

# Amtrak GG1 4905 • Engineer's controls

## Cab signal indicators

1. Clear
2. Approach Medium (second and third from top)
3. Approach
4. Restricting (with cab signals cut out, Restricting indication will display regardless of locomotive speed)

5. Traction motor ammeters (three circuits, four motors per circuit)

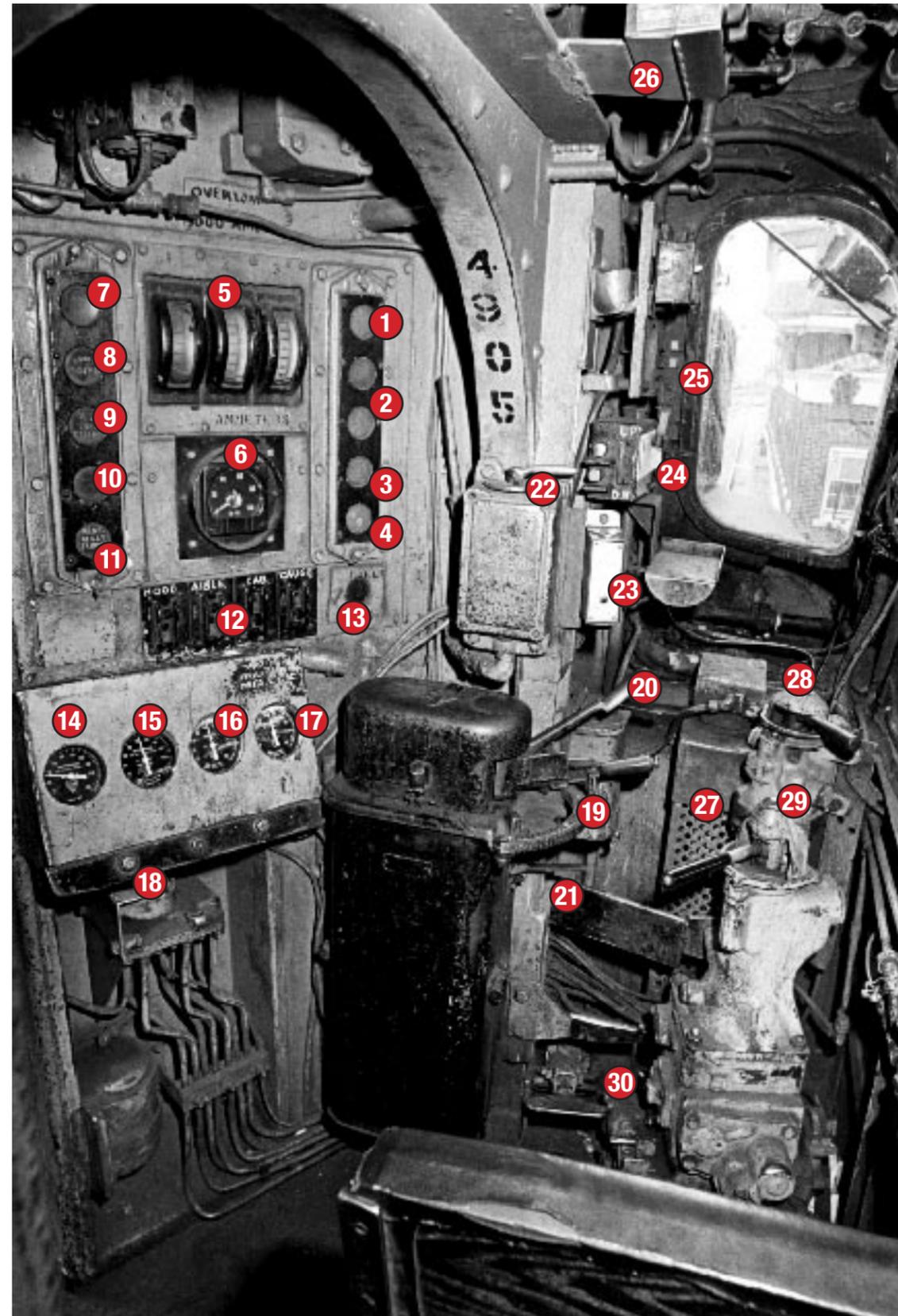
6. Speed indicator (0–100 mph)

## Indicator lights

7. Steam Generator Off (steam generator has shut down if it was running)
8. Blower Off (main transformer blower or traction motor cooling blowers have experienced a thermal trip or the fuses have blown)
9. Overload Tripped (traction motor circuits have been overloaded and the prevention coils have overheated; affected circuit must be re-set manually after the coils have cooled)
10. Wheel Slip (RPM differential in one or more traction motor circuits; will trip overload if uncorrected by reduction of main controller)
11. Pantograph Relay (high voltage ground fault in main transformer; if extreme and prevention coils on this circuit have overheated and cannot re-set, pantograph will automatically drop)
12. Interior light switches (from left: Hood, Aisle, Cab, Gauge)
13. Low Field indicator (illuminated when traction circuits are still in "low field" or starting winding configuration; traction motors will overheat if run in low field too long, resulting in the prevention coils tripping out)

## Air-brake system pressure gauges

14. Brake pipe/brake cylinder
15. Main reservoir/equalizing reservoir
16. Application/suppression
17. Timing reservoir
18. ROTAIR valve (used to set up the locomotive to lead or trail or to set-up which cab the engineer was running from; controls the independent brake set-up)



19. Main controller (22 notches)

20. Main dead-man lever (pulled down and held until the floor dead-man pedal was depressed, then it could be let go)

21. Reverser lever

22. Cab signal/train control cut-out lever (used in non-cab signal territory or when running against the current of traffic for speeds exceeding 15 mph or if CS/TC apparatus failed en route)

23. Train radio push-to-talk microphone

24. Pantograph up/down control

25. Pantograph grounding knife switch (sealed in the open position; if activated will cause emergency grounder to engage in raised pantograph; for use only in emergencies such as derailments where pan cannot be disengaged from catenary)

26. Train radio unit

27. Cab heater

28. Independent brake (for locomotive only)

29. Automatic brake (24RL, for locomotive and train)

30. Dead man and cab-signal acknowledging pedals

Information provided by Jack Neiss

Photo by Donald R. Kaplan, June 26, 1980