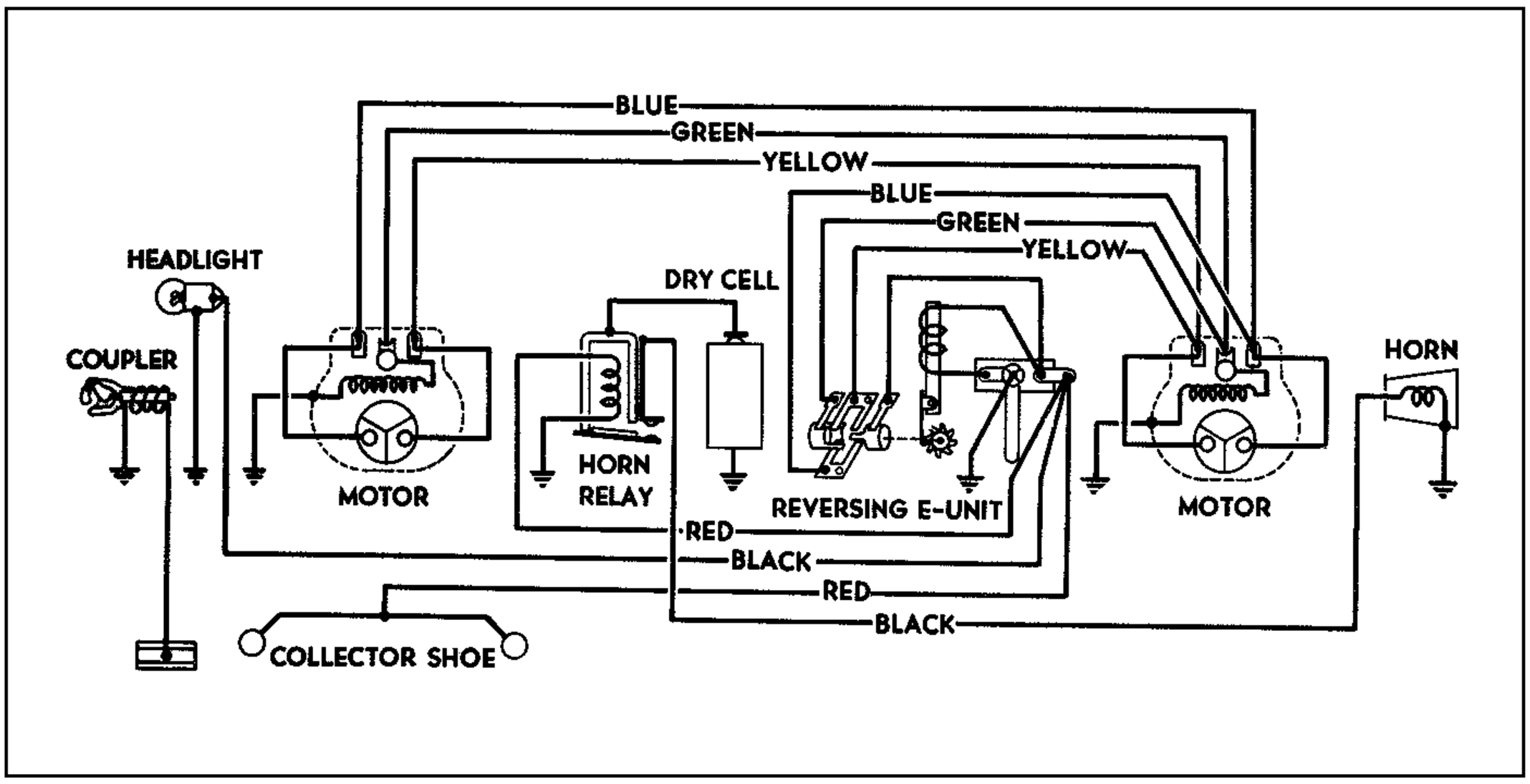
# 2343 SF 2344 NYC 2345 WP 2353 SF 2354 NYC 2356 Southern TWIN DIESEL F-3 LOCOMOTIVE

When checking the performance of the twin diesel locomotive, make sure that both motors operate equally well. Raise the locomotive on blocks and apply voltage gradually. After the locomotive had been 'run in' for about 10 or 15 minutes the starting voltage of the two motors should not vary more than one volt. If the variation is greater than that, clean the commutator and check the brushes and the tension of the brush springs of the slow motor. Occasionally, poor operation of the motor may be due to mechanical interference between the field and the armature caused by loose riveting of the field laminations. The condition is easily repaired by tightening the riveting of the field studs at point 'A,' Figure 1, with a riveting punch or a ball peen hammer.

If one motor does not operate, the locomotive wheels will skid and lose traction. Failure of a motor may sometimes be caused by the field winding coming into contact with one of the brush leads at point 'B.' If the motor operates but fails to turn the wheels examine the driving gear on the armature shaft to see that it is tightly staked to the shaft. If it has become loose, remove the gear, score the end of the shaft with giant nippers, cold chisel, etc., and force the gear back onto the shaft.

## WIRING DIAGRAM OF F-3 LOCOMOTIVES

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