MG”, “20” indicates –  
 a) Total base number of lube oil,  
 b) Total Brinell number of lube oil,  
 c) Generation of lube oil, **Answer - a**  
 d) Grade of lube oil.
477. Lube oil sample should be collected by –  
 a) Opening pre-lube dummy,  
 b) Opening no. 5 oil pan hand hole cover, **Answer - d**  
 c) a hand syringe inserted through the dipstick hole,  
 d) All of these.
478. How many spline nuts are fitted in accessory drive housing –  
 a) 45, b) 24, c) 73, d) 57. **Answer - d**
479. Value of Governor Drive gear to stubshaft clearance is – **Answer - a**  
 a) .003” - .008”, b) 0.008” – 0.16”, c) .006” - .020”, d) .007” – .025”.
480. 6kg/cm<sup>2</sup> feed valve is located in the –  
 a) Loco Left Side, b) Loco Right Side,  
 c) Engine Right Side, d) None of these. **Answer - b**
481. Standard side buffer projection is –  
 a) 584mm, b) 635mm, c) 650mm, d) None of these. **Answer - b**
482. Battery box is located in the –  
 a) Left side of the locomotive,  
 b) Right side of the locomotive, **Answer - a**  
 c) Both side of the locomotive,  
 d) None of these.
483. If local control circuit breaker is trip, the loco should be shut down by –  
 a) LLOB, b) EFCO, c) MUSD, d) None of these. **Answer - a**
484. Starting fuse is located in the –  
 a) Left side of the locomotive,  
 b) Right side of the locomotive, **Answer - a**  
 c) Both side of the locomotive,  
 d) None of these.
485. Length of radiator cooling fan blade is –  
 a) 52”, b) 48”, c) 23”, d) None of these. **Answer - a**
486. Length of WDP4B Locomotive is – **Answer - b**  
 a) 22.98 meters, b) 21.24 meters, c) 21.7 meters, d) None of these.

487. Dynamic brake grid motor is a –  
 a) DC Motor, b) Single phase AC motor, c) Three phase AC motor, d) None of these. **Answer - a**
488. According to RDSO Specification, Radiator Core Leakage testing done at –  
 a) 20 psi pressure, b) 50 psi pressure, c) 75 psi pressure, d) 90 psi pressure. **Answer - c**
489. To measure the speed of HHP Locomotive \_\_\_\_\_ is used –  
 a) Axle generator, b) Pulse generator, c) Radar, d) None of these. **Answer - c**
490. In HHP Loco to create crankcase vacuum –  
 a) Oil separator & educator tube is fitted, b) CCM is fitted, c) Exhauster is fitted, d) None. **Answer - a**
491. How many ETP are fitted in HHP Locomotive?  
 a) 1, b) 2, c) 3, d) 4. **Answer - b**
492. The internal parts of injector is cooled and lubricated by –  
 a) Fuel oil, b) Lube oil, c) Cooling water, d) None of these. **Answer - a**
493. In HHP Locomotive Left side rocker arm are used to operate –  
 a) Inlet valve, b) Exhaust valve, c) Injector, d) None of these. **Answer - b**
494. Fuel oil secondary filter is changed at –  
 a) 60 days, b) 90 days, c) 180 days, d) None of these. **Answer - b**
495. Fuel oil primary filter is filtered up to –  
 a) 600 $\mu$ , b) 13 $\mu$ , c) 02 $\mu$ , d) None of these. **Answer - b**
496. Fuel oil suction strainer is filtered up to –  
 a) 600 $\mu$ , b) 13 $\mu$ , c) 02 $\mu$ , d) None of these. **Answer - a**
497. Fuel oil secondary filter is filtered up to –  
 a) 600 $\mu$ , b) 13 $\mu$ , c) 02 $\mu$ , d) None of these. **Answer - c**
498. Minimum lube oil pressure of HHP Locomotive at idle is –  
 a) 8-12 psi, b) 25-29 psi, c) 20-25 psi, d) 125 psi. **Answer - a**
499. In HHP Locomotive hand cranking arrangement is provided on the –  
 a) Left rear side of the engine, b) Right rear side of the engine, c) Both side, rear end of the engine, d) None of these. **Answer - c**
500. Low lube oil shutdown by the Governor is also initiated by the –  
 a) HOD (Hot Oil Detector), b) EPD low cooling water portion, c) EPD crankcase pressure portion, d) All of these. **Answer - d**
501. In 710G3B Engine maximum permissible temperature difference between lube oil and water is –  
 a) 10 $^{\circ}$ C, b) 11.1 $^{\circ}$ C, c) 16 $^{\circ}$ C, d) None of these. **Answer - b**
502. No. 1 idler gear to stub shaft minimum clearance is –  
 a) 0.005", b) 0.008", c) 0.017", d) None of these. **Answer - a**
503. Lube oil pr. Sensing pipe line are provided in the –  
 a) Left bank top deck cover, b) Right bank top deck cover, c) Inside the crankcase, d) Inside the oil pan. **Answer - b**
504. In HHP Locomotive, Lube oil strainer box is filled up with lube oil within –  
 a) 30 second, b) 45 second, c) 60 seconds, d) 75 second. **Answer - b**
505. In spectrographic analysis of engine lube oil normal range of Aluminum (Al) is –  
 a) 0 – 20 ppm, b) 0 – 15 ppm, c) 0 – 10 ppm, d) 0 – 05 ppm. **Answer - d**
506. Normal TSC rpm of 4500 hp HHP Locomotive is –  
 a) 15000 – 20000 rpm, b) 18500 – 21500 rpm, c) 18500 – 25000 rpm, d) 18500 – 20000 rpm. **Answer - c**



507. Minimum TSC rpm of 4500 hp HHP Locomotive at full load is –  
 a) 15000 rpm, b) 15932 rpm, c) 18400 rpm, d) 18400 rpm. **Answer - b**
508. Scavenging lube oil pump, minimum pressure at 8<sup>th</sup> Notch is –  
 a) 1.4kg/cm<sup>2</sup>, b) 4.5kg/cm<sup>2</sup>, c) 5.21.4kg/cm<sup>2</sup>, d) 7.0kg/cm<sup>2</sup> **Answer - a**
509. Normal air box pressure (BAP) in HHP Locomotive at full speed and full load is –  
 a) 1.1kg/cm<sup>2</sup> – 1.75kg/cm<sup>2</sup>, b) 1.5kg/cm<sup>2</sup> – 1.95kg/cm<sup>2</sup>,  
 c) 1.4kg/cm<sup>2</sup> – 1.75 kg/cm<sup>2</sup>, d) 1.4kg/cm<sup>2</sup> – 1.5kg/cm<sup>2</sup>. **Answer - c**
510. In HHP Locomotive normal lube oil inlet temperature is -  
 a) 70 - 90°C, b) 70 - 80°C, c) 80 - 90°C, d) 70 - 99°C. **Answer - a**
511. Air box pressure is \_\_\_\_\_ than the exhaust manifold pressure throughout the speed range –  
 a) 2 psi greater, b) 5 psi greater, c) 2 psi less, d) 5 psi less. **Answer - a**
512. Normal height of lube oil relief valve safety plate to valve guide is –  
 a) 1", b) 1.5", c) 2", d) 2 1/2". **Answer - b**
513. The purpose of the lube oil relief valve is to –  
 a) Protect the scavenging pump from overloading.  
 b) Protect the piston cooling oil pump from over loading. **Answer - c**  
 c) Limit the maximum pressure of the lube oil entering the engine oil system.  
 d) All of the above.
514. When installing lube oil relief valve on engine, make sure that the bypass port is positioned in the –  
 a) Downward direction, b) Upward direction,  
 c) Left side direction, d) Right side direction. **Answer - a**
515. To overcome TSC surging problem in HHP Locomotive water wash is done for –  
 a) 05 minutes, b) 15 minutes, c) 25 minutes, d) 30 minutes. **Answer - b**
516. Lube oil Filter elements must be renewed if filter tank pressure reaches \_\_\_\_\_ at 8<sup>th</sup> Notch and \_\_\_\_\_ at idle speed –  
 a) 25 psi, 7 psi, b) 35 psi, 15 psi,  
 c) 25 psi, 15 psi, d) 25 psi, 15 psi. **Answer - a**
517. Any engine coolant with a pH in excess of \_\_\_\_\_ is generally considered unsuitable for use in HHP Engine cooling systems –  
 a) 5.5, b) 7.5, c) 9.5, d) 10.5. **Answer - d**
518. Standard range of pH value of corrosion inhibitor in HHP Loco coolant is in between –  
 a) 5.5 to 7.5, b) 7.5 to 10.5, c) 9.5 to 10.5, d) 10.5 to 11.5. **Answer - b**
519. Degree and Top dead centre markings are stamped on the outer rim of the –  
 a) Engine coupling disc, b) Ring gear, **Answer - a**  
 c) Generator coupling disc, d) Vibration damper.
520. Clearance between flywheel ring gear teeth and EPU must be a gap of – **Answer - b**  
 a) 0.020" ± 0.005", b) 0.025" ± 0.005", c) 0.030 ± 0.005", d) 0.035" ± 0.005".
521. Excessive backlash in camshaft gear train can cause –  
 a) Improper valve operation,  
 b) Improper fuel injection durations, **Answer - d**  
 c) Unusual sound,  
 d) All of the above.
522. Which no. main bearing are known as critical main bearing?  
 a) 2,6,8,9; b) 2,4,8,9; c) 1,5,6,10; d) 3,5,6,9. **Answer - a**
523. In HHP Locomotive, how many thrust collar (bearing) is used?  
 a) One, b) Two, c) Three, d) Four. **Answer - b**
524. In HHP Locomotive, minimum crankpin journal diameter is –  
 a) 165.011mm, b) 165.10mm, c) 215.90mm, d) 215.81mm. **Answer - a**
525. In HHP Locomotive minimum main bearing journal diameter is –  
 a) 165.011mm, b) 165.10mm, c) 215.90mm, d) 215.81mm. **Answer - d**
526. In HHP Locomotive normal crankpin journal diameter is –

- a) 165.011mm, b) 165.10mm, c) 215.90mm, d) 215.81mm. **Answer - b**
527. In HHP Locomotive normal main bearing journal diameter is –  
a) 165.011mm, b) 165.10mm, c) 215.90mm, d) 215.81mm. **Answer - c**
528. In HHP Locomotive thrust bearing clearance limit is –  
a) 0.010" – 0.021", b) 0.0075" – 0.0205",  
c) 0.0075" – 0.0150", d) None of these. **Answer - a**
529. In HHP Locomotive main bearing to crankshaft clearance limit is –  
a) 0.010" – 0.021", b) 0.0075" – 0.0205",  
c) 0.0075" – 0.0150", d) None of these. **Answer - b**
530. In HHP Locomotive, bearing to crankpin clearance limit is –  
a) 0.010" – 0.021", b) 0.007" – 0.020",  
c) 0.007" – 0.015", d) None of these. **Answer - c**
531. WDP4 is a –  
a) Single cab loco,  
b) Dual cab loco,  
c) Dual cab loco with disc brake,  
d) Dual cab loco with hotel load. **Answer - a**
532. In case of ASD, the following item to be checked –  
a) OST Trip handle, b) OPS plunger of PG Gov.,  
c) both, d) None of the above. **Answer -**
533. In case of Engine Speed not increasing more than Idle, which of these emergency switches to be operated –  
a) RF, b) GF, c) PCS, d) PT. **Answer -**
534. Control pressure is adjusted at -  
a) 8.0 Kg/cm<sup>2</sup>, b) 6.0 Kg/cm<sup>2</sup>, c) 5.0 Kg/cm<sup>2</sup>, d) None. **Answer -**
535. At the time of Dynamic braking the Grid resistance takes from –  
a) Generator/Alternator, b) Traction Motor,  
c) Both Generator and Alternator, d) None of these. **Answer -**
536. At the time of Dynamic braking the Main Generator gives supply to –  
a) Traction Motor Field, b) TM Armature,  
c) Both Traction Motor and Field, d) None of the above. **Answer -**
537. At the time of Dynamic braking the Traction Motor –  
a) Not working, b) Working as Motor,  
c) Working as Generator, d) None of these. **Answer -**
538. Which of the following normally Minimum and Maximum voltage?  
a) 1.8/28V, b) 08/28V, c) 53//40V, d) 4/35V. **Answer -**
539. At the time of Dynamic braking all TM field connected as in –  
a) Series connection, b) Parallel Connection,  
c) Series – Parallel Connection, d) None of these. **Answer -**
540. What is the condemning size of BKBL Carbon brush –  
a) ½ inch, b) 1inch, c) 1½ inch, d) None **Answer -**
541. BKBL Motor is a –  
a) DC Series Motor, b) DC Shunt Motor,  
c) AC Series Motor, d) None of these. **Answer -**
542. What happened if BKBL opened at the time of Dynamic braking –  
a) Low Grid current, b) Max. Grid current,  
c) No braking effort, d) None of these. **Answer -**
543. No. of carbon brush in BKBL Motor –  
a) 6 nos., b) 8 nos., c) 2 nos. d) None of the above. **Answer -**
544. How many holders in Traction Generator (BHEL)? – a) 12, b) 10, c) 9. **Answer -**

545. TG Mica under cut depth of BHEL Generator –  
 a) 70"-80", b) 50"-70", c) 40"-60". **Answer -**
- Traction Generator Horse Power – a) 1.6 MW, b) 3 MW, c) 1 MW. **Answer -**
546. Weight of TG only – a) 4900 kg, b) 3600 kg, c) 5100 kg. **Answer -**
547. Grade of Carbon Brush - a) EG 225, b) EG 236 S, c) EG-'O'. **Answer -**
548. Inter pole is connected with TG armature -  
 a) In Series, b) In Parallel, c) In Series – Parallel. **Answer -**
549. No of + Ve Holders in TG (BHEL) – a) 8, b) 6, c) 5 **Answer -**
550. Tr. Gen. Commutator Ovality is good if ovality is – a) 5", b) 4", c) 2" **Answer -**
551. Nos. of Inter Pole in Tr. Gen. (BHEL) – a) 10, b) 12, c) 14 **Answer -**
552. Green Bin is used for – a) Metal Scrap, b) Rubber Scrap, c) cloth & cotton. **Answer -**
553. ALCO Loco is used in – **Answer - c**  
 a) Goods, b) Passenger, c) Goods & Passengers, d) None of these.
554. WDG4 is used in – **Answer - a**  
 a) Goods, b) Passenger, c) Goods & Passengers, d) None of these.
555. WDP4 is used in – **Answer - b**  
 a) Goods, b) Passenger, c) Goods & Passengers, d) None of these.
556. Speed of ALCO Loco is – **Answer - a**  
 a) 120kmph, b) 140 kmph, c) 160kmph, d) 180kmph.
557. Speed of WDG4 Loco is – **Answer - a**  
 a) 120kmph, b) 140 kmph, c) 160kmph, d) 180kmph.
558. Speed of WDP4 Loco is – **Answer - c**  
 a) 120kmph, b) 140 kmph, c) 160kmph, d) 180kmph.
559. Horsepower of ALCO Loco is – **Answer - a**  
 a) 2600-3300, b) 4000-4500, c) 4000-4500, d) None of these.
560. Horsepower of WDG4 Loco is – **Answer - b**  
 a) 2600-3300, b) 4000-4500, c) 4000-4500, d) None of these.
561. Horsepower of WDP4 Loco is – **Answer – b**  
 a) 2600-3300, b) 4000-4500, c) 3000-4500, d) None of these.
562. Engine starting switch of ALCO Loco is located in – **Answer - a**  
 a) Engine Cab Room, b) Engine Accessories, c) Engine Control Panel, d) None of these.
563. Engine starting switch of WDG4 Loco is located in –  
 a) Engine Cab Room, b) Engine Accessories,  
 c) Engine Control Panel, d) None of these. **Answer - b**
564. Engine starting switch of WDP4 Loco is located in –  
 a) Engine Cab Room, b) Engine Accessories,  
 c) Engine Control Panel, d) None of these. **Answer - c**
565. Cab Light Switch of ALCO Loco is in – **Answer - a**  
 a) Cab Room, b) Near Cab Light,  
 c) Control Stand Switch Panel, d) None of these.
566. In EMDEC Engine HOD has been replaced with –  
 a) a lube oil temperature sensor, b) a ¾ " plug,  
 c) a temperature gauges, d) None of these. **Answer - a**
567. Diameter of the Governor lube oil pressure sensing pipe line is -

- a) 1 / 2", b) 1 / 4", c) 3 / 4", d) 1 / 8". **Answer - d**
568. Axle Load of WDG4D Locomotive is –  
a) 21T, b) 20.5T, c) 20.25T, d) 21.7T. **Answer - d**
569. During pre-lubrication lube oil is filtered through –  
a) Only TSC Spin on filter, b) Only TSC soak back filter, **Answer - b**  
c) Both, TSC soak back and TSC Spin on filter, d) None of these.
570. Driver's backup brake valve has –  
a) 02 position, b) 03 position, c) 04 position, d) 05 position. **Answer - b**
571. Which of the following position are in Driver's backup brake valve – **Answer - d**  
a) V – Emergency Position, b) III – Lap Position, c) II – Running Position, d) All of these.
572. To activate Driver's backup brake valve -  
a) PR COS cock to be operated to horizontal position from vertical,  
b) PR COS cock to be operated to vertical position from horizontal,  
c) MAB Circuit breaker to be off, **Answer - a**  
d) All of the above.
573. During failure of CCB system, section to be clear by Driver's backup brake valve with maximum speed of –  
a) 10kmph, b) 15kmph, c) 25kmph, d) 40kmph. **Answer - a**
574. In CCB 1.5 which statement is true regarding "Dead Engine Cock" –  
a) It has two position, **Answer - d**  
b) During normal working this cock should be kept in horizontal position,  
c) During dead movement this cock should be kept in vertical (90 degree) position,  
d) All of the above.
575. No. of roller in Compressor Drive Coupling is – a) 10, b) 12, c) 8, d) 16. **Answer - a**
576. In CCB 2 which statement is true regarding "Dead Engine Cock (DER)" –  
a) It has two position, **Answer - d**  
b) During normal working this cock should be kept in "OUT" position,  
c) During dead movement this cock should be kept in "IN" position,  
d) All of the above.
577. Main component of HHP Locomotive turbocharger is –  
a) Dwelling assembly, b) Rotating assembly, **Answer - d**  
c) Gear drive assembly, d) All of the above.
578. The dwelling assembly is comprised of –  
a) 6 iron casting, b) 5 aluminium casting, **Answer - a**  
c) 5 steel forging unit, d) None of these.
579. Value of Impeller Eye Clearance of HHP Turbocharger at 3 O' Clock position is –  
a) 0.012" – 0.025", b) 0.024" – 0.048",  
c) 0.016" – 0.039", d) 0.010" – 0.018". **Answer - c**
580. The dwelling assembly consists of –  
a) Compressor scroll, b) Compressor bearing support,  
c) Turbine bearing support, d) All of the above. **Answer - d**
581. The doweling assembly consists of –  
a) Main housing, b) Idler gear support, **Answer - d**  
c) Carrier bearing support, d) All of the above.
582. \_\_\_\_\_ is also known as the heart of any turbocharger –  
a) Dowelling assembly, b) Rotating assembly,  
c) Gear Drive assembly, d) All of the above. **Answer - b**
583. No. of teeth in Governor Drive Gear is – a) 37, b) 131, c) 80, d) 113. **Answer - d**
584. MR Tanks of HHP Locomotive is fitted at –  
a) Left side of the locomotive, b) Right side of the locomotive,  
c) Both side of the fuel tank, d) None of these. **Answer - b**

585. Nozzle Ring is a part of –  
 a) Dowelling assembly, b) Rotating assembly,  
 c) Gear Drive assembly, d) All of these. **Answer - b**
586. No. of teeth in Camshaft Drive Gear is – a) 26, b) 37, c) 79, d) 113. **Answer - c**
587. Exhaust diffuser is a part of –  
 a) Dowelling assembly, b) Rotating assembly,  
 c) Gear drive assembly, d) All of these. **Answer - b**
588. Planet Gear is a part of –  
 a) Dowelling assembly, b) Rotating assembly,  
 c) Gear drive assembly, d) All of these. **Answer - c**
589. Carrier shaft assembly is a part of –  
 a) Dowelling assembly, b) Rotating assembly,  
 c) Gear drive assembly, d) All of these. **Answer - c**
590. The passage between stationary vanes of nozzle ring is called –  
 a) Nozzle, b) Cradle, c) Diffuser, d) None of these. **Answer - a**
591. In 710-G TSC no. of blade in impeller is –  
 a) 34, b) 53, c) 16, d) None of these. **Answer - a**
592. In 710-G TSC no. of blade in turbine is –  
 a) 34, b) 53, c) 16, d) None of these. **Answer - b**
593. In 710-G TSC impeller is made of –  
 a) Stainless Steel, b) Copper, c) Aluminium, d) Brass. **Answer - c**
594. In 710-G TSC impeller is made by –  
 a) Casting, b) Forging, c) Friction welding, d) None. **Answer - b**
595. There are \_\_\_\_\_ silver-plated hydra-dynamic bearings in HHP TSC –  
 a) 2, b) 3, c) 5, d) 6. **Answer - d**
596. “Labyrinth” seal used in the Turbocharger, basically is a –  
 a) Viton rubber seal, b) PTFE Teflon seal,  
 c) Air pressure seal, d) None of these. **Answer - c**
597. Which “labyrinth” seals is found in HHP TSC –  
 a) Impeller Seal, b) Compressor Seal,  
 c) Turbine Seal, d) All of the above. **Answer - d**
598. Impeller Seal is located –  
 a) Directly behind the impeller,  
 b) Between the turbine blades and the compressor bearing,  
 c) Between the turbine blades and the turbine bearing,  
 d) None of the above. **Answer - a**
599. Which sight glass is filled up with bubble less fuel oil –  
 a) Return sight glass,  
 b) By-pass sight glass, **Answer - a**  
 c) Empty sight glass,  
 d) None of the above.
600. Function of Impeller seal is to –  
 a) Prevent oil in the compressor bearing area from being drawn out into the compressor air scroll by the suction created  
 on the impeller spins, **Answer - a**  
 b) Prevent oil from migrating into exhaust section from the compressor bearing,  
 c) Prevents oil from migrating into the exhaust duct from the turbine bearing,  
 d) None of these.
601. FAD of HHP Loco compressor should not be less than –  
 a) 4000 LPM at 950 rpm, b) 5677 LPM at 950 rpm, **Answer - b**  
 c) 6000 LPM at 950 rpm, d) 7000 LPM at 950 rpm.

602. Lube oil consumption of HHP Loco compressor should not be more than –  
 a) 1.5 ltrs/month, b) 2 ltrs/month, c) 3 ltrs/month, ) 3.5 ltrs/month. **Answer - a**
603. In HHP Loco compressor discharge air temp. at HP outlet may allowed upto –  
 a) 100°C, B) 150°C, C) 200°C, D) 250°C. **Answer - c**
604. In HHP MU, loading and unloading of compressor of both loco is synchronized by –  
 a) MVCC of leading loco, b) MVCC of trailing loco,  
 c) CMPSYN relay, d) None of these. **Answer - c**
605. In HHP Locomotive, LP and HP cylinders of compressor are arranging with an angle of –  
 a) 30° between them, b) 45° between them,  
 c) 60° between them, d) 90° between them. **Answer - c**
606. Rising copper levels in lubrication oil is a concern of high -  
 a) Thrust washer wear, b) Piston wear,  
 c) Liner wear, d) None of the above. **Answer - a**
607. Maximum allowable wear limit of thrust washer is -  
 a) 0.070" – Based on change in lead wear reading, **Answer - c**  
 b) 0.080" – Based on absolute snap ring clearance reading,  
 c) Both a & b,  
 d) None of these.
608. Thrust washer wear in a power pack can be determined by –  
 a) Change in lead wear reading, b) Absolute snap ring clearance,  
 c) both a & b, d) None. **Answer - c**
609. To check Thrust washer wear by "absolute snap ring clearance" method concerned piston to be kept in –  
 a) TDC, b) BDC, c) 45° after TDC, d) 22½° after TDC. **Answer - b**
610. Which pressure is adjusted by limiting valve  
 a) F-1 pressure b) BP pressure,  
 c) FP pressure, d) Synchronization pressure **Answer - d**
611. When emergency brake application is done through A-9 in flasher light modified loco the condition of loco will be-  
 a) Loco comes to idle and nothing else happens,  
 b) Loco comes to idle, flasher light is on,  
 c) Loco comes to idle, flasher light is on & buzzer blows, **Answer - a**  
 d) Loco does not come to idle, flasher light is on & buzzer blows.
612. PATB buzzer blows when –  
 a) AFI needle is above 60, b) AFI needle is below 60  
 c) AFI needle is above 80, d) AFI needle is above 70. **Answer - c**
613. Unit of Air Flow Indicator (AFI) is -  
 a) Kg/cm<sup>2</sup>, b) Pound / inch, c) Wagon reading, d) Km/h. **Answer - c**
614. Function of Air vacuum proportionate valve is in Diesel locos for – **Answer - d**  
 a) Acceleration, b) Loco comes to idle, c) For starting of loco, d) For synchronization of brake.
615. How many position setting of C3 W distributor valve has –  
 a) Two position setting, b) One position setting,  
 c) Three position setting, d) No different setting. **Answer - a**
616. On operating D-1 emergency which pressure drops –  
 a) MR, b) BP, c ) HS-4, d) No air supply. **Answer - b**
617. How many braking position of A-9 valve have..  
 a) 05 breaking position, b) 04 breaking position,  
 c) 03 breaking position, d) 01 breaking position. **Answer -b**
618. How many braking position of SA-9 valve have..  
 a) 03 position, b) 02 position, c) 05 position, d) 01 position. **Answer - a**
619. Air supply for horn is from –

- a) MR-1 tank, b) MR-2 tank,, c) J<sup>u</sup> filter, d) HS-4. **Answer - a**
620. Permissible leakage of vacuum in train pipe is –  
a) 0 cm, b) Upto 10 cm, c) Upto 20 cm, d) Upto 30 cm. **Answer - b**
621. Overcharging (in Air Brake System) feature is applied by which air brake valve –  
a) C3 W distributor valve, b) VA-1B control valve,  
c) C2-W relay valve, d) VA-1 release valve. **Answer - c**
622. In 28 VB Control Valve, the vacuum of train pipe comes at –  
a) Above big diaphragm, b) Below big diaphragm,  
c) Above small diaphragm, d) Below small diaphragm. **Answer - a**
623. Above C2-relay diaphragm air pressure comes from –  
a) A-9 valve, b) SA-9 valve, c) MR valve, d) Synchronization on pressure **Answer - a**
624. Duplex check valve operates when MR pressure reaches at pressure (kg/cm<sup>2</sup>)  
a) 5kg/cm<sup>2</sup>, b) 6kg/cm<sup>2</sup>, c) Always open, d) 10kg/cm<sup>2</sup>. **Answer - a**
625. Maximum permissible time for loco brake release in seconds is the loco fitted with chock in C2 relay valve –  
a) 50 sec, b) 40 sec, c) 24 sec, d) 30 sec. **Answer - c**
626. H-5 valves operates when BP pressure drops upto (kg/cm<sup>2</sup>) –  
a) 1.8 kg/cm<sup>2</sup>  
b) 2 kg/cm<sup>2</sup>,  
c) 4 kg/cm<sup>2</sup>,  
d) 5 kg/cm<sup>2</sup>. **Answer - a**
627. When H5 or HB-5 valve operates which air supply goes to PCS –  
a) MR Pressure, b) HS-4 Pressure, c) FP Pressure, d) BP Pressure. **Answer - a**
628. When big diaphragm of VA-1B control valve gets punctured, what action will happen?  
a) Vacuum will drop to Zero,  
b) Vacuum will not drop down,  
c) Vacuum will drop partially,  
d) None of the above. **Answer - b**
629. R-6 relay valve is fitted in loco for –  
a) Quick MR charging, b) Quick working of AFMV valve,  
c) Quick vacuum building, d) Bypassing AFMV. **Answer - b**
630. In automatic switching on flasher light modification of locos the TDR (time delay relay) is set at...  
a) 40 sec, b) 15 sec, c) 60 sec, d) 120 sec. **Answer - c**
631. The standard Colour of humidity indicator in air dryer is  
a) Orange, b) Purple, c) Blue, d) White. **Answer - c**
632. Thread diameter of BP & FP angle cocks (in inch) is...  
a) 1", b) 3", c) 2", d) 1¼ ". **Answer - d**
633. MR safety valve is set at pressure (in kg/cm<sup>2</sup>)  
a) 10.0 kg/cm<sup>2</sup>, b) 6.0 kg/cm<sup>2</sup>, c) Above 10.5 kg/cm<sup>2</sup>, d) Below 6.0 kg/cm<sup>2</sup> **Answer - c**
634. When 7.5-mm dia hole palm end is fitted in BP pipe, the change in BP pressure is  
a) Should remain same in one minute,  
b) Should fall below 4.0 kg/cm<sup>2</sup> in one minute  
c) Should not fall below 4.0 kg/cm<sup>2</sup> in one minute  
d) Should come down to 3 cm in one minute. **Answer - c**
635. In duel brake loco, if combined strainer cock is kept in close position, action will be noticed -  
a) Vacuum will not be shown in gauge, b) MR pressure will drop,  
c) Synchronization in loco will be cut off, d) BP will drop. **Answer - c**
636. By increasing HS-4 pressure (vacuum/air) action will happen –  
a) Vacuum will drop, b) Vacuum will increase.  
c) BP will drop, d) BP will increase. **Answer - a**
637. Auto drain valve blows during –

- a) Loading of compressor, b) Unloading of compressor, **Answer - b**  
 c) When MR safety valve blow, d) MR pressure is above 10.5 kg/cm<sup>2</sup>
638. Feed valve is charge from – **Answer - a**  
 a) MR-1 tank, b) MR-2 tank, c) 'J' fitter, d) BP pipe.
639. When vacuum is dropping by applying A-9 valve, air enters in train pipe by which valve/filter – **Answer - c**  
 a) From SA-9 valve, b) From SA-9 valve,  
 c) From GD-80D filter, d) From GD-80E filter.
640. GD-80E filter is fitted between- **Answer - b**  
 a) VA-1B control valve and VA –1 release valve,  
 b) Train pipe and VA-1 release valve  
 c) VA-1B control valve and other end open to atmosphere,  
 d) A-9 valve and SA-9 valve.
641. In case of pure air brake loco with load at the time of train parting, which safety valve is operates and brings the loco to idle **Answer - a**  
 a) H-5 relay valve  
 b) HB-5 relay valve,  
 c) Airflow measuring valve  
 d) F1 selector valve.
642. When driver is working from right control stand and A-9 is applied from left control stand in emergency position, what will happen? **Answer - a**  
 a) Loco will come to idle,  
 b) Loco will not come to idle,  
 c) Loco will shutdown,  
 d) Only BP will drop and nothing else will happen.
643. 28 LV brake system is functional in..... **Answer - c**  
 a) Air brake loco, b) Duel brake loco, c) Vacuum brake loco, d) None.
644. 28 LAV1 brake system is functional in..... **Answer - b**  
 a) Air brake loco, b) Duel brake loco, c) Vacuum brake loco, d) None.
645. In minimum reduction position of A-9 brake valve BP should drop upto (PSI)... **Answer - b**  
 a) 0 to3 PSI, b) 4 to 7 PSI, c) 8 to 11 PSI, d) 12 to 15 PSI.
646. Additional C-2 relay valve is used in air brake system for - **Answer - b**  
 a) MR pipe charging, b) BP pipe charging,  
 c) Vacuum train pipe charging, d) Feed pipe charging.
647. How many numbers of positions MU2B valve have - **Answer - b**  
 a) One position,  
 b) Two positions,  
 c) Three positions,  
 d) Four positions.
648. How many "O" rings are fitted in spool valve of VA-1B control valve **Answer - c**  
 a) 02 Nos., b) 03 Nos., c) 04 Nos., d) 05 Nos.
649. In WDP-2 locos, how many horns are fitted on its hood- **Answer - d**  
 a) 02 nos., b) 04 nos., c) 06 nos., d) 08 nos.







